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The Impact Of Firm Characteristics On Voluntary Risk Disclosure In The Jordanian Banking Sector

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Abstract

The aim of the current study is to analyses the association between the Firm characteristics and voluntary risk disclosure in the Jordanian banking sector. The purpose of this study is measure the extent of voluntary risk disclosure in the Jordanian banking sector; to compare the risk disclosure practice between Islamic and non-Islamic banks The study constructs unweighted disclosure indices (voluntary) and analyzed firms' annual reports for the period of 2008-2015 to extract risk-related disclosure information and firm charecterstics. The study utilizes the Ordinary Least Squares (OLS) regression to carry out the current investigation.

Keywords: Type your keywords here, separated by semicolons ;

1. Introduction

One of the key component of investor protection and ensuring better accountability of companies is the extensive narrative reporting, including description, discussion and analysis of risks. users need risk information to measure and minimize the risks before they make financial decisions. also, disclosure of risk in financial reports helps the companies to protect themselves from the legal actions that can be taken in case of a lack of disclosures (Hung & Subramanyam, 2007).

After corporate scandals and financial crises, organizers, academics and investors called for greater transparency of businesses (Uyar,at all,2013) . In the last few years, corporate disclosure area has developed and has become essential and growing demand for better reporting of business risks, this has influenced a range of businesses, banks in particular, to improve their risk reporting (ICAEW, 2011), and companies have recognized that important to providing information within range of activities, including financial performance, and non-financial (Akisik& Gal, 2011).

Additional, the adequate disclosure about the risks can lead to a reduction of the information asymmetry problem between managers and investors, resulting in a reduction of conflict of interest, which in turn leads to a reduction in agency costs (Uddin and Hassan, 2011. Given this importance, risk disclosure has attracted the interest of several accounting regulators worldwide, including the American Accounting Association (AAA), Financial Accounting Standards Board (FASB), and accounting professional bodies , risk disclosure can serve as an important element toward a good risk management, which in turn can support the quality of management as a whole and therefore the positive impact on the reputation of the company
Voluntary accounting disclosures are additional to those required by accounting standards, company law, capital market requirements, and other regulators, its sensitive aspect in determining the stability of financial institutions. in the banking sector its significantly help reduce risks and improve the confidence of users due to transparency associated with such policies.(Kutum,2014)

A large amount of the existing research regarding corporate disclosure examines the relationship between level of disclosure and corporate-specific characteristics (Zadeh and Eskandari, 2012; Lan et al., 2013). The current study examines the role firm characteristics in corporate voluntary risk disclosure for the Jordanian banks. This work is motivated by Al-Maghzom et al.'s (2016) recent review which suggested that the determined by some CG techniques including, firm size and profitability and others

2. Research problem

From one hand, a number of major failures of risk assessment contributed to the financial crises, and the Financial Stability, these crises happened since banks miscalculated their risks, on the other hand Agency theory predicts that firm characteristics namely firm size, liquidity, profitability, leverage, earnings reinvestment

influence firm value if there is not sufficient and high disclosure there will be a gap between management and shareholders this in turn will lead to a miss value in the financial market and loss of wealth to existing shareholders.

Despite an benefits provided by risk disclosures; the area of corporate risk disclosures has debate in academic and professional circles about the need for mandatory risk disclosure framework versus the sufficiency of the voluntary disclosure in banks, Thus, the problems raised in the paper about the sufficiently of voluntary risk disclosure in the banking industry because the banks should has met the highest requirements for corporate governance and risk disclosure regulations, and one of the essential responsibilities that banks have to accomplish is to evaluate and administer the risks that emerge from their business activities, and has a major role in the financial system of that country.

Based on the above we cane formulate Research Questions from following :

RQ1: How can the extent of voluntary risk disclosure in the Jordanian banking sector be effectively quantified? In order to answer the above Research Question, the extent of risk disclosure is measured by counting the number of voluntary risk keywords employed in the report and dividing that by the number of sentences in the annual report.

RQ 2 : Is the firm characteristics affect a bank's voluntary disclose risk?

In order to answer the RQ above, the determinants of risk disclosure, namely: firm size, profitability, leverage, and growth will be extracted from the banks' annual reports and the correlation will be tested by Partial and Multiple Least Square and aided by SPSS.

3. Research Objectives

Disclosure of information is a daily practice in all kinds of organizations around the world. As well as keeping stakeholders informed, disclosures facilitate economic decision-making. Disclosure of information reduces information asymmetry, thereby decreasing uncertainty for stakeholders.

The objective in this paper is relay on highlights the importance of considering basic corporate characteristics to examine in a more comprehensive related to voluntary risk disclosure issues . In this paper, we respond to recent debates within the broader risk disclosure literature to make new contributions to the extant literature by examining the extent of voluntary risk disclosure related to Jordanian banks and then assessing the impact of firm characteristics on voluntary risk disclosure.

Based on the research aim, the main purpose of this study is divided into research objectives as follow:

- To measure the extent of voluntary risk disclosure in the Jordanian banking sector. By knowing the extent of voluntary risk disclosure in the Jordanian banking sector, this research will be able to demonstrate whether annual reports delivered by banks in Jordanian have described voluntary risk disclosure `transparently.
- To study the determinants of voluntary risk disclosure and what firm characteristic affect a bank's decision to disclose voluntary risk information.

4. Relationship between firm characteristics and risk disclosures

4.1. Firm Size and Risk Disclosure

An essential aspect of a research into a business activity must include the firm size. Agency theory highlights the fact that the bigger a firm is the higher the monitoring and agency costs will be due to the asymmetrical information. According to Watson, Shrives, & Arston,(2002) added that for larger firms, especially listed firms that have easy access to direct financing based on their amount of disclosures .Large firms tend to be more complex and have more diversified processes. This characteristic refers to high levels of risk that translate into asymmetry among investors (Deumes and Knechel 2008).

Additionally, Company size is one of the most important variables in explaining variation in disclosure. It is included in almost every disclosure study, (Desoky, 2009). Several reasons are provided to explain the significant relationship between company size and corporate disclosure. According to agency theory, larger companies need to disclose more information to different users, which leads to a decline in agency costs, and to

reduce information asymmetries (Watts and Zimmerman, 1983). According to signalling theory, larger companies rely on external finance. Hence, they have incentives to disclose more risk information to send a good signal to investors and creditors about their ability to manage risk. In addition, larger companies have sufficient resources to afford the cost of additional risk disclosures.

4.2. Profitability and Risk Disclosure

Signalling theory , illustrates that companies that are better at risk management will have higher level of relative profitability and they will want to signal their superior risk management abilities to the market place via disclosure in the annual reports , disclosing more risk information management not only to show their risk to management efficiency but also to show their transparent attitude to the stakeholders using this opportunity , although is very difficult to know the actual attitude of the management at a comfortable profit position of the company whatever may be the actual intention of disclosing risk information (Mohobbot, 2005) . Prior studies provide mixed evidence on the association between profitability and the level of corporate disclosure (Ahmed and Courtis, 1999). Agency theory expects that managers of companies with high profitability would tend to provide more risk information in the annual reports to justify their present performance to the shareholders. Applying signalling theory, it could be argued that those companies that are better at risk management will have higher levels of relative profitability and that they would want to signal their superior risk management abilities to the market place via disclosures in the annual report.

4.3. Leverage and Risk Disclosure

Leverage refers to the use of finance resources such as debt and borrowed funds to increase the return on equity (Ezat and Al-Masry, 2008). Leverage has been used as a proxy for risk in many disclosure related studies (Oliveira et al., 2011b). Leverage may also affect the level of CRD. Based on agency theory, agency costs are higher in highly leveraged firms. To reduce these costs, companies need to disclose more information to satisfy the need of creditors (Jensen and Meckling, 1976). Moreover, managers tend to provide more risk management information to send a good signal to debt holders regarding the corporate ability to meet its obligations (Oliveira et al., 2011b). Iatridis (2008) argued that company managers with a higher level of risk are more likely to disclose risk-related information than those with a lower level of risk because it may disorient investors and government authorities away from the company's genuine risks, particularly when such a company financial situation is unfavourable.

4.4. Growth and Risk Disclosure

Companies that have greater opportunities to growth are likely to need resources in the near future. In this sense, these companies tend to adopt, nowadays, better corporate mechanisms, like for instance better disclosure practices (Khancel, 2007). More transparency results in better investor protection due to monitoring and better decision making. Consequently, investors would more willing to finance companies. Therefore, expected from companies that have greater growth opportunities to disclose more information

4.5. Main contribution (What distinguishes the study from other studies)

Studies on risk disclosure are very much an emerging area and the work that has been done has concentrated on examining disclosure practices in developed countries (Linsley and Shrives, 2005). There is a lack of examining risk disclosure practices of companies in developing countries in Jordan in particular. The current paper provides a contribution to the risk disclosure literature in two respects. First, it develops a framework to assess voluntary risk disclosure, . Second it examines the drivers of the voluntary risk disclosure, which may give us more insight into how listed companies have adjusted their disclosure strategies, as demands for more transparency

5. Research Methodology

5.1. The Sample and Data Collection

The current paper examined the association between firm characteristics and voluntary risk disclosure for Jordanian listed banks as their operation is materially different resulting in a different framework of RD

The current study explores the implementation of environmental risk disclosure for Jordanian banks. The financial sector represents about 11.6% of the Gross Domestic Product of Jordan. Generally, Jordanian banks are adequately capitalized to counteract economic pressures such as the global financial crisis (Kutum, 2014). The final sample of the current study consists of all listed Jordanian banks (15 banks) over the period of 2008-2015. This period witnessed IFRS 7 which organize firms' risk disclosure. All banks' annual reports were reviewed and analyzed in the current investigation. Annual reports are the main source of information for stakeholders. In addition, Jordanian banks' annual reports provide a historical record of the management in terms of risk management techniques.

5.2. Variables Measurement

Measurement Of Voluntary Risk Disclosure And Index Development

Voluntary disclosure is any information disclosed by the entity that does not emerge from stipulations by authorities or bodies. Thus, VRD should not come from the company law, international accounting standards, banking law or corporate governance handbooks (Kutum, 2014). An unweighted index is adopted to measure the level of VRD items. This approach was adopted by many empirical studies examined voluntary risk reporting (Al-Maghzom et al., 2016; Pérignon and Smith, 2010). According to the unweighted RD approach, a firm is scored (1) for an item disclosed in the annual report and (0) if it is not disclosed. Then, the total risk disclosure index is computed for each bank as a ratio of the total RD score to the bank's maximum possible disclosure. Then, the V RD index for each firm is expressed as a percentage. The index included 10 voluntary items of VRD. Hence, we measured the level of RD using the following equation:

$$RD_j = \sum_{i=1}^{n} L_i$$

Where L is one if the item i is disclosed and zero otherwise; n is number of items which has an upper limit of total RD* . Hence, the percentage of overall risk disclosure level (PORD) for each bank is measured as follows:

$$PORD_j = \sum_{i=1}^{n} L_i \quad N_i$$

N is the total number of applicable to each firm.

(*) total disclosure score to the maximum possible disclosure by the bank

Firm Characteristics Measurement

In terms of the independent variables bank size is computed by natural logarithm of total assets; profitability is measured by the Return on Equity (ROE) and Return on Assets (ROA). Leverage is measured by total liabilities to total assets ratio. Growth is calculated as the percentage of total assets for the current year compared to that for the previous year.

In order to test the association between VRD and Firm Characteristics variables, the Ordinary Least Squares (OLS) regression model is designed as follows:

$$VRD_{it} = \beta_0 + \beta 1 Lev_{it} + \beta 2 Size_{it} + \beta 3 Grow_{it} + \beta 4 ROA_{it} + \beta 5 ROE + \varepsilon_{it} ..$$

Where
VRD: Voluntary risk disclosure score
β0 : the intercept
β_1 to β_5 : regression coefficients for independent variables (See table 1 for explanation)
i : Bank
t : Year

Table 1: Variables Measurement

Panel: Firm-specific characteristics				
LEV	leverage	Total liabilities to total assets ratio	+	Annual report
SIZE	Bank size	Natural logarithm of total assets	+	Annual report
GROW	Growth	The percentage of total assets for current year to previous year.	+	Annual report
ROA	Profitability(	ROA (Return On Assets)	+	Annual report
ROE	Profitability(	ROE (Return On Equity)	+	Annual report

Hypotheses Development

H_1: There is a positive relationship between the leverage and voluntary risk disclosure.
H_2: There is a positive relationship between the firm size and voluntary risk disclosure.
H_3: There is a positive relationship between the growth and voluntary risk disclosure.
H_4: There is a positive relationship between the profitability and voluntary risk disclosure.

Appendix : Voluntary Risk Disclosure

General Risks /Voluntary Risk Disclosure	References
Compliance Risk	Kutum, 2014

Operation Risk	Al-Maghzom et al , 2016; Abdullah et al, 2015; ICAEW2000; Lipunga, 2014; Linsley and Shrives, 2006
Reputation Risk	Kutum, 2014
Strategic Risk	Linsley and Shrives, 2006
Information processing and technology risk	Linsley and Shrives, 2006
Pricing Risk	Alshammari, 2014, ICAEW, 1997, 2000; Abdullah et al, 2015; Lipunga, 2014
Commodity risk	Abdullah et al, 2015; Alshammari, 2014.
Insurance Risk	Abdullah et al, 2015; Alshammari, 2014, Al-Maghzom et al , 2016
Sustainability Risk	Al-Maghzom et al , 2016
Integrity risk	Linsley and Shrives , 2006

Board chairmen's involvement in the nomination and remuneration committees and earnings management

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Abstract

The position of board chairman is the highest in a firm which may be dominated by insider directors, who in some cases, are family members. Consequently, the board chairmen (BC) may play a vital role in the firm's outputs, especially when they sit on the board committees. Therefore, the current study aims to examine the influence of the BC who are also: the chairmen of the nomination committee (BCNDUAL); ordinary members of the nomination committee (BCNMEM); the chairmen of the remuneration committee (BCRDUAL); and ordinary members of the remuneration committee (BCRMEM), on the level of accrual earnings management (AEM) and real earnings management (REM). It also tests the overall influence of the BC's involvement in the nomination committee (BCNINV) by combining the terms of BCNDUAL and BCNMEM into BCNINV and the overall influence of BC's involvement in the remuneration committee (BCRINV) by combining the terms of BCRDUAL and BCRMEM into BCRINV, on the level of AEM and REM. This study selected 300 firms listed on the Bursa Malaysia Main Market with the lowest positive performance (based on return on assets (ROA)) for the years 2013 to 2015. The random-effects feasible generalized least squares (FGLS) regression shows that BCNDUAL, BCNMEM and BCNINV have a significant relationship with greater AEM and REM. However, BCRDUAL and BCRINV have a significant relationship with lower AEM but not with REM. This study alerts the policymakers, firms and their stakeholders, as well as researchers to the need to strengthen the board committees' effectiveness (especially the nomination committee), and making them more independent.

Keywords: Board chairmen; nomination committee; remuneration committee; earnings management; Malaysia.

1. Introduction

The attention of the regulators, investors and financial community to the issue of crises and scandals has increased over the past decades (Bowen, Freidank, Wannow, & Cavallone, 2017). Among the reasons for these scandals is earnings management (EM), where experience has shown that companies that engage in EM (e.g., creative accounting), often end up committing fraud (Jones, 2011). In other words, the occurrence of EM practice motivates managers to commit fraud in future rather than EM (Perols & Lougee, 2011; Sulaiman, Danbatta, & Rahman, 2014). More importantly, the EM problem is not new (Levitt, 1998); it has however increased due to market growth that is challenging for companies that do not meet investors' expectations (Dechow, Sloan, & Sweeney, 1996; Levitt, 1998). Thus, managers become more likely to report opportunistically to match peer performance (Du & Shen, 2018).

According to Yu (2008), the incentives for EM have increased globally. Also, based on 70,955 firm-observations from 31 countries during the period of 1990 to 1999, Leuz, Nanda, and Wysocki (2003) found that Hong Kong, Malaysia and Singapore have been rated higher than others regarding aggregate accrual earnings management (AEM). A more recent study by Enomoto, Kimura, and Yamaguchi (2015) which covered the period of 1991 to 2010 for 222,513 firm-year observations from 38 countries, has reported a sharp increase in the Malaysian aggregate AEM score. Moreover, they found that real earnings management (REM) in Malaysia

is high, which is the sixth highest country among the 38 countries selected in their study. Therefore, Malaysian firms practise both AEM and REM.

Literature has documented that corporate governance (CG) is a useful monitoring mechanism to mitigate EM (Xie, Davidson, & DaDalt, 2003). Therefore, previous studies have extensively examined the influence of CG mechanisms on EM. However, the results are not consistent (Inaam & Khamoussi, 2016). Added to that, the mechanisms of CG in Malaysian companies are currently insufficient to prevent EM, and there is a need for additional efforts to improve CG (Mohammad, Wasiuzzaman, & Salleh, 2016). Indeed, the effectiveness of CG mechanisms depends on how it can reduce managerial opportunism and information asymmetry. Given this, Claessens and Fan (2002) and Cheung and Chan (2004) argued that CG mechanisms in Asia are not strong enough to mitigate the agency problems. Hence, firms have to employ other mechanisms to reduce the problems (Claessens & Fan, 2002).

The position of the board chairmen (BC) in a company is crucial. They are leaders and have responsibility for ensuring the effectiveness of the board (Amran, Yusof, Ishak, & Aripin, 2014). However, the presence of BC in one or more of the board's committees may reflect that the BC attempt to dominate the overall CG mechanisms in a firm, especially in firms with high insider directors. The Malaysian Code on Corporate Governance (MCCG) mentions the role of BC, who attempt to dominate the board because of their social status and/or political links or because they are the founders of the corporation (Satkunasingam, Yong, & Cherk, 2012). Therefore, the presence of BC in board committees is not ideal in a society where there is deference to dominant personalities or well-connected which could result in board committees that are complicit with the chairmen's directives even if it transgresses CG (Satkunasingam *et al.*, 2012).

The role of BC in the governance process needs to be studied further (Carcello, Hermanson, & Ye, 2011). Previous studies have extensively investigated the separation role of the BC and chief executive officer (CEO) and its impact on EM. However, the impact of BC who chair or are ordinary members of essential board committees, such as nomination committee (NC) and remuneration committee (RC), has not been empirically examined (Satkunasingam *et al.*, 2012). Therefore, very little is known about the social dynamics among the CEO, BC and NC and how it impacts on the appointment process of directors (Walther, Morner, & Calabrò, 2017), as well as the effect of that relationship on EM. Similarly, the effect of social dynamics among the CEO, BC and RC on remuneration policy is unknown, as well as the effect of that relationship on EM.

Indeed, the purpose of the NC is to professionalize the process of selecting directors and to avoid excessive intervention by CEOs or BC (Walther & Morner, 2014), while the purpose of the RC is to provide support and advice to the board regarding the issues of board members' remuneration (Kanapathippillai, Johl, & Wines, 2016). The domination of BC over the NC and RC has become an important issue, particularly, when insider directors dominate a director's selection and compensation policy, as in the case of some companies in Malaysia (The World Bank Report, 2012). To the best knowledge of the researcher, no previous study has empirically investigated the effect of BC who also act as chairmen or who are ordinary members of the NC or RC on EM. Importantly, many countries, such as Thailand and the United Kingdom, have mentioned issues pertaining to CG codes and guidelines.

Generally, this study aims to examine whether or not BC who are NC or RC chairmen or just as ordinary members of these committees, encourage or discourage EM practices. The current study contributes to the body of knowledge by introducing a new issue, i.e., the dominance of BC in board committees, namely, the NC and RC. It is argued that the nomination processes are typically controlled by CEOs (Westphal & Zajac, 1995), who are more powerful executives and more likely to serve on the NC (Vafeas, 1999). Consequently, the current study expects that BC who are involved in the NC may influence the selection process of directors, and similarly, BC who are involved in the RC may reduce the effectiveness of the RC, primarily in family-controlled firms, which is very much prevalent in developing countries, such as Malaysia.

The reason for selecting Malaysian firms is that controlling shareholders still dominate the selection process of directors by controlling the NC (The World Bank Report, 2012). Therefore, controlling shareholders may attempt to select BC who are a family member or controlled by them and then appoint BC either as the chairman or an ordinary member of the NC or RC or both. Moreover, the high percentage of insider directors is common in Malaysian firms. Insiders directors are more likely to accommodate the preferences of CEOs, particularly in the process of selecting new directors (Westphal & Zajac, 1995). According to Abdullah, Ku Ismail, and Nachum (2016) and Mohammad *et al.* (2016), compliance to the CG code in Malaysian firms is not meant for enhancing monitoring; it is for fulfilling the compliance requirement. Therefore, there is a need for regulators to revise the criteria for selecting the directors (Mohammad *et al.*, 2016).

Generally, the results of this study provide evidence of the domination of the NC and RC by BC. It reveals that BC who chair the NC (BCNDUAL), or are ordinary members of the NC (BCNMEM), and are involved in the NC (BCNINV) as either chairman or an ordinary member, have a significant relationship with a higher level of AEM and REM. However, it is also revealed that BC who chair the RC (BCRDUAL) and are involved in the RC (BCNINV) as either chairman or an ordinary member, have a significant relationship with the lower level of

AEM. However, it does not have any relationship with REM. Lastly, the board chairman who is an ordinary member of remuneration committee (BCRMEM) is not related to either the level of AEM nor REM.

1. **Literature and hypotheses development**

1.1. Corporate governance

Agency problems arise between the agent and the owner as a result of "separation of ownership and control" (Jensen & Meckling, 1976). According to the agency theory, managers may have an incentive to be self-centred at the expense of shareholders. Furthermore, previous studies have investigated a range of incentives which lead managers to engage in EM, either for their selfish interests or in the shareholders' interests (Abarbanell & Lehavy, 2003; Fields, Lys, & Vincent, 2001), including: (i) forecasting and evaluating the capital market; (ii) contracts based on accounting figures; and (iii) antitrust and other government regulations (Healy & Wahlen, 1999). EM is divided into two types - AEM and REM, anchored on the possibility that such categorization may lead to cash flow consequences directly. AEM is the earnings manipulation by managers through accounting estimates and methods, without any direct effect on cash flows, while REM is the manipulation of earnings by managers via operational activities that directly impact cash flows (Enomoto *et al.*, 2015; Roychowdhury, 2006; Sun, Lan, & Liu, 2014).

It is to be noted that after the grave financial scandals of large companies (e.g., Worldcom and Enron), international efforts have been made to fight managers' opportunistic behaviour by developing and implementing appropriate CG mechanisms (Gulzar, 2011). In this regard, CG codes are designed to achieve high standards of governance processes (Cadbury, 1992) and to enhance the credibility of firms' financial reporting through the elimination of earnings manipulation behaviour (Dechow *et al.*, 1996). Effectiveness CG mechanisms increases the confidence of foreign investors in the capital markets in East Asia, including Malaysia (Nam & Nam, 2004; The World Bank Report, 2012), protects the rights of the stakeholders, reduces the problem of "asymmetry information" and improves the reporting quality (Gulzar, 2011).

Nonetheless, considering the vital role of corporate boards as a governance mechanism, the high quality of requirements in appointing the directors is what determines the effectiveness of the board's monitoring abilities (Vafeas, 1999). Walther and Morner (2014) stated that very little is known about how and on what basis the NC enhances the selection process and minimizes selection inefficiencies, including the possibility of strong CEOs appointing lenient directors. For instance, when the CEO is part of the NC, or there is no NC at all, the firms are likely to appoint more gray outsiders and fewer independent directors, which result in more conflict of interest (Shivdasani & Yermack, 1999). Additionally, the percentage of insider directors has a significant and positive relationship with the new director who shared the same demographic category of CEO (Westphal & Zajac, 1995). Vafeas (1999) argued that there is a need for the NC to not allow interference from a board which is dominated by CEO and insiders with no or limited insiders' participation by which nomination is expected to be in line with shareholders' interest.

Five very vital and preliminary tasks of the NC are to: (i) outline and assess the required qualification, competency, knowledge, experience and time expected to be spent, especially by the executive directors and board directors; (ii) evaluate size, structure, composition and findings of the executive board and board of directors annually, and further recommend changes to the board, if any; (iii) appraise the knowledge, competency and experience of the personal members of the management annually and report to the board of directors accordingly; (iv) assess proposals from shareholders, boards members and other relevant persons for the appointment of new directors to the board of directors; and (v) suggest an action plan and proposal for specific changes to the board of directors in the future composition of the board of directors (Denmark recommendations on corporate governance, 2014).

From the Malaysian perspective, the board of each company is required to include a NC with solely non-executive directors, most of whom must be independent, and vested with responsibility for suggesting new nominees to the board as well as to evaluate directors on a continuous basis (MCCG, 2000). The NC would assess the effectiveness of the entire board and the board committees annually, and further evaluate every individual director's contribution (MCCG, 2000). Following the revision of the MCCG in 2007, some amendments were made whereby the NC must consider the knowledge, skills, professionalism, experience, expertise and integrity, specifically of the independent candidates, and thereby assess the candidates' capability to discharge such functions or respond accordingly. Also, the NC must ensure that its appraisal and assessments are done and documented correctly (MCCG, 2007). In the 2012 revised MCCG, it is recommended that the chairman of the NC must be the most senior independent director recognized by the board (MCCG, 2012). The latest version of the MCCG also confirms that the NC should be chaired by a senior independent director or independent director (MCCG, 2017).

Besides the NC, the RC has an essential role with regards to the issues of the remuneration policy of the directors as well as the senior management of the firm. The following are among the prime responsibilities of

the RC: (i) suggest an appropriate remuneration policy (including incentive-based remuneration and guidelines) for remunerating the executives and outside directors; (ii) recommend the remuneration of board of directors and further ensure that the remuneration is in line with the company's remuneration policy and performance evaluation of the concerned individual; and (iii) propose a remuneration policy to be used for the company generally (Denmark recommendations on corporate governance, 2014).

However, from the Malaysian perspective, the boards must be the appointees of the RC, which include entirely or mainly non-executive directors. The primary task of the committee is to suggest to the board the remuneration of the non-executive directors and executive directors. Regarding non-executive chairpersons, it should be a matter for the whole board to determine their remuneration. The annual report of the company must include the details of each director's remuneration (MCCG, 2000, 2007). Similarly, the MCCG 2012 version recommends that the NC should exclusively or mainly consist of non-executive directors. Furthermore, this version emphasizes that the board must ensure the establishment of a transparent and formal remuneration policy and procedures that would attract and retain directors.

1.2. Nomination committee

The NC is an influential committee in a firm, where most CG codes around the world require firms to establish a NC. The composition of this committee differs slightly in these codes. Regarding the number of NC members, most of the codes recommend at least three members, such as in Australia, Bahrain and Singapore; and the majority of directors should be independent directors, such as in Russia, Australia, Bahrain, Ireland, Mauritius, the United Kingdom and Singapore. Other codes require that the NC directors should be non-executive, such as in Singapore, the Netherlands, Mauritius and Malaysia, while other codes of CG require that an NC should entirely comprise independent directors, like in Thailand, while others require that the majority of NC directors should be non-executive, like in Cyprus. Regarding chair position, some codes of CG require that the NC chairman should be an independent director, such as in Australia, Bahrain, Singapore and Malaysia, while others allow the committee to be chaired by a non-executive director, like in Cyprus.

Regarding BC's involvement in the NC, some codes of CG recommend that BC may also chair the NC, such as in Australia, Cyprus, the United Kingdom and Denmark, or be a member in case he/she is an independent director, like in Singapore. However, a separate chair must be appointed when the NC deals with the appointment of a successor to the chair as found in the codes of Australia and the United Kingdom. Similarly, the code of Russia recommends that if the NC chairman is the same person as the board chairman, he or she must decline from chairing a meeting of the committee that can determine the replacement of the board successor chairman or recommend his/her election. Further, other codes of CG require that BC should not be at the same time chair the NC, such as in Slovenia and Thailand, or be a member, such as in Thailand and the United Arab Emirates.

This study suggests that BC must not be involved in the NC, either as a chairperson or an ordinary member. Otherwise, the efficiency of the NC will be low because of the following reasons: first, the insider directors of firms, which in some cases, are family-owned or controlled, tend to appoint a family member to serve on the board (Haniffa & Cooke, 2002). Consequently, the situation becomes a severe problem when the BC is a family member or controlled by the family; second, the terms of reference of the NC, which are chaired by or involve BC, should be reviewed by the whole board. Thus, it is difficult for the board to evaluate the terms of reference of the NC since the BC are involved in the NC; and third, the recommendations reported to the board by the NC will be less efficiently evaluated and discussed by the board members since BC are involved in the NC. Thus, according to the agency theory, the following hypotheses are proposed:

H_1: Firms whose board chairmen chair the nomination committee are more likely to engage in earnings management.

H_2: Firms whose board chairmen are ordinary members of the nomination committee are more likely to engage in earnings management.

H_3: Firms whose board chairmen are involved in the nomination committee are more likely to engage in earnings management.

1.3. Remuneration committee

According to Kanapathippillai *et al.* (2016), one of the essential board sub-committees is the RC. The primary role of the committee is to advise and support the board on issues related to remuneration. In essence, most of the codes of CG globally require firms to establish a RC. The composition of this committee is a little

different in these codes. However, most of these codes require the board of directors to form the RC where all the directors should be non-executive, such as in Mauritius, Cyprus, the Netherlands, Singapore and Malaysia. Regarding the number of committee members, most codes of CG require at least three members, such as in Australia, Bahrain, Singapore and the United Kingdom, with a majority being independent directors, like in Australia, Bahrain, Mauritius, Singapore and Thailand. However, other codes of CG require that the RC should only comprise independent directors, like in Russia and Ireland. Regarding the RC chair, most codes of CG recommend that the RC should be chaired by an independent director, such as in Australia, Russia, Bahrain, Thailand, Singapore and the United Kingdom. Regarding BC's involvement in the RC, some codes of CG recommend that BC should not at the same time chair the RC (e.g., Russia, Ireland Slovenia, Thailand, Netherlands and the United Kingdom) or be a member (e.g., Thailand and the United Arab Emirates). On the other hand, some codes of CG allow BC to be a member of the RC, like in the United Kingdom.

The amount paid by the company to directors may affect the attitude of directors to either mitigate or engage in EM. Therefore, the remuneration policy must be adequate to attract, inspire and retain directors with the required skills and qualifications. Paying directors a small amount would make them feel that their services are not important. On the one hand, paying remuneration in excess would cause directors to lose their independence (MCCG, 2000). As one of their functions, the RC directors from time to time would make suggestions to the board on any particular action or decision regarding directors' remuneration (Kanapathippillai *et al.*, 2016). Thus, the recommendations made by RCs, that are chaired by or involve BC, may be adopted and implemented by the board due to the influence of BC on all board decisions, especially in those firms with high insider directors or family members. Thus, according to the agency theory, the following hypotheses are proposed:

H_4: Firms whose board chairmen chair the remuneration committee are more likely to engage in earnings management.

H_5: Firms whose board chairmen are ordinary members of the remuneration committee are more likely to engage in earnings management.

H_6: Firms whose board chairmen are involved in the remuneration committee are more likely to engage in earnings management.

2. **Research method**

Based on public firms listed and available on Bursa Malaysia Main Market, 300 firms with the lowest positive earnings (measured by return on assets (ROA)) for three years, i.e., 2013, 2014 and 2015, were selected. The reason is that EM is high in firms with around zero earnings because management wants to avoid small losses by converting them into a small profit. In this regard, the firms are called suspect firms (Yuliana, Anshori, & Alim, 2015). Thus, this study followed two steps to get the slightly positive ROA. In the first step, to ensure that the sample is balanced, any company with negative earnings in one or more years was excluded. In the second step, the average ROA for the three years was calculated for each company. Then, the averages were arranged in ascending order to choose 300 companies with the lowest ROA. However, due to missing data, the final sample used is 864 firm-observations.

Regarding AEM measurement, this study used Jones (1991) Model which estimates discretionary accruals (DA) that contain the characteristics of accruals emanating from management opportunism (Guay, Kothari, & Watts, 1996). Hence, cross-sectional analysis using ordinary least squares (OLS) were run (21 OLS multiple regression for specific industry and year) to measure the fixed values (coefficients) from the following model:

$$\frac{\mathrm{TAC_{it}}}{\mathrm{TA_{it-1}}} = \alpha_0 + \alpha_1\left(\frac{1}{\mathrm{TA_{it-1}}}\right) + \alpha_2\left[\frac{\Delta \mathrm{S_t}}{\mathrm{TA_{it-1}}}\right] + \alpha_3\left(\frac{\mathrm{PPE_{it}}}{\mathrm{TA_{it-1}}}\right) + \varepsilon_{\mathrm{it}} \quad (1)$$

Where: $\mathrm{TAC_{it}}$= earnings before an extraordinary item minus the cash flow from operations, $\mathrm{TA_{it-1}}$= total assets in the past year, $\Delta \mathrm{S_t}$= revenues in $\mathrm{year_t}$ minus revenues in $\mathrm{year_{t-1}}$, PPE= Gross property, plant and equipment in $\mathrm{year_t}$ and $\varepsilon_{\mathrm{it}}$= the regression error terms. Therefore, DA (residuals value) are calculated by using the new option which is available at STATA program "statistics=>post-estimation=>predictions, residuals, etc.=> residuals (equation-level scores)" (Brennan, 2010, p. 621), after the equation (1).

In terms of REM measurement, this study used the abnormal levels of cash flow from operations (ABCFO), the abnormal levels of production costs (ABPROD) and the abnormal levels of discretionary expenses

(ABDISX), introduced by Roychowdhury (2006) and used by previous studies (Liu, Shi, Wilson, & Wu, 2017; Razzaque, Ali, & Mather, 2016). Thus, to estimate the fixed values (coefficients), the models below were used:

$$\frac{CFO_t}{TA_{it-1}} = \alpha_0 + \alpha_1\left(\frac{1}{TA_{it-1}}\right) + \beta_1\left(\frac{S_t}{TA_{t-1}}\right) + \beta_2\left(\frac{\Delta S_t}{TA_{t-1}}\right) + \varepsilon_{t,} \quad (2)$$

$$\frac{PROD_t}{TA_{t-1}} = \alpha_0 + \alpha_1\left(\frac{1}{TA_{t-1}}\right) + \beta_1\left(\frac{S_t}{TA_{t-1}}\right) + \beta_2\left(\frac{\Delta S_t}{TA_{t-1}}\right) + \beta_3\left(\frac{\Delta S_{t-1}}{TA_{t-1}}\right) + \varepsilon_t \quad (3)$$

$$\frac{DISEXP_t}{TA_{t-1}} = \alpha_0 + \alpha_1\left(\frac{1}{TA_{t-1}}\right) + \beta\left(\frac{S_{t-1}}{TA_{t-1}}\right) + \varepsilon_t \quad (4)$$

Where; CFO_t= cash flow from operations, S_t = sales during period t, $PROD_t$= cost of goods sold and change in inventory during period $_t$, $DISEXP_t$= the sum expenses of research and development, advertising, selling, general and administrative costs in period $_t$, S_{t-1}= sales at the end of period$_{t-1}$ and ΔS_{t-1}= the lag of ΔS_t. Therefore, ABCFO, ABPROD and ABDISX were calculated by using the new option which is available at STATA program "statistics => post-estimation => predictions, residuals, etc. => residuals (equation-level scores)" (Brennan, 2010, p. 621), after equations 2, 3 and 4, respectively. Importantly, by following the majority of previous studies, this study combined the three proxies, and thus, REM = $ABCFO^{*-1}$ + ABPROD+ $ABDISX^{*-1}$.

The Random-Effects Feasible Generalized Least Squares (FGLS) regression analysis was run to investigate the influence of BCNDUAL, BCNMEM, BCNINV, BCRDUAL, BCRMEM and BCRINV, on the level of AEM and REM. In line with previous studies, this study used the absolute value of DA to reflect AEM (Abdullah & Ku Ismail, 2016) and the absolute value of the sum of ABCFO, ABPROD and ABDISX to reflect REM (Kwon, Na, & Park, 2017). Furthermore, following prior research, this study used several control variables that are related to CG mechanisms, i.e., board size (BSIZE), AC size (ACSIZE), ownership concentration (Conc5) and audit quality (Big4) and firm-specific characteristics, i.e., firm size (FSIZE), leverage (LEV), ROA and type of firm (INDUS). Detailed information on these variables is provided in Table 1.

The following regressions were used to conclude the result of Hypotheses 1,2,4 and 5:

$$AEM = \beta_0 + \beta_1\ BCNDUAL + \beta_2\ BCNMEM + \beta_3\ BCRDUAL + \beta_4\ BCRMEM + \beta_5\ BSIZE + \beta_6\ ACSIZE + \beta_7\ Conc5 + \beta_8\ Big4 + \beta_9\ FSIZE + \beta_{10}\ LEV + \beta_{11}\ ROA + \beta_{12}\ INDUS + \varepsilon.$$

Model 1 (A)

$$REM = \beta_0 + \beta_1\ BCNDUAL + \beta_2\ BCNMEM + \beta_3\ BCRDUAL + \beta_4\ BCRMEM + \beta_5\ BSIZE + \beta_6\ ACSIZE + \beta_7\ Conc5 + \beta_8\ Big4 + \beta_9\ FSIZE + \beta_{10}\ LEV + \beta_{11}\ ROA + \beta_{12}\ INDUS + \varepsilon.$$

Model 2 (A)

Regarding Hypothesis 3, the same regression of Model 1 (A) was used, but by combining the terms of BCNDUAL and BCNMEM into BCNINV. Similarly, for Hypothesis 6, the same regression of Model 2 (A) was used but by combining the terms of BCRDUAL and BCRMEM into BCRINV.

Table 1. Summary of the variables definition.

Acronym	Measurement and resources
ABSJONES	The absolute value of DA using Jones Model (1991).
REM	Combine the three proxies introduced by Roychowdhury (2006)
BCNDUAL	One if board chairmen chair the nomination committee, otherwise is zero
BCNMEM	One if board chairmen are an ordinary member of the nomination committee, otherwise is zero
BCRDUAL	One if board chairmen chair the remuneration committee, otherwise is zero
BCRMEM	One if board chairmen are an ordinary member of the remuneration committee, otherwise is zero
BCNINV	One if board chairmen either chair or an ordinary member of the nomination committee, otherwise is zero
BCRINV	One if board chairmen either chair or an ordinary member of the remuneration committee, otherwise is zero
BSIZE	A total number of board members.
ACSIZE	A number of AC members.
Conc5	The proportion of the sum shares held by the five largest shareholders.
Big4	One if the firm audit by Big4, zero otherwise.
FSIZE	Natural log of total assets.
LEV	Total debt to total assets.
ROA	Net income/total assets.
INDUS	One if the firm is manufacturing, zero otherwise.

3. **Results and discussion**

Table 2 shows that the mean value of AEM is 0.048, where the minimum value is 0.001 and the maximum value is 0.216. In terms of REM, the mean value is 0.130, where the minimum value is 0.002 and the maximum value is 0.704. Table 2 also shows the mean of the continuous control variables. The mean values of control variables that are related to CG mechanisms, i.e., BSIZE, ACSIZE and Conc5 are 7.418, 3.244 and 0.546, respectively. In addition, the mean values of control variables that are related to firm-specific characteristics, i.e., FSIZE (log), LEV and ROA are 13.485, 20.775% and 4.412%, respectively.

Table 2. Descriptive statistics of the continuous variables (N=864).

Variable	Mean	SD	Min.	Max.	Skewness	Kurtosis
AEM	0.048	0.045	0.001	0.216	1.566	5.402
REM	0.130	0.123	0.002	0.704	1.972	8.058
BSIZE	7.418	1.909	4.000	17.000	0.985	4.840
ACSIZE	3.244	0.502	3.000	6.000	2.173	8.194
FSIZE	13.485	1.571	10.098	18.579	0.796	3.497
LEV	20.775	15.162	0.000	68.560	0.422	2.475
ROA	4.412	2.510	0.010	15.160	0.657	3.574
Conc5	0.546	0.159	0.141	0.948	-0.083	2.318

Table 3 shows that 158 (18.29%) firm-observations appointed their BC in the NC as chairman while 184 (21.30%) firm-observations appointed their BC in the NC as an ordinary member. Therefore, 342 (39.59%) firm-observations appointed their BC in the NC as either chairman or an ordinary member. Table 3 also shows that 185 (21.41%) firm-observations appointed their BC in the RC as chairman while 239 (27.66%) firm-observations appointed their BC in the RC as an ordinary member. Therefore, 424 (49.07%) firm-observations appointed their BC in the RC as either chairman or an ordinary member. Regarding the control variable, 459 (53.13%) firm-observations were audited by one of the four biggest accounting firms in Malaysia (Ernst & Young, PricewaterhouseCoopers, Deloitte and KPMG) and 366 (42.36%) firm-observations are manufacturing firms.

Table 3. Descriptive statistics of the dummy variables (N=864).

Variables	Yes (1)		No	
	Freq.	Percent	Freq.	Percent
BCNDUAL	158	18.29	706	81.71
BCNMEM	184	21.30	680	78.70
BCRDUAL	185	21.41	679	78.59
BCRMEM	239	27.66	625	72.34
BCNINV	342	39.59	522	60.42
BCRINV	424	49.07	440	50.93
Big4	459	53.13	405	46.88
INDUS	366	42.36	498	57.64

According to Kurtosis and Skewness as descriptive numerical approaches to test the normality of the different variables, Table 2 shows that the dataset of the individual variables are in line with normality assumption, where the Skewness is not higher than the threshold of ±3, and the Kurtosis is not greater than the threshold of ±10 (Kline, 2015). Furthermore, Table 4 shows the result of the variance inflation factor (VIF) test, where there is no multicollinearity issue. It also shows the result of the Pearson correlation test where there is no correlation among variables.

Table 5 shows the results of Model 1 (by using Jones Model) and Model 2 (by using REM). FGLS regression was used with option "panels (heteroskedastic)" to solve the problem of heteroscedasticity. FGLS regression provides reliable estimates in the presence of heteroscedasticity, and has been adopted by previous studies (Al-Dubai, 2014; Yoshikawa & Rasheed, 2010). Column A in Table 5 indicates that BCNDUAL is positively related to the higher level of AEM and REM. Firms whose BC chair the NC are more likely to engage in AEM and REM. Similarly, it is found that BCNMEM is positively related to the higher level of AEM and REM. Firms whose BC are ordinary members of the NC are more likely to engage in AEM and REM. Regarding overall involvement, Column B in Table 5 indicates that BCNINV is positively related to the higher level of AEM and REM. Firms whose BC either chair or are ordinary members of the NC, are more likely to engage in AEM and REM.

The results indicate that the appointment of BC in the NC does not improve the effectiveness of the committee. It seems that insider directors, who in some cases, are family members, may dominate the selection process of directors, especially the BC. Therefore, the selection of BC as a chairman of or an ordinary member in the NC may be due to their relationship with a family member on the board or the substantial shareholder. Controlling the firm's highest position of BC by the CEO and other insiders and appointing them in the NC will guarantee that any future nominations will be more likely to be consistent with the CEO and other insiders' interest instead of shareholders' interests. Another reason for the significant result may be that BC who are involved in the NC do not have enough time or energy to do their work effectively.

Column A in Table 5 also indicates that BCRDUAL is negatively related to the level of AEM. Firms whose BC chair the RC are less likely to engage in AEM. However, the BCRDUAL is not related to REM. It also found that the BCRMEM is not related to either AEM nor REM. Regarding overall involvement, Column B in Table 5 indicates that BCRINV is negatively related to the level of AEM. However, the BCRINV is not related to REM. Regarding control variables, ACSIZE and FSIZE have a significant relationship with lower AEM and REM. In addition, Big4 is significantly and negatively related to AEM only in Column B in Model 1. In contrast, LEV and ROA have a significant relationship with higher AEM and REM. Moreover, firms with high ownership concentration and considered as manufacturing firms, are more likely to engage in REM.

Table 4. Pearson correlation and variance inflation factor (VIF).

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	VIF	1/VIF
1 AEM	1.00																-	-
2 REM	**0.31**	1.00															-	-
	0.00																	
3 BCNDUAL	0.00	0.03	1.00														1.48	0.68
	0.97	0.44																
4 BCNMEM	**0.11**	**0.08**	**-0.25**	1.00													1.36	0.73
	0.00	0.02	0.00															
5 BCNINV	**0.10**	**0.09**	**0.58**	**0.64**	1.00												1.42	0.71
	0.01	0.01	0.00	0.00														
6 BCRDUAL	-0.04	0.03	**0.44**	**0.08**	**0.41**	1.00											1.63	0.61
	0.24	0.42	0.00	0.02	0.00													
7 BCRMEM	**0.06**	**0.06**	**-0.07**	**0.32**	**0.21**	**-0.32**	1.00										1.45	0.69
	0.06	0.09	0.06	0.00	0.00	0.00												
8 BCRINV	0.02	**0.07**	**0.30**	**0.35**	**0.53**	**0.53**	**0.63**	1.00									1.47	0.68
	0.47	0.03	0.00	0.00	0.00	0.00	0.00											
9 BSIZE	**-0.08**	**-0.09**	0.03	**-0.16**	**-0.11**	0.03	**-0.24**	**-0.20**	1.00								1.31	0.76
	0.02	0.01	0.36	0.00	0.00	0.44	0.00	0.00										
10 ACSIZE	**-0.07**	**-0.08**	0.03	0.00	0.02	0.03	**-0.10**	**-0.07**	**0.31**	1.00							1.19	0.84
	0.05	0.01	0.44	0.99	0.54	0.43	0.00	0.05	0.00									
11 FSIZE	**-0.11**	**-0.20**	0.05	**-0.06**	-0.01	0.04	**-0.13**	**-0.08**	**0.36**	**0.27**	1.00						1.80	0.56
	0.00	0.00	0.13	0.07	0.76	0.22	0.00	0.02	0.00	0.00								
12 LEV	0.05	-0.04	**0.07**	-0.03	0.03	-0.01	**-0.10**	**-0.09**	**0.14**	-0.01	**0.34**	1.00					1.21	0.82
	0.11	0.23	0.03	0.36	0.35	0.85	0.00	0.01	0.00	0.79	0.00							
13 ROA	0.05	**0.06**	-0.01	0.02	0.01	**0.08**	-0.01	**0.06**	**0.08**	0.00	0.04	**-0.10**	1.00				1.04	0.96
	0.13	0.07	0.72	0.50	0.77	0.02	0.80	0.08	0.02	0.95	0.19	0.00						
14 Big4	**-0.07**	-0.05	0.02	-0.03	-0.01	0.03	**-0.07**	-0.04	**0.12**	**0.20**	**0.47**	**0.13**	0.02	1.00			1.31	0.77
	0.03	0.17	0.59	0.34	0.71	0.34	0.03	0.26	0.00	0.00	0.00	0.00	0.54					
15 Conc5	-0.05	**0.06**	-0.04	-0.03	**-0.06**	**-0.06**	-0.05	**-0.10**	0.05	**0.09**	**0.09**	**-0.08**	0.00	**0.09**	1.00		1.04	0.96
	0.11	0.07	0.22	0.38	0.09	0.07	0.11	0.00	0.16	0.01	0.01	0.02	0.95	0.01				
16 INDUS	0.03	**0.12**	0.01	0.01	0.01	**-0.06**	**0.08**	0.02	**-0.09**	**-0.14**	**-0.30**	-0.02	0.03	**-0.12**	0.00	1.00	1.13	0.89
	0.40	0.00	0.85	0.86	0.77	0.08	0.02	0.55	0.01	0.00	0.00	0.48	0.34	0.00	0.92			

Note: bold numbers reflect the significant with range from p<0.01 to p<0.1.

Table 5. The random-effects feasible generalized least squares (FGLS) regression.

	Model 1 (AEM)		Model 2 (REM)	
VARIABLES	A	B	A	B
BCNDUAL	0.00601**	-	0.0205***	-
	(0.00290)	-	(0.00600)	-
BCNMEM	0.0101***	-	0.0124**	-
	(0.00295)	-	(0.00590)	-
BCRDUAL	-0.00900***	-	0.00258	-
	(0.00271)	-	(0.00583)	-
BCRMEM	-0.00239	-	-0.00435	-
	(0.00249)	-	(0.00499)	-
BCNINV		0.00706***		0.0181***
		(0.00233)		(0.00467)
BCRINV		-0.00459**		-0.00112
		(0.00222)		(0.00443)
BSIZE	-0.000473	-0.000594	1.45e-05	0.000175
	(0.000474)	(0.000482)	(0.00130)	(0.00127)
ACSIZE	-0.00344**	-0.00396**	-0.0122***	-0.0129***
	(0.00166)	(0.00161)	(0.00397)	(0.00399)
FSIZE	-0.00243***	-0.00225***	-0.0129***	-0.0128***
	(0.000477)	(0.000450)	(0.00133)	(0.00133)
LEV	0.000364***	0.000354***	0.000324**	0.000334**
	(6.14e-05)	(6.00e-05)	(0.000139)	(0.000140)
ROA	0.00138***	0.00138***	0.00208**	0.00206***
	(0.000364)	(0.000356)	(0.000812)	(0.000799)
Big4	-0.00296	-0.00371**	-0.000106	0.000851
	(0.00188)	(0.00186)	(0.00475)	(0.00469)
Conc5	-0.00631	-0.00656	0.0778***	0.0792***
	(0.00519)	(0.00515)	(0.0124)	(0.0124)
INDUS	-0.00138	-0.000608	0.0196***	0.0191***
	(0.00182)	(0.00175)	(0.00428)	(0.00427)
Constant	0.0796***	0.0804***	0.252***	0.250***
	(0.00832)	(0.00814)	(0.0169)	(0.0169)
Wald chi2	139.93	148.27	493.47	473.45
Prob > chi2	0.0000	0.0000	0.0000	0.0000
Observations	864	864	864	864
Number of ID	288	288	288	288

4. **Conclusion**

Studies have extensively investigated the influence of CG mechanisms, such as the board of directors and audit committee on EM. However, only a few studies have focused on the nomination and remuneration committees which are the cornerstones that determine the shape of CG mechanisms. The NC is responsible for appointment of high quality and independent directors, while the RC is responsible for setting an appropriate remuneration policy that encourages directors to monitor the management decisions effectively and be more independent. Therefore, this study attempts to investigate the influence of BC who are involved in the nomination and remuneration committees, either as chairpersons or as ordinary members, on EM.

The results of this study are in line with previous studies, which have claimed that independent directors are not genuinely independent and the criteria for selecting the independent directors need to be revised. It reveals that BCNDUAL, BCNMEM and BCNINV have a significant relationship with a higher level of AEM and REM. However, it is also revealed that BCRDUAL and BCNINV have a significant relationship with the lower

level of AEM. However, it does not have any relationship with REM. Lastly, it reveals that BCRMEM is not related to either the level of AEM nor REM. The findings of this study highlight the issue of BC who may dominate the board committees, which may help investors, shareholders and policymakers to improve the effectiveness of board committees, especially in countries with a high concentration of ownership.

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Examining The Factors That Influencing Students' Intention To Become An Accountant

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Abstract

Accounting profession has signified a huge demand from their accounting graduates primarily in Malaysia. However, only 33,000 people registered as professional accountants in Malaysia. This study is served with the objective to examine the factor influencing students' intention to become an accountant. Therefore, the proposed factors given are personal belief, career influencers and career exposure. This study had utilized the quantitative method approach in which data were collected through surveys among undergraduate accounting students from four (4) selected public universities in Malaysia. The statistical techniques applied in this study are Pearson correlation and multiple regression analysis via SPSS. From the research conducted, it has been proven that two of the independent variables, which includes "personal belief and career exposure" do have significant impact on students' intention to become an accountant, except for "career influencer".

Keywords: accountant; personal factors; career influencers; career exposure

1. Introduction

In Malaysia, the government has set the number of professional accountants required in order to achieve its target to be a high income economy in the future. However, the latest number of professional accountants that are registered with Malaysia Institute of Accountant (MIA) is still far behind the required target amount. Malaysian government anticipates their professional accountants' number would reach 60,000 by year 2020 (Bernama, 2017; Pim, 2017; Sani, 2016). In 2017, the number of registered accountants with Malaysia Institute of Accountant (MIA) is 33,000 with an increase of only 3,000 from 2015 (Bernama, 2017). The shortage of 27,000 is a huge number to achieve the target by 2020.

Although there are a huge number of students enrolled and graduated from accounting courses, but most of them does not become professional accountants after graduated. Finding from (Comunale, Sexton, & Gara, 2006) showed that accounting students are well-informed about the accounting scandals but understanding are absences from them about the accounting profession itself. To help in enhance the students' knowledge of the accounting profession, collaborations between professional bodies and higher institutions could be one of the way among all.

It is noticed that many researches were done towards the factors contributed to the low number of accounting students turn up as professional accountant. Lack of knowledge delivered by accounting educators about real

world accounting profession will affect the graduates' positive expectations (Siegel, Sorensen, Klammer, & Richtermeyer, 2010). Besides that, the accounting graduates in Malaysia found it complicated to fill in the membership form, high cost of membership, no additional benefits to their current employment, and lack of ambition to be professional accountants (Nasir, Ghani, & Said, 2009). In the meanwhile, there is lack of research done towards the reasons behind why accounting students opted not to select accounting as a profession.

Since there is a problem with the lack of professional accountants as compared to the thousands accounting graduates every year, it is important to find out what drives the students' intention to become an accountant. Since Malaysia are in the stage of maturity towards motivating level of career choice, thus, the factors that a considered to influence students in their career choice included personal beliefs, career influencers, and career exposure. This is also supported through a study done by Hutaibat (2012) in which it stated that students nowadays are able to make their own career choice without others interference. With that, this study hopes to assess more on the influences among these three factors that could contribute to the students' interest in choosing the accounting profession. As such, it is generally understood that is important to study and investigate the root causes and factors that contributing to this problem. Specific objectives and questions have been formulated to accomplish the goal of this study:

Research Objectives

The main objective of the study is to examine the factors influencing students' intention to become an accountant. The specific objectives are as follow:

i) To investigate the personal beliefs' influence on students' intention to become an accountant.
ii) To investigate the career influencers' influence on students' intention to become an accountant.
iii) To investigate the career exposure's influence on students' intention to become an accountant.

Research Questions

The research questions are developed according to research objectives in this paper. The specific questions are as follow:

i) Is there any relationship between personal beliefs and students' intention to become an accountant?
ii) Is there any relationship between career influencers and students' intention to become an accountant?
iii) Is there any relationship between career exposures and students' intention to become an accountant?

The study aimed to prove the relationship of each of these three variables towards students' intention to become an accountant. Furthermore, not much study has been done towards these influences on undergraduate accounting students' intention whether to be an accountant yet. Many have forsaken the importance of these variables and its possible side effect on accounting industry. Therefore, it is important for this study to be conducted in order to provide a suitable model or the importance criteria for professional bodies to refer, with regards to attract more students joining in accounting industry. With that, this study shall provide a closer view of responses among undergraduate accounting students regarding their perceptions on how the influence of these three variables will convince them to pursue accounting careers. Moreover, this study also able to indicate the important character of educators in developing an interest among students towards the accounting profession. Consequently, it able to determine the effectiveness of the career exposures among the educational institutions and also contributes to the role of professional bodies in giving career exposures and guidance to accounting students; and may this research paper would pose as a useful referral for future studies and research.

2. Literature Review

The literature review is a context whereby the understanding of the field of study and the variables related to the field of interest is manifested. Apart from that, this section would cover all the important supporting details in order to comprehend the current study which includes three major variables; they are personal beliefs, career influencers, and career exposure in which contributes to students' intention to become an accountant in professional bodies.

2.1 Students' Intention to Become An Accountant

(Bernama, 2017) in their news stated that Former second Finance Minister, Johari Abdul Ghani, noted that Malaysia aims to bring out 60,000 accountants by 2020, however as in 2017, there are only 33,000 people registered as professional accountants. As such, it would be better to recognize the criteria that able to contribute to student's intention to work as professional accountant. Job security, financial assistance and grit personality have a significant influence towards accounting students' intention in MARA institution to further professional qualification. (Abdul Aziz et al., 2017) In this case, according to Alanezi, Alfraih, Haddad, & Altaher (2016), career opportunities, prestige and earning potential are in the top five most crucial causes why graduates in Kuwait choose the accounting major. In addition, a study from Jackling, de Lange, Phillips, and Sewell (2012) mentioned that international and local students in Australia be of the same mind that accounting profession has its own prestige. Other than that, a recent study from Zotorvie (2016) found out most of the respondents from his study perceived the most important factor in leading their interest as accountant is the job prospects. He also mentioned that job prospect components are the respondents' expectation to obtain high incomes and the availability of jobs where the prestige is attached to the accounting profession. Apart from that, salary might be one of the consideration as well, according to a research from Muhammad, Mohd. Sallleh and Mohd Nordin (2016), salary plays a main factor in UPM's students' career decision and together with claimed career benefit.

2.2 Factors Influencing Students' Intention

There are many factors could influence students' intention in their career choice. A study carried out in Turkish University by Uyar, Gungormus, andn Kuzey (2011) noted that both internal and external determinants are the main criteria that led to students carer choice in accounting. As results from various study and research, this paper chooses to investigate only three factors which are personal beliefs, career influencers and career exposure with adopted by the theory of reasoned action model.

2.3 Personal Beliefs

Generally, personal beliefs are similar to attitude where it defined by Fishbein and Aizen (1975) as personal feelings of someone which affects their behaviour either in a positive or negative condition. Furthermore, Ahmad, Ismail, and Anantharaman (2015) had already conducted a study on the criteria that is important in defining the student intention in choosing their career path in the context of Malaysia. In their research, they found the most influential factor for accounting students to pursue career in accounting profession is the intrinsic interest as they become more interested in the accounting subject itself. The recent study by Ng, Lai, Su, Yap, Teoh, and Lee (2017) on private universities' students in Malaysia found that students' choice of career path is parallel with their intrinsic motivation.

2.4 Career Influencers

A career influencer is defined as a person or group who can influence one's career decision making. The term can refer to family, friend, educators, counsellors, media or society (Ahmad et al., 2015; Ghani, Said, Nasir, & Jusoff, 2008; Ng et al., 2017; Odia & Ogiedu, 2013). Moreover, career influencers are similar to subjective norms where it is defined by Fishbein and Ajzen (1975) as the belief where specific person or group believes they should or should not perform such behaviour. Ahmad et al. (2015) told that an education institution play a significant role in being an liaison of career socialisation for accounting students. Besides that, family and friends' advice are least important in influencing students' decision to further an accounting major in Kuwait. (Alanezi et al., 2016). Family members who are working in an accounting position, such as accountants and auditors, play a major part in affecting school students to study accounting at universities (Jaaffar et al., 2017). Apart from that, Saleem et al. (2014) also found that media influence is crucial with people's career decision. According to Zotorvie (2016), advertisements, peers, parents and family members are literally the least significant career influencers. A research on public universities' students in Malaysia found that students mostly attained their career influencers from family, public or society and their educators (Ghani et al., 2008).

2.4 Career Exposure

Career exposure is defined as an event or program that is held by a group of people or organization to provide clear views and opportunities about the respective careers. According Ng et al. (2017), career exposure is an exposure to students regarding career related information. Odia and Ogiedu (2013) explained that accounting personalities need to be exposed to students by demonstrating their career profiles and contributions in all aspects to attract accounting graduates in the profession. Jaaffar et al. (2017) identified that career talks and

seminars are important in influencing school students to study in accounting stream but at a lower level. Among the accounting students in private universities in Malaysia, career exposure is perceived to have a positive relationship with career path (Ng et al., 2017). According to Hutaibat (2012), collaboration between professional bodies and academic institutions could affect students' career path.

2.5 The Theory of Reasoned Action

A relevant model for examining this study is known as the theory of Reasoned Action model that was developed by Fishbein and Ajzen (1975). The model for this theory can be seen in Figure 2.1. According to this theory, behaviour is the act that is performed based on behavioural intentions while intention is determined by the individual's attitude and subjective norms in relation to the behaviour. In particular, attitude is explained as the personal feelings of someone which is able to affecting their behaviour in positive or negative condition. Meanwhile, Belief is defined from subjective norm where a specific person think should or should not have such behaviour.

There are some accounting education literatures that have applied the theory of Reasoned Action as well (e.g. Amin, Rahman, & Ramayah, 2009; Felton et al., 1995; Jackling et al., 2012; Law & Yuen, 2012; Law, 2010). Felton et al. (1995) used the theory of Reasoned Action model to predict a choice of a chartered accountant job among graduating business students. Their findings concluded that the attitude towards a chartered accountant career is significant with the business students' decision to further a chartered accounting job. Also, A study conducted by Law (2010) in his study indicated that intrinsic factors and parental influence are significant in influencing accounting students' decision in choosing a career in public accounting.

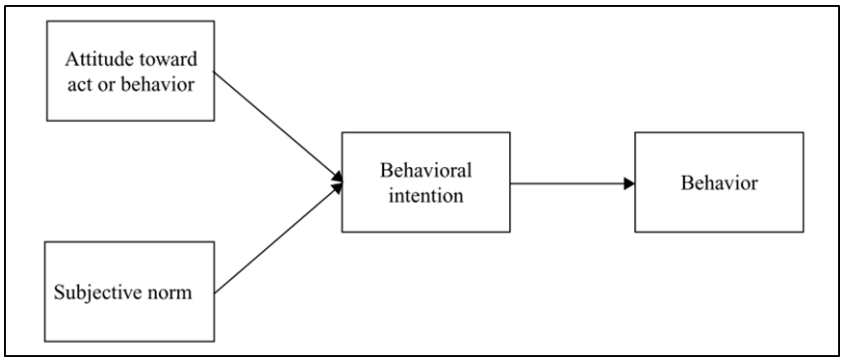


Figure 2.1: Theory of Reasoned Action Model
Source: Fishbein and Ajzen (1975)

Therefore, by applying the theory of Reasoned Action model, personal beliefs can be considered as the attitude of a student towards his behaviour, career influencers can be determining as a subjective norm, while career exposure acts as an additional factor to meet the objectives of this study. The research framework is presented in Figure 2.2.

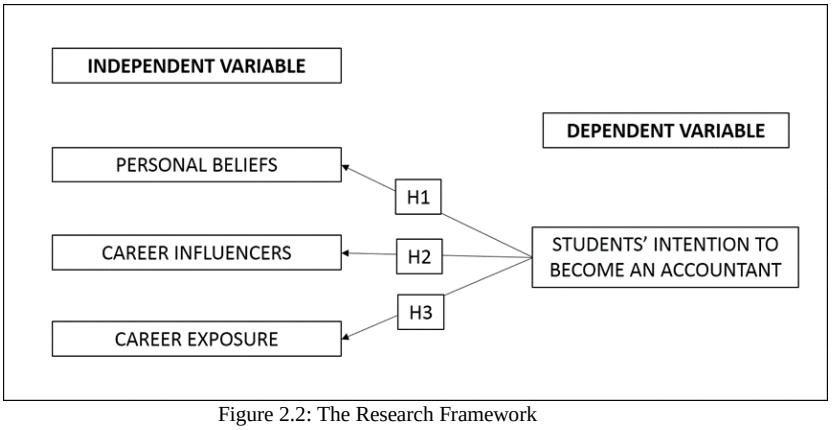


Figure 2.2: The Research Framework

The framework of this study shows the relationship between the independent variables (personal beliefs, career influencers and career exposure) and the dependent variable (students' intention to become an accountant). It is crucial that the variables be well understood before developing the hypotheses. The proposed hypothesis given as:

H1 – *There is a significant positive relationship between personal beliefs and students' intention to become an accountant*

H2 – *There is a significant positive relationship between career influencers and students' intention to become an accountant*

H3 – *There is a significant positive relationship between career exposure and students' intention to become an accountant*

With that, the elements of independent variables and dependent variables may be integrated in create a significant study for accounting profession industry in Malaysia.

3. Methodology

Based on the literature review, a research framework has been formulated. The framework shall manifest and determine the possible interrelationship between independent variables; which is personal beliefs, career influencers and career exposure, and dependent variables; which is students' intention to become an accountant.

There are three parts consider in the process to develop the questionnaire. Section A of the questionnaire would mainly consist of demographic questions. This section would enable a better understanding on the background of the respondents and obtain a vague impression on the respondent's level of understanding towards the study topic and its focal point. Section B would consist of questions which are asked about their perceptions on their intention to become accountants. Section C would be section which consists of questions related to each independent variable. This section would be divided into three subsections which represents each independent variable used in this study.

As for the survey distribution, the sample size targeted would be 400 respondents. From the 400 respondents selected, only 330 responses were received, bringing the response rate to 83 percent. Therefore, the sample size is considered acceptable for this study. In this study, the target respondents are the bachelor's degree undergraduate accounting students who are from the first to the final year. The respondents were selected randomly from four (4) main public universities in Malaysia which are Universiti Teknologi MARA (UiTM), Universiti Kebangsaan Malaysia (UKM), Universiti Malaysia Sabah (UMS) and Universiti Sultan Zainal Abidin (UniSZA). These 4 main public universities were selected to represent the regional areas of Malaysia. UiTM and UKM represented the west coast region of Peninsular Malaysia; UnisZa represented the east coast region of Peninsular Malaysia and UMS represented the region of East Malaysia.

This study used primary source of data collected using self-administered questionnaires. Google Form was used as online tools to generate a survey link. In this study, a categorical form was applied in section A, whereby a five-point Likert scale was applied in section B and C respectively. The detail of the 5-point Likert scale measurement is shown in Table 3.1 below.

Table 3.1: Measurement of 5-point Likert Scale

Code	Description
1	Strongly disagree
2	Disagree
3	Neither agree nor disagree
4	Agree
5	Strongly agree

The measurement and analysis method that is applied shall consist of reliability test, descriptive analysis, correlation analysis and multiple linear regression. A reliability test is implement with the purpose to measure the internal consistency and identify whether each item in the instrument measures the similar element. In this study, there were ten statements for the dependent variable (students' intention) and fifteen statements for

independent variables which consisted of personal beliefs (five statements), career influencers (five statements) and career exposure (five statements). Apart from that, normality test is used in determining whether the sample data collected are normally distributed or not. If the data are normally distributed, parametric-test should be used, but if the data are not normally distributed, the non-parametric test should be used. Correlation analysis was conducted on the independent variables and dependent variables of this study to determine their relationship. A positive correlation indicates the extent to which both of the variables are going in the same way, increase or decrease in parallel. A negative correlation indicates the extent to which both of the variables are going the opposite way of each other. Last but not least, regression analysis is a set of statistical processes used to estimate the relationship among variables. The impact of the independent variable's changes on dependent variable can be verified. All data obtained shall be derived into a valid form of data which would consider as the determinant in the entire study.

4. Results and Analysis

This study distributed 400 questionnaires to selected four (4) public universities in Malaysia. However, only 330 responses received for 83% response rate.

The four independent variable were tested for their relationship with student's intention to become an accountant. From the study it was found that a positive and significant relationship exist between all variables. However, from the result in Table 3, Pearson correlation test shows that career influencers has a weak correlation with student's intentions to become an accountant at a value of 0.333. In order to make sure that the career influencer has strong relationship r value has to be more that 0. 5. Based on the analysis, the result also showed that personal believe and career exposure has a positive strong relationship with students intention to become an accountant. Personal believe showed a result of 0.690 and 0.596 for career exposure at a significant level of 0.01. Overall, when conducting a person correlation analysis all variable are positively correlated with student's intention to become an accountant.

Table 3: Correlation between Variable

		PB	CI	CE	Student Intention
Personal belief	Pearson Correlation	1			0.690
	Significance level, P				0.000
Career Influencers	Pearson Correlation	0.319	1		0.333
	Significance level, P	0.000			0.000
Career Exposure	Pearson Correlation	0.484	0.350	1	0.596
	Significance level, P	0.000	0.000		0.000
Student Intention	Pearson Correlation	0.690	0.333	0.596	1
	Significance level, P	0.000	0.000	0.000	

*Correlation is significant at the 0.01 level (2 tailed)

Table 4: Regression Analysis

	B	t-stat	p-value	Collinearity Statistics	
				Tolerance	VIF
(Constant)	1.248	8.730	0.000		
Personal Beliefs	0.378	12.143	0.000	0.740	1.351
Career Influencers	0.037	1.386	0.167	0.848	1.179
Career Exposure	0.296	7.648	0.000	0.723	1.384
R^2		**0.568**			
Adjusted R^2		**0.564**			

All the variables are also tested using multiple regression analysis in determining the relationship between variables. Results in table 4 showed that personal belief and career exposure has a positive significance relationship with student's intention to become an accountant. The p value of 0.000 which is less than 0.001 indicates that personal believe and career exposure are highly related to student's intention to become an accountants. Therefore H1 and H3 are accepted. However based on the analysis, career influencer shows a negative relationship with student's intention to become an accountant with a p value 0.167 which is more than 0.05,thus H2 is rejected

5. Discussion and Conclusion

In conclusion, 330 respondents of students from four (4) public universities were surveyed in this study. It was found that majorities of the students choose to become an accountant with the highest rate of 19.7%. The findings of this study revealed that personal beliefs has led to the students' tendency to become accountants among the undergraduate accounting students within Malaysia's public universities. Most of the students prefer to choose accountant as their career choice because they believe that this profession plays a lot with numbers and calculation. Thus, when they believe that they are good at calculation and think that accounting is an interesting area to pursue in future, the inclination to be an accountant among them becomes greater. Ahmad et al. (2015 noted that Malaysian accounting students choose accounting career as one of their career path because they believe that accounting are interesting subject to study at university, and when they also believe that they are good at calculation. Ng et al. (2017) also found that intrinsic motivation is one of the main factor in choosing career path among private university's students in Malaysia. Through a study done by Zotorvie (2016) among students in the Institute of Chartered Accountants in Ghana found that in choosing career path, personal interest is one of the important criteria that need to consider. This research study also found that there is a positive relationship between career exposure and students' intention to become an accountant. This finding is in-line with the earlier study done by Hutaibat (2012) who mentioned that academic institutions should collaborate with professional bodies in order to influence the students with their career path. Student's involvement in attending the career exposure will help them in increase their knowledge on the chosen career profile. Ng et al., 2017, noted that positive relationship exist between students career path and career exposures organised by universities and with the involvement of professional bodies. This is supported through a study done by Said et al. (2004) which believe that respondents choose public accounting as their preference career when they first attending a career exposure activities conducted by professional bodies. Results also showed that career influencer has weak or low positive with the student's intention to become an accountant. This positive weak relationship implied that career influencer factor was considered to be less important determinant that influenced student's intention to become an accountant. This finding supports the research done by Zotorvie (2016) which explained that advertisements, peers, parents and family members seemed to be the least important as career influencers because students nowadays are able to make their own decisions on what they want to be without others' interference. Hutaibat (2012) also argued that the ability and interest of the students to make their own career decision led to the negative influence from persons who want them to choose accounting as a career.

Limitations and Recommendation for Future Research

Although the research had achieved its aims, the reader is cautioned that this research has some limitation due to time constraint. This study was assessed solely on accounting undergraduate students form only four (4) public university in Malaysia. Therefore, it is suggested that this study could be expanded to both private and public universities in Malaysia by focusing only final year accounting students. A larger population would enable a sample to represent wider and more different perceptions of the students since they come from two different types of universities. The main objectives of this study were to investigate the factors influencing students' intention to become an accountant among accounting students in several public universities in Malaysia. However, the factors were only limited to only three (3) categories which are personal beliefs, career influencers and career exposure. There could be other factors that may influence the students' intention in choosing accounting as a career rather than only leaning on those three factors.

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Applicability of Malaysian Financial Reporting Standards to Islamic Financial Transactions of Islamic Banks in Malaysia

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Abstract

This study aims to explore the applicability of the Malaysian Financial Reporting Standards (MFRS) for recording the Islamic financial transactions of Islamic banks. Specifically, it attempts to evaluate the extent of applicability based on consistency, applicability and adequacy of the accounting standards for reporting the nature and substance of ijarah, murabahah, musyarakah and tawarruq contracts. A multiple case study of two domestic full-fledged Islamic banks in Malaysia is utilised to understand the extent of the MFRS applicability. Semi- structured interviews with academicians, members of shariah advisory council, bank financial officers contributed the main source of empirical evidence. The study reveals the three major themes, which are recording of the four transactions is not consistent with the substance and form of the contract, the disclosure of transactions is not adequate and finally, the standards for reporting the Islamic financial transactions need to be different. This research will be beneficial to the stakeholder of the Islamic bank.

Keywords: Malaysian Financial Reporting Standards, Islamic banks, Ijarah, Murabahah, Musyarakah, Tawarruq

1. **Introduction**

Islamic financial institutions are dominated by Islamic banks (Sarea & Mohd Hanefah, 2013). The expansion of Islamic banking is not confined to just Muslim majority countries, but has spread throughout the world including western countries. Malaysia has become one of the most successful countries which practise Islamic banking (Loke & Thaker, 2017) and Malaysia's version of the Islamic banking and finance (IBF) is an exemplar to the other countries (Ariff, 2017).

The remarkable growth of Islamic banking reinforces the need for reporting transactions and presenting financial statements in accordance with the Shariah principles (Mohammed, Fahmi, & Ahmad, 2015). On top of that, Islamic banking success depends on the extent of public trust, specifically the trust of depositors and investors. Whereby, trust in Islamic banks relates to the extent of adherence to Shariah (Tag Ei-Din, 2004). Furthermore, Tag Ei-Din (2004) highlights that the major source of public confidence depends on the quality of information disclosed by the bank regarding its ability to achieve both financial and Shariah objectives. In addition, the nature of Islamic bank transactions should be reflected through the financial reporting. As accounting is a social institution which should reflect the distinction of its society (Shahul Hameed & Yaya, 2005), there is a need for accounting and reporting standards that specifically capture the essence of Islamic business practices (Mirza & Baydoun, 1999) (Uddin, 2012).

In spite of only 17 years of its establishment the expansion of International Financial Reporting Standards (IFRS). within this period is remarkable. IFRS has been accepted as a global financial reporting standard and is the lingua franca of the international accounting world (Mohammed et al., 2015). Currently, 116 countries

worldwide have adopted IFRS and 24 other countries have prepared to converge their accounting standards with IFRS (Singh & Inder, 2017). Besides, many Islamic financial institutions use this global accounting language by choice (ACCA & KPMG, 2012). Therefore, it is difficult for a country like Malaysia with the western heritage background to adopt any other accounting standards, such as the Accounting Auditing Organization for Islamic Financial Institutions (AAOIFI) standards (Mohammed et al., 2015). Altarawneh & Lucas (2012) argue that the economic dependency on developed Western nations as the most significant reason for adopting IFRS especially in developing countries.

In Malaysia, the convergence to IFRS-compliant Malaysia Financial Reporting Standards (MFRS) has been effected since 1 January 2012 without any exception, even for the Islamic financial institutions. With this convergence to IFRS, the Islamic institutions in Malaysia including the Islamic banks had no choice but to adopt MFRS. Although convergence is desirable to enhance legitimacy in the global market (Irvine, 2008), the suitability of MFRS is being questioned due to their inability to cater to the unique characteristics of Islamic financial transactions (Abdullah, 2018; Ahmed, Sabirzyanov, & Rosman, 2016; Hidayat, 2016; Hussan & Sulaiman, 2016; Kholvadia, 2017; Shafii & Abdul Rahman, 2016). Scholars and practitioners continue to debate on the more appropriate accounting standards for Islamic banks (Hussan & Sulaiman, 2016). Thus, this study which focuses on the applicability of the IFRS to Islamic financial transactions remains relevant and is warranted (AOSSG, 2018).

Given the above background, this study aims to explore the applicability of MFRS to Islamic financial transactions. Since murabahah, ijarah, musyarakah and tawarruq are amongst the Islamic financial transactions that have their economic substance significantly different from their legal form (Fa-Yusuf & Ndiaye, 2017; Kholvadia, 2017), this study focuses on the consistency, applicability and the adequacy of the accounting policies under MFRS for these four financial transactions.

The remainder of this paper is organised as follows. Section 2 provides a brief overview on the Islamic financial transactions of the Islamic banking in Malaysia. The subsequent section discusses the relationship between maqasid Shariah and the financial reporting and the applicability of the MFRS to Islamic financial transactions. Followed by sections on research method, discussion of findings and conclusion.

2. **Overview of Islamic Banking in Malaysia**

Malaysia practices a dual banking system whereby Islamic banking operates side by side with its long-established conventional counterparts. Malaysia spearheads the dual banking system and become an example to other Muslim countries. A dual banking system boosts competition (Tag Ei-Din & Abdullah, 2007), however, the intense competition becomes the main reason for Islamic banking to mimick conventional banking (Ariff & Rosly, 2011; Chong & Liu, 2009). As a result, the clientele of Islamic products are convinced that Islamic products are similar to conventional products (Al-Salem, 2009). Chong & Liu (2009), claim that, Islamic banks are similar to the conventional banks in their operations. Meanwhile, (Ariff, 2017) identifies three ways in which both types of banks are similar, namely (a) Islamic bank products closely resemble conventional bank products, (b) Islamic banks follow conventional bank benchmarks in product pricing and (c) Islamic banks behave like conventional banks with hardly any risk sharing.

However, Islamic banks in reality are different from the conventional banks in terms of their operations and philosophies, Shariah is the foundation of the establishment of the Islamic banks (Ariff, 2017; Engku Ali & Oseni, 2017; Maali & Napier, 2010; Ryu, Piao, & Nami, 2012; Ullah, 2014; Wan Ibrahim & Ismail, 2015). Thus, the legitimacy of Islamic banking hinges on the extent of its Shariah compliance. In order to fulfill the Islamic client needs, Islamic banks have to use various techniques in developing products that comply with Shariah. These techniques rely primarily on the contract form and language and maqasid Shariah, instead of economic substance of the transactions (Atmeh & Maali, 2017). Atmeh & Maali (2017) identify two techniques used by the Islamic banks, which are the combination of contracts and the inclusion of donation (Tabarru) in commercial contracts. Sharul Azman Abd Razak (2016, p.) define the combination of contracts as '*a process of combining two or more contracts in a single arrangement, where the contracts combined may have different legal consequences, which must be honoured in order to prevent the combination from being declared as void and null combination*'. But by combining these contracts, the end result produces Islamic financial transactions which appear similar to the conventional transactions.

An example of such Islamic financial transaction is murabahah, which is widely discussed (Ahmed et al., 2016; Ibrahim & Ling, 2016; Wulandari, Putri, Kassim, & Sulung, 2016) and used by the Islamic banks. Murabahah is a sale of commodity, whereby both the price and profit are made known in advance by the seller to the buyer (Lahsasna, 2014). Additional contract has to be designed to provide the financing facility. According to Bank Negara Malaysia (2013), murabahah to the purchase orderer (MPO) refers to an arrangement whereby the purchase orderer (purchaser) promises (wa`d) to purchase an identified and specified asset from a

seller on murabahah terms upon the latter's acquisition of the asset. MPO is the most common practice in the Islamic banking (Ahmed et al., 2016).

Another example for the combination of contracts is in ijarah whilst contentiously debated in the literature (for e.g. Atmeh & Abu-Serdaneh, 2012; Atmeh & Maali, 2017; Hussan & Sulaiman, 2016; Namrata Gupta, 2015). Ijarah is a sale of the right to use the property, where the property belongs to the lessor and the right to use is transferred to the lessee. Ijarah is not a mode of financing in its origin (Usmani, 2006). To add the financing facility to ijarah, the Ijarah muntahia bittamleek is introduced, which involves both the lease and sale contracts. With ijarah muntahia bittamleek, the customer is given an option to acquire the leased assets at the end of the lease tenure. Meanwhile, musyarakah is a contract of partnership to finance a particular business joint venture (Bank Negara Malaysia, 2010) and musyarakah mutanaqisah has been developed to offer Islamic house financing. Musyarakah mutanaqisah is a combination of several contracts namely ijarah, sale and musyarakah (Loke & Thaker, 2017). Bank Negara Malaysia (2015) describes tawarruq as consisting of two sale and purchase contracts where the first involves the sale of an asset to a purchaser on a deferred basis and the subsequent sale involves sale of the asset to a third party on a cash basis. Although tawarruq raises controversy (Fa-Yusuf & Ndiaye, 2017), Bank Negara Malaysia has allowed tawarruq to be offered by Islamic banks. Table 1 below summarises the different contracts discussed earlier and displays the combination of contracts that resulted in the appearance of similarity with their respective conventional products.

Table 1: The similarity of the Islamic financial transactions with the conventional products

Type of contract	Combination of contract	Result in combination	Conventional product
Murabahah	Purchase and sale	Murabahah purchase orderer (MPO)	Fixed-rate home loans
Ijarah	Lease and sale	Ijarah muntahia bittamleek	Leasing
Musyarakah	Sharing, lease and sale	Musyarakah mutanaqisah	Floating-rate home loans
Tawarruq	Two sale and purchase	Tawarruq/commodity murabahah	Personal loans

Source: Ariff (2017)

3. **Literature Review**

3.1 Maqasid Shariah and Financial Reporting

The Maqasid Shariah philosophy was established by several prominent Islamic scholars, such as Imam al-Ghazali, Imam al-Shatibi and Ibn Ashur. These scholars have agreed that the ultimate objective of maqasid Shariah is to serve the interests of all human beings and to save them from harm. Maqasid Shariah can be categorised into three kinds namely, necessities (*daruriyat*), complementary (*hajjiyat*) and embellishment (*tahsiniyat*). *Daruriyat* is the first category that should be fulfilled before to the second category *hajjiyat* and the third *tahsiniyat*. If *daruriyat* is not fulfilled first, the social order of the community would be destructed (Ibn Ashur, 2006). Al-Ghazali in Dusuki & Bouheraoua (2011) explain that *daruriyat* comprises the safeguarding of faith (*din*), lives (*nafs*), intellect (*ʿaql*), posterity (*nasl*), and wealth (*mal*). The second category, *hajjiyat*, consists of what is needed to achieve the proper functioning of the community. The community will suffer distress and hardship if this category is not fulfilled (Ibn Ashur, 2006). According to Ibn Ashur (2006) the social transactions (*muamalat*) such as sale and leasing fall under this category. Whereas, *tahsiniyat* consists of what leads to the perfection of the community's condition in order to achieve a peaceful life.

Ibn Ashur (2006) highlights that, Maqasid Shariah can be applied to all types of economic wealth which involves marketability (*rawaj*) entails fair circulation of wealth, transparent (*wuduh*), preservation (*hifz*), durability (*thabat*) and equity (*ʿadl*). Maqasid Shariah is widely applied in various fields, including finance and economic (Shinkafi & Ali, 2017). Further, Laldin & Furqani (2013) urge to adopt Maqasid Shariah as an indispensable framework for the directional guideline for further development in financial reporting for Islamic banks. However, Maqasid Shariah is not widely discussed in accounting and reporting. The relationship between Maqasid Shariah and financial reporting of Islamic financial transactions is important since both financial reporting and Maqasid Shariah share the common objective of providing benefits to users of financial statements. Besides *aqd* (contract) and legal documentation, Rosly (2010) argues that Maqasid Shariah and financial reporting should complement one another in achieving Shariah compliance of Islamic financial transactions. Alim (2014) stresses that Maqasid Shariah can be used as indicators in providing financial information to the stakeholders.

3.2 Applicability of MFRS to Islamic financial transactions

Full compliance with MFRS is mandatory for Islamic banks in their financial reporting their products and transactions in Malaysia. According to MASB (2012), there is generally no Shariah restrictions to applying MASB approved accounting standards to Islamic financial transactions. In addition the proponents of the MFRS believe that Islamic financial transactions is similar to conventional products and suggest the Islamic banking should be regulated and supervised in a similar manner as conventional banks (Chong & Liu, 2009). However, full application of MFRS is inadequate to disclose Shariah-compliance requirement since the contractual relationship between Islamic banks and their clients are different from conventional banks (Hidayat, 2016). Unlike conventional banks, Islamic banks cannot receive or pay interest and use different contracts to earn profit. For instance, contracts are adopted in ijarah, murabahah, musyarakah and tawarruq for providing financing facility to the customer.

Shafii & Abdul Rahman (2016) argue that Islamic banking needs accounting and reporting requirements that adequately addressed the unique Islamic financial transactions to ensure stability and sustainable growth of the industry. Their study which focuses on the application of MFRS9 for Islamic financial assets and the concerns of Shariah on the use of fair value to measure financial assets found that the classification and measurement of equity-based Islamic financial assets do not fit into the "default" classification category of amortised cost such as musyarakah contract. In addition, they highlight the Shariah's concern with the adoption of fair value, for instance murabahah, due to the existence of the uncertainty *(gharar)* while employing the discounted cash flow method in asset valuation. According to Gharbi (2016), the use of reference rate obtained in non-Islamic financial system is inappropriate from the Islamic perspective and has suggested nominal gross domestic product (NGDP) growth rate as an alternative benchmark for the Islamic financial transactions.

Meanwhile, Ibrahim & Ling (2016) question the ability of MFRS to accommodate some of the distinctive nature, transactions, and practices of Islamic banks, for instance murabahah. According to the nature of murabahah which is sale-based trading contract, Ibrahim & Ling (2016) suggest that, MFRS102 Inventories, MFRS118 Revenue Recognition, and MFRS9 Financial Instruments should be adopted. As a result, the financial statements of Islamic banking seem to be similar with the financial statements of commercial companies. Consequently, account titles such as inventories, the cost of sales, and sales revenue exist. However, Islamic banking only adopts the MFRS9 because murabahah is treated as a financing facility. The use of MFRS tends to deviate from what should be the financial reporting practices for murabahah facility (Ibrahim & Ling, 2016). Further, Ibrahim & Ling (2016) conclude that in the long term, the Islamic banks need distinct accounting standards. Ahmed et al. (2016) emphasize that IFRS-based financial reporting could resulted in poor representational financial reporting due to its inability to capture the distinctive structure of the Islamic financial transactions.

In South Africa, Kholvadia (2017) stresses the economic substance of Islamic banking transactions which focus on deposit products of qard and mudarabah and financing products of murabahah, ijarah and diminishing musyarakah. The study found that the economics of the products are not similar to its legal form and instead close to conventional financing transactions. However, the respondents of the study perceive that the legal structure and economic substance do not necessarily demand the same answers and are independent of each other. Meanwhile, (Atmeh & Maali, 2017) explores the effect of the substance over form concept on the financial statements for linked transactions (combination contracts) and leases which focus on murabahah and ijarah muntahia bittamleek. Mixed results are found in murabahah where the economic substance is reported in the financial reports, while for ijarah muntahia bittamleek, the legal form of the contract is reported. Therefore, this results in ambiguities which may hinder the faithful representation of the financial statements. In addition, (Karim, 2001) emphasises that in the context of Islamic banking, a faithful representation of accounting information necessitates that the Islamic financial transactions are accounted for and presented in accordance with the substance as well as form of the underlying Shariah contracts.

To conclude this section, the full adoption of MFRS is inadequate for reporting the Islamic financial transactions. Thus, the distinct characteristic of the Islamic financial transactions should be accounted for accordingly to achieve the faithful presentation. This study explores the applicability of MFRS in reporting the distinct characteristics of murabahah, ijarah and musyarakah and the tawarruq contracts.

4. **Research Method**

This study adopts the qualitative research approach because the study aims to explore the applicability of Islamic transactions, especially murabahah, ijarah, musyarakah and tawarruq disclosure under MFRS. A qualitative study enables the researcher to obtain primary information in a natural setting in which a detailed

understanding of the issue could only be gathered by discussing directly with people (Creswell, 2007). In order to achieve the objective of the study, the present study adopts the case study. The researcher believes that the case study method can provide a richer and deeper understanding of accounting practices in Islamic banking. The multiple sources of data such as interviews which include semi-structured interviews, observation and documents to examine the problem by seeking the experiences of the individuals who are directly involved in the reporting process.

Since this is an exploratory study, semi-structured face-to-face interview is the primary source of data collection method. Furthermore, there is no structured process of collecting and analysing data and the changes are accommodated as and when unexpected issues arose. This study uses the purposeful sampling method in selecting the participant for the interview, since the method could directly reflect the purpose of the study and guide in the identification of information (Merriam, 2009).

This study conducts interviews with two bank financial officers from two different banks, two Islamic accounting scholars and one Shariah scholar. They are chosen based on their relevant knowledge, skills and experience. Together they can provide a multiple and broader perspective on the same topic which can be a basis of triangulation in administering for reliability and validity of the study. Meanwhile, for the research instrument for the study is the researcher herself, since the researcher involved physically in the field to collect data and communicated with the informants. This direct involvement allows the researcher to experience and search the meaning of the information in the real environment rather than through imagination (Merriam, 2009).

5. **Discussion of Findings**

Generally the interviewees were asked to express their views on the extent to which the MFRS are able to produce a faithful representation of the Islamic financial transactions such as ijarah, musyarakah, murabahah and tawarruq. This section provides the evidences in terms of interview excerpts on the reporting practices of these four financial transactions.

MFRS is legally mandatory for the Islamic banks in Malaysia and thus, the Islamic banks have to apply MFRS:

[…] all products and transaction that we have, we need to find a suitable accounting application for it under MFRS. We cannot say that there is none. Therefore, we used others. We cannot. […] Because the moment you modify, there are elements that you are not following the accounting standards and under the law that is wrong. Under the law we are required to prepare the financial statements in full compliance with the Malaysian Financial Reporting Standards. (Interviewee 1)

Interviewee 1 above has highlighted that there is no flexibility in applying MFRS for Islamic financial transactions of Islamic banks. As a result, the financial reporting using MFRS has not been able to capture the underlying substance of the Islamic financial contracts. The explanation on this applicability of MFRS is given by interviewee 4 below:

For tawarruq, which is buy and sell, it involves buy and sell and base on commodity. Currently, we apply MFRS9 as a financing, but if you treat buy and sell, then, there will be MFRS102 because there is buying of inventory, so MFRS102 will be relevant, if selling inventory, MFRS118 is applicable, so are you going to do that? Nobody is doing it […] So if you call it as inventory so automatically MFRS102 can be applied, so if you say MFRS102 applies, then, it will treated as inventory, so, if you have inventory in the year, so you have reflect it in the book, and you also has to disclose the necessary details as required under MFRS102. So, for tawarruq maybe, MFRS102, MFRS118 and maybe also financial instrument MFRS9 on how receivable will be treated. So three different standards. But the problem is, as far as I know, no one is really saying that, no one is really applying these three standards. Most banks are following MFRS9 only, just one. (Interviewee 4)

If we look at MFRS118 on revenue, even there is a discussion about these two issues (buy and sell plus financing), that a sale may involve financing element, so there can be sale which may also involve financing element, it doesn't say to ignore the sale completely, no it's like sale plus financing. So in murabahah, or in tawarruq, this sale plus financing is happening, so we need to consider sale as well as financing. But, what is nowadays is that we totally ignore sale and only think about the financing. Like ijarah for example, the contract is ijarah, but we treat it as a fully financing transaction. (Interviewee 4)

However, Interviewee 4 stresses the need for more disclosure of the Islamic financial transactions in notes to the financial statements:

We can apply MFRS, of course to the full extent, but have some arrangements to disclose in the note section. (Interviewee 4)

The financial reporting of musyarakah, as it is, captures the business financing activity but unable to report the operations of buying and selling:

[…] business financing under musyarakah for example […]. But at the end of the day, this is all bank's asset. Because the bank gives an advance to the customer, or finance all activity […] in that manner debt process […] in terms of buy and sell, so that is all in the operations […] is not reported in the financial reporting. (Interviewee 2)

Besides, Interviewee 3 argued that MFRS is not adequate to cater the substance of the Islamic financial transactions:

[…] we can use MFRS as long as the use of MFRS will compromise the integrity (essence) of the Islamic financial transactions, the integrity. Why I say the integrity of Islamic transactions, an Islamic financial transaction is not just in compliant to Shariah without riba, but we have to understand that the Islamic financial product is not similar […] to the conventional products. (Interviewee 3)

The following interview excerpts are important to strengthen the argument that Islamic financial transactions are similar but at the same time they are different. The MFRS will never be able to cater and capture the uniqueness or the differences in the nature of the Islamic financial transactions in banks. These evidences suggest that there is an important and unfulfilled need to adopt standards that is able to capture the essence of Islamic financial transactions.

I'm not against MFRS, but MFRS will never be able to capture the essence of Islamic financial transactions. Because in MFRS, for example, there is no provision for ijarah, it's all leasing. (Interviewee 3)

Islamic banks need a space to say that we are different. Because if that space is not entertained, our financial report does not reflect the true thing. MFRS when they prescribe accounting standards, they prescribe based on the conventional, when Islamic, definitely there are differences, we really need to be different, accounting wise (Interviewee 3)

In my opinion, I would say that the recording must reflect the Shariah contract. (Interviewee 4)

We want the whole value chain to reflect the total Shariah-compliance requirements, not only you record from transaction point of view, but how you record in the book have to be in line with how Shariah perceives the contract. Only then it is easier for us to detach ourselves from the conventional cocoon. (Interviewee 5)

Whereas, Islamic banks have murabahah, we have ijarah, we have musyarakah, … they have different features. (Interviewee 5)

The structure of Islamic products looks similar to the conventional. We didn't say that they are the same, it's not the same although they look similar to conventional. (Interviewee 1)

6. **Conclusion**

This preliminary findings reveal three major themes on the financial reporting practices of Islamic financial transactions using MFRS by Islamic banks. These themes are on the recording which is not consistent with the substance and form of the contract, the disclosure of transactions is not adequate and the needs for different accountings standards to cater to the uniqueness of the Islamic financial transactions. Thus, these findings warrant the urgent need to explain the extent of applicability based on consistency, applicability and adequacy of the accounting standards for reporting the nature of and substance of ijarah, murabahah, musyarakah and tawarruq contracts. By further investigating these themes or concerns, the disclosure of information pertinent to these contracts can be improved and enhance the quality of decision making by the different users of the financial statements.

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CSR Disclosure and Corporate Governance: A Study of GCC Islamic Banks

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Abstract

The main objective of this research is to analyse the CSR disclosure level and its determinants of Islamic banks in GCC (Gulf Countries Council consists of Qatar, United Arab Emirates, Saudi Arabia, Kuwait, Oman and Bahrain) through their CSR disclosure practices. In fulfilling the research aims, annual reports of GCC Islamic banks for the period 2010- 2014 is analysed using content analysis, which involves 195 observations. Then, the CSR disclosure index is constructed based on 11 dimensions adapted AAOIFI standard no 7, 2010. This study uses the manual content analysis to measure the level of CSR information by 39 GCC Islamic banks. Our analysis shows a very low disclosure level for CSRD (27.5%) among the sample Islamic banks. An ordinary least square regression is used to examine the determinants of CSR disclosure in the sample Islamic banks. The studies use corporate governance characteristics (board related variables) as independent variables, firm and country specific characteristics as control variables to examine the CSR disclosure (CSRD) determinants. The studies provide evidence that stronger corporate governance is associated with a higher level of CSR disclosure. We find a significant positive association between the board of director size and CSR disclosure practice among the sample Islamic banks. It shows that the number of board members have a positive influence of CSRD practice by GCC Islamic banks. In our analysis, we also find that there is negatively significant between Board Duality and CSR disclosure practice. Our results show that there is no significant association between other corporate governance variables and CSR disclosure. This study suggests that there is a need for improving the current CSRD practice in GCC Islamic banks by imposing additional constraints on the board of directors of the banks.

Keywords: AAOIFI, Corporate social responsibility disclosure (CSRD) Content analysis, Disclosure Level, Determinants, Islamic banks

1. Introduction

The recent development of corporate social responsibility has a significant impact on the role of business, and has resulted in the change of accounting practices (Aribi & Gao, 2010). Nowadays, banks are not only focused on generating profit for their shareholders, but they have to also be more accountable and concerned with CSR issues in their business activity (Zain, 1999a; Morsing & Perrini, 2009). There is a growing concern within the business community with the significance of the key stakeholders attached to socially, environmentally, and ethically responsible behaviour by business enterprises (Zadek et al., 1997). The pressure on companies to be accountable to a wider audience of stakeholders is coming from a number of resources, such as the ethical investors, a growing number of pressure groups, consumer associations, and the growing number of United Nations and European Community Directives (Gray et al., 1988).As a result, public expectations of CSR have increased, and have forced companies to become more concerned about their relationship with societal interest groups and their corporate social responsibility (Held, 1970).

The rising importance of CSR disclosure in practical applications is also reflected in academic research (e.g., O'Dwyer et al,2005; Plumlee et al, 2008; Nichols and Wieland, 2009; Simnett et al, 2009; Johansen, 2010; Dhaliwal, Dhaliwal et al., 2012). Companies are no longer seen by society as institutions which give a mutual benefit to their shareholders only, but as organisations that operate within society which has a responsibility to ensure socio-economic justice and, at the same time give benefit to the stakeholders (McDonald & Puxty, 1979; Mohammed, 2007). As the banks realise the significance of stakeholders financial anticipation, the role of CSR disclosure has become more important as a means of discharging accountability (Gray et al., 1996; Park & Ghauri, 2014). In this sense, Haniffa (2002) argues that social responsibility reporting can be seen as a response by companies to the changing expectations of the society in which they operate. Nevertheless, it could be argued that social reporting is used as a tool to change perception without changing the fact.

When a firm discloses its corporate social responsibility (CSR) activities, it declares its accountability to a broader spectrum of stakeholders than its shareholders alone. Such disclosures provide insight beyond those conveyed in financial disclosures. In recent years, CSR disclosures have surged in popularity and are now widely used by professionals in the capital market. According to Dhaliwal et al, (2012), the number of firms issuing CSR reports in their sample of 31 countries increased from fewer than 100 in the early 1990s to over 1,000 in 2007. In a 2003 survey of 400 fund managers and financial analysts in nine European countries, around 80 percent of participants believed CSR activities were relevant to a firm's long-term value, and approximately 50 percent acknowledged using information from CSR disclosures (Sofres, 2003).

While public concern over the social and environmental consequences of corporate activities has increased, this has resulted in a situation in which two essentially new factors have been introduced into investment decision-making (Spicer, 1978). First, the public interest on the side effects of corporate activities has led to new and increasingly stringent sanctions against certain types of these activities such as charitable activities. Secondly, the growth of numbers of investors who are concerned with the moral and ethical predictions of corporate activities and with the disclosure of all relevant information pertaining to a company's activities, may influence an investor's investment decision; it refers to a revelation of knowledge, free from secrecy or ignorance; Lanam, 2007). Therefore, CSR disclosure plays a significant role in business, including enhancing corporate transparency, developing corporate image, and providing useful information for investment decision-making (see, for example, Gray et al., 1988; Friedman and Miles, 2001; O'Dwyer, 2005). In addition, it has been asserted that CSR disclosure is seen as a means by which business enterprises may attempt to manage their stakeholders to gain their support and approval (Deegan, 2000; Parker, 2005).

This paper tries to explain the disclosure level its determinants of the CSR practice among GCC Islamic banks. The paper addresses the basic question: 1) What are CSRD score of GCC Islamic Banks? 2) What determine the CSRD practice in the sample Islamic banks? This paper uses statistical methods (correlation and regression) to examine the theoretical model of determinants of CSRD in the sample banks. This paper represents a starting point for an integrated CSRD framework. This study aims to enhance the understanding of the factors explaining the cross-sectional variation in the quantity of the information disclosed by Islamic banks using the benchmark develop based on AAOIFI standards no 7. The study also aims to investigate the extent to which corporate governance mechanisms explains the variations of CSRD practice in GCC Islamic banks.

The existing body of the CSR literature in Islamic banks focuses on either the level of CSR disclosure (e.g., Hassan and Harahap, 2010; Aribi and Gao, 2012) or the determinants of CSR disclosure (e.g., Farook et al., 2011;Amin et al. 2011; Rahman & Bukair 2013). Most of previous studies that explore CSR disclosure practice are conducted before the issuance of an updated AAOIFI governance standard No.7 which not represents a clear benchmark of CSR disclosure practice in Islamic banks. In fulfilling prior research gap, we are motivated to explore the CSR disclosure score of Islamic banks in Malasyia and its potential determinants using a comprehensive CSR disclosure which develop based on AAOIFI, 2010 and supported with previous literature (see, for example, Maali et al., 2006; Haniffa and Hudaib, 2007; Abdul Rahman et al., 2010; Hassan and Harahap, 2010; Aribi and Gao, 2012

This study aims to bridge a perceived gap between the two broad strands on corporate disclosure as well as filling the research gap in determinants of CSRD for Islamic banks adapted AAOIFI standards. This study motivated by incentive research, which focuses on corporate governance (CG) with board related variables as a main category in the CG structure. This study further contributes to the CSR literature by examining the CG mechanisms which contains board related variables to understand more completely how these factors jointly impact on the level of compliance. The present research adds a large-scale academic study-

examining compliance with AAOIFI mandatory and voluntary disclosures after 2010 (based on the updated version of AAOIFI financial and governance standards).

2. The development and growth of Islamic Banking and Finance in Gulf Countries Council (GCC)

Modern Islamic banking originated with the establishment of the Dubai Islamic Bank in 1975. It might, therefore, be expected that the GCC states [1] would be at the centre of the rapidly expanding Islamic finance industry, which encompasses retail and investment banking, insurance, fund management, and the issuance and trading of Shariah-compliant securities, known as *sukuk* or Islamic bond (Wilson, 2009). The IFIs (Islamic Financial Institutions), which conduct their business according to Islamic principles, are expected to reflect the socio-economic objectives of Islam, such as CSR activities. In this regard, Lewis (2001) noted that Islam has provided a comprehensive list of ethics that governs how business should be conducted, how banking and finance are to be arranged, and, alternatively, how accounting ought to be undertaken. Islamic financial institutions (IFIs) are considered as having ethical identity and they have different social and economic objectives, since the foundation of their business is based on religion (Haniffa and Hudaib, 2007). Major factors that motivate this study to be conducted in GCC are due to their the positive growth of Islamic banking industry in this region, which then becomes world Islamic banking hub. With the key roles of Bahrain, Kuwait, Qatar, UAE, and Saudi Arabia, the GCC becomes an active player in promoting and enhancing Islamic banking products and services around the world (Wilson, 2002). While Oman are slightly passive in participation with the Islamic banking industry due its unstable political condition (Alam, 2006).

From 2010 to 2014, liquid wealth in the GCC grew at an average of 17.5% per annum, doubling from US$1.1 trillion to US$2.2 trillion (Diemers & Khalil, 2015). This is partly explained by the high oil prices during that period, local government spending on infrastructure, an increasing effort to diversify, along with the general global rebound. In total, *Shariah*-compliant assets worldwide amounted to around $2,252 billion at the end of 2015; this implies that the GCC countries accounted for around 28 percent of the total. Furthermore, there is positive growth of *Shariah*-compliant assets in the GCC in 2015, compared to other regions, as shown in table 1. Although most of the positive growth in 2014 was due to rapidly rising oil and gas prices, which feed through to government spending in the GCC and, consequently, a buoyant level of economic activity.

Table 1: Regional asset growth (USD ($) billion)

Regions	**+ / -**	**2015**	**2014**
GCC	14.19%	$640	$561
Non-GCC MENA	-36.97%	$339	$537
MENA	-10.83%	$979	$1098
Sub-Saharan Africa	-22.21%	$8	$11
Asia	3.69%	$269	$259
Australia/Europe/America	-26.52%	$17	$24

Source: The Banker Database, 2015(online)

A review of Islamic Financial Services Industry Stability Report (2015) shows that global *Shariah*-compliant assets represent a significant portion of total banking assets of the GCC. While in the Middle East and North Africa (MENA) region Islamic banking assets represent 14 percent of total banking assets, in the GCC the market share of Islamic banking has crossed to 25 percent threshold, which suggests that Islamic banks have become systemically important in these countries. GCC Islamic banking assets reached $490 billion at end-June 2013, with Saudi Arabia dominating the region with a 49 percent share, followed by the United Arab Emirates

[1] The GCC member are Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates.

(19 percent), Kuwait (16 percent), Qatar (11 percent), and Bahrain (5 percent), while this segment is still nascent in Oman[2].

Islamic banking has acquired systemic proportions in Kuwait, Qatar, Saudi Arabia, and the United Arab Emirates[3]. Retail Islamic banking in Bahrain has reached systemic proportions with a 27 percent asset share in retail banking, and a 13 percent asset share in total retail and wholesale banking[4]. Oman's entry into Islamic banking was in late 2012. The Central Bank of Oman developed a comprehensive set of regulations for IB (Islamic Banks) from the following: (1) the existing conventional banking framework, based on Omani Banking Law and Basel II guidelines (where these do not contradict *Shariah*); (2) *Shariah* governance and accounting standards of AAOIFI; (3) Islamic Financial Services Board (IFSB) guidelines on capital adequacy and risk management; and (4) leading practices on *Shariah* governance from around the world. At the end of August 2015, the combined assets of Islamic banks and windows in Oman represented 6 percent of its total banking system assets.

The Islamic finance industry's strong growth continued. The global industry's CAGR (compound annual asset growth) between 2009 and the end of 2014 sits at 12.68%. This performance has largely been driven by the dominant markets of the GCC and Malaysia. For its part, the GCC registered a CAGR of 17.49 percent over this period, while in Asia, this number hit 10.55 percent followed by sub-Saharan Africa at 10.46%. The growth of Islamic finance in the Gulf region was underpinned by the gains of fully Shariah compliant Qatari banks. Between 2009 and 2014, these lenders posted a CAGR of 21.09 percent, vastly outperforming their regional peers. Qatari Islamic banks have also been putting these assets to good use, over the same ROA (return on assets) of 2.28%. Meanwhile, the aggregate ROC (return on capital) hit 16.93 percent, a notable figure given the high capitalisation levels of Qatari lenders.

These achievements were mirrored, to a lesser extent, elsewhere in the GCC. Fully *Shariah*-compliant lenders in the United Arab Emirates achieved a CAGR of 10.64% over this period, while aggregate ROA came in at 1.5%. The performance of the Dubai Islamic bank, which entered the top 10 commercial banks by ROA in this year's report, was the standout contribution from the UAE. Meanwhile, the return on capital for fully *Shariah*-compliant banks was 11.39%.

The GCC regions' other key market, Saudi Arabia, enjoyed a CAGR of 13.39%, accompanied by the highest ROA 2.4% - of any market over the 2009 to 2014-time period. Saudi banks also achieved an ROC of 16.6% behind Iran, Malaysia, and Qatar. Meanwhile, 5 of the 10 fastest-growing financial institutions, with Islamic windows with more than $500m in assets, hail from Saudi Arabia. Table 2 shows a summary of the Islamic banking sector's compound annual assets growth rate (CAGR), aggregate return on assets (ROA) and aggregate return on capital (ROC).

Table 2: Summary of CAGR, ROA, and ROC from 2009 to 2014.

Country	**CAGR**	**ROA**	**ROC**
Qatar	21.9%	2.28%	16.93%
Saudi Arabia	13.39%	2.41%	16.6%
UAE	10.64%	1.5%	11.39%
Bahrain	9.2%	0.62%	4%
Malaysia	7.32%	1.75%	17%
Turkey	6.4%	1.3%	12%
Kuwait	6.4%	0.8%	6%
Iran	1.3%	1.4%	18%

Source: The Banker database, 2014(online).

[2] See, IFSB, Islamic Financial Services Industry Stability Report, 2015, p.9.
[3] Systemic is defined as at least 15 percent of banking system assets.
[4] Shares based on 2013 data provided by Bahrain authorities. Islamic wholesale assets as a share of assets in wholesale segment amounted to 32 percent. Islamic bank assets (retail and wholesale) amounted to 30 percent of total assets in Bahrain's banking system.

3. Theoretical discussion and hypothesis development

Generally, prior literature presents many theories to explain the variation between entities in terms of their level of disclosure. Various theories have been developed to explain managers' incentives for disclosure. However, there is no general or comprehensive disclosure theory that can be applied (Verrecchia, 2001). Apparently, each theory explains various aspects of corporate disclosure, or it looks at this phenomenon from different perspectives (Al-Htaybat, 2005). Therefore, it was argued that several theories could be used in an integrated framework to provide an explanation for managerial incentives which affect CSR disclosure (Al-Htaybat, 2005). (Alberti-Alhtaybat, Hutaibat, & Al-Htaybat, 2012;) argued that disclosure theories such as agency theory and stakeholder theory would be of significant help in explaining a phenomenon by providing clear insights in the understanding the corporate CSR disclosure practices, and it can be considered as a complementary aspects of disclosure discussions. Prior studies (see Farook et al. 2011) argues that there is a consistency between both of agency theory and stakeholder theory. Therefore, agency and stakeholder can be considered as interrelated theories to explain the determinants of CSR disclosure practice in GCC Islamic Banks.

The development of the agency theory has resulted in the implementation of governance structures whereby the control of decisions is separate from the management (Fama and Jensen, 1983a). Prior studies have used the theoretical framework of the agency theory to test hypotheses concerning with the extent of disclosure to corporate governance characteristics (Xiao and Yuan, 2007). The governance of banking industry has caught the attention of scholars and regulators. Hagendorff et al (2007) concentrate their research on the banking sector backed by the argument that it requires a separate agency analysis. The uniqueness of the agency relationships at banks stems from the managers' duty to safeguard the funds of all capital providers. Islamic banks must follow both the regulations set by the supervisors and principles of Shariah (Archer et al., 1998). Therefore, while agency problems in conventional banks arise when board deviate from their accountability to maximize shareholders' wealth, any divergence by board of Islamic banks from placing all supplied funds in Shariah-compliant investments creates an added source of agency problems. Corporate disclosure presents a brilliant opportunity to apply agency theory as managers with better access to a company's confidential information can transmit credible and reliable communication to market to optimize the corporation's value.

Stakeholder theory focuses on the assumption that the behaviour of various stakeholder groups encourages management to relate corporate needs with its socio-environment. Freeman (1983) defines a stakeholder as any group or individual who can affect, or is affected by, the achievement of organisations' objectives, and suggested that corporations should identify their direct and indirect stakeholders. Later, he indicated that the stakeholder theory could be used as a metaphor or a compilation of different narratives; thus, it cannot be described as one theory owing to the various interests of the stakeholders involved. It has become increasingly apparent that stakeholders can influence the way in which corporations conduct themselves, and ultimately influence their 'licence to operate' (Wilson, 1997). This implies that if a firm dissatisfies a relevant stakeholder, this stakeholder can apply pressure on the firm to meet its expectations. According to Ullman (1985), the greater the importance of stakeholders' resources or support for an organisation, the greater the probability that the stakeholders' expectations will be incorporated in an organisation's operation. In other words, the level of stakeholders' power increases as the importance of meeting stakeholders' demands increases (Deegan, 2000).

Corporate governance mechanisms can be considered as essential factors illustrative the decisions of corporate disclosure related to CSR from agency and stakeholder theory perspectives. Consequently, these mechanisms will be measuring in this study. It is a very limited research has been undertaken to examine the link between corporate governance mechanisms and the CSR disclosure practice of GCC Islamic banks. To the best of our knowledge, there are no previous studies that explore the determinants of CSR disclosure for GCC Islamic banks using comprehensive CG mechanism variables. Gul and Leung (2004) argue that the role of corporate governance on the agency relationship between managers and stakeholders best examined by looking at several CG mechanisms. The literature review focuses on prior empirical studies that are concerned with the link between corporate disclosure and governance mechanism variables.

According to Rahman & Bukair (2015), it is expected that numerous factors could drive variances between Islamic banks and its CSR disclosure practices. Previous studies (Jo & Harjoto, 2011; Wan Amalina Wan Abdullah, 2009) provide robust evidence on the corporate governance mechanisms which influence on the CSR information disclosure among the financial and non-financial companies. Thus, in developing the research hypothesis, adapted Haniffa (1999) and Hany El Zahar (2013), we use corporate governance characteristics as a

main explanatory variables and firm characteristics as a control variable in measuring the determinants of CSR disclosure practice in Islamic banks. We hypothesize that there is a positive relationship between CG and CSRD practice in GCC Islamic banks. Among the variables test in this study are: board size (B.Size), gender composition (B.Gender), board composition (B.Comp),board meeting (B.Meet),CEO duality (B.Duality) and cross holding directorship (B.CrossHold). In this study, we also use country specific characteristics such as: GDP growth and corruption rate as our control variables.

4. Methodology

For the purpose of this study, the researcher retrieved Islamic banks information from Bank scope databases and Data Stream, the sample banks are selected based on a criteria of full -fledged Islamic banks or banks which are 100% comply with *Shariah,* the ensure the status of the sample banks, we refer this information from Central Banks of each countries. According to Bankers database, from the record updated on June, 2017 there are 62 full-fledged licensed Islamic banks in GCC. For the sake of consistency in research sample, the researcher excluded Islamic banks subsidiaries and banks which have not publish an English version of financial report. Therefore, the researcher excluded 23 banks. Thus, the final sample of this study consists of 39 Islamic banks in GCC. This represents 63 % of the total sample, and it is in line with the minimum size required for multiple regressions (Coakes, 2005; Green, 1991). This dataset provides enough information of disclosure practices across Islamic banks operating in GCC for the year 2010-2014; involve 195 observations throughout the year. The sample breakdown across countries is summarized in Table 3.

Table 3: Sample breakdown across countries

No	Countries	Total Number of Islamic Banks	Sample Islamic Banks
1	Bahrain	27	15
2	Qatar	9	6
3	Kuwait	6	3
4	KSA	6	4
5	Oman	5	3
6	UAE	9	8
	TOTAL	**62**	**39**
Source: Bank scope Database and DataStream, June 2017			

The present study utilized the quantitative approach, yearly financial report of the sample Islamic banks which gather from The Bank Scope Database and their websites. Other data such as charitable activities and social responsibility in the index and details of their data which are not available in the financial report are collected from the banks newsletter and website. Then the data have been manually analysed using un-weighted content analysis method. In conducting this study, the researcher took precautionary measures to enhance the validity and the reliability of the analysis. Prior studies argues that content analysis is not considered reliable if it is conducted only once or only by one specific person (Neuendorf, 2002 and Rosmaini et al. 2009). Adopted method used by (Aribi & Gao, 2010; Farook, Hassan, & Lanis, 2011), the items have been double check by the researcher to ensure that the items represented what we intended it to represent. Then, the researcher examined the items of the index and decided what that specific item was intended to measure (Beattie and Thomson, 2007).

The 11 dimensions of the CSR index are developed based on governance standard No.7, issued by AAOIFI which relate to CSR disclosure requirement for IFIs and prior literature (Nu et al. 2014; Sakib 2015; Sarea & Hanefah 2013; Belal, A., Abdelsalam, O., and Nizamee 2014; Ali Aribi,Zakaria and Arun 2014; Farag et al., 2014; Maali et al., 2006; Haniffa and Hudaib, 2007; Rashid et al., 2013; Besar et al., 2009. Form the researcher knowledge, AAOIFI, 2010 is the best and latest available standard produced by AAOIFI to be adapted in this study. To enhance the reliability of the instrument, the index items are coded and checked twice to ensure it is free from any potential discrepancies(Taliyang & Jusop, 2011). During the coding process, the researcher ensure that the same coder is consistent overtime when coding the same item of the indices (stability). It is to make sure that the coders produce the same and accurate results when coding the same item(reproducibility). Data of corporate governance are manually check and coding from the annual report.

5. Regression model

We use panel data analysis to test an association between CSRD levels and CG variables, we develop a comprehensive index that consists of 6 CG variables. We also add control variables information in the index which consists of 5 firms' characteristics variables and 2 country specific variables. The scores for the index are calculated by assigning equal weightings to each item of disclosure, and the indices were derived by computing the ratio of actual scores awarded to the maximum possible score attainable for items that were applicable to each Islamic bank. To empirically investigate the relationship between CSR disclosure and CG-specific characteristics in Islamic banks, we use the following OLS (ordinary least square) regressions to estimate the association between CSRD and corporate governance variables. Ordinary Least Squares (OLS) is the most commonly used technique in disclosure studies (Leventis, 2001) where our dependent variable is the compliance level/CSR disclosure score and the independent variables include all the CG variables. Therefore, this study uses the following OLS transformed multiple regression models:

$$CSRDit = \alpha + \beta1\ B.Size\ it + \beta2\ B.Gender\ it + \beta3\ B.Composition\ it + \beta4\ B.Meeting\ it + \beta5\ B.Duality\ it + \beta6\ B.CrossHold\ it + \beta7\ F.Size\ it + \beta8\ F.Age\ it + \beta9\ F.Profitability\ it + \beta10\ F.Leverage\ it + \beta11\ F.Liquidity\ it + \beta12\ GDP\ it + \beta13\ Corruption\ it + e$$

Where:

= is the total disclosure quantity provided by CSR disclosure index, which measures the level of disclosure CSR in sample Islamic bank i at year t or known as dependent variable

. = the intercept

β1- β6 = independent variables (CG Variables)

β7- β13= control variables (Firms and country specific variables)

e = the error term, the difference between the predicted and observed value of the CSR for sample company.

This study conducts the Kolmogorov-Smirnov test to ensure that the data are normally distributed. Based on the test, the study finds that all data is normally distributed. We adopted method used by Aryani (2015) in conducting a heteroscedasticity test. Based on analysis, the result shows that all variables are more than 0.05, which implies that all variables did not have a heteroscedasticity problem. Many procedures can be performed to avoid multicollinearity among the independent variables. Perfect relationships between those variables would affect the reliability of the estimates and may cause a wide inflation in the standard errors for the coefficient. We use Pearson correlation matrix as our initial tool to detect multicollinearity. It is also can be used to measure the strength and direction of the linear association between any pair of variables. Gujarati (2003) indicates that collinearity among the independent variables is acceptable if the correlation coefficient (r) is at maximum as 0.80. Our Pearson correlation matrix results shows that there is no multicollinearity problem in this study. An association among the variables are below than 0.80. After carrying out each regression analysis, variance inflation factor (VIF) is calculated. This procedure is an additional step to ensure that explanatory variables are not extremely correlated. The rule that has been applied is: correlation between independent variables is accepted if VIF is still smaller than 10 (Gujarati, 2003; Acock, 2008). If VIF results are higher than 0.1 and less than 10, meaning those variables did not have a multicollinearity problem. Our results showed that the models are free from autocorrelation problems, our VIF are less than 10.

6. Results and discussion

From our analysis, we find that the CSRD score for the sample Islamic banks are 27.5%. Table 4 presents an empirical findings of CSR disclosure determinants of GCC Islamic banks. The analysis shows that board size has a positive significant impact on levels of social disclosure reporting (0.054). The level of significant is 0.05. Therefore, the hypothesis that board size has a significant positive impact towards CSRD practice is accepted. Our findings show that the board size have a positive impact on CSR disclosure score of the sample Islamic banks. This result is consistent with a study by Singh et al. (2004);Lakhal (2005); Cheng and Courtenay (2006); Abdel-Fattah et al. (2007) and Laksamana (2008) which also find that's a positive association between disclosure and board composition in their study. It can be stated that board size is positively associated with CSR disclosure practice. Therefore, organizations with a higher size of board of directors do engage in greater extent of CSR disclosure practices and CSR activities such as charitable activities as stated by Williams (2003) and Haniffa & Hudaib (2007). The benefit of having a larger board is that it can increase company's value, because they provide a firm with members from different fields of expertise (Khan 2010).

The study finds that there is a negatively significant (0.016) between B.Duality/CEO duality and CSR disclosure practice among of GCC Islamic banks. The level of significant is 0.05 or at 95%. It is contradicted with the agency theory assumptions; where CEO duality is detrimental because the agent may pursue their self-interest at the expense of the owners. One aspect of corporate governance which has given rise to concern is the 'dominant personality' phenomenon and this was found to be associated with poor disclosure (Forker, 1992). This phenomenon also includes role duality, which is the occasion when the chief executive officer (CEO) or managing director is also the chair of the board. The result is contradicted with the previous literature (Tuggle et al. 2010; Hashim & Devi 2008; Ramdani & Witteloostuijn 2010; Peng et al. 2007) that suggest these two roles should be separated in enhancing the disclosure practice. Although the separation of roles is suggested, some companies are not prepared to be categorical about dividing the roles (Rahman & Bukair 2015). Thus, the assumptions that separation of roles between chair and chief executive will enhance the monitoring quality and reduce benefits from withholding information, which may consequently result in improved the quantity of CSR reporting can be rejected. From our analysis, we didn't find any relationship between other CG variables (B. Gender, Board composition, board meeting and Cross hold) and CSRD practice.

Table 4: Regression Coefficients Result

Variables	**Sign**		**Standardize Coefficients**			**Collinearity Statistics**	
	Expect	**Actual**	**Beta**	**t**	**Sig.**	**Tolerance**	**VIF**
1.(Constant)	0	0	0	-1.784	0.076	0	0
2.B.SIZE**	+	+	+0.176	2.049	**0.054****	0.584	1.711
3.B.GENDER	+	+	+0.129	1.571	0.118	0.637	1.570
4.B.COMP	+	-	-0.032	-0.368	0.713	0.574	1.742
5.B.MEET	+	-	-0.014	-0.131	0.896	0.401	2.496
6.B.DUALITY**	+	-	-0.204	-2.021	**0.016****	0.424	2.356
7.B.C.HOLD	+	-	-0.010	-0.124	0.902	0.709	1.411
8.F.SIZE	+	-	-0.073	-0.662	0.509	0.352	2.838
9.F.AGE	+	+	+0.034	0.318	0.751	0.375	2.668
10.F.LIQUIDITY	+	+	+0.149	1.498	0.136	0.438	2.285
11.F.PROFIT	+	-	-0.015	-0.190	0.850	0.694	1.442
12.F.LEVERAGE	+	+	+0.119	1.423	0.156	0.621	1.611
13.C.GDP**	+	+	+0.268	2.216	**0.048****	0.294	3.396
14.C.CORRUPT	+	+	+0.018	0.172	0.864	0.400	2.502
CSRD Score	27.5.%						
Adjusted R Square	0.275						
Std.Error	0.110						
Sig	0.000						
N	195						

This table presents the regression results for the determinants of CSR disclosure quantity of GCC Islamic banks. All variables are define as follows: B.Size (board size), B.Gender (board gender), B.Bomposition (board composition), B.Meeting (board meeting), B.Duality(board duality), B.CrossHold (board cross holding), F.Size (firm size), F.Age (firm age),F.Profitability(return on asset) ,F.Leverage(firm leverage), F.Liquidity(return on equity).C.GDP(growth domestic products) and C.Corupt (level of corruption) *, **, *** indicates significance at 10%, 5%, & 1%, respectively.(-) indicates the negative correlations, (+) indicates a negative correlations and (0) indicates that's is no correlation was found in the regression model. Constant is a level of CSRD (dependent variable).

7. Conclusion and Recommendations

It can be concluded that, Islamic banks should enhance their CSR disclosure practice to ensure that its operations and activities are in line with Islamic banking principles. Islamic Banks are expected to fulfil its inherent in their character as an "Islamic" bank. This paper aims to examine the level of CSRD and its determinants among 39 sample Islamic banks in GCC through 195 observations from 2010 to 2014. This study contributed to existing CSR reporting literature by being the first to examine the determinants of CSR disclosure in GCC Islamic banks for the year 2010-2014 using comprehensive CG variables. The study tests the degree to which CG mechanisms affect Islamic banks decision to disclose their CSR information in their annual report. The study used quantitative methods to test the research hypotheses. The researcher develops a comprehensive CSR disclosure index based on previous literature and AAOIFI guideline to find the CSR disclosure information. Based on the analysis, our CSR disclosure scores shows that the extent of disclosure is relatively low (27.5%) which is out of our expectations that Islamic banks disclose more CSR information rather than non-Islamic banks. Our results is consist with Haniffa and Hudaib,(2007); Hassan and Harahap, (2010); Ullah and Jamali, (2010) who also found gap between expectations and actual disclosure of CSR, which is very low. Several studies indicate that Islamic banks are not completely fulfilling their social role in accordance with the prescriptions of Islam (Aggarwal and Yousef, 2000; Maali et al., 2006). Based on our result; we can conclude that Islamic banks are mainly shaped and focused on economic incentives more so than religious and social norms (Aggarwal and Yousef, 2000). Therefore, policymakers are expected to be more aggressive in encouraging Islamic banks to adopt AAOIFI StandardNo.7 as a benchmark for CSR disclosure.

The empirical analysis shows that the board size is positively significant with CSR disclosure practice among GCC Islamic banks. This result is consistent with a study by Singh et al. (2004); Lakhal (2005); Cheng and Courtenay (2006); Abdel-Fattah et al. (2007) and Laksamana (2008) which also find that's a positive association between disclosure and board composition in their study. It can be stated that board size is positively associated with CSR disclosure practice. Therefore, organizations with a higher size of board of directors do engage in greater extent of CSR disclosure practices and CSR activities such as charitable activities as stated by Williams, 2003 and Haniffa & Hudaib 2007. The study also finds that B.Duality are negatively significant with the CSRD practice of the sample Islamic banks. From our analysis, we didn't find any relationship between other CG variables (B. Gender, Board composition, board meeting and Cross hold) and CSRD practice. It is consistent with the argument by (Ho and Wong, 2001), where corporate governance mechanisms may be substitutive and may not affect with disclosures score. Several studies indicate that Islamic banks are not completely fulfilling their social role in accordance with the prescriptions of Islam (Aggarwal and Yousef, 2000; Maali et al., 2006). Based on our result; we can conclude that Islamic banks are still mainly shaped and focused on economic incentives more so than religious and social norms which focus more on CSR (Aggarwal and Yousef, 2000). Therefore, policymakers are expected to be more aggressive in encouraging Islamic banks to adopt AAOIFI StandardNo.7 as a benchmark for CSR disclosure.

There are several limitations inherent in this study. This study used only focus on GCC Islamic banks as a sample. Therefore, the results may not extend across other IFIs such as Takaful companies and other financial institutions. Due to the time constrains, this study only focuses on the sample of 39 Islamic banks in 2010 to 2014, therefore future study might consider time series data as conducted by Belal et al., 2014 who explore ethical reporting of Islamic Bank Bangladesh for 27 using time series data. Through exploring CSR disclosure using a time series data, future research can contribute more clear information regarding to CSR disclosure trends and practice among GCC Islamic banks. The study is narrowly focus on board related variables to find its relationship with CSRD practice, therefore future study can add more CG variables which may provide better result.

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Performance Of Family Business In Malaysia

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Abstract

Performance of family firms is an interesting growing topic of entrepreneurship study. In Malaysia, many studies were conducted in an attempt to understand performance of family firms, however these studies have been biased towards operationalizing performance through financial indicators particularly Tubin's Q measures. This study employed literature content analysis on influences of family business performance. Studies on family performance tended to test the effect of various factors relating to corporate governance and board of directors characteristics on performance. Ethnic wise, performance of family business may be significantly impacted by culture. Success of Chinese firms seems to be attributed to the role of family participation and ethnic networks governing the entrepreneurial practices.

Keywords: performance, family business, ethnic, governance

1. Introduction

Family business and entrepreneurship are frequently linked together. Entrepreneurship functions as the "means" to the family firm "end" of long-term existence, growth, and renewal (Goel and Jones, 2016). Astrachan (2003) defines family business in which two or more family members are involved and the majority of ownership lies within a family.Family businesses make up the largest ownership form in most countries. According to Forbes website, citing the Center for Family Business at the University of St. Gallen, Switzerland, family firms constitute 80-90% of businesses stock worldwide and contribute significantly to GDP and jobs. It is reported that, the world top 500 family businesses generated US$6.5 trillion and provided 20.9 million jobs in 2013.

The magnitude and impact of these firms have led to the emergence and growth in research that deals with this type of firms (Zahra and Sharma, 2014; Kraus et al., 2011; Short et al., 2016). While research in family business has been recently recognized as a global phenomenon that is rapidly growing across many disciplines and outlets, it boomed to unprecedented levels and was accompanied by a quality research output (Craig et al., 2009; Short et al, 2016).

In Malaysia, family business studies have recently become more prevalent, and a number of studies have focused on factors that determine the levels of family business performance (Ghee et al., 2015). Given this fact, there is a need to review the available studies on performance of family firms in Malaysia in order to provide an assessment to the state of affairs related to performance research. The current paper is an endeavor towards this objective. The paper tries to identify research trends in terms of performance operationalization, common explanatory factors tested for their effect on performance, and findings. It is also within the scope of this paper to discuss performance variations among Malay, Chinese and Indian family firms to draw some useful conclusions.

2. Family business in Malaysia: Characteristics

Statistics on family firms in Malaysia are not easily identifiable. However, there are scattered information related to the phenomenon can give a good idea about its magnitude. Malaysia' family businesses make up about 70% of the listed firms (Amran and Ahmad, 2010) and contribute tremendously to GDP (Ngui 2002). They are often small and medium-sized (Set, 2013), mostly owned by Chinese (Amran and Ahmad, 2011; Abdullah et al., 2015). Historically, these companies evolved from traditional family-owned enterprises and

prefer to follow culture and management style of the business founder with not much openness to western business practices and modern management skills (Nee, 2007).

A study conducted by Price Waterhouse Coopers (PWC, 2016) noted that some companies are managing their strategic planning effectively while other are stuck with daily business issues and inter-generational aspirations. The study also indicated that Malaysian family businesses share strong attachment to their respective cultural values, while their key challenges are centered on succession planning, innovation and talent attraction and retention. With respect to Chinese firms, corporate governance is anchored in the traditional management approaches and increasing new/western management skills that are implemented by new generation managers (Nee, 2007). Besides, the teachings of I-Ching, Confucianism and Taoism are crucial to the day to day management practices (Goh, 2008; Nee, 2007).

Although succession planning is an important practice for the development and continuation of family firms, not all Malaysia family firms are considering it. This was evidenced in the both studies of Abdullah et al. (2011) and PWC (2016). These studied respectively noted that only half and less than one third of the surveyed businesses have succession plans. At the same time, the main planning actions include: transferring management to the next generation, transferring ownership and hiring professional management, and selling/floating the business (PWC, 2016). According to Abdullah et al. (2011) successor characteristics and succession issues are some of the key determinants of succession plans.

The overall context within which family firms in Malaysia operate has also been shaped by the intervention of the government in the economy under the British ruling and after the independence. In the post-independence era, the government implemented affirmative actions through what was known as the "New Economic Policy". The new policy aimed to reduce racial imbalances and boost the economic and social wellbeing of Bumiputras (Indigenous Malays) through concessions in terms of grants, trade, education and certain jobs (Haniffa and Cooke, 2002). In the meanwhile, these actions had multiple bearings on ethnic participation, inter-ethnic partnership, and firm development (Haniffa and Cooke, 2002; Gomez, 2007), resulted a certain change in the ethnic business structure. For example, by 1970, Indians controlled around 1.1 per cent of total corporate equity, Malays controlled 2.4 per cent and Chinese owned 27.2 per cent. However, thanks mainly to these actions, Malay corporate equity increased to 19 per cent in 1990 while Indian ownership increased went up to 1.2 per cent in 2004 and to 1.6 per cent in 2008 (Xavier and Gomez, 2018).

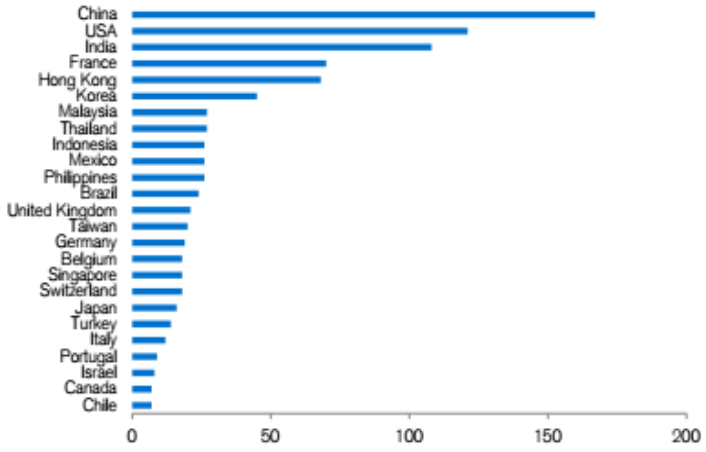


Figure 1: To 25 countries per Family-owned firms

Sources: CSRI report (2017)

The development of family firms in Malaysia yielded not only a numbers of tycoons across different sectors (Ibrahim and Samad, 2010) but also several firms that are competing regionally and globally. As depicted in figure 1, the Credit Suisse Research Institute's (CSRI) report ranked Malaysia seventh globally in 2017 with regards to the number of family-owned companies (CSRI, 2017). CSRI report also ranks two Malaysian family firms high. Press Metal; a company that operates in the aluminum industry, ranked 49 globally and 32 in Asia in terms of revenue growth (24% on average) and 44 in Asia in terms of share-price return (30% on average). Genting Hong Kong, which is a member of the Malaysian Genting Group, also ranked 29 globally and 20 in Asia in terms of revenue growth (32% on average).

3. Research on performance of family businesses in Malaysia

Scholars have tried to unveil many aspects of family entrepreneurship in Malaysia. Thus, they explored a variety of topics including, inter alia; performance (stressed in this study), earnings (Jaafar et al., 2012), business inheritance and succession (Abdullah et al., 2011; Amran, 2012; Abdullah et al., 2014; Ghee et al., 2015), corporate social responsibility, IFRS mandatory disclosure (Abdullah et al., 2015), corporate social responsibility (Yusof et al., 2014), CEOs language choice (Ting, 2017), and internationalization (Cheong et al., 2015). The next sub-sections will specifically shed light on the operationalization of performance as found in empirical studies in the Malaysian context, the factors assessed in their effect on performance and how performance of this type of businesses is shaped. The last part will also draw on ethnic variations in terms of performance between Malay, Chinese and Indian family firms.

Table 1 summarizes fourteen empirical studies on performance of family firms and looks at how performance is operationalized as an outcome variable. It also lists the different explanatory factors tested for their effect on or ability to predict performance. The table further presents the key findings reported in these studies. Notwithstanding these mostly do not specify the ethnic affiliation of the target frim, whereas other few studies tended to focus on only one ethnic group. This is true for the following studies that addressed Malay family businesses; Zainol and Ayadurai (2010, 2011) and Zainol (2013).

Many of these studies rely on firms listed in the Malaysia Stock Exchange (MSE) where access to data is facilitated. Given the nature of data available in the MSE and firms' annual reports, performance was, in most cases, measured through financial indicators. Firm values proxied in Tobins' Q was widely employed. Tubins'Q is regarded as a good measure of firm performance (Mayer, 2003) because it reflects market performance rather than accounting performance (Amran and Ahmed, 2009).

Other measure of performance in form of financial/metric data included market-to-book ratio, cash flows, short-term investments, total debt, dividends, return on investment, earning per share, operating cash flow, return on assets, and return on equity. In line with this, researchers also gauged performance through subjective measures that reflects perception and satisfaction of the owners/directors regarding financial indicators such as profit growth, sales growth, market share as well as the overall performance of the business. Although subjective/perceptional measures are less powerful than ratio/metric measures, they represent a good quantifiable alternative in business research and yield reliable results.

As we shall see in the empirical studies summarized in Table 1, factors related to corporate governance and attributes of the board of directors were widely used as explanatory variables or factors that influence performance of family businesses. Other variables that were tested on their effect on performance include the family attributes, director characteristics, firm characteristics, financial attributes, culture and shareholders. Ramachandran (2012) posits that the observed bias towards researching corporate governance in family business is due to its positive effects in introducing greater level of professionalization.

Table 1: Operationalization of performance and factors influencing it: recent empirical literature

Study	Operationalization of performance	Common explanatory variables of performance	Key findings
Amran & Ahmad (2009)	firm value (measured by the q-value)	Board independence, Board size, Leadership structure, CEO tenure, Firm size, age, Sales growth, Leverage, Return on assets, Asset tangibility.	Board size and leadership structure impact the firm value but corporate governance mechanisms do not.
Amran & Ahmad (2010)	Tobin's Q	Family, ownership, director qualification, age, education level, gender, generation, Generation, Debt, Firm age, Firm size.	Family ownership affects performance positively. founder-managed firms have lower firm performance than successors-managed firms, while old managers perform lower than their younger counterparts.
Zainol & Ayadurai (2010)	Firm performance (Sub*: profit growth before tax, sales growth rates, market share, overall performance)	- Cultural background of the entrepreneur - Entrepreneurial orientation (Mediator)	In Malay firms, cultural background is a significant predictor of performance in Malay family firms. However, the entrepreneurial orientation (EO) is not found to be a mediator of this relationship.
Amran & Ahmad (2011)	Firm performance (Tobin's Q, earnings per share, operating cash flow)	No of directors, % of independent non-executive director, % of directors with degree, % of directors with professional qualification, total directors, Book value of long-term debt/total assets, age.	Firms with duality leadership, large board size, low directors' expertise and contribute positively to performance. Academic qualification of directors, on the other hand, does not influence performance
Ibrahim & Samad (2011)	Firm performance (Tobin's Q, return on assets, and return on equity)	No of directors on the board, % of independent non-executive director/ total directors, % of directors with degree/ total directors, % of directors with professional qualification/	- Board size, duality, and independent director have strong and significant effect on performance. - Family firms experience higher ROE value than non-family firms but lower Tobin's Q and ROA values
Zainol & Ayadurai (2011)	Firm performance (Sub: profit growth, sales growth, market share, overall performance)	- Personality traits - Entrepreneurial orientation (Mediator)	There is a relationship between personality traits of Malay family firm and performance but entrepreneurial orientation does not have the power to mediate this
Azizan & Ameer (2012)	Firm performance (profitability, cash flows, short-term investments, total debt, and dividends)	Shareholder activism (as led by the Minority Shareholder Watchdog Group (MSWG))	There are no consistent positive impact of MSWG engagements on the abnormal returns over the years. After one year of MSWG intervention, significant differences between performance of MSWG family and non-family firms were not found.
Ghee et al. (2013)	Firm performance (unspecified)	- Management style, family members' relationships, Job and family values, Preparation level of heir. - Succession issues and succession experience (Mediators)	The managerial style, family members' relationship, values and beliefs as well as preparation level of heirs effect family firms' performance. Succession issues and succession experience have partial and full mediation effect
Yeoh (2013)	Firm performance (Sub: total sales growth, export growth, and export profitability growth. Satisfaction)	- internal and external technology sourcing modes, - Internationalization and outsider CEO (Moderators) - Innovations (mediator).	Functional and process upgrading strategies depend on the internal and external sourcing strategies of the firm and is moderated by the international level of experience of the outside CEO.

Zainol (2013)	Firm performance (Subjective - 4 items: profit growth before tax, sales growth rates, market share, overall performance)	- Personality traits, cultural background, and government aid programs - Entrepreneurial orientation (Mediator)	Although entrepreneurial orientation (EO) significant predict Malay family firm performance, it does not mediate the relationship of cultural background, personality traits, and government aided programs with firm performance.
Goh et al. (2014)	Firm performance (market-to-book ratio as proxy)	- CEO duality, and board independence - Corporate governance mechanisms (Moderator)	Monitoring is strengthened by board independence in non-dominant large shareholders. Family owners prioritize firm control but do not utilize CEO duality to diminish the monitoring of non-dominant large shareholders.
Liew et al. (2015)	Firm performance: firm value (Tobin's Q and market-to-book value, ROA, ROE).	- RPTs that are likely to result In expropriation, - Ownership concentration (Moderator)	RPTs decreases family firm value but theis relationship is moderated by controlled shareholders' ownership. Besides, compared to non-family firms, expropriation via RPTs is stronger in family firms
Ung et al. (2016)	Firm performance (Tobin's Q, Retrn on assets)	Retrenchment (measured through the reduction in assets and costs)	Retrenchment has positive impact on financial performance but negative impact on accounting performance.
Mokhber et al. (2017)	Firm Performance (Subjective – 4 items: profitability, revenue, growth, and return on investment)	preparation of heirs, relationship between family and business members	Both heirs level of preparation and the relationship between family and business members have positive impacts on the performance of family business.

* Sub = Subjective

4. Ethnic variations in family business performance

Ethnic wise, there are apparent variations entrepreneurship and performance among Malay, Chinese and Indian family firms. Earlier, the study highlighted how government policies influenced the economic participation of the main three ethnic groups. Another factor that adds primarily to these variations is culture. Zainol and Ayadurai (2011) provided a good discussion on the link between Malay culture and entrepreneurship perception in general. The gist of this discussion can be summarized in the following four attributes/factors that have reverse effects on business and performance: i) conservatism, risk aversion and lack of initiatives, ii) unproductive and underdeveloped attitude towards money, iii) attitudes towards wealth; land but other properties are considered as capital asset for investment, iv) misconceptions regarding the concept of "Takdir". To what extent business performance can be impacted by such attributes is not known. Evidence on additional attachment of Malay people to the Islamic principles was found in the study of Othman et al. (2005). These authors found that Malay entrepreneurs show higher satisfaction from working hard and seeing the job well done as compared to the Chinese. Work perfection is indeed well recommended in Islam.

For Chinese, a different set of cultural values with different implications on business performance are expected. Chinese family business style is anchored in the Confucian principles. The latter influences the organizational structure and business practices significantly (Redding, 1990; Yan and Sorenson, 2004). In fact, Chinese businesses follow a strong collective identity and work within a network of business relationships (Tsang, 2001). According to Sin (1987) and To (2010), factors like strong family ties, sharing and pooling of resources, efficient use of labor, thrift, operations flexibility, paternalism, obedience to the manager owner, high centralized decision making and loyalty add strength to Chinese family firms and boost their performance. However, these same factors may weaken performance when the business grows larger. In line with this observation, Carney (1998) attributes the success of Chinese family firms to the relatively simple 'personally managed' entities that are operationally contained in a network of connections. The spread and success of Chinese family firms is noticeable across the whole South East Asian region where they controlled over 70 % of the corporate wealth in 1995 despite the fact that they constituted only 6% of the total population (Backman, 1995).

With regards of Indian family firms, little is known, however, the existing evidence shows that unlike the Malay and Chinese firms, Indian businesses have remained one-store operations, with little diversification and expansion. Similarly, Indian entrepreneurs remained conservative and largely cautious of expansion due to the competitive industry (Gomez 2001 as found in Amran and Ahmed, 2011), but perhaps also to keep their businesses unnoticeable and avoid reverse policy actions (Gomez, 2007, Whah, 2007). According to Ramachandran (2012), Indian family firms may be stuck in their choice between of risks and returns of business growth on the one hand and conservation of wealth of the family on the other hand.

Besides, one of the cultural components that weight in entrepreneurship and business performance is uncertainty avoidance (Swierczek and Ha 2003; Broekhuizen et al., 2017). Although Malaysia scored moderately low (36) in Hofstede uncertainty avoidance index, differences between the main three groups exist (Haniffa and Cooke, 2002; Zainol and Ayadurai, 2011). In fact, Hofstede indexes of cultural dimensions do not reflect ethnic differences in Malaysia properly. Haniffa and Cooke (2002) proposed the use of scores of Indonesia (48) and Hong Kong (29) instead because these scores may be more accurately applied to Malays and Chinese respectively. Similarly, scores of India (40) and/or Sri Lanka (45) may provide better level of uncertainty avoidance among Malaysian Indians.

Uncertainty avoidance refers to the level of tolerance for ambiguity and uncertainty (Wennekers, et al., 2007) and have implication on individual entrepreneurial intention, engagement and operations (Hancıoğlua et al., 2014; Broekhuizen et al., 2017). Operating under uncertainty conditions boosts the ability of entrepreneurs through motivation and risk-taking tendency (Hancıoğlua et al., 2014). Wennekers et al. (2007) further posit that entrepreneurship would be unnecessary in the absence of uncertainty. In Malaysia, Chinese family firms are rated low on uncertainty avoidance, because of their greater acceptance of challenges and willingness to tackle greater risk (Abdullah, 1992). Under such condition, they tend to show not only high propensity towards entrepreneurial engagement but also high tendency towards taking actions that aims to boost performance such as investments, marketing campaigns and so on.

5. Conclusion

This paper addressed performance of family businesses in Malaysia. Empirical studies that were conducted to examine factors influencing performance have majorly built on factors derived from the corporate governance and board of directors. Besides, performance as a concept has often been measured through financial indictors

particularly Tobin's Q ratio. Similar to research in finance and entrepreneurship, common financial indicators like return on assets, return on investment, market-to-book value as well as subjective measurement gauging satisfaction of the owners/managers have been noticed as well. From ethnic perspectives, differences in performance of Malay, Chinese and Indian family firms are observed. While both culture and government policies seem to have impacted entrepreneurial engagement, performance may be significantly impacted by culture. Success of Chinese firms is attributed to the role of family and ethnic networks governing the entrepreneurial practice. Not much is known about Indian family firms due to lack of studies in the literature.

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Graduates Tracer Study Of The Bachelor Of Muamalat Administration In Faculty Of Economics And Muamalat, Usim From 2014 – 2018

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Abstract

A quality of a university generally can be determined through its own graduates. After going through for almost 4 years learning process in the university, students should have equipped knowledge and skill to start their career. This paper aims to trace the employment profile of the graduates after they obtained their Bachelor degree. It collects essential information concerning the employment profile of graduates, the current jobs of graduates and the relevance of their educational background and skills required in their job. The descriptive research design was used to trace the graduate's employability and employment status of the Bachelor of Muamalat Administration(BMA) in Faculty of Economics and Muamalat, USIM from 2014 - 2018. The results showed that most BMA graduates are employed in the private limited companies (36%), and in the public listed companies (21%). Most of them work in the services sector that contributed 25% and in the banking and Takaful industry 24.5%. 59% of them work as an officer/executive that earn a salary between RM1,000 to RM2,999 a month. In terms of nature of work, 34% work in the management department, 28% in the finance department and 26% in the operation department. Majority of the students agree that their work related to the course taken in the university. Only 15% mentioned that their job is different with the course taken in the university. However, 46.4% agree that it quite difficult for them to find a job after their graduation because most companies looking for an experienced worker. The results are in line with the aim of the program to produce quality students that meet the demand by the industry.

Keywords: Tracer Study, Undergraduate, Islamic Business

1. Introduction

The tremendous development of halal business and Islamic finance industry were encouraged higher education institutions to offer Islamic business studies programs such as muamalat, Islamic banking and finance and Shariah. The growth projections of the global Islamic finance industry are bandied at least 10 per cent annually where the global Islamic financial services industry stood at US$2.293 trillion at the end of December 2016 (GIFR, 2017). The industry will grow by compound annual growth rate of (CAGR) of 15.27% by 2020. While for halal industry, the global halal industry is estimated to be worth around US$2.3 trillion, growing at an estimated annual rate of 20% (GIFR, 2013). The global halal market of 1.8 billion Muslims is no longer confined to food and food related products. The halal industry has now expanded beyond the food sector to include pharmaceuticals, cosmetics, health products, toiletries and medical devices as well as service sector components such as logistics, marketing, print and electronic media, packaging, branding, and financing. The market size of the halal industry in Malaysia is estimated to be US$1.9 billion in 2013.

Lack of skilled workers is identified as one of the challenges facing the Islamic finance and halal industry. Having a skilled workforce with the necessary skills and knowledge is critical. More graduates students in Islamic finance and halal-related areas should be developed to train qualified people especially in research, development, innovation and commercialisation of halal food, pharmaceuticals and consumer products as well as Shariah-compliant services such as tourism and hospitality as well as in banking and Islamic finance companies. Therefore, the role of higher education institutions is needed to provide quality graduates in those fields. As at 2015, based on survey that has been done by International Council of Islamic Finance Educators (ICIFE), a total of 89 Islamic business and finance programs have been offered by 14 higher education institutions in Malaysia. Out of these, 21 are PhD programs, 36 Masters, 27 Bachelors and 5 Diploma programs.

The survey also found that programs with banking and finance focus are the majority constituting at least 37%. These are followed by Muamalat focused programs (25%), Islamic economics (20%), Islamic management (15%) and Islamic accounting (3%) (MIFER, 2015).

However this is a question whether the programs offered by the universities fulfil the demand of the industries. Graduate employability is an important aspect of the higher education industry. It evaluates the success and ability of the particular institution in producing work-ready graduates. Normally, employers prefer workers who have generic competencies like interpersonal skills, leadership skills, teamwork, oral and written skills (Lee et al, 2001; Atfield & Purcell, 2012). As a number of graduates from higher education increases in the labor market, the demand for employability skills that students learn during their time in universities and colleges also increases (Mason et al, 2006). Therefore this study aims to investigate the employability rate among Bachelor of Muamalat Administration graduates in Faculty of Economics and Muamalat, USIM.

Muamalat Administration program is the first program offered by the Faculty of Economics and Muamalat, USIM in the area of Islamic business study. The unique of this program is it unites revelational sciences (Naqli knowledge) and the rational sciences (Aqli knowledge) in every subject taught. The integration of Naqli and Aqli knowledge is based on the basic principle that integrating religious sciences with social and physical sciences which not only provide a more comprehensive understanding of current global challenges, but also offer a fresh alternative in approaching and solving them.

The structure of the paper is divided into five sections. The next section provides the review of past literatures followed by research methodology. Section four discusses the findings and the last section concludes with conclusion.

2. Literature Review

Tracer study is important for the institutions to look either their graduate students can compete with other graduates from other institutions in getting their jobs. It also important to investigate either their job is in line with their degrees. A tracer study results is a powerful tool which documented the employment characteristics, transition to employment and the level of satisfaction of graduates in terms of the level of satisfaction of the University services, learning environment and facilities (Gines, 2014). A study done by Latifah Abdol Latif and Ramli Bahroom (2010) found that programs offered by their university have had a high impact on the holistic development of graduates, in terms of self-readiness such as maturity, reliance and teamwork. Menez (2014) investigates the Masters in Business Administration graduates from Lyceum University from 2008 to 2012. The study found that the graduates employed with holding professional and managerial positions. The MBA course has contributed to the graduate's professional advancement such as communication, human and technical skills, and values.

Meanwhile, Chung-Khain Wye and Yet-Mee Lim (2009) in their study about perception between employers and undergraduates on employability skills revealed that qualities of the students such as stress tolerance and emotional intelligence are perceived to have been moderately developed by graduates. Whereas, other qualities such as integrity and honesty, responsibility, positive attitude toward work, and punctuality also reported as employability skills for graduates to be employed. Besides, for optimal economic and social outcomes, graduates must be able to proactively navigate the world of work and self-manage the career building process (Bridgstock, 2009). Harvey (2010) found that a university needs to adapt the nature and implication of organisational change for graduates and assesses what attributes graduates will need in the next decade.

3. Research Methodology

The study uses quantitative methodology through an online questionnaire survey that covering the employment characteristics namely company's sector, types of company, field of work, position held in the company, and salary earn a month. The questionnaire also ask about either their job is related to the course taken in the university and either it is easy for the fresh graduates to get job. The questionnaire was distributed to the graduate students who graduate in 2014 to 2018. 110 questionnaires were successfully retrieved by the researcher and these were used for the study. The data is then analysed using descriptive analysis to answer the research objectives.

4. Findings

Based on the descriptive analysis, the result shows that 75.5% of the respondents are female and 24.5% are male as shown in table 1. The result is in line with the total graduates where more than 70% of the graduates are female.

Table 1: Gender

Gender	Frequency	Percentage (%)
Male	27	24.5
Female	83	75.5
Total	110	100.0

Table 2 shows the distribution of respondents by year graduated. The table shows that 37% of the respondents were graduated in 2017, 31% were graduated in 2018 and 16% were graduated in 2014. Whereas the balance, 11% were graduated in 2016 and 6% were graduated in 2015.

Table 2: Year of Graduation

Year of Graduation	Frequency	Percentage (%)
2014	17	15.5
2015	6	5.5
2016	12	10.9
2017	41	37.3
2018	34	30.9
Total	110	100.0

In terms of type of companies where students work, the findings show that 40 students (36%) work in the private limited companies (Sdn Bhd). This is normal where majority of the employers prefer to hire experience workers compare to fresh graduates. The result also shows that 21% of the graduates work in the public listed companies such as Maybank Berhad, Bank Islam Malaysia Berhad, Etiqa Takaful Berhad and Pharmaniaga Manufacturing. The rest 18 students (16%) work in the Government Link Companies (GLC) such as Bank Rakyat, MBSB Bank and Halal Industry Development Corporation (HIDC). Whereas 12% of the graduates work in the government or government agencies and enterprises companies as shown in Figure 1.

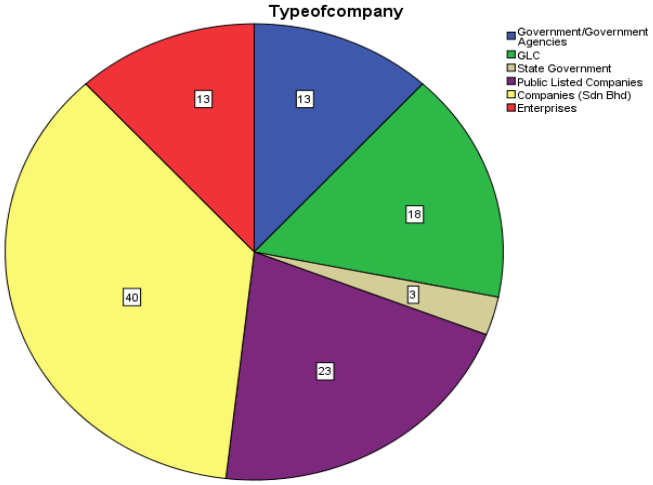


Figure 1. Type of Companies

Meanwhile, in terms of company's sector, the result shows that Bachelor of Muamalat Administration program is accepted to work in various sectors same as Bachelor in Business Administration that being offered by other universities. The findings reveal that 25% of the graduates work in the services sector such as travel companies, event planner and IT companies. 24.5% of the graduates work in the banking and Takaful companies and 20% work in other sectors such as property developer, telecommunication, automotive and retail.

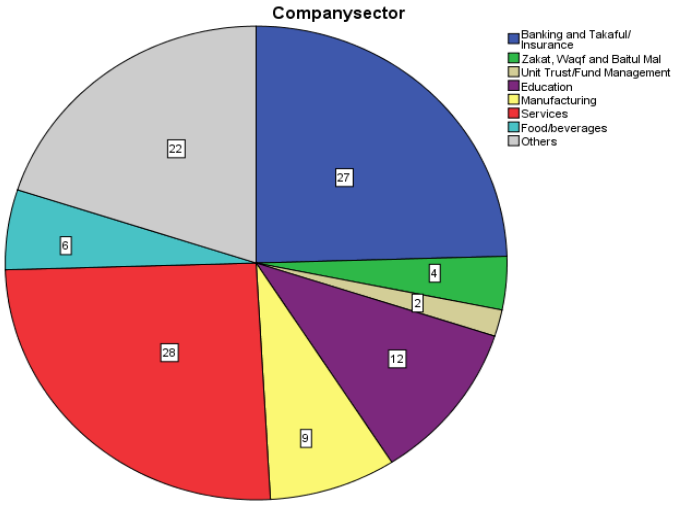


Figure 2. Company's Sector

Majority of the graduates (69%) hold the position as an officer/executive while, 25% as subordinates as shown in Figure 3. There are two graduates who open their own business in their hometown. However four graduates manage to hold top position in the company even they have less than 5 years working experience.

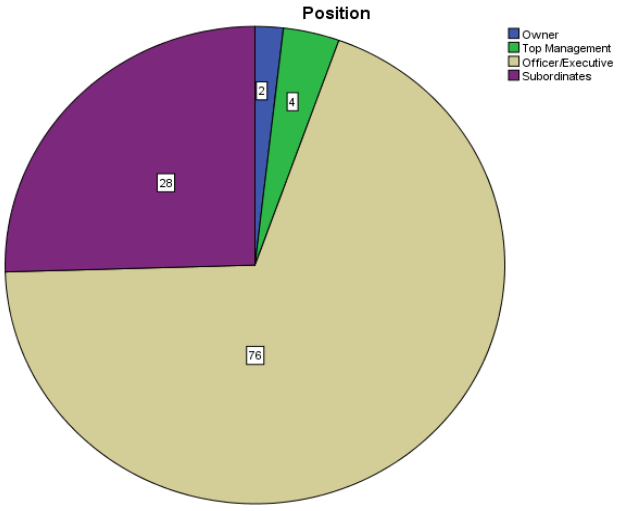


Figure 3. Position Held in the Company

Half of the graduates (51.8%) receives a monthly salary between RM1000 to RM1999. This is because most of them are fresh graduates with no experience in working. The result reveals that the salary increase in line with the experience of the graduates. The balance, 38% earn monthly income between RM2000 to RM2999, while eight graduates manage to earn monthly income above RM3000 a month where two graduates earn more than RM4000 a month as shown in Figure 4.

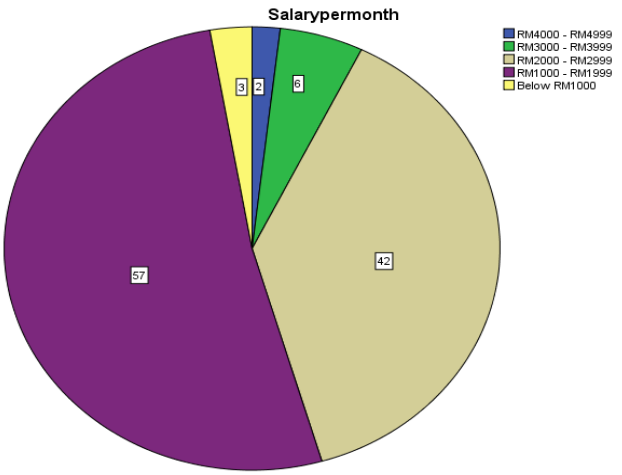


Figure 4. Salary per Month

In terms of the nature of work, 34% work in the management field while 28% work in the finance field. This is in line with the aims of the program that want to produce a manager who are knowledgeable, competent, creative and trustworthy in the field of Muamalat and Islamic finance. 26% work in the field of operation and the rest in marketing and human resource as shown in Figure 5.

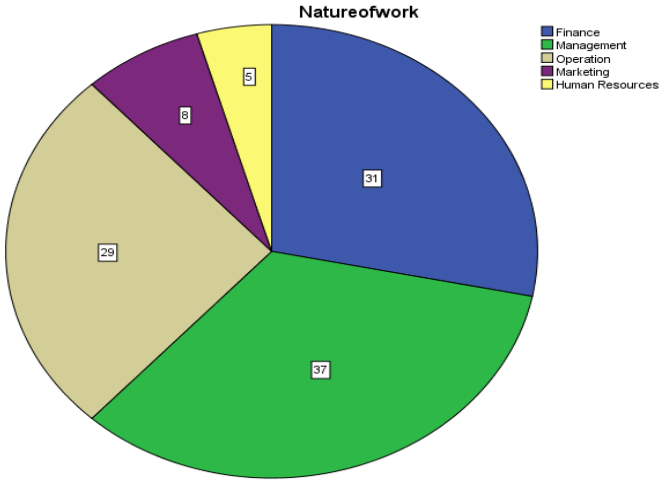


Figure 5. The Nature of Work

Majority of the students (87.3%) agree that what they do now in work is related with the subjects taken in the Faculty. They can apply what they learned in the class to their job. It shows that faculty offers relevant subjects that in line with industry demand. However they suggested to add more IT knowledge such as advanced software and big data analysis in the program structure to add value of the students.

Table 3: Relevant to Study

Answer	Frequency	Percentage (%)
Yes	96	87.3
No	14	12.7
Total	110	100.0

5. Conclusion

The successful of the program can be determined through the graduate's employability. High graduate's employability means that the industries accept the program. A tracer study is important to investigate where and what students do after they finish their study in the university. Based on the results above, it can be concluded that the Faculty of Economics and Muamalat was succeed to achieve its mission which is to support the intention to uphold knowledge and produce an individual with strong Islamic education based and able to contribute to the community, country and global society.

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Understanding Charity Giving and Donor's Behaviour in Crowdfunding Activities

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Abstract

This paper aims to explore donor's awareness and preference in using crowdfunding platform in Klang Valley, Malaysia. The sampling frame used in this study was undergraduate and postgraduate students in a public university. A self-administered online survey questionnaire was distributed to the selected respondents residing in Klang Valley in 2017. Descriptive analysis and were conducted to investigate the awareness and what type of charitable organizations preferred. Findings from this study will help fundraising institutions to understand the donor's preference and their perceptions towards online crowdfunding.

Keywords: online crowdfunding, awareness, fundraising

1. Introduction

1.1 Charity Giving, Sadaqah and Infaq

What is charity giving? Charity giving is an act of giving money or other items of value to an organizations or organizers without expecting anything in return. In Islamic concept, Sadaqah or donation is defined as an act of giving something to somebody without seeking a substitute and with the intention of pleasing Allah (n.a, 2018) While Ibn Manzur gives a definition of sadaqah as what you give because of Allah, to the poor, that is the one in need. The alms include obligatory zakat, and charity sadaqah, as intended in Alquran At-Taubah (9:60).

إِنَّمَا الصَّدَقَاتُ لِلْفُقَرَاءِ وَالْمَسَاكِينِ وَالْعَامِلِينَ عَلَيْهَا وَالْمُؤَلَّفَةِ قُلُوبُهُمْ وَفِي الرِّقَابِ وَالْغَارِمِينَ وَفِي سَبِيلِ اللَّهِ وَابْنِ السَّبِيلِ ۖ فَرِيضَةً مِّنَ اللَّهِ ۗ وَاللَّهُ عَلِيمٌ حَكِيمٌ

Which means the alms are for the poor and the needy, and those employed to administer the (funds)(amil); for those whose hearts have been (recently) reconciled (to Truth)(muallaf); for those in bondage and in debt; in the cause of Allah. and for the wayfarer: (thus is it) ordained by Allah, and Allah is full of knowledge and wisdom.

It is also mentioned in a hadith written by Sayyidina Abu Bakar RA:

هَذِهِ فَرِيضَةُ الصَّدَقَةِ الَّتِي فَرَضَ رَسُولُ اللَّهِ صَلَّى اللهُ عَلَيْهِ وَسَلَّمَ عَلَى المُسْلِمِينَ

This hadith shows, that this will be the ordinance of charity imposed by the Messenger of Allah, peace be upon him to the Muslims as narrated by Imam Bukhari (1454)

However, Infaq according to al-Jurjani means spending the property to the needy. Refer to al-Ta`rifat (1/39). In Surah al-Baqarah (2: 3), Allah SWT says:

الَّذِين يُؤْمِنُونَ بِالْغَيْبِ وَيُقِيمُونَ الصَّلَاةَ وَمِمَّا رَزَقْنَاهُمْ يُنْفِقُو

It means: (The believer is) those who believe in the unseen, pray and give infaq out of what we give them.

The word 'ينفقون' in this verse, according to the option of Imam al-Tabari, refers to the payment of zakat and the provision of livelihood to the family members borne. Refer Jami 'al-Bayan (1/244). Hence, sadaqah and infaq are synonym ("Al-Kafi NO 396: Beza Makna Sedekah, Infaq dan Zakat," 2016).

With reference to sadaqah and infaq, during Prophet Muhammad (s.a.w), time, Prophet Muhammad had once requested from his friends to infaq or donate their valuables to fund the Tabuq war between the Muslim and The Romanians whom are a lot stronger. Tabuq war was the last war whom prophet Muhammad (s.a.w) was involved and in this war, Saidina Ali and Saidina Abu Bakr and the rich ones had donated their belongings to assist in funding the war to assist Prophet Muhammad (s.a.w)(Suraya, 2018). The tabuq war started off with financial and non-financial assistance by the crowd or in a modern context, it signifies a crowdsourcing activity.

It marks a significant point in life where crowd funding co-existed in the life of Muslim since 630 Masihi. Although the details on how the fund is raise, collect and distribute varies, the ways fund is raised are very much similar. Maybe it is hard to image how things are done during our prophet's time, so let us look at something that is closer to our daily activities for example, mosque Friday collections. The mosque committee is in charge to manage the fund, distribute and report the amount of collections to the public. It is done traditionally where moneys are collected, kept by the fund collector (the mosque committee) before it is deposited to the bank or distributed to the needy ones, but basically to manage the donations. Nowadays, with the technology in hand, the donations can be done using internet and is called crowdfunding. The advancement of the technology enables not only sadakah based, but also other type of funding.

2. Traditional and Internet-Based Crowdfunding

2.1 General Features Shared by Traditional and Internet-based Crowdfunding Model

Crowdfunding is a type of crowdsourcing. According to Kleemann, Voss, and Rieder (2008) crowdfunding involves an open call, primarily through the Internet, for the provision of financial resources either in the form of donations (without rewards) or in exchange for compensation and / or voting rights in order to support initiatives for specific purposes. Crowdfunding mechanism is getting more popular in other developed nations namely United States, Europe and is used to raise donation for charity giving. In general, a traditional donation or internet based crowdfunding share three distinct features namely funder or investor, platform and receiver. The Figure 1 Traditional Donation Based Model (Mosque Friday Collection), shows participant will fund the project by donating their money (in the form of cash or means) to the mosque through the most committee (and this usually utilizing so called 'tabung masjid') as the platform and later to be used by the mosque committee for whatever needed or agreed by the committee. As most of the donation is considered as sadaqa or infaq and was done offline, there is no additional cost or management fee imposed to the donor. It has been in practice that, the donation amount is managed by the mosque committee. On a serious note, all appointed committees are among those who are pious and must be those of trusted, reputable and religious.

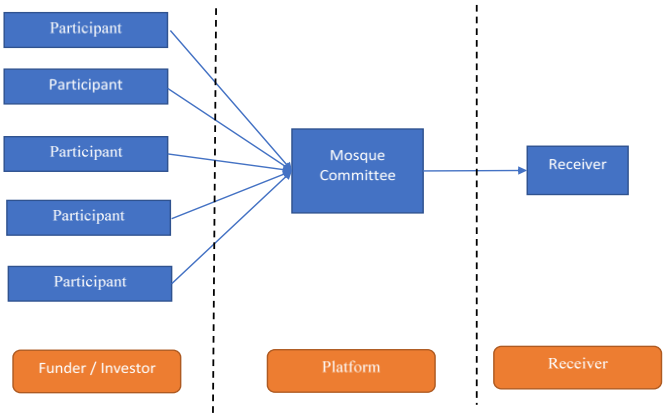


Figure 1 Traditional Donation Based Model (Mosque Friday Collection)

Similarly, the GoFundMe model shown in Figure 2 GoFundMe Donation Based Crowdfunding shows that participants will act as funder or investor, will invest or donate to the GoFundMe. The difference here is donation is done utilizing internet as the platform. This crowdfunding model allows the fundraiser to pledge for donations from the public using their platform. Because this internet-based platform is managed utilizing some internet facilities, the occurrence of administrative cost in managing and maintaining the system is unavoidable. GoFundMe will charge some management fees to be deducted from the donor to cover their administrative cost.

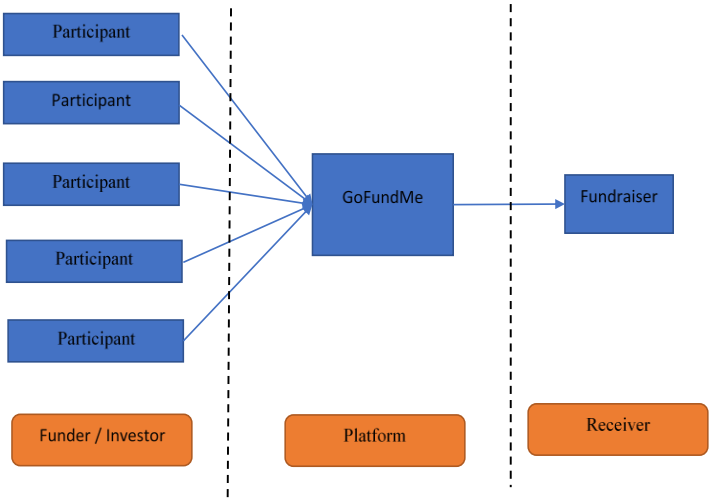


Figure 2 GoFundMe Donation Based Crowdfunding

YouCaring crowdfunding shown in Figure 3 YouCaring Donation Based Crowdfunding, is comparable to GoFundMe crowdfunding model and share similar characteristics. Utilizing internet platform, fundraiser may pledge donations form donors or participants. Some management fees are administered to the participants.

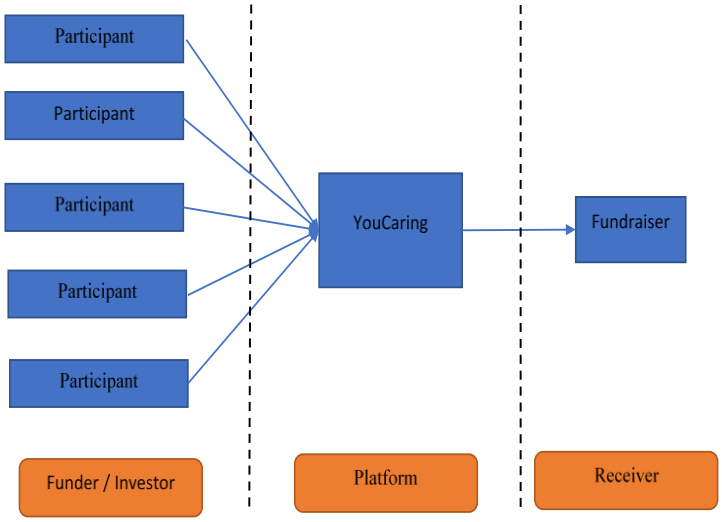


Figure 3 YouCaring Donation Based Crowdfunding

2.2 Differences between traditional and Internet -based crowdfunding

The main difference between traditional and internet based is firstly, the traditional donation based is done manually which means the donors will donate their contribution direct to the dedicated donation box (also known as 'tabung masjid') located somewhere in the mosque (usually very close to the main entrance). Meanwhile the crowdfunding internet-based is utilizing internet where donors will donate through internet direct to the account specified. Secondly, in the traditional model, no specific amount of money is pledged. It is entirely up to the donor or participants to donate. Meanwhile, the internet-based allows the fundraiser to pledge a certain amount of money needed. Finally, no charges imposed to the traditional donation model as opposed to the internet-based crowdfunding. The five to 10 percent (5%-10%) charges are to cover the administrative cost in managing and maintaining the platform.

The interesting fact here is, the traditional fund-raising activities itself, if it is not appraised for being efficient, it has been widely used and implemented for a very long time. Therefore, it is interesting to investigate how to replicate the model utilizing technology and increase the benefit to the needy ones. Replicating and utilizing technology is no doubt equally important in ensuring the success of the crowdfunding model, however, the model will only be successful with the existence of a funder. No funder or donor means the model will not work as expected.

2.3 Ijtimaie Type of Funding

In the latest development, Kirby and Worner (2014) suggest that crowdfunding models can be classified as community crowdfunding or financial return crowdfunding, which differ regarding the presence or a return of backers or not. Community crowdfunding includes social lending / donation crowdfunding and reward crowdfunding, while financial return crowdfunding refers to peer-to-peer (p2p) lending and equity crowdfunding. In this paper, community crowdfunding is termed as Ijtimaie type or social crowdfunding. As shown Table 1 for Ijtimaie type of funding, Islamic crowdfunding exhibits a slightly diffferent funding types namely Qadr Hasan, waqf, sadaqah and hibah. Except for qardr hasan (of which capital is returned), all monies are reinvested and is considered as a donation based. Misbah, Shafii, and Muda (2018) describe the types on Ijtimaie type of Funding in the Table 1 below:

Table 1. General Descriptions on the Ijtimaie Type of Funding

Type	Description
Waqf	• In Shariah, waqf is a voluntary, permanent, irrevocable dedication of a portion of one's wealth (in cash or in kind) to Allah SWT. Waqf is flexible in the sense that its beneficiaries need not be restricted to Muslims and the fruits of the waqf must be utilized for Shariah-compliant purposes.
Hibah	• Hibah is a benevolent contract for the unilateral transfer of ownership of an asset, hereinafter referred to as a hibah asset from a donor to a recipient without any consideration. In other words, hibah could be defined as a transfer of ownership of an asset from a donor (wahib) to a recipient (mawhub lahu) without any consideration. According to the BNM's concept paper, hibah may be arranged with other Shariah contracts, namely ijarah, mudarabah, musyarakah, wakalah and qard. An IFI may give hibah to its customer at its own discretion but subject to conditions specified by Shariah requirements.
Qard Hasan	• Qard hasan is interest-free loan or benevolent loan. Technically, it is a loan contract between two parties for social welfare or for short-term bridging finance. Repayment is for the same amount as the amount borrowed. The borrower can pay more than the amount borrowed so long as it is not stated by contract. Due to its nature, this type of financing is deployed as a mode of social financing. In Islamic banks, qard hasan is typically used to provide loan to employees, helping them to cater for short term liquidity needs for to cope with school expenses and festive expenses.
Sadaqah	• In the technical term, sadaqah is categorized into compulsory and voluntary contribution. Sadaqah leads into the purification of the benefactor. • Compulsory sadaqah is zakat levied to wealth and to individuals referred to as zakat fitrah. • Voluntary sadaqah, on the other hand,is outright gift from the donor to the recipient performed voluntarily as an act of pure serving to the others to get blessing of Allah.

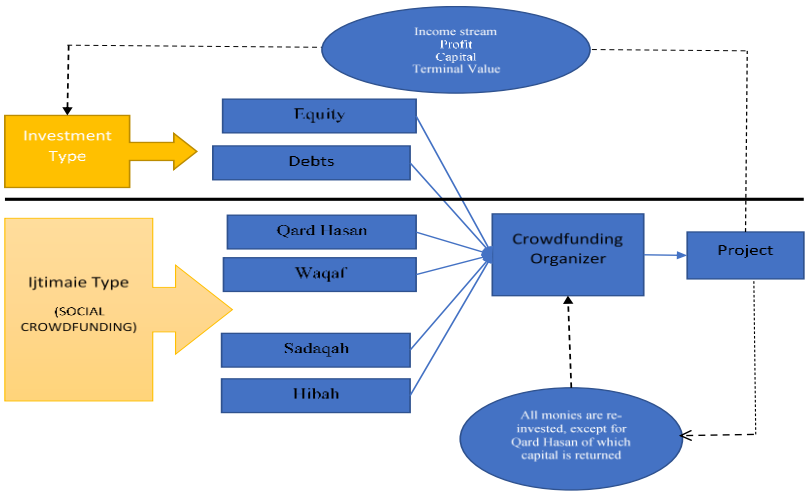


Figure 4 Types of Ijtimaie Funding

3. Methodology

Online crowdfunding activities means the crowd funding is done using a certain application that runs on internet. A study to investigate the student's perceptions toward online crowdfunding was conducted in 2017 using a web-based survey containing items on source of exposure to crowdfunding, preference and their perceptions, plus questions about demographic information and was administered to a sample of 330 young individuals ages (18-40) using online survey. About 211 usable responses received. The sample comprised 70 percent females and 29 percent males and covered a range of ages 18 years to 40 years old. Descriptive analysis was conducted and found out that 55 percent of the students have heard of crowdfunding.

4. Results and Discussion

4.1 Source of Online Crowdfunding

Interestingly, out of the 55 percent, 13 percent were exposed to online crowdfunding through social media namely Facebook and twitter, 10 percent through word of mouth, and 5 percent both from online and others (books, lectures and associations). Social media was on top the list as one of the popular sources of disseminating news or information.

Table 2 Source of Online Crowdfunding

How did you first hear about crowdfunding?	
Social media Facebook, twitter	13%
Word of mouth	10%
Online search	5%
Others	5%

4.2 Donation Platform

In terms of types of donations platform preferred, 26 percent of the respondents preferred to donate via both online and traditional way of donation (i.e. offline) while 26 percent of the respondents prefers traditional offline and 9 percent prefers to donate through online crowdfunding platform.

Table 3 Donation Platform

When asked how do you prefer to donate?	
Donate both online and offline while	26%
Donate using traditional offline	27%
Donate using online crowdfunding platform	9%

4.3 Preferred Crowdfunding Operator

It has been an interesting finding to know that most of the respondents prefer to donate through an organization that is organised by the government. This may imply that the level of confidence and trust that the respondents have towards the institutions owned by the government is slightly higher compared to an independent organization.

Table 4 Preferred Crowdfunding Operator

Which of the crowdfunding operator would you prefer?	
Run by organization organized by the government	38%
An independent organization	23%

4.4 Ranking of Islamic f Social Crowdfunding

Pertaining to respondent's preference on Social Crowdfunding type; 30 percent of the respondents it as the most appealing to the them (considering ranked first and second place). Meanwhile only 6 percent or the respondents choose Qard Hasn and Hibah for their first choice resulting both not preferred by the respondents.

Table 5 Ranking of Social Crowdfunding (Ijtimaie)

The Most Appealing Type		
1	16% Ranked first	Sadaqah
2	15.6% Ranked first	Waqf
3	16% Ranked first	Sadaqah
4	15.6% Ranked first	Waqf

4.5 Type of Charitable Organization Preferred

Respondents choose development aid for example building madrasah, tahfiz centre and students hostel as their most preferred type of charitable organizations preferred followed by Health care funding, education and environmental and animal shelter protection.

Table 6 Type of Charitable Organization Preferred

Type of Charitable Organization Preferred		
1	Development aid: madrasah, tahfiz centre, student hostel	42%
2	Health care (funding for cancer patients)	38%
3	Education	30%
4	Environment and animal protection	23%

4.6 Rank of Preference to Donate

Result shows that healthcare funding top the chart with 19 percent of the respondents rank it first choice, followed by social enterprise funding (basic building necessities) as the second place. Not more than 6% rank the remaining choice of preference to donate as their first rank for Educational fund, primary and secondary school, university and small business. This is such an important insight as to why educational fund (for all levels) are not top ranked.

Table 7 Rank of Preference to Donate

Rank of Preference		
1	Healthcare fund-funding for those badly sick	19%
2	Social enterprise funding for those building necessities e.g mosque, community hall	12%
3	Wedding	9%
4	Educational fund - secondary school	6%
5	Educational fund – primary school	3%
6	Educational fund – university college	3%
7	Small business capital	2%

4.7 Perceptions on Donating Through Online Crowdfunding

Majority of the respondents agree with the statement that online crowdfunding is somehow a good idea, useful, wise, pleasant, and desirable and is something they like. The average scoring for all items pertaining to how respondents perceive about online crowdfunding ranging from 3.59 to 3.97.

Table 8 Perceptions on Donating Through Online Crowdfunding

Answer Options	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Rating Average	Response Count
To me donating through online crowdfunding is a good idea	2	3	35	66	27	3.85	133
To me donating through online crowdfunding is useful	0	1	27	80	26	3.97	133
To me donating through online crowdfunding is wise	3	6	41	62	21	3.69	133
To me donating through online crowdfunding is pleasant	1	3	42	66	20	3.77	133
To me donating through crowdfunding is desirable	3	0	56	59	15	3.62	133
To me donating through online crowdfunding is something I like	3	8	48	55	19	3.59	133

5. Conclusion

Crowdsourcing is not new in the sense that getting public to fund a project or an activity that is initiated by an individual or a group of people. However, crowdfunding differs to traditional crowdsourcing because it utilized technology and operated using an internet platform. Majority of the respondents have heard of online

crowdfunding and the most popular medium was through social networking; Facebook, twitter. Percentage on donor's preference shows that even though online crowdfunding is rather new, 9% would donate through the platform and surprisingly, 27 percent are willing to donate using both online and traditional and majority prefers the online crowdfunding platform to be run by government agencies. This is an interesting finding in understanding donor's behaviour and their preference. Sadakah remains the most preferred choice of social crowdfunding for online crowdfunding donation, meanwhile development aid: madrasah, tahfiz centre, student hostel and healthcare funding are among the top donation type preferred. In terms of awareness, majority of the respondents are not aware of the existence of crowdfunding sites and were not approached to donate online previously.

6. Acknowledgements

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Predicting the Probability of Corporate Distress in Malaysia

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Abstract

This paper discusses the predicting the probability of corporate distress in Malaysia. The study consists of 119 public listed companies that have been categorized as financially – distressed and cover the period between 2001 until 2012. This study employs logistic regression in predicting the probability of distress and panel data as it involves cross sectional and time series data. The findings suggest that retained earnings to total assets and sales to total assets variables are consistently significant in determing the default probability.

Keywords: Corporate Distress

1. Introduction

Corporate failure prediction topic has been the popular subject in corporate finance among academia and practitioners. The series of large corporation i.e Enron ,World Com, and Lehman Brothers in 2001,2002 and 2008 respectively were the example of corporate failure. These three companies were relatively large and have triggered the world on the importance of corporate governance, internal and external auditors' role, risk assessment, whistle blowers protection and investors protection in making sure the survival of the firm.

Corporate failure happens when a firm is financially unhealthy or distress. Financial distress is a condition where a company cannot meet or has difficulty paying off its financial obligations to its creditors. The chance of financial distress increases when a firm has high fixed costs, illiquid assets, or revenues that are sensitive to economic downturns. Corporate failure in Malaysia becoming an interesting topic to investgate as many companies especially public listed companies fall under the financially distressed situation. This study is going to investigate the factors that lead to the companies becoming financially unhealthy.

It has been reported that from 2001-2012, there were 272 public listed companies from main market of Bursa Malaysia have been classified as Practice Note 4, Practice Note 17, and Amended Practice Note 17. As at September 2014, there were 813 companies listed on the main market and the market capitalisation stood at MYR1.76 trillion, a marginal increased by RM600 million from 31st Dec 2013.

This paper attempts to investigate what indicators that could be the explanatory variable in explaining the distressed companies. As we aware, the Asian financial crisis that hit Malaysia in 1997-1998 had a huge financial impact on the country itself especially the Malaysian Ringgit (MYR) and the business operation

2. Literature Review

Financial distress is apparently associated with the negative connotation, it is a situation whereby a company is facing a financial difficulty in fulfilling its financial obligation on schedule (Gordon,1971). Failure to meet the financial deadline would involve costs to the company, i.e creditors loss confidence. Financial distress is commonly described in terms of default, failure, bankruptcy, or distressed restructuring. Financial distress commonly involves between two counter party, a creditor and a debtor. Beaver (1966) states that financial distress can happen in different forms; nonpayment dividend to preferred shareholders, bond default, and an overdrawn bank account.

Wruck (1990) highlights that the obligations in financial distress is not limited between capital providers but it involves other stakeholders at large i.e employees and suppliers, these obligations include unpaid salary to employees, unpaid debts to suppliers, actual or potential damages from litigation and missed principal and interest payments to capital providers.

Brown et all (1993) categorise a financially distress company is if it is going to perform the restructuring action with the aim to avoid a default or as a response to the predicted default on a financial contact. Andrade and Kaplan (1998) classify that financial distress could occur when there is a default on scheduled debt payment and an effort to restructure the debt contract so that the default situation can be avoided. These authors define that a company that undertakes a precaution or necessary action taken before the default occurs is considered as financially distress company. Very common practice of a company to avoid default is by negotiating with the capital provider to lower down the interest and principal payments or by extending the payment period.

Purnanandam (2005) develops a theoretical model of risk management in the case of financial distress. According to him, financial distress is perceived as in-between financially healthy and financially bankrupt. A company is considered distress if it fails to pay its financial obligation or commits to other financial violations, i.e debt covenants. The transition from a solvent to an insolvent situation takes place when on the maturity date if the company's assets value is lower than the debt's face value. This is possibly could happen when a company is suffering huge losses and lead to the accumulated retained earnings turn to the negative value and eventually shareholders' funds could also be dragged to the negative value. This definition doubtlessly differentiate financial distress from possible going bankrupt and default.

The cost of being a distress company is really painful, especially to employees. They might be suffering from low morale due to the company's financial uncertainty as they need to secure employment or they migh be reterenched in the near future and must be seeking for a new appointment. Creditors or lenders might suffer from potential financial loss as they may not receive the payment and this situation may force creditors asking a distress company to expedite the payment. Suppliers might review the credit terms by shorting the payment period or even stop supplying goods and services. From the shareholders'and investors point of view, they may experience from potential investment or financial loss and at the same time the relationship between shareholders and the company is likely to be damaged beyond repair.

Chen and Merville (1999) investigates the indirect costs of financial distress for 1,041 firms from 1982 to 1992 and the findings show that profit is dropped eight percent of firm market value in average and the profit can fall as high as 80 percent of market value. The indirect costs of financial distress are defined as the opportunity costs suffered by the company as the degree of its solvency declines. This could be illustrated when sales of the company declines as the customers have no confidence to the products or services offered, this could seriously effect the bottom line of the company which is profit, investment opportunity loss and loss of confidence from stakeholders at large.

For the Malaysian public listed companies case, distress company which has been issued with Practice Note 17 and given time for rectification to stabilise the financial situation and if the company still in financially dire situation, the bourse (Bursa Malaysia) has to expel the company from the exchange.

The Asian financial crisis that occurred in the late 90s had major impact on corporations. In the case of Malaysia, it was hit by the financial crisis as Malaysian Ringgit (MYR) devalued against United States Dollar (USD). By the end of August 1997, the Malaysian Ringgit devalued by 17 percent against USD (Corsetti.G et all,1999). The effects of the crisis were noticeable as many financially sound companies facing bankruptcy (Ong, S. W., Choong Yap, V., & Khong, R. W. 2011). Shafie et al (1998) state that the impact of the financial turmoil on the corporate distress in Malaysia became visible through an increase of the company filing for liquidation, another indicator such as default in debt repayments was really high, downgrading in credit rating, and non compliance with reporting.

Corporate distress prediction in Malaysia has been conducted primaryly in quantitative way. Among popular statistical methods are Multiple Discriminant Analysis (MDA), Logistic Regression, Hazard Model and Neural Network. The focus of study mainly to predict the distress companies in multiple sectors. A number of researches have been carried out in Malaysia in mixed sectors (Karbhari & Zulkarnain ,2004; Nur Adiana et al, 2007). Alifah, M.N et al (2013) perform a research on consumer product sector in Malaysia. Previous researches indicate that lack of research being carried out in an individual sector as data availability is the main constraint to investigate (Aziz & Dar, 2006). Potential research on individual sector has been put forward to investigate the ability of corporate distress prediction model on determining or discriminating distress and non distress firms in Malaysia (Chin, 2005; Karbhari & Zulkarnain).

MDA is popular among researchers in corporate distress field as its ability in dealing with multiple variables simultaneously (Ganesalingam & Kuldeep, 2001). Numerous researches have been carried out in predicting corporate distress using MDA in Malaysia (Chin, 2005; Nazrinn ,2008 ;; Rosliza ,2006). In general, MDA test can be performed on the assumption that the procedure will be optimal if the normality conditions are met and variance and covariance matrices are equal for both distress and non-distress companies. However,

these assumptions are frequently violated since normality distribution sometimes cannot be applied in the distress and non-distress companies. Logistic regression is less rigid compared to MDA.

Classifying possible corporate failures could be carried out through qualitative and quantitave approaches (Keasey and Watson, 1987). Qualitative approach is not as popular as quantitative approach and the former usually examines the non financial parameters to determine cause of failure. Argenti (1976) lists 10 warning signals of failure is about to happen; 1) consistently unable to achieve profit, 2) negative cash flow, 3) lack of information flow, 4) failure to correct financing violation, 5) increase in debt and decrease in security support, 6) request for further financial assistance, 7) poor financial ratio,8) share price fall, 9) creative accounting, and 10) economy slow down and industry trend. These warning signals in line with bankruptcy prediction model as they are able to detect the trouble much earlier and more subjective (Argenti, 1976).

Furthermore, various factors that cause to corporate failure due to company's mismanagement, the maturity of the company in the industry (younger company usually face greater risk of failure such as less experience in the business, insufficient funding, substandard product, and ineffective marketing strategy), not strategically located, fraud, financial problems (i.e highly leveraged) criminal breach of trust and many others (Andre and Kaplan, 1998; Argenti, 1976; Kharbanda and Stallworthy, 1985).

Corporate financial distress prediction has been the debatable subject in the corporate finance literature for long time. Fitzpatrick (1931) uses past information of financial statement in discriminating between distress and non-distress firms. This is one of the earliest study in the corporate failure. This continuation later is carried out by Merwin (1942) Beaver (1966), Altman (1968), and Ohlson (1980). Beaver (1966) uses univariate analysis tests financial ratios that extracted from accounting statements in predicting default and finds the leverage and cash flow ratios are significance to distinguish between default and non default firms. Altman (1968) develops a model called Z Score uses a Multiple Discriminant Analysis (MDA) and using twenty two accounting ratios and group all those ratios into five classifications which are profitability, liquidity, leverage, activity and solvency. He identifies five ratios that have explanatory power to discriminate on default and non default companies which are working capital/total assets, retained earnings/total assets, earnings before interest and taxes (ebit)/total assets, market value of equity/book value of total debt and sales/total assets. In his study, he concludes that his model Z score could discriminate the bankrupt firms and non bankrupt firms.

According to Altman's Z- score model, any firms score more than 2.99, the firms are most likely not to go bankrupt and firms which score less than 1.8, the probability of the firms being declared bankrupt is high. Ohlson (1980) employs logistic regression analysis or logit and discovers that accounting information that significantly important in determining default and non - default companies are performance, liquidity, and size of the firm and financial structure. Deakin (1972) employs discriminant analysis for predicting business failure and uses 13 accounting ratios and he finds that bankrupt company could be detected using accounting data as far as there years ahead. Altman Z score model is now being commercialized and used by industry expert in determining the financial health of the firm.

Altman et al (1977) develop a new model with several improvements on the existing Z score model and it is called ZETA. The new model has a significant impact on predicting and classifying insolvent companies up to five years prior to the event occurs (failure). Altman et al (1977) test on manufacturers and retailers companies on this new model. The ZETA model identifies seven most reliable variables in classifying solvent and insolvent companies which is an improvement from Altman's earlier model that could only identify five reliable variables for predicting non healthy firms.

Many research done on utilizing Z-score approach and logistic regression such as Arindam (2006) when he studies on predicting probability of Indian corporate bonds for the period of 1998-2003 on 52 solvent firms and 52 defaulted firms. The research shows that the Z score model has a high classification power of predicting insolvent firms for two years earlier before financial distress happens with 97 percent accuracy rate. For the logit result, it shows that new firms are more exposure to the credit risk as compared to older and matured firms. Marchesini, R. et al (2004) study on 104 high yield bonds from 1997 – 2002 and using multivariate logistic regression couple with 24 accounting ratios. The result shows that one year prior to default, the model could classify 79.6% of default and non default firms, for the two and three years prior to the default, the model could classify 72.6% and 68.2% of solvent and insolvent firms.

Besides using accounting ratio for predicting default and solvent firms, other accounting information that could be utilized is by using cash flow. For example Aziz et al (1988) and Zeitun et al (2007). It is argued that firms having negative or inadequate cash flow will be suffering the default risk as chances of being injected with funds are very minimal due to the firms inability to borrow or getting a financing. On the other hand, firms that have positive and strong cash flow are getting easily to raise funds from capital market. Based on this argument, Scott (1981) explains that firm could be technically default if the cash flow for the current year is negative or less than the debt requirement or whenever the profit for the current year and the expected equity value (with no current income) is negative.

However, the utilization of using accounting data has limitation where the element of market based measure does not take place for assessing credit risk. This limitation is solved by Merton (1974) when he

proposes the structural approach by combining the firm's capital structure with market price and its assets. In the structural approach, market prices of equity and debt contain all necessary information on the credit risk, and accounting data does not reflect on the price movement and volatility of the market price. The criticism on using the accounting data as analysed by Hillegeist et al (2004) and Ghargori et al (2006) are accounting data are not updated frequently and based on delayed report and as compared to market based whereby market price is used and it is updated frequently and reflect all information. The structural model is expanded and now being practiced by KMV (a division under Moody's) in analyzing a probability of credit default.

Ress (1995) argues that share prices might be a practical and useful predictor for the distress or bankruptcy probability as they incorporate the future expected cash flows. In contrast, financial and accounting information only reflect the firm's performance in the past (Tinoco, M. H., & Wilson, N.,2013) In addition to that, Hillegeist et all (2004) suggest that share price contains information that cannot be captured in the financial statements. Beaver et al (2005) state that probability of distress or bankruptcy can be captured in the share prices despite it might not be directly extracted: "as the probabilty of bankruptcy incereaes the non-linear nature of the payoff function for common stock becomes increasingly more important because of risky debt and limited liability. This is very clear that the incorporation of market variable is important as share prices reflect the financial information published in the financial statements and any other information outside of the statements (Agarwal&Taffler, 2008).

There are a lot of studies using structural model and couple with accounting data. Core and Schrand (1999), in their study on 227 institutions for the period of June 1984 to September 1989 and Hillegeist et all (2004) study on 1,189 bankruptcy companies for the period between 1979 to 1997 recommend that accounting information is more informative when it is included in the structural model . Demirovic, A. and D. C. Thomas (2007) in their study on 242 listed companies in the United Kingdom for the period of 1990-2002 find that structural model distance to default is the most significant variable to explain the credit risk and it is consistent and robust to all tests. However they add that accounting information principally relevant in predicting the financial health of the company are profitability and leverage and these are incrementally useful and informative.

Beside structural model, Z score and logistic regression, an artificial neural networks (ANNs) can be used for predicting insolvent firms, a few research has been done using ANNs such as Odom and Sharda (1990), Wilson and Sharda (1994) and Lacher et al (1995). Duan C.J and Shresta K. (2011) explain that ANNs may handle something complex that MDA and logistic regression unable to do. ANNs is a modelling tool using mathematical technique to imitate human brain generates information. ANNs could also be used for predicting bank performance (Mahmoud, 1998).

Reduced form model is another model for forecasting the probability of default. This model has assumptions that firm's default time is unpredictable and inaccessible due to imperfect information on default point expected recovery (Jarrow and Potter, 2004). This will lead to the important variables that perhaps significant to the study may be excluded due to the unavailability or inaccessible (Wilson, 2007). Reduced form model does not take into account the seriousness of complete information and experiences drawbacks of lacking of economic and financial rationale to define the default process (Navneet A. et all, 2005)

Since Altman (1968) develops model using MDA to predict bankruptcy firms, since then many researchers have studied and developed more bankruptcy models using different statistical analysis for example Ohlson (1980). In Malaysia, many researches have been done on corporate distress using MDA such as (Nazrinn,2008) and logistic regression such as (Ben Chin et al 2012). Beside using MDA and Logistic regression, Data envelopment analaysis(DEA) is used for predicting distressed companies in Malaysia such as (Zulrida,2012). Specifically, there are research that using bankruptcy model especially logistic regression to predict corporate bond default such as Marchesini, R. et al (2004), and Arindam (2006). Bankruptcy model perfectly match the default and non default corporate bond in India.

3. Research Methodology

From the Bursa Malaysia record, there were 272 companies listed on the Bursa Malaysia have been classified as PN4, PN17 and APN17 throughout the period of 2001 to 2012 .The sample of this study consist of 119 companies that have been classified under Practice Note 4 (PN4), Practice Note 17 (PN17) and Amended Practice Note 17 (APN17) in accordance with the conditions under the local bourse from 2001-2012. This study approximately represents 44 percent from the total number of the population.The sample of this study comes from different industries. The breakdown of the industries are as follows:

i. Construction (14 companies)
ii. Technology (3 companies)
iii. Plantation (4 companies)
iv. Consumer (15 companies)

v. Industrial (36 companies)
vi. Properties (13 companies)
vii. Trading and Services (33 companies)
viii. Hotel (1 company)

The sample of distresses companies are paired and matched with non-financially distressed companies from the same industry and have the closest asset size. This kind of procedure is consistent with previous studies on failure prediction investigated by Beaver (1966), Altman (1968) and Platt (1990).

Table 1 : Variables used in this study

Expected Sign	Variables	Category
-	Current Ratio (CUR)	Liquidity
-	Current Assets to Total Assets (CATA)	Liquidity
+	Current Liabilities to Equities (CULE)	Liquidity
-	Earnings Before Interest and Tax to Total Assets (EBITTA)	Profitability
-	Equities to Total Liabilities (ETOL)	Leverage
-	Retained Earnings to Total Assets (RETA)	Profitability
-	Sales to Total Assets (SATA)	Activity
-	Working Capital to Total Assets (WCTA)	Profitabilty
-	Net Income to Equities (NIEQ)	Profitability
-	Log Assets (SIZE)	Size
+	Beta (BETA)	Market
+	Beta Square (BETASQ)	Market
+	Total Debt to Market Capitalization (TODMAC)	Market/Leverage

Table 1 shows the independent variables used in this study and their relationship to default risk. Positive relationship means for example a company which has a higher current liabilities to total assets is more likely to have a higher probability of default and vice versa, meanwhile negative relationship means a company which is recorded lower retained earning to total assets might have a higher probability of default and vice versa.

3.1 Logistic Regression

In corporate distress prediction study, there are extensive range of statistical and mathematical procedure that could be applied such as Multiple Discriminant Analysis (MDA), Linear Probability Model (LPM), Logistic Regression (Logit), Probit, Cumulative Sums (CUSUM) Procedures,Neutral Networks and many others.

This study will employ the logistic regression analysis (usually known as logit) since the model fits to the study which is the distressed and non distressed are bounded between 0 and 1. Binary or binomial regression (logistic) is a category of regression when the dependent variable is dichotomy. Logistic regression is used to examine the relationship between binomial or binary and ordinal response probability and independent variables with the maximum likelihood method. This could be performed by converting the dependent into a logit variable, that is the natural log of the odds of the dependent occuring or not. Thus, logit develops estimates on the probability of an event occuring (distressed).In the logistic regression, the relationship between binary outcomes (dependent variable) and explanatory variables is calculated by a maximum likelihood approach (Cameron& Trevide 2005). Myung (2003) proposes maximum likelihood estimation is an appropriate tool to estimate parameters for a conditional probability model. In corporate distress prediction study, Ohlson (1980) states that logit analysis incorporates non-linear effect and applies logistical cumulative function for bankruptcy prediction. The relationship between dependent variable and an independent variable can be shown in the figure 1 below.

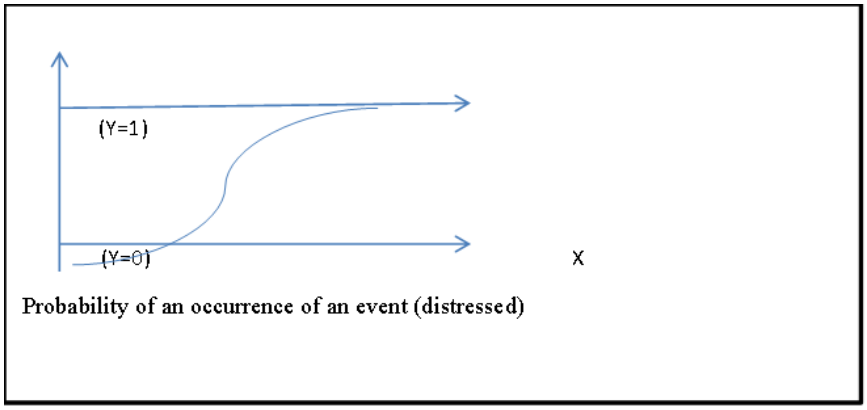


Figure 1: Relationship between dependent variable and explanatory variables

The equation of the logit model is as follows:

Logit model:

$$pi - Flog\ (Xi'\beta) = \Lambda\ (Xi'\beta) = \frac{\exp(Xi'\beta)}{1 + \exp(Xi'\beta)} = \left(1 + e^{-xi\ '\beta}\right)^{-1}$$

In order to estimate the maximum likelihood function, the step that needs to be considered is to construct the likelihood function. The distressed company is (Y_i = 1), the likelihood function is

$$\text{Probability (default}_i) = \Lambda\ (b'x_i)$$

The non-distressed company (Y_i=0), the likelihood function is follow

$$\text{Probability (non -default}_i) = 1 - \Lambda\ (b'x_i)$$

These two likelihoods could be merged and offer the right likelihood. The formula could be written as follows:

$$L_i = (\Lambda\ (b'x_i))^{yi} - (1 - \Lambda\ (b'x_i))^{1-yi}$$

With the assumption that defaults are independent, the likelihood of a set of observations is just the individual likelihoods

$$L = \prod_{i=1}^{N} L_i = \prod_{i=1}^{N} (\Lambda\ (b'\ x_i))^{yi}\ (1 - \Lambda\ ((b'x_i))^{1-yi}$$

For the maximization purpose, ln L is the more appropriate to be examined, the logarithm of the likelihood

$$\ln L = \sum_{i=1}^{N} y_i\ \ln\left(\Lambda\ (b'x_i)\right) + \ (1 - y_i) \ln(1\ -\ \Lambda\ ((b'x_i))$$

Since the dependant variables are dichotomous (0 and 1) and two- group of categorical variable, distresses and non distressed. For measuring the goodness of fit for the overall model, Pseudo R^2 is used for the logistic regression. The same function is applied for the linear regression model where R^2 is used for measuring the overall model goodness of fit. The Pseudo R^2 is measured between 0 and 1. Higher value signifies the better goodness of fit. The Pseudo R^2 can be calculated as follows

$$\text{Pseudo } R^2 = 1 - \ln L\ /\ \ln L_0$$

For this study, the dependent variables are only distressed and non-distressed firms and may have an outcome that range between 0 and 1. The logistic model of this study can be written as follows:

$$Y_n = a + B_1F_1 + B_2F_2 + \ldots\ldots\ldots B_NF_N$$

Where

Y_n	= Distressed or Non-Distressed Firms
a	= Constant
B_i (i= 1,2,3, ….. n)	= Coefficients
F_i (i= 1,2,3, ….. n)	= Explanatory variables (financial ratios)

The logarithm equation of the likelihood of any predicted values between distressed and non-distressed is as be

$$\text{Ln}\left(\frac{\text{Probability of distressed}}{\text{Probability of non-distressed}}\right) = a + B_1F_1 + B_2F_2 + \ldots\ldots\ldots B_NF_N$$

For this equation, the logarithm of the distressed is a function of constant, and it is a series of weighted averages of explanatory variables (financial ratios)

$$\text{Probability of distressed} \quad \left(\frac{1}{1+e^{-y}}\right) = \frac{1}{1+e^{-(a+B_1X_1+B_2X_2+\ldots\ldots\ldots B_NX_N}}$$

3.2 Logit Panel Data

This is an extension of the logistic regression. Logistic regression is used to predicting the probablility of corporate distress whilst logit panel data framework measures the interaction of the explanatory variables over time. Shumway (2001) states that panel logit model aloows for time varying covariates that is equivalent to a hazard model.

In addition to the logit model, marginal effects of each variables are calculated and presented. The marginal effect of a predictor is described as the partial derivative of the event probability with regard to preditor of interest. The marginal effect is very applicable toward interpreting the effects of the regressors on the discrete dependent variables, in this study, a logit model. Marginal effects can be mathematically illustrated as follows

To simplify, consider the same model but with only one regressor

$\Pr[\, Y_j = 1 \mid X_j] \left(\alpha_0 + \beta_0 X_j\right)$

where Xj is the explanatory variable and α0 and β0 are unknown parameters to be estimated, and

$$F(x) = \frac{1}{1 + \exp(-x)}$$

is the distribution function of the logit distribution

If $\beta_0 > 0$ then $\Pr[Y_j = 1|X_j] = F(\alpha_0 + \beta_0 X_j)$ is an increasing function of X_j:

$$\partial P \frac{[Y_j=1|X_j]}{\partial X_j} = \beta_0 F'(\alpha_0 + \beta_0 X_j)$$

Where F' is the derivative of $F(x) = F(x)\frac{1}{1+\exp(-x)}$

$$F'(x) = \frac{\exp(-x)}{1+\exp(-x))^2} = \frac{1+\exp(-x)}{1+\exp(-x))^2} - \frac{1}{1+\exp(-x))^2}$$

$$= \frac{1}{1+\exp(-x)} - \frac{1}{1+\exp(-x))^2} = F(x) - F(x)^2 = F(x)\,(1-F(x))$$

Therefore, the marginal effect of X_j on $\Pr[Y_j = \mid X_j]$ is dependent upon X_j

$$\frac{\partial P[Y_j=1 \mid X_j]}{\partial X_j} = \beta_0 \left(\alpha_0 + \beta_0 X_j\right)(1 - F\left(\beta_0 \left(\alpha_0 + \beta_0 X_j\right)\right)$$

4. Results

Table 2 : Mean for Distress and Non-Distress Firms

Variables	Distress						Non-distress					
	Event year	One year before distress	Two year before distress	Three year before distress	Four year before distress	Five year before distress	Event Year	One year	Two year	Three year	Four year	Five year
Current Ratio	0.7939	0.7965	0.9367	1.0726	1.2602	1.4654	2.7845	2.7051	2.5537	2.3959	2.6344	2.1903
Current Assets to Total Assets	0.4318	0.4388	0.4438	0.4738	0.4831	0.4892	0.4867	0.4917	0.4932	0.4804	0.5144	0.5235
Current Liabilities to Equities	-0.8975	2.7867	11.2552	2.7197	1.7507	1.2032	0.6102	0.6145	0.6336	0.7355	-2.3624	1.0555
EBIT to Total Assets	-0.2499	-0.1058	-0.0825	-0.0478	-0.0155	0.0073	0.0585	0.0546	0.0560	0.0451	0.0694	0.0792
Equities to Total Liabilities	0.2443	0.3951	0.5289	0.6056	0.8727	1.1711	4.4575	3.9909	3.7649	3.2706	2.8020	2.5151
Retained Earnings to Total Assets	-2.4025	-1.5431	-0.8431	-0.5248	-0.1305	-0.0016	0.1418	0.1588	0.1609	0.1678	0.1749	0.1711
Sales to Total Assets	0.4978	0.4616	0.5014	0.5228	0.5898	0.5968	0.7477	0.7367	0.7672	0.7816	0.7943	0.8220
Working Capital to Total Assets	-1.4232	-0.8646	-0.3883	-0.2549	0.0033	0.0655	0.2210	0.2205	0.2145	0.1851	0.2004	0.2058
Net Income to Equities	0.4727	0.0379	-2.1655	-0.2171	-0.0019	-0.0163	0.0319	0.0396	0.0389	0.0004	0.3724	0.1153
Log Assets	2.1564	2.2887	2.3620	2.4253	2.4368	2.4086	2.4147	2.3799	2.3533	2.3341	2.2999	2.2373
Beta	1.3877	1.2346	1.2467	1.1872	0.9386	1.0885	0.9037	0.8030	0.8836	0.8736	0.8584	1.4856
Beta Square	2.9478	2.1226	2.1527	1.8940	1.2464	1.5342	1.5920	0.9974	1.0543	0.9621	0.9482	2.2071
Total Debt to Market Capitalization	3.4042	3.5240	4.6518	0.8796	1.0321	0.6837	4.0831	3.9807	3.5732	1.1238	0.7257	0.4144

Table 2 presents the average ratio for distress and non-distress firms five years prior to distress. From the table, it can be observed that distress firms suffering from continuous net loss as compared to their non-distress counterparts. This can be measured by looking at several variables (ratios) i.e earnings before interest and tax (EBIT) to total assets.

Distress firms also experiencing accumulated loss that lead to company's retained earnings become negative i.e retained earnings to total assets. In terms of equities to total liabilities, the ratio for non-distress firms is far outweigh the distress ones. This is due to the accumulated negative retained earnings that the company recorded. Current ratio represents the firm's ability to pay its short term debt. The higher the ratio, the firm is capable to pay its financial obligation.

Furthermore, the mean for current ratio for distress and non-distress firms shows clearly that distress firms experiencing liquidity difficulty as compared to their counterparts. Distress firms have value of current ratio less than one on two years prior to default and slightly over than one on three years prior to default. Non-distress firms in contrast having higher value of the current ratio (over than two) for each year and not seriously affected by the liquidity problem.

Table 3 : Correlation Matrix of variables

	CUR	CATA	CULE	EBITTA	ETOL	RETA	SATA	WCTA	NIEQ	SIZE	BETA	BETASQ	TODMAC
CUR	1												
CATA	-0.94	1											
CULE	0.002	-0.93	1										
EBITTA	0.076	0.089	-0.111	1									
ETOL	-0.782	0.296	0.057	-0.91	1								
RETA	-0.217	-0.094	-0.005	0.149	0.152	1							
SATA	-0.151	-0.519	0.019	-0.112	0.068	0.089	1						
WCTA	-0.552	-0.573	0.080	-0.282	0.111	0.244	0.413	1					
NIEQ	0.087	-0.055	0.806	-0.049	0.021	-0.040	-0.20	-0.065	1				
SIZE	-0.193	0.253	-0.094	-0.190	0.357	-0.313	0.148	-0.087	-0.120	1			
BETA	-0.119	-0.128	-0.058	0.045	0.057	0.211	0.075	0.187	-0.085	-0.114	1		
BETASQ	-0.010	-0.017	0.176	0.010	-0.031	0.080	0.068	0.053	0.176	-0.17	-0.857	1	
TODMAC	-0.106	0.011	-0.198	0.042	0.040	0.231	-0.179	0.111	-0.256	-0.105	0.113	-0.133	1

Table 3 represents the correlation coefficients for each variables used in this study. There are few variables that have high intercorrelations, this is due to the variables have the same numerator or denominator. In the case of current assets to total assets and current ratio (current assets to current liablities), both ratios have the same numerator which is current assets. Another example is net income to equities and current liabilities to equities.

Table 4: Estimated Coefficients for the Distress Model (Event Year)

	B	S.E.	Wald	Sig
Industry	-.042	.173	.059	.809
CURRENT RATIO	1.331	.472	7.952	.005
CATASSETS	5.771	2.642	4.772	.029
CLEQUITY	.067	.130	.264	.608
EBITTASSETS	-5.747	4.056	2.007	.157
EQUITYTLIABILITY	-.628	.347	3.275	.070
RETA	-3.308	.858	14.855	.000
SALESTASSETS	-2.133	1.002	4.528	.033
NINCEQUITY	.291	.442	.433	.511
WCAPTASSETS	-11.612	3.173	13.394	.000
TDEBTMKTCAP	-.126	.101	1.562	.211
BETASQ	-.176	.443	.157	.692
BETA	-.742	1.256	.349	.555
LOGASSETS	.394	.864	.209	.648
Constant	-3.089	3.156	.958	.328
Percentage of success	96.6			
Cox Snell R^2	.676			
Nagelkerke R^2	.901			
-2 Log Likehood	61.726			

This study involves 119 healthy and unhealthy firms across eight different sectors. Dummy industry variables is added to control the effect of industrial sectors. There are several variables that are significant to this default study, namely there are; sales to total assets, retained earnings to total assets, working capital to total assets and equity to total liabilities. All of these variables have coefficient estimates similar to expected relation to default risk. Current ratio variable is significant at 1 percent level and has a positive coefficient, from the default probability point of view, current ratio is expected to have negative relationship to default risk, while in this model the coefficient is positive.

The Equity to Liability is one of the leverage ratio and significant at 10 percent level shows on how much debt is used to finance company's assets, the higher the ratio means companies having more debt as compared to debt counterpart which is equity. This ratio has a positive relationship with the firm is likely to be classiffied as a distressed companies. The higher the ratio, the higher probability of company fall into financially unhealthy.

Retained Earning to total assets is another significant financial ratio for this study and its significant level stands at 1 percent, it has a negative relationship with the probability of a firm going into financially trouble. The lower the ratio, the higher the company fall into financially distressed. Retained earnings is an accumulated profit or loss for the company. In the event of the company is not generating profit and reporting loss instead, it will dilute the retained earning and if this happen in many years and the company is making massive losses, retained earning could turn into negative and this will lead to negative net worth to the company. This ratio measures how retained earning is used to finance the company's assets. This finding is consistent with research reported by Altman (1968).

Sales to total assets is found to be significant 5 percent level and coefficient of estimation is negative. It means companies with lower sales to total assets ratio have higher probability of default and this result is consistent with the study conducted by Altman (1968).

Table 5 : Estimated Coefficients for the Distress Model (1 Year Prior to Default)

	B	S.E.	Wald	Sig
Industry	.021	.095	.050	.824
CURRENTRATIO	-.219	.371	.348	.555
CATASSETS	4.527	1.884	5.774	.016
CLEQUITY	.022	.066	.116	.734
EBITTASSETS	-9.525	3.713	6.581	.010
EQUITYTLIABILITY	-.039	.170	.054	.817
RETA	-2.040	.681	8.973	.003
SALESTASSETS	-2.155	.707	9.297	.002
NINCEQUITY	-.302	.247	1.497	.221
WCAPTASSETS	-5.166	2.146	5.793	.016
TDEBTMKTCAP	-.058	.065	.788	.375
BETASQ	-.172	.332	.269	.604
BETA	.613	.918	.446	.504
LOGASSETS	.557	.599	.864	.353
Constant	-2.361	2.170	1.183	1

Percentage of success	90.8
Cox Snell R^2	.593
Nagelkerke R^2	.791
-2 Log Likehood	115.988

The study further explore the estimated results of the distress model one year prior to default in the table 5. The results are almost consistent with the event or distress year. Ratios that are signficant and consistent with the previous results are retained earnings to total assets, sales to total assets and working capital to total assets. All these ratios are significant with one percent, one percent and 5 percent respectively. The earnings before interest and tax to total assets is found to be significant and has a negative coefficient to the distress probabbility.

Table 6: Estimated Coefficients for the Distress Model (2 Year Prior to Default)

	B	S.E.	Wald	Sig
Industry	.010	.079	.016	.898
CURRENTRATIO	.245	.307	.635	.425
CATASSETS	4.949	1.753	7.975	.005
CLEQUITY	.011	.061	.033	.856
EBITTASSETS	-2.637	3.412	.597	.440
EQUITYTLIABILITY	-.369	.256	2.078	.149
RETA	-1.705	.650	6.884	.009
SALESTASSETS	-1.879	.579	10.544	.001
NINCEQUITY	-5.841	2.081	7.877	.005
WCAPTASSETS	-.761	.835	.830	.362
TDEBTMKTCAP	.010	.033	.088	.767
BETASQ	.206	.364	.319	.572
BETA	-.920	.891	1.066	.302
LOGASSETS	.422	.501	.709	.400
Constant	-1.392	1.866	.557	.456
Percentage of success	84.9			
Cox Snell R^2	.507			
Nagelkerke R^2	.676			
-2 Log Likehood	161.467			

Table 6 reports the estimated results for the distress model two years prior to distress. Retained earnings to total assets and sales to total assets are found to be significant and consistent with the two previous results. Another ratio that is highly significant and has the same expected coefficient is net income to equity.

Retained earnings to total assets and sales to total assets are found to be the consistent ratios for this study. This finding is consistent with Altman (1968). Rosliza (2006), Ben et all (2012) report on their findings that the former has a high explanatory power to explain on the distress or default probability in Malaysian corporate study.

Table 7: Results of Random Effects Logit Panel Data

	Coefficient Estimates	Standard Error	z	P> |z|	Marginal Effects
Industry	-0.1215	0.1964	-0.62	0.536	5.3613
CURRENTRATIO	0.9513	0.5341	1.78	0.075	1.8007
CATASSETS	11.6236	3.8959	2.98	0.003	0.4797
CLEQUITY	-0.0606	0.7571	-0.80	0.423	1.9482
EBITTASSETS	-14.7096	6.1194	-2.40	0.016	-0.0103
EQUITYTLIABILITY	-1.2686	0.4753	-2.67	0.008	2.0530
RETA	-5.9169	1.4394	-4.11	0.000	-0.3707
SALESTASSETS	-4.9605	1.2233	-4.05	0.000	0.6446
NINCEQUITY	-0.4500	0.5876	-0.77	0.444	-0.1603
WCAPTASSETS	-12.2810	3.6349	-3.38	0.001	-0.1334
TDEBTMKTCAP	0.45150	0.2767	1.63	0.103	2.3804
BETASQ	-0.5670	0.3194	-1.77	0.076	1.5461
BETA	0.9795	0.7560	0.197	0.197	1.0278
LOGASSETS	-0.2590	1.3999	-0.19	0.853	2.3416
Number of Observations	1428				
Number of Groups	238				
Log likelihood	-139.32				
Rho	0.9712				

Random effect binary logit panels data is employed in this study to further examine the variables on the firm's probability of default. Random effect is used as industry dummy variable is omitted or dropped out in fixed effect. Result from this model shows that there are at least five variables which are significant and have coeffient that in line to the default probability theory, namely there are earnings before interest tax to total assets, sales to total assets, equity to total liabilities, retained earnings to total assets and working capital to total assets. There are two variables which are significant and have different coefficient from what it is supposed to be as explained in the default probability theory, the variables are current ratio and current assets to total assets. Market variables are found to be not significant in this model.

Total debt to total market capitalization has the highest positive marginal effect at 2.38 percent and equity to total liability has the second highest of marginal effect at 2.05 percent. The marginal effect shows that Log assets and current ratio have the greates impact in determining the default probability. However, working capital to total assets and earnings before interest and tax to total assets have the lowest impact on firm's default probability which marginal effetc stands at -0.1334 percent and -0.0103 percent respectively.

5. Conclusion

From the two analysis, logistic regression and random effect binary logit panel data , retained earnings to total assets and sales to total assets variables are consistently significant in determing the default probability. Sales to total assets is a measure of management risk and how company is able generating sales from its own sources. The higher the sales to total assets, the lower of default probability.

The logistic regression is perfectly classified distressed and non distressed companies with the overall percentage of 96.6 percent. it shows that logistic regression is realiable technique in predicting the probability of distressed companies in Malaysia. The result shows that and if there is no further action taken to turnaround the companies,the companies are facing the possibility of being delisted from the exchange and may face the legal action from creditors, and eventually declared bankrupt.

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Bitcoin Investment Behaviour Among Muslim Communities: The Case Of Malaysia

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Abstract

Since its development, Bitcoin has over performed all competing cryptocurrencies, and it has reached the highest market capitalization ever in the cryptocurrency asset category. Bitcoin has not been only successful and attractive as a cryptographic currency, but also as an investment asset. The current study focuses on the investment aspect of Bitcoin. Specifically, the study examines the factors that might increase the investment in Bitcoin among Muslim communities. In this regard, Malaysia is selected as a setting for this study because it is a multi-ethnic Muslim country that has progressed rapidly in the Islamic finance and investment areas. The study used a survey questionnaire to collect data for a sample of 200 respondents. Subsequently, the collected data was analysed using Structural Equation Modelling (SEM) as well as basic descriptive statistics and one sample tests. The findings revealed that the respondents perceive themselves to have sufficient awareness and knowledge of the Bitcoin concept and benefits, as well as the techniques used to manage a Bitcoin account. In addition, the findings revealed that factors such as compatibility, awareness and facilitating conditions have a significant impact on Malaysian Muslim communities' investment in Bitcoin. It is worth emphasizing that this is one of the earliest studies that examine the Muslim communities' perception and willingness to invest in Bitcoin. Hence, it is expected be one of the foundations for the future studies in this area.

Keywords: Cryptocurrency, Bitcoin, Malaysia, SEM.

1. Introduction

For the past two centuries, financial investments have tremendously developed from simple investment in common stocks or bonds during the early 1900s, to more advanced financial derivatives instruments that were developed subsequently in the later decades e.g. securities' options, futures, credit default swaps, collateralized debt obligations, etc. This development brought the financial markets worldwide to a new era, and made investors globally to crave for higher investment returns, though with higher commensurate risks.

A latest development in investment is the cryptocurrency class which is not just a cryptographic -virtual-currency used to buy and sell goods and services on the internet, but also a popular asset commonly used for hedging and speculation activities (Trimborn, Li and Hardle, 2017). Cryptocurrencies were initially introduced in 2008 through a white paper published under the pseudonym "Satoshi Nakamoto" (Berentsen and Schar, 2018). Then were officially launched in 2009 (Meera, 2018). It is noteworthy that the Bitcoin price was USD0.008 when it was first launched, and it has witnessed high levels of volatility throughout the past years to reach a highest price level of nearly USD20,000 by mid-December 2017.

A cryptocurrency ideally enables participants to directly exchange value among each other electronically and anonymously without the need for a trusted intermediary such as financial institutions (Nakamoto, 2008). Rather, the exchange is performed through a peer-to-peer network of users over the internet (Guo and Antulov-Fantulin, 2018).

It is worth noting that there are currently over 1000 cryptocurrencies in existence (UBS, 2017), including Bitcoin, Ethereum, Ripple, Litecoin etc. The study focuses on Bitcoin as it is the currently the most popular

cryptocurrency worldwide (Henry, Huynh and Nicholls, 2017), and it has the largest total market capitalisation (Guo and Antulov-Fantulin, 2018).

It is noteworthy that Muslims investment behaviour is strict with regard to unjustified profits (*riba*-like profits), unmeasured excessive uncertainty (*gharar*), and trading of non-legitimate goods and services. Hence, the current study focuses on dimensions and aspects of Bitcoin that might contradict the religious as well as the cultural and social values of Muslims in Malaysia. The latter was selected because of the considerable development the country authorities and participating financial institutions have accomplished in the Islamic finance and business area. Malaysia has certainly become an international hub of Islamic finance and investment, and countries from different levels and backgrounds are learning and implementing the Malaysian experience and model of Islamic finance. Accordingly, the specific objective of the study is to examine the Muslim communities' perception about bitcoin investment in the specific case of Malaysia.

This study is one of the very early studies that investigates the investors' intention to invest in Bitcoin and the factors that my influence their decision behaviour. Furthermore, its focus on the Muslim communities makes it even more significant as it addresses the unique characteristics of investment under Islamic business principles.

The rest of the paper is organized as follows: the next section provides a brief discussion of the previous studies in the area of investment. Section three presented the research model and hypotheses development. Section four explains in detail the methodology applied. Section five presents a summary analysis results. Finally, section six discusses the implications and recommendations for future research.

2. Literature review

The area of investment behaviour has been widely studied in different areas, focusing on various investment assets, and applying different adoption models. For instance, Ali (2011) examined the investment behaviour of Australian individual investors. The study covers 136 investors and applied Partial Least Square (PLS) method. The findings revealed that perceived risk, perceived returns and trust directly affect individual investors' trading decisions while attitude towards brand partially mediates the relationships.

Pascual-Ezama, Scandroglio and De Liano (2014) also used theory of planned behaviour (TPB) to investigate the investors' behaviour in the Spanish stock market. The study covered a sample of 127 individual investors and applied SEM method. The findings revealed that attitude, subjective norms, and beliefs were found to have a significant impact on investment behaviour.

On the other hand, Jagongo and Mutswenje (2014) studied the factors influencing investment decisions in the NSE, Kenya. The findings showed that the most important factors that influence individual investment decisions include reputation of the firm, firm's status in industry, expected corporate earnings, profit and condition of statement, past performance of the firms' stock, price per share, feeling on the economy and expected divided by investors.

Sondari and Sudarsono (2015) explored the Indonesian investors' behavioural intention using TPB. The findings from data analysis using partial least square (PLS) showed that attitude toward investment and subjective norms have significantly influenced the intention to invest, while self-efficacy failed to show significant influence on investment intention.

In a different context, Salimian and Iman (2016) examined the bahavioural factors affecting decisions of potential investors in Iran using SEM approach, for a sample of 296 respondents. The findings revealed that Behavioural attitude, subjective norm, perceived behavioural control and risk appetite of potential investors to invest have a significant positive impact on investment plans.

Cucinelli, Gandolfi and Soana (2016) examined Italian customers and advisors' financial behaviour using TPB. The authors found that attitude, subjective norms and perceived behavioural control had significant influence on financial behaviour, while past investment and financial literacy did not have any effect on investment behaviour.

Trang and Tho (2017) investigated the perceived risk and investment performance on the investment behaviour in the emerging market of Vietnam. The study used mixed methodology, including 50 interviews and 465 distributed questionnaires. The findings revealed that perceived risk had the direct positive impact on both investment performance and intentions. Perceived risk also had the indirect influence on intentions to invest through investment performance.

Vuk, Pifar, and Aleksic (2017) examined the influence of trust and risk dimensions on Slovenian students' intention to invest. The findings revealed that trust does not have a direct positive impact on individuals' intention to invest. However, financial risk has a direct positive effect on intention to invest.

However, in the area of cryptocurrency, and specifically Bitcoin, very few studies have been conducted to examine the investors' behaviour toward these asset classes. In this regard, one of the latest studies was conducted by Jonker (2018) who investigated the adoption intention and actual usage of Bitcoin among retailers in Netherland. The author found that the usage of Bitcoin by retailers is still modest. However, the respondents showed interest in using crypto payments in the near future. Furthermore, the findings revealed that the factors influencing the retailers' willingness to adopt Bitcoin payments include the impact of consumer adoption of crypto payments, the retailers' perceived net transactional benefits associated with crypto payments, and the retailers' perceived level of adoption efforts. On the other hand, factors that turned out to limit the usage of crypto currency by retailers was the low consumer demand as well as the perceived limited added value of crypto payments compared to other traditional payment methods.

In a relatively similar study, Henry, Huynh and Nicholls (2017) explored the Bitcoin awareness and usage in Canada. The authors' collected a nationally representative sample via the Bitcoin Omnibus Survey (BTCOS) to track the ubiquity and usage of Bitcoin in Canada. The findings showed that about 64 percent of Canadians have heard of Bitcoin, but only 2.9 percent use it. Furthermore, the findings revealed that awareness of Bitcoin was strongly associated with men and those with college or university education; additionally, Bitcoin awareness was also more concentrated among unemployed individuals. On the other hand, Bitcoin ownership was associated with younger age groups and a high school education. Finally, the results showed that knowledge is positively correlated with Bitcoin adoption.

Another study conducted by Trimborm, Li and Harde (2017) focusing on the relatively low liquidity level of Bitcoin compared to the traditional assets. The authors proposed a Liquidity Bounded Risk-return Optimization (LIBRO) approach, which is a combination of the Markowitz framework under the liquidity constraints. Their findings showed that cryptocurrencies can add value to a portfolio and the optimization approach is even able to increase the return of a portfolio and lower the volatility risk. Similar results were also found by D'Alfonso, Langer and Vandelis (2016) who found that Bitcoin offers a higher expected value, but the volatility and speculative nature of cryptocurrencies requires more diversification across platforms. These findings were also consistent with those of Klabbers (2017), indicating that Bitcoin is an effective diversifier.

A more comprehensive study on Bitcoin and its characteristics was conducted by Schut (2017) which attempted to determine whether there is a relation between Bitcoin trade volume in 8 different currencies, change in equity trade volume and price, and three separate proxies for market uncertainty. The findings revealed that market uncertainty has a significant effect on Bitcoin trade volume for certain currencies. Furthermore, the S&P500 price has a positive effect on Bitcoin prices. Lastly, the efficient frontier showed that there is no place for Bitcoin within the global minimum-variance portfolio, but there are benefits to adding Bitcoin to an investment portfolio. Overall, these results suggest that the increase in maturity of Bitcoin as an asset class, leads to higher levels of predictability, making it an asset class that could develop into a serious alternative for all investors.

In summary, the above studies on Bitcoin indicate that they are a viable investment alternative which contributes in enhancing the profits, while it can also considerably reduce the total risk through appropriate diversification strategies. In addition, the Bitcoin is still in low level of adoption, and high educational level and young age positively related to awareness of Bitcoin.

3. Model and hypotheses development

The previous section reveals that several variables have an influence on the intention to invest in various assets. These factors are mainly extracted from the theory of planned behavior (Ajzen, 1991), technology acceptance model (Davies, 1989), theory of innovations diffusion (Rogers, 2003) and are summarized in Figure 1 below.

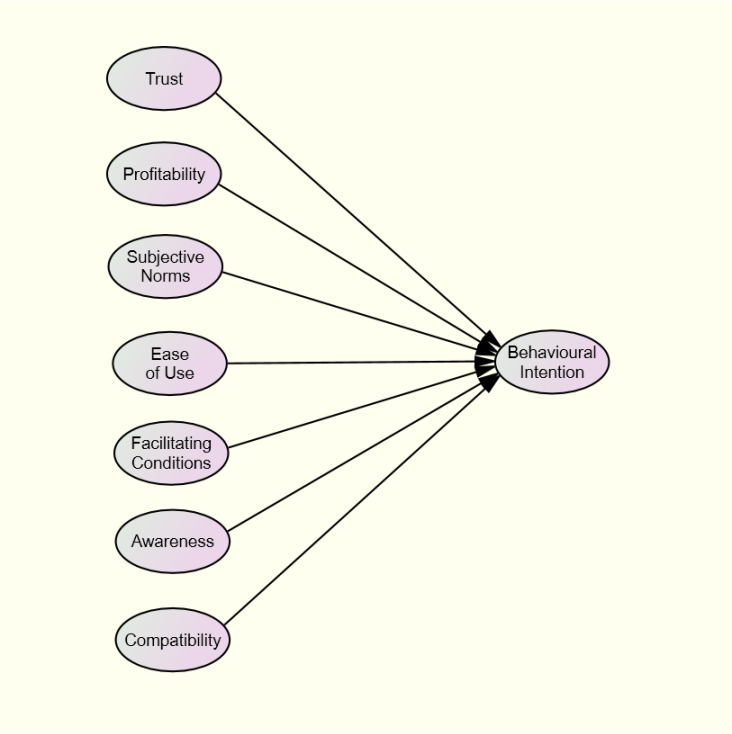


Figure 1: Research Framework

H1: Trust has a positive influence on Malaysian Muslims' intention to invest in Bitcoin
H2: Profitability has a positive influence on Malaysian Muslims' intention to invest in Bitcoin
H3: Subjective norms have a positive influence on Malaysian Muslims' intention to invest in Bitcoin
H4: Ease of use has a positive influence on Malaysian Muslims' intention to invest in Bitcoin
H5: Facilitating conditions have a positive influence on Malaysian Muslims' intention to invest in Bitcoin
H6: Awareness has a positive influence on Malaysian Muslims' intention to invest in Bitcoin
H7: Compatibility has a positive influence on Malaysian Muslims' intention to invest in Bitcoin

The above dimensions are of paramount relevance in the case of Bitcoin. Specifically, trust is invoked in this study since Bitcoin and the other cryptocurrencies are not managed by a distinct and known body that can be contacted in the case of problems arising from Bitcoin accounts management. However, they are managed in a blockchain framework by a huge network of users. Hence, it is widely perceived that communities would rather trust a currency that is being issued by a known body i.e. government authority, compared to a cryptographic currency (Abu Bakar, Rosbi, Uzaki, 2017). Furthermore, the issue of security is also being heavily discussed and questioned since all the sale and purchase operations occur on online platforms (Nurhisam, 2017), though the blockchain system used in cryptocurrencies management is perceived to be highly secured compared to other electronic financial systems (Meera, 2018).

On the other hand, it goes without saying that profitability is one of the most important criteria for investment selection. Investors would only investment in assets they believe to be profitable with favorable return prospects. Profitability in the current study is seen as relative profitability in comparison to the ordinary investment assets, such as stocks, bonds, commodities, etc. In addition, the indirect profitability is also reflected, and which refers to the benefit that can be obtained through diversification.

Subjective norms (SN) are also relevant in the case of Bitcoin investment. This refers to "the perceived social pressure to perform or not to perform the behavior" (Ajzen, 1991, p. 188). Since cryptocurrencies are still relatively new, and it is perceived that there is less awareness and knowledge about their functioning, potential investors would usually refer to their social networks for advice and recommendations on whether or not to invest in them. This is particularly relevant as traditional financial advisors/brokers would not generally recommend investment in Bitcoin compared to the common financial assets[5]. It is noteworthy that SN is more crucial in the

[5] https://www.cnbc.com/2018/03/19/advisors-and-buffett-agree-dont-waste-hard-earned-cash-on-bitcoin.html, accessed on June 2nd, 2018

context of Muslim communities as there is serious concern about the compatibility of Bitcoin investment with Islamic principles of business.

Furthermore, ease of use is important as Bitcoin uses the blockchain technology that is still considered an innovation in computer science (Meera, 2018). Particularly, Bitcoin uses cryptography for the issuance of new digital coins and applies the block chain technology to record and organize transactions and store them in all the network nodes throughout the world in a distributed ledger called block chain (Meera, 2018). Hence, the extent of easiness at which the users can conduct and manage their operations is expected to have a significant impact on the investment in Bitcoin.

Facilitating conditions (FC) is also relevant in the study context as it emphasizes the importance of rules, regulations and laws governing the Bitcoin operations both locally and internationally. FC also reflects the government authorities' willingness –direct or indirect- to promote and support Bitcoin investment. For instance, permitting CME Group that owns Chicago Mercantile Exchange to launch a futures contract on Bitcoin (Meera, 2018) would certainly facilitate trading of Bitcoin, and provide additional hedging opportunities not only for Bitcoin, but other securities as well.

In addition, awareness and knowledge of Bitcoin and their functioning and management techniques is also expected to have a significant effect on the investment behavior. This is supported by the findings of Henry et al. (2017). It is noteworthy that awareness has a tendency to reduce the amount of uncertainty (*gharar*) associated with Bitcoin investment.

Finally, compatibility is one of the most important dimensions when discussing Bitcoin investment behaviour among Muslim investors. It is worth noting that compatibility in the current study refers to the compatibility of Bitcoin investment with the social and cultural values of the investors, their religious beliefs, their risk profile and preference, as well as the compatibility with their previous investment experience. The critical relevance is the compatibility of Bitcoin investment with the Islamic principles of business, which has been heavily questioned by academicians, practitioners and Islamic scholars alike. The issue of high *gharar* associated with Bitcoin investment has been the primary concern as Bitcoin has no physical form and exists only in an online network, it has no intrinsic value and cannot be redeemed against real commodity currencies, the Bitcoin holders and managers and anonymous, its value is unstable due to high volatility, and it does not qualify as a good store of value (Abu Bakar et al., 2017). These aspects were supported by Meera (2018) who also noted that money without intrinsic value has an element of injustice and hence are not compatible with objective of Islamic rules (*maqasid al-shari'ah*). Similarly, Adam (2018) established that Bitcoin falls short of fulfilling the principles of the preservation of wealth in *shari'ah*, and fails to possess the currency attributes (*Thamaniyyah*), which is a defining attribute of money.

Similarly, Nurhisam (2017) analysed Bitcoin from Islamic perspective and found that it causes several harms (*Madharrat*) including possibility of counterfeiting, loss of confidence, and hyperinflation. Accordingly, they concluded that money should be issued and managed by state authorities (*Ulil Amri*). These issues are expected to have a significant impact on the usage and adoption of Bitcoin by Malaysian Muslims.

4. Methodology

The study population consists of Malaysian Muslims with potential interest in investment. The targeted sample was 200, however only 150 questionnaires were properly filled and returned. Hence, a response rate of nearly 75 per cent was achieved.

The survey questionnaire was designed to collect information about the respondents' perception about the attributes of Bitcoin as well as their intention to invest in it in the future. For measuring this information, Likert type scaling was used (1 = strongly disagree and 5 = strongly agree). 39 items were listed in this section and most of them were derived from the previous studies conducted in other countries as highlighted above, as well as from current investment and cryptocurrency literature with necessary adaptations made for the specific context of this study. The second section of the questionnaire explored information about respondents' profile, namely, gender, age, and education level. The questionnaire was prepared and distributed in English language.

The data gathered were subsequently analysed using Structural Equation Modelling as well as one sample t-test. The choice of these techniques was inspired from Hair, Black, Babin and Anderson (2010) as well as from similar studies conducted in this area. It is worth mentioning that the analysis was done through SPSS 18 and AMOS 18.

The demographic information indicates that 74.7 per cent of the respondents are female, while 25.3 per cent are male. In terms of age grouping, majority of the respondents are between 20 and 30 years i.e. 78%, while 12% are aged between 31 and 40 years of age, and 6% of the respondents are between 41 and 50 years old, while 4 per cent of

the respondent are below 20 years old. Regarding the level of education, 76.7 per cent of the respondents are bachelor's degree holders, 17.3% are Diploma holders, and 4 per cent of the respondents are Master's degree holders, while 2 per cent of the respondents are holding professional certificates.

Table 1. An example of a table.

Demographics	Categories	Percentage
Gender	Male	25.3
	Female	74.7
Age	Less than 20 years	4
	20 to 30 years	78
	31 to 40 years	12
	41 to 50 years	6
	More than 50 years	-
Education level	Diploma	17.3
	Professional	2
	Bachelor's degree	76.7
	Master's degree	4
	Ph. D degree	-

5. Results

5.1 Reliability and validity measures

Prior to the structural model estimation through Structural Equation Modelling (SEM), a basic requirement is the analysis of the model validity and reliability. The latter is performed using four validity measures, namely, convergent validity, discriminant validity, face validity, and nomological validity.

Convergent validity refers to the principle that the items measuring a given construct should share a high proportion of common variance. There are several methods to assess convergent validity, including average variance extracted (AVE), factor loadings, as well as reliability measures (Cronbach Alpha for this study) (Hair *et al*., 2010). In this regard, it is suggested that a Cronbach Alpha greater or equal to 0.6 is acceptable, similarly, the acceptable level of AVE and factor loadings is 0.5 or above.

Accordingly, Table 2 shows that the Cronbach Alpha values are ranging between 0.808 and 0.931. Furthermore, the AVE values range between 0.558 and 0.839. in addition, all the factor loadings are also greater than 0.5. Hence, all the requirements for convergent validity are met. Thus, convergent validity is achieved in this model.

Table 2: Convergent validity measures

Constructs	Cronbach Alpha	AVE
Trust	0.820	0.585
Profitability	0.808	0.558
Subjective norms	0.886	0.758
Perceived ease of use	0.890	0.647
Facilitating conditions	0.851	0.635
Awareness	0.931	0.828
Compatibility	0.817	0.586
Behavioural intention	0.904	0.839

Another requirement of validity is discriminant validity, which refers to the principle that each construct in the model should be distinct from the remaining constructs. In this regard, there are different ways to assess discriminant validity. In this study the correlation between constructs was fixed to 1 and the fit indices for the baseline and restricted models were then compared. Accordingly, discriminant validity is achieved if the difference in fit indices between the two models is significant. It is noteworthy that the results in Table 3 show a Chi square value of 1,229.197 and 601 degrees of freedom for the baseline model, and a Chi square value of 1,507.716 and 406 degrees of freedom for the restricted models. This results in a Chi square difference of 387.519 and degrees of freedom difference of 3. By comparing the Chi square difference with the tabulated Chi square value corresponding to a degree of freedom of 3 and a confidence margin of 0.05, namely, 7.81, it can be concluded that the fit indices for

the baseline and restricted model are significantly different. Hence, discriminant validity is achieved by this model. Besides, the face validity and nomological validity were also confirmed by consulting the experts in this field, as well as the previous studies.

Table 3: Discriminant validity measures

Elements	Chi square	DF
Baseline model	1,229.197	601
Restricted model	1,507.716	604
Change	278.519	3

Finally, the results indicate that the model's Comparative Fit Index (CFI) is 0.837 and RMSEA value is 0.084. These values are acceptable values for both indicators (Broyles, Leingpibul, Ross and Foster, 2010; Singh, Sandhu, Metri and Kaur, 2011; Kim and Forsythe, 2010). Hence, the overall model is validated.

5.2 Hypotheses testing

The hypotheses posited above are tested using the path analysis which is summarised in Table 4 and figure 2. The results indicate that compatibility has a significant positive impact on Malaysians' intention to invest in Bitcoin. Hence, hypothesis 7 is supported. This is in line with Rogers (2003). It is noteworthy that the respondents related compatibility to their social and cultural values, religious affiliation and values, investment preferences (risk, return, investment maturity, etc.), as well as the relative similarity to their previous investments. Nevertheless, the factors that the respondents consider most when making decision in Bitcoin investment is the compatibility of Bitcoin investment with their religious affiliations, as well as the compatibility of Bitcoin investment with their previous investment schemes.

Furthermore, awareness was found to have a significant positive impact on Malaysians' intention to invest in Bitcoins. Hence, hypothesis 6 is supported. This finding is in line with Henry et al. (2017) who found that awareness and knowledge of Bitcoin have a significant impact on using it. It is noteworthy that Awareness is defined in terms of respondents' access to general information about Bitcoins and their benefits and possible risk as well as the techniques commonly used in managing a Bitcoin investment. It is noteworthy that the respondents perceive themselves to have a good level of awareness and knowledge about Bitcoin investment, and which has certainly influenced their perception about Bitcoins and their intention to invest in them. This is indeed a novel contribution of this study. Particularly, it is broadly noticed that cryptocurrencies and specifically Bitcoin and its functioning are still unclear to many potential investors, and this might have hindered the wide usage and investment in Bitcoins in various contexts. Nevertheless, this is not the case for the population of the current study.

In addition, facilitating conditions were found to have a significant positive influence on respondents' intention to invest in Bitcoins. Hence hypothesis 5 is supported. This finding is in line with Ajzen (1991). This refers to the existing laws, circulars and policies established in the country and elsewhere, which support the Bitcoin investment, as well as the political conditions in the country and the government willingness to support Bitcoin investment. All these aspects have a significant impact on Malaysian Muslims' intention to invest in Bitcoin.

Nevertheless, perceived ease of use, profitability, subjective norms, as well as trust, were found to have no significant impact on the Malaysian Muslims' intention to invest in Bitcoins. Hence, hypotheses 1, 2, 3, and 4 were rejected. This implies that profitability of Bitcoin as an investment per se is not crucial for the Malaysian investors unless it is compatible with their religious and cultural values, investment preferences as well as their past investment experiences. More importantly, compatibility in the current study was measured relatively against the other investment assets. Thus, the respondents might not consider it as a more profitable investment compared to other assets, but they can still rely on it for risk diversification and hedging purposes. It is noteworthy that this feature has been emerging the most in empirical studies on portfolio optimization using Bitcoin (Trimborm, et al., 2017; D'Alfonso, et al., 2016; Klabbers, 2017).

Thus, among the four explanatory variables initially included, only three were found to be significantly influencing the intention of the Malaysians to invest in Bitcoins, namely, compatibility, awareness and facilitating conditions. In other words, the Malaysian Muslims could invest in Bitcoins and benefit from diversification opportunities if they are compatible with their values, if the authorities support and encourage the investment in Bitcoins, and if they have sufficient awareness and knowledge of Bitcoin principles, benefits, and management techniques. The latter is of paramount importance as it will eliminate the element of *gharar* in their investment.

Table 4: Standardised total effects

	Compatibility	Awareness	Facilitating Conditions	Ease of Use	Profitability	Subjective Norms	Trust
Behavioural Intention	.649	.292	.248	.117	.162	.110	.081

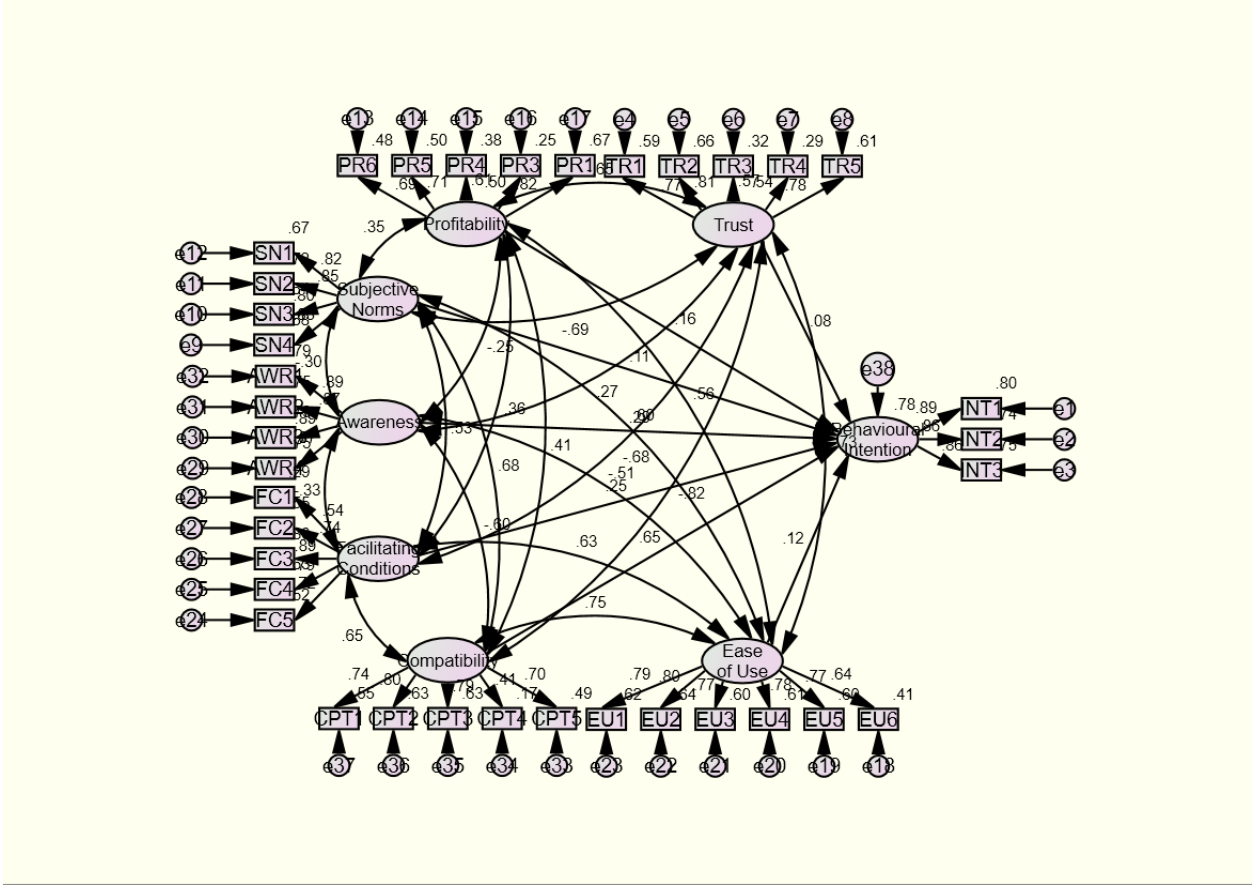


Figure 2: Structural Model

6. Discussion and conclusions

The objective of the current study was to examine the factors that might influence the Malaysian investors' intention to invest in Bitcoin. Using SEM approach, the results indicated that compatibility, awareness and facilitating conditions could influence the Malaysian Muslims decision to invest in Bitcoin. On the other hand, perceived ease of use, profitability, subjective norms, as well as trust, were found to have no significant impact on the Malaysian Muslims' intention to invest in Bitcoin.

These findings have significant implications for the theory, for the policy makers and regulators as well as for the practitioners. Particularly, this study sets the ground on the cryptocurrencies investment behavior among Muslim communities, highlighting certain features that the latter might find inconsistent with their religious and cultural values, mainly the *gharar* aspect that has been strongly associated with Bitcoin investment. Thus, the findings of the current study will certainly help advance the body of knowledge on cryptocurrency investment behavior in the future.

On the other hand, the current study is an extension of the innovations diffusion theory, theory of planned behaviour and technology acceptance model to a different setting and to a different new area of study that has yet to be empirically studied.

Finally, the study provides insights to policymakers and practitioners on the aspects that need to be emphasized in order to enhance the cryptocurrencies investment and usage among Muslim communities. Indeed, this will not just contribute to investors' wellbeing, but the wellbeing of the economy as a whole. On the other hand,

Bitcoin and similar systems should be seriously studied and considered as they might be a more appropriate medium of exchange -money- compared to the existing fiat currencies (Meera, 2018; Evans, 2015). Similarly, other forms of cryptocurrencies should be studied to enhance the functions of money. This include OneGram, which is cryptocurrency backed by gold asset.

The current study has a number of limitations that should be taken into account in the future studies in this area. Mainly, the sample size is relatively limited, though accurately calculated, hence the results cannot be generalised to all Malaysian Muslim investors. Thus, the future studies are recommended to select a larger and more representative sample size, in order to generalise the results to the whole population. The future studies are also recommended to extend these findings to other contexts and preferably using other models as well.

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Readiness and Challenges of Islamic Financial Services Industry in Facing the Industrial Revolution 4.0: A Malaysia Perspective

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Abstract

The financial services industry is in the midst of facing the booming of Industrial Revolution 4.0 (IR 4.0), including Malaysia. IR 4.0 will pose an impact in the advancement of technology in financial services industry and how people do things in the operating financial services for both systems, conventional and Islamic financial services. The features of technology are not new in the Islamic financial services industry but with new era of IR 4.0, the landscape of Islamic financial services industry may have to address the change in advancement technology at a higher level as compared to the previous time. With the emergence of financial technology (fintech), challenges such as security and risks, will become increasingly critical concerns to the financial institutions. Therefore, this paper discusses the readiness faced by the Islamic financial services industry in the implementation of IR 4.0 specifically in facing finance technology (fintech). This conceptual paper aims to explain various challenges that the Islamic financial services industry may face in having technology in financial services and transactions. This paper also suggests that further research, discussion and inputs is to be obtained from the key players of the industry especially the Islamic financial institutions with regards to IR 4.0.

Keywords: Islamic; financial institutions; fintech; IR 4.0

1. Industrial Revolution 4.0 in Malaysia: From Industrial Revolution 4.0 to Finance 4.0

The Fourth Industrial Revolution originated from German in 2011 as one of the leading jurisdictions in the manufacturing industry during the Hannover Messe. It was announced by Professor Wolfgang Wahlster which was the director and CEP of the German Research Center for Artificial Intelligence. The initial intention of this idea was to explore the possibility for companies to be successful in a high wage region with global competition. He suggested that we must be in shape for the 4th Industrial Revolution that is being driven by the Internet (Rojko, 2017). Thus, the financial services are of no exception. Despite the introduction was initially targeted to address the manufacturing, the Industry 4.0 concept is not limited just to the direct manufacturing in the company but it also includes a complete value chain from providers to customers and all enterprise's business functions and services to include financial services. Thus, the financial services need to be at par with IR 4.0 in transforming Finance 3.0 to Finance 4.0. Finance 4.0 is the innovation of technical called cyber currencies which was created for peer to peer (P2P) transactions across a distributed ledger system or can be known as blockchain. Finance technology is the continuous of the advancement of technology can be explained as a link of business that used a software to offer a faster and cheaper financial service (Kim, Y., Park, Y. J., & Choi, J.,2016). Fintech also refer to the financial technology in delivering financial services specifically through the internet – based crowdfunding platforms and mobile banking systems. Various definition of fintech has been introduced in order to understand the essence and substance of the new innovation. There is no boundaries as to the definition as fintech was also defined to include

any organization that it able to add value to the innovation of the financial services. (Varga, 2017) on the other hand defines fintech as a non- or not fully regulated ventures whose goal is to develop novel, technology-enabled financial services with a value-added design that will transform current financial practices. The growth of fintech has changed the way financial institutions around the world through the moving money individuals, facilitating peer-to-peer lending and crowd funding by helping companies raise the equity and capital.

2. Challenges and Issues

2.1 Financial Technology (Fintech) in Financial Institutions

Financial technology (fintech) penetrations into Islamic financial institutions in Malaysia is still at infant stage. A few financial pioneers view the boom in fintech as a threat to traditional banking industry (Huei et al, 2018; Grima et al, 2017). With the emergence of digital technologies such as analytics, cloud and robotics process automation, finance practitioner should consider evolving the finance team capabilities and adopting new tools, processes and procedures to be ready for IR 4.0. There are 4 categories in finance technology which believed to be expanded in various categories. First is data analytics. It refers to the finance function with tools in order to provide more understanding by extracting value from large and big amounts of data. The data analytics can assist financial institutions in predicted outcomes to better understand the financial impact of key decisions. Meanwhile, the robotic process automation (RPA) is more reliable and can replace manual routines which resulted more efficient audit. Artificial intelligence (AI) is a large structure and unstructured data sets. It can recognize the patterns and learns while adapt to the new accounting or tax regulations. AI in financial institutions can be refers to the absence of the physical form and AI is mimic human intelligence. AI can be divided into three subcategories which are machines learning, natural language process and cognitive computing (FintechFutures, 2018). However, the AI and machine learning are being quickly adopted for various applications in the financial institutions industry (FSB, 2017). The last categories in fintech is blockchain. Blockchain can be explained as a records transaction using a distributed ledger, which gives every network participant a secure audit trail of all transactions ever made in near real time. Blockchain also trade directly between parties without the need for intermediaries. To reap the benefits that fintech can bring, financial institutions would have to understand the impact of implementing a particular technology to their institutions as well as their businesses.

2.2 Legal and Regulatory

The challenges in terms of regulatory framework is another aspect that needs to be taken into consideration. Most of the literatures confirmed that one of the issues that needs to be addressed in implementing fintech is on the aspect of law and regulation. The issue is as to whether the existing regulatory framework is enough in addressing the issues in fintech or other additional law and regulation needs to form. Since financial technology is the creature of the cyber world, some scholars from the cyber world group are of the opinion that the law which is applicable in the real world is not applicable to creatures of the cyber world (Barlow,1996). However, in Malaysian context, previous decided cases have proven that despite the opinion of the scholar from the cyber world, the law in the real world is wide enough to cover the dealings from the cyber world except probably with additional law or legislation that needs to read together. Fintech innovation is shifting the normal arrangement of the financial services industry. The enlargement of digital channels and provision of real time is expected to escalate certain risk such as fraud and cybercrime. Besides that, fintech innovation will increase the use and sharing of data which may raise issues such as privacy risks and data integrity. There is also some collaboration risk involved as the adoption of technology in the financial services will require partnerships between financial institutions and fintech providers. The financial market of South Africa acknowledges the issues and risk mentioned above that a proper regulatory framework for fintech will have to work side by side with other issues such as data security, cyber-security, consumer protection and law on technology in order to support the fintech industry. In addition, the appropriate regulatory framework will be able to mitigate the risk and to clarify obligation which suits the risk of fintech. Rules and regulation are very vital in financial services as it maintains industry stability and to avoid any chaos in the financial services market (Chishti & Barberis, 2016) This is very important as the existence of a legal and regulatory framework will build confidence to investors. However, it could not be denied that there is possible conflict between the advancement of technology and the understanding of financial industry towards the new innovation. Rigid rules

and regulation may not help in accommodating the new technology but perhaps some flexibility might catalyst the new technology (Prieger 2002 & Douglas, 2016). The Australian Securities and Investments Commission (ASIC) (2017), denotes the regulatory framework of fintech as regulatory technology or "RegTech". Regtech is the combination of "regulatory" and "technology". The nature of regulation is very data-driven that RegTech will be able comprehend, identify and respond to irregularities and assessing the risk involved. It is basically the use of technology as one of the tool in monitoring, reporting and compliance. RegTech is said be able to empower business for better training and management of compliance risk (Arner, Barbaris & Buckley 2016). Thus, it boils down to the question on the reaction of the regulators in responding to the creatures of fintech. (Naidoo, 2016) has identified two approaches for the regulators around the globe to response to fintech which is reactive approach and proactive approach. Reactive approach refers to regulators who are not in the active role in realizing the success of fintech. The adjustment of the regulation is only done when necessary. On the other hand, proactive approach is when the regulators are being optimistic in making fintech successful by working close together with the market in comprehending the fintech innovation and the regulatory hindrance. One of the indications which reflect the proactive approach of the regulator is when fintech are permitted to test products under lighter legal obligation through the regulatory sandbox. This will enable regulators to run abreast with technology and monitor its impact on the market.

2.3 Risks

	Risk	Opportunities
Impact on consumer sector	Data Privacy	Financial Inclusion
	Data security	Better and more tailored banking services
	Discontinuity of banking services	Lower transaction costs and faster banking services
	Inappropriated marketing services	
Impact on banks and banking system	Strategic and profitability risks	
	Cyber risk	
	Increased interconnectedness between financial parties	Improved and more efficient banking processes
	High operational risk – systemic	Innovative use of data for marketing and risk management purposes
	High operational risk – idiosyncratic	Potential positive impact on financial stability due to increased competition
	Third party / vendor management risk	Regtech
	Compliance risk including failure to protect consumers and data protection regulation	
	Money laundering – terrorism financing risk	
	Liquidity risk and volatility of bank funding sources	

Source: Bank for International Settlements (2018)

The above graph explained on the risk and opportunities appeared in the financial industry and it is based on a survey of existing research on fintech done by Bank for International Settlements in February 2018. The risk appeared is associated with the emergence of fintech included the traditional risk which are credit risk, liquidity risk, management risk and etc. Pursuant to this, financial institutions are expected to enhanced by implementation of certain supervisory platform in order to ensure their institutions have an effective governance structure and all risk appeared is well monitored. The human talented in fintech are needed to ensure that financial institutions have awareness and capability to manage the fintech risks.

2.4 Regulatory Framework

The regulatory framework of fintech lies under the purview of the Central Bank of Malaysia (CBM) and Securities Commission of Malaysia (SC). Since 2017, both of these regulatory bodies has issued some guidelines relating to new innovation of financial technology. The effort taken by the regulators are in line with the current development as new regulation is important in shaping new innovation in finance (Liu, Kauffman, & Ma, 2015) . The effort taken by CBM and SC is in line with the main objective and functions of both regulatory bodies in promoting monetary

stability and financial stability in order to sustain the growth of the Malaysian economy and to ensure compliance of rules and regulation in the financial services industry as provided in Section 5 of the Central Bank of Malaysia Act 2009 and Section 15 of the Securities Commission Act 1993.Some of the guidelines issued by the above mentioned regulators includes the Financial Technology Regulatory Sandbox Framework and Anti-Money Laundering and Counter Financing of Terrorism (AML/CFT) – Digital Currencies (Sector 6) issued by CBM and Guidelines on Recognized Market 2016 issued by SC to mentioned a few. The approach reflected by the Malaysian regulators are positive in nature that they are making proactive actions in adjusting the new innovations of fintech with new guidelines in order to accommodate the advancement of technology. Despite the issuance of some guidelines for regulatory purpose, it is expected that additional regulations may be issued in the future. The reason being is because the innovation of fintech is new and is just recently being tested thus there may be some other legal issues that may arise in the future. However, it is very important to highlight the possible risk involved that protective and security measures are to be taken by participants of fintech.

2.5 Shariah

In order to be at par with the conventional financial services, Islamic financial institutions are to keep up with the application of fintech. Thus, it is important to analyse fintech from Shariah perspective. The principles provided by the Shariah is very comprehensive that it covers all aspect of life to include finance which is part of economy recognized in Shariah. In essence the core point of the practice of the Shariah is to be in line with the objectives and spirit of the Shariah which is to preserve the well-being (*maslahah*) of humankind and to evade any harm and destruction (*mafsadah*) (Nyazee, 2003). Thus, in the implementation of new technology it needs to be potential to contribute to the welfare, benefit and good of the society to include the financial services industry. Experts of fintech and policy makers are to be conscious of the possible harmful repercussions of the new technology. The application of fintech as one form of technology must be in line with the spirit and the objectives of the Shariah which is to preserve the best interest and curbing any evil or harm of the society generally or the financial services industry specifically as financial services involved as mass participation of the society at large (Raquib,2015). Under the Islamic Financial Services Act 2013 fintech is recognized as one of the authorized business as defined in the statute. Despite the operation of fintech is to be dealt by the fintech companies, it is still bound with the provisions on Shariah compliance as provided in Section 28 of Islamic Financial Services Act 2013. The wording of Section 28 is wide enough to include fintech as part of the operation, business, affairs and activities. Thus, Islamic financial institutions are to ensure that the financial technology platform is to be shariah compliant in the event it decides to embark into the fintech journey. This has been included in the Financial Technology Regulatory Sandbox of Item 6.2(f) in which Shariah elements was considered in assessing the risk and evaluating the safeguards.

3. Conclusion

Islamic financial institutions in Malaysia is rapidly growing with the innovations of products and services offered to meet the stakeholders demand. According to Malaysia International Islamic Finance Center (MIFC) report in 2018, Malaysia was ranked as a first in the Islamic Finance Index 2017 which recognize by Thomson Reuters's Islamic Finance Development Indicator in year 2017 for the fifth consecutive year. From this recognition, it is proven that financial institutions in Malaysia are believed to well prepared for the emergence of fintech. Despite the issues on the permissible of blockchain which at the unproven stage and need more time to evolve, and the disputes on data security which need more concern and priority, Islamic financial institutions in Malaysia are positively recommended to stay vigilant. Thus, it is recommended for financial institutions in Malaysia to develop a holistic security strategy which is able to identify the risks that expected to threaten the stakeholders' information. As fintech is directly involved with the security, financial institutions are recommended to develop security control that consist a policies and procedures which can facing the rapid changes of technologies in the futures.

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Financial Services Act 2013

Islamic Financial Services Act 2013

A Preliminary Study On Fintech Users In Malaysia

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1. Introduction

Fintech, the abbreviation for *fin*ancial *tech*nology, is a broad category that refers to the innovative use of technology in the design and delivery of financial services and products. Fintech is a phenomenon fueled by the World Wide Web and mobile Internet revolution. Global professional services company Accenture found that investments in fintech across Asia-Pacific alone skyrocketed in 2015, from about US$880 million in all of 2014 to nearly US$3.5 billion in just the first nine months. Globally, it is estimated that the value of fintech investments will amount to about US$40 billion by 2020 (Surendra, 2017). The application of fintech cuts across multiple business segments, including lending, advice, investment management and payments. Many fintech companies harness mobile technologies, big data and superior analytics to tailor products for various customer segments (Blake et al, 2016).

In Malaysia, the presence of fintech is still nascent but growing rapidly. Fintech companies in Malaysia include AppPay, Billplz, GHL, iPayLinks, Samsung Pay, Smartly, Ozopay and others. According to an online statistics provider Statista, fintech transactions in Malaysia totaled a mere US$6.37 million in year 2016 compared with the global figure of US$769.3 billion (Ong, 2016). It however predicts that fintech transaction value grow to US$14.4 billion by 2020 as more start-ups produce various innovations and enter the Malaysian capital market (Surendra, 2017; Ong, 2016).

A survey on fintech in Malaysia conducted by PwC (2016) found that 82 percent of Malaysian financial institutions (FIs) believed that part of their business is at risk of being lost to fintech companies. The figure is higher than the global (67 percent) and even Singapore (73 percent). The fund transfers and payments, consumer banking, and general insurance sectors are seen as the most likely are to be disrupted by fintech (PwC, 2016), nevertheless, the FIs were more conservative about digital adoption among local consumers as only 15 percent of the FIs participated in the survey agreed that consumers were ready to embrace fintech products and innovations.

While results of the survey show unoptimistic views from the FIs, consumers' exposure to digital products and services and their readiness for and ease of accepting new technology will likely to increase with smartphone penetration in Malaysia expected to exceed 100 percent by 2018 (South East Asia and Oceania Ericsson Mobility Report, November 2015). Consider the fact that the number of people turning to electronic fund transfer services is actually increasing — the annual growth rate for Interbank GIRO had increased from an average of 18.8 percent prior to 2013 to 34.1 percent in 2014 and 2015 (Bank Negara Deputy Governor's Keynote Address at the SWIFT Business Forum Malaysia, March 2016).

This study is an on-going reseach that aims to examine fintech services adoption among Malaysian and their perception towards fintech services. Studying these issues would enable a better understand on the behaviour of fintech users in Malaysia and indirectly provide useful information for the growth of Fintech in Malaysia.

2. Methodology

This study involved data collection through online survey of respondents which was conducted from 9 until 20 July 2018. Survey link was shared with researcher's contact and a total number of 90 completed survey questionnaires were received and analysed. Brief information on the research objectives and procedures in aswering the survey questionnaire were provided on the front page of the survey. The survey questionnaire was divided into three main sections. First section contained general questions on respondents' participation in fintech that includes mobile payment, online money transfer/payment, personal finance apps, cashless payment, providers of services to manage stock portfolios via smartphone, online saving or invetsment management apps, and onlice car insurance renewal, section two contained questions on respondents perception towards fintech, and the third section contained

question on demographic profile of the respondents. SPSS software version 20 was used to analyse the data and descriptive analysis was performed.

3. Results And Discussion

3.1 Demographic Profile

Table 1 illustrates the respondents' profiles. 30.2 percent of the respondents were male and 69.8 percent were female. The information on marital status demonstrated that more than half (55.8 percent) were married, followed by single (41.9 percent) and divorced/widowed (2.3 percent). 53.5 percent of the respondents were aged below 35 years old and 46.5 percent were aged 35 years old and above. With regards to educational background, majority (86.0 percent) had degree/postgraduate qualification while 8.1 percent of respondents were secondary leavers and 5.8 percent obtained professional qualification / diploma. In terms of the respondents' income, 57 per cent of the respondents earned below USD 1,250 and 43 per cent of the respondents earned above USD 1,250 monthly.

Table 1: Respondents' Profile

	(% of sample) (N = 90)
Gender	
Male	30.2
Female	69.8
Marital Status	
Single	41.9
Married	55.8
Divorced/Widowed	2.3
Age	
18 - 24	11.6
25 - 34	41.9
35 - 44	31.4
45 - 54	10.5
> 54	4.7
Education	
Secondary School Leavers	8.1
Professional Qualification / Diploma	5.8
Degree/ Postgraduate	86.0
Income	
USD 500 and below	29.1
USD 500 to USD 1,250	27.9
USD 1,250 to USD 2,000	17.4
USD 2,001 and above	25.6

3.2 Fintech Services

Figure 1 shows respondents awareness of selected fintech services in Malaysia. Respondents were asked on their familliarity on a number of fintech services which include mobile payment method, online money transfer/payment, personal finance apps, cashless payment, stock portfolio, online saving/investment management apps, and online car insurance renewal. In general, respondents were positive across all fintech services. Online money transfer/payment represent the highest response rate in terms of number of user. 75.6 percent of the respondents were familiar and already used such service while 56.7 percent of the respondents were familiar and already used cashless payment. In the third spot, 54.4 percent of the respondents were familiar and already used mobile payment method while 32.2 percent of the respondents were familiar and already used personal apps service. For online car insurance renewal, 25.6 percent of the respondents were familiar and already used such service and 12.2 percent of the respondents were familiar and already used providers of services to manage stock portfolios via smartphone online saving or investment management apps.

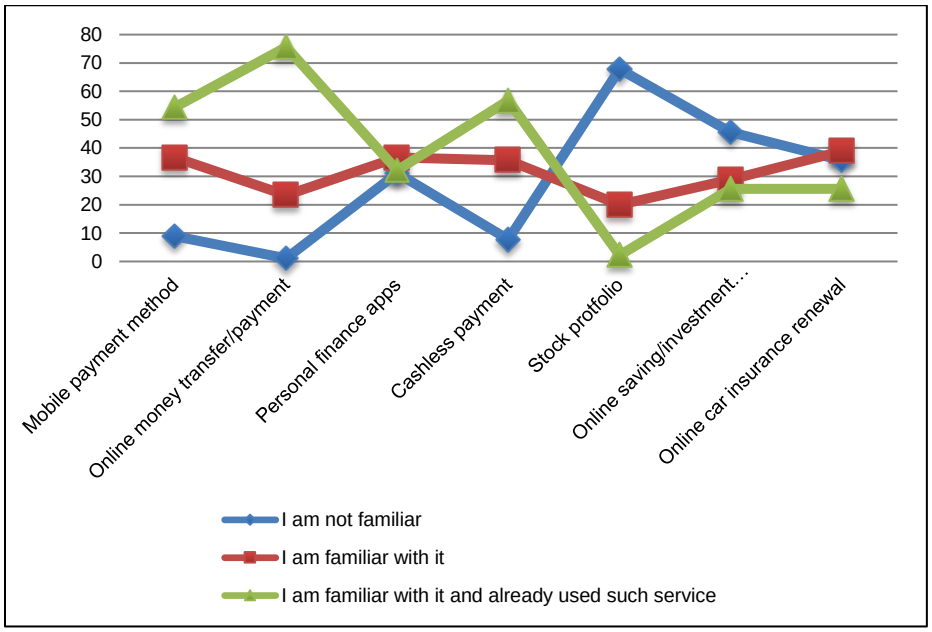


Figure 1: Comparison of Use of Fintech Services

Respondents were also asked on their perception towards fintech services by asking them to describe word that describe fintech the best. As shown in Figure 2, the word mostly describe fintech services include easy, useful, accessible, amazing, interactive, changing, fun, impressive, cheap, and perfect.

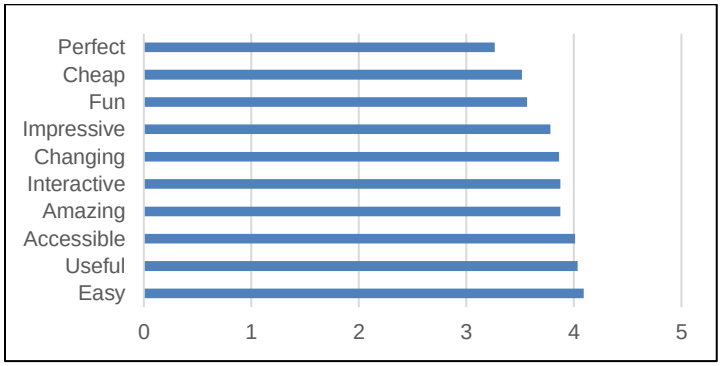


Figure 2: Perception Towards Fintech

In this study, the respondents were divided in two groups based on their age. Users aged 35 years and older scored higher scores than the average scores. It is not an unexpected results as this group is comfortable with internet and mobile technologies, but they also require a wide range of financial services as they achieve life milestones, such as completing their education, starting full-time employment, becoming homeowners and having children.

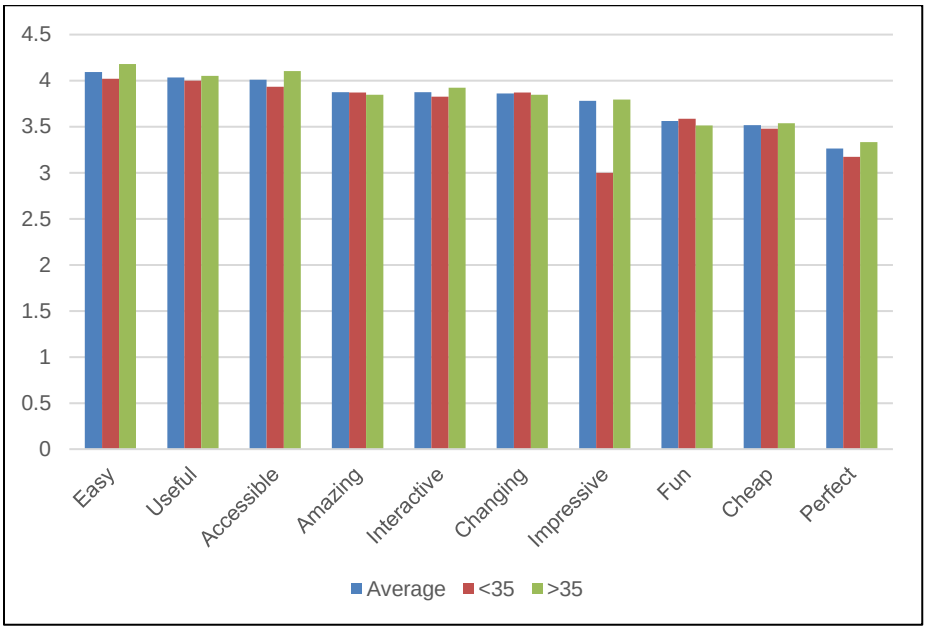


Figure 3: Perception Towards FinTech Based on Age Groups

In response to the statement "I can imagine carrying out most of my banking transactions via online / smartphone 5 (five) years from now", as shown in Figure 4, 87.4 percent of the respondents mentioned that they were likely and very likely to carry out most of their banking transactions via online/smartphone five (5) years from now.

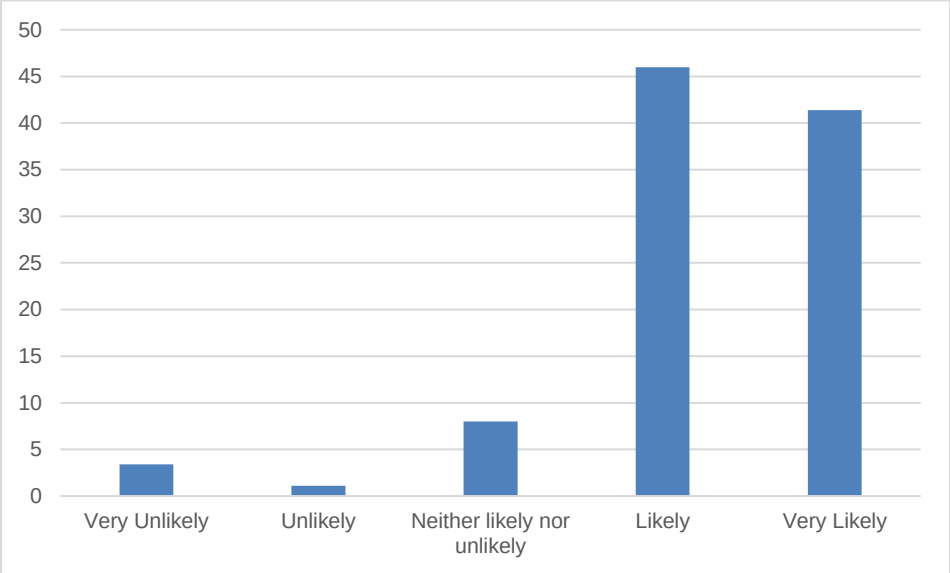


Figure 4: Anticipated Use of Fintech

4. Conclusion

This study is an on-going reseach that aims to examine fintech services adoption among Malaysian and their perception towards fintech services. In general, respondents were positive across all fintech services and perceived fintech as easy, useful, and accessible service. Malaysians are more than ready to embrace fintech offerings, creating opportunities for both incumbent and new financial services providers.

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Protecting the Poor in Malaysia: The Viability of Micro-takaful Scheme

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Abstract

All households are exposed to various risks, such as health, disabilities, unemployment and premature death. Poor households, however, are less able to prevent and mitigate risks than others due to their limited financial resources, hence are more vulnerable to financial risks. This paper aims to evaluate the viability of micro-takaful scheme in assisting the poor and prevent them from falling deeper into poverty. The escalating cost of healthcare in Malaysia has prompted the Ministry of Health to provide a health insurance protection scheme for those in the B40 group, specifically in obtaining health treatment at government and private hospitals. The paper outlines several issues crucial to the viability of micro-takaful scheme, such as the liquidity and claims, underwriting and profitability factors. It also discusses the available micro-takaful products in Malaysia and suggests who are the specific targets among the poor households should subscribed to the scheme.

Keywords: Micro-takaful, social insurance, poverty, healthcare

1. Introduction

Past literatures on insurance have suggested that insurance service is one of the important risk management tool for poverty alleviation. However, the low-income segment of the society is often ignored by the private insurers and takaful operators, because the premiums are not affordable by the poor. A particular type of insurance, specifically developed to provide protection for the low income segment is microinsurance, or a shariah compliant form, micro takaful. Fundamentally, micro takaful has the same technical apparatus as takaful, but it focused on providing the poor with opportunities to protect themselves against specified risks in exchange for affordable premiums (Haslifah M. Hasim, 2014).

The problem with insurance and takaful is that it is run as a business entity, thus, profit for the shareholder is the optimal goal. These companies are more compelled to seek business opportunities within the growing affluent middle-income segment of the market. To service the low-income segment of the market is considered risky to insurers and takaful operators due to the high possibility of default premium payment because most often, the poor do not have regular income flows. In addition to that, since microinsurance and micro takaful schemes provide low premium income, the companies must secure high volume of business to be able to attain the critical size (achieved, when expense loading exceeds the expense incurred) and underwrite profitably.

Micro takaful is a noble activity and is in line with the spirit of takaful, where members of a society pool resources in order to compensate one another after sustaining a loss. This will in turn provides financial assistance against unexpected future loss, which will ultimately contribute to reduction of poverty (Abdul Rahman and Daud 2010). The subject of micro takaful has amplified interest among a wide range of stakeholders, such as policy makers, industry's players and academicians. However, to examine the viability of micro takaful, several questions need to be addressed, starting with a clear definition of the scheme itself. A trickier and grey area would be, who will actually be the target

market for micro takaful schemes. Should it be the low-income group segment with a full-time employment, self-employed or unemployed? Why there are not many insurance companies and takaful operators offer micro takaful schemes and does a country like Malaysia really need such program.

By addressing critical issues regarding micro takaful, this article will evaluate the viability of micro takaful scheme as an element of social protection for the poor households in Malaysia. It will also outline how through the support from the government and the use of zakat and waqf funds, the poor households could have access to a more affordable micro takaful scheme. This will be able to prevent them from falling deeper into poverty. This article will also discuss the micro takaful schemes currently available in Malaysia.

2. Background of Takaful

Takaful arrangement provides a similar function with conventional insurance, which is to provide protection against specified mishaps or disasters. However, contrary to its conventional counterpart, takaful does not contain the elements of riba, uncertainty and gambling. Takaful is an extension of the concept of blood money, practiced by the Arab pagans. According to Billah (2003), during the pre-Islamic period, a killer has to pay blood money (diyat) as a compensation to the deceased's family. Although the payment of compensation was the responsibility of the killer, the tribe may contribute towards the payment of blood money to the deceased's family to avoid further blood-shed.

According to Billah (2003), Usmani (2007) and Abdul Rahman and Redzuan (2009), takaful is an alternative to conventional insurance that is grounded by the principles of donation (tabarru') and mutual cooperation (ta'awun). Tabarru' in takaful means participants mutually agree donate a certain amount of money into a specified fund to provide financial assistance to member of the group suffering a loss. Ta'awun is described as cooperation among participants who mutually protect and guarantee each other. Takaful embraces the elements of mutual cooperation and protection, shared responsibility and joint indemnity among the participants. The financial assistance are possible through the creation of a common pool of funds, contributed by the participants, considered as donations (Sheila, N.N. Htay, et al., 2015).

Although takaful companies are set up along similar line of objectives, there is a very distinctive difference in models adapted in the companies' operations. The choice of adapting takaful operating model is affected by regional acceptance, product design, marketing, pricing and the shari'ah advisory council (Sheila, N.N. Htay, et al., 2015). According to Frenz and Soualhi (2010), generally there are four commonly adopted takaful models. The models are:

1. Pure Mudharabah Model: based on the profit sharing principles, where takaful operators (TO) is only entitled to the investment portion and underwriting surplus is returned to the participant.
2. Pure Wakalah Model: TO receives pre-agreed wakalah fee for administration and investment fee.
3. Wakalah-Mudharabah Model (hybrid): TO charges a wakalah fee from the contribution and profits from the underwriting activities are distributed to the participants.
4. Waqf Model: TO is the manager of the waqf and the takaful fund. TO is entitled to get a wakalah fee for the management of the waqf and takaful fund. However, the surplus is not returned to either the TO or participant.

In Malaysia, most TO have adapted the wakalah business model, where tabarru' and wakalah contracts are used to govern the takaful business (Haziah, N.H, 2016). Similar to conventional insurance, generally takaful is divided into two business, namely family takaful and general takaful. General takaful is basically the equivalent to general insurance, which is a contract of joint guarantee on a short term basis among the participants in relation to material losses resulting from catastrophe inflicted upon properties belonging to the participants. Examples of general takaful products include fire, motor, personal and marine.

Family takaful on the other hand is similar to the coverage provided by life insurance. It is a long term saving and investment program with a fixed maturity period that provides assistance among the participants in time of need due to untimely death and other mishaps resulting in personal injury or disablement. The objective of family takaful is to encourage the participants to save through payment of contributions and earn investment profits through lawful manners. Examples of family takaful products are education, medical surgery, critical illness, permanent disability, mortgage protection and investment. To sum up, general takaful is protection for property damages, whereas, family takaful protects life and limb. Both plans can be catered for individual or group basis.

After having a general idea on takaful, the next section will discuss the micro takaful provided in Malaysia.

3. The Micro Takaful Market in Malaysia

According to United Nation Development Program, the level of poverty in Malaysia is low, although high incidences of poverty exist among specific ethnic groups and localities. Among the strategies and policies developed by the government to help eradicate poverty is the Ninth Malaysia Plan for 2006-2010 under Malaysia Measuring and Monitoring Poverty and Inequality program. Subsequently, the National Key Results Area (NKRA) under the Prime Minister's Department of Malaysia was established to raise the living standards of low income households.

Bank Negara Malaysia (BNM) in 2010 announced that the most underserved and neglected segment by the mainstream insurance and takaful providers are the low income segments, both in the urban and rural poverty groups. Accordingly, on September 2010, BNM urged takaful operators to design micro takaful schemes, specifically to serve the untapped population of the low income market. The micro takaful schemes developed were medical and retirement products. Table 1 depicts the three categories of the low income households in Malaysia, based on their monthly income.

Table 1: Extreme Poor, Poor and Low Income Households (USD and RM)

Category	Peninsular Malaysia	Sabah	Sarawak
Extreme poor	≤ USD 138 (RM440)	≤ USD 170 (RM540)	≤ USD 164 (RM520)
Poor	≤ USD 236 (RM750)	≤ USD 302 (RM960)	≤ USD 261 (RM830)
Low Income H/holds	≤ USD 629 (RM2,000)	≤ USD 629 (RM2,000)	≤ USD 629 (RM2,000)

Source: Performance Management and Delivery Unit (PEMANDU)

According to Khan (2006), micro takaful is defined as a mechanism to provide a shariah based protection to the blue collared, under privileged individuals at affordable costs. Based on the definition, it can be concluded that micro takaful is not actually an insurance or takaful product, but rather it is just a concept, targeted to a specific low income segment of the society. Table 2 describe the differences between takaful and microtakaful schemes.

Table 2: Differences between Takaful and Micro takaful

Item	Takaful	Micro takaful
1. Coverage	Normally exclude high risks cases	Provide coverage for high risks cases
2. Extension of social insurance scheme	No	Yes
3. Customer segmentation	Formal economy, mostly employed or self-employed	Informal economy, outside the social insurance coverage
4. Affordability consideration	Upper to middle income classes	Bottom of the income and social pyramid. Needs subsidies from government, donor agencies, zakat and waqaf funds
5. Underwriting consideration	Easier to mitigate adverse selection and exposure to fraud	Risk from adverse selection and fraud needs to be mitigated through linkage with economic benefits of microcredit, microfinance or schemes for community and affinity groups
6. Distribution	Agency, brokers, commercial banks, direct, electronics	Microfinance institution, rural banks, mosques, zakat institutions

Source: www.meinsurancereview.com

Thus, any suitable family takaful (life) and general takaful products can be marketed to the poor segment with some modification on the premium payment, so that it is affordable to the target market. In view of this, micro takaful products would need to be 'simple' and 'cheap'.

'Simple' means simplicity in terms of product design and administration. Micro takaful products should focus only on the 'protection' elements (death benefit, disablement and healthcare) rather than including the 'savings and investment features'. Family takaful products that include savings and investment features are generally more expensive than 'term' products, which focus mainly on the protection benefits. Simple administration refers to minimizing the expenses by standardizing and simplifying the process of premium collection and claims payments. Number of points of contact between the insurer and insured should also be minimized. However, due to the limited statistics on the probable claims experience among the low income segment, keeping micro takaful schemes 'cheap' will render more difficulty.

Micro insurance products that are commonly available in different parts of the world include credit life, term life personal accidents, properties insurance, endowment life, agriculture insurance, health / critical illness, funeral, unemployment and flood. Hence, micro takaful is able to mimic them, with some modifications and offer products like takaful for fire, health/critical illness, retirement, education and others, while at the same time contributions or premium levels are kept low. In Malaysia, there are only three takaful players offering micro takaful products, namely Syarikat Takaful Malaysia Berhad (STMB), Etiqa Takaful and Takaful Ikhlas. Most of the micro takaful products offered are limited to death and disability benefits for business owners (Maznita Mokhtar et. al., 2012). Below are the brief descriptions of the micro takaful products offered by takaful operators in Malaysia:

1. Syarikat Takaful Malaysia Berhad (STMB)

The company offered Takaful myJalinan programme as their Corporate Social Responsibility (CSR) activities. Takaful myJalinan Kasih provides monetary assistance to the needy, including orphans, single mothers and other underprivileged groups, whereas Takaful myJalinan Ilmu complements the work of school teachers by helping students excel in their studies, particularly emphasizing on the improvement of English proficiency.

2. Etiqa Takaful

a) Skim Tabarru' Koperasi

Launched by Etiqa Takaful and ANGKASA (Angkatan Koperasi Kebangsaan Malaysia). It is a group takaful protection scheme to cater for all cooperative members in March 20096. Cooperative members need only pay RM5 up to RM25 per year to get a death benefit as high as RM19, 000, as well as other benefits such as total permanent disability, and they are covered until the age of 80 years old.

b) Takaful Coverage for Indonesian Maids

Etiqa Takaful and Takaful Ikhlas introduced the scheme in June 2011 to cover Indonesian maids, where the employers will need to pay takaful contributions as low as RM70 a year. Maids would be eligible to receive to receive compensation of up to RM40,000 due to accidents while at work. Other benefits such as death benefits, hospitalization and medical costs under the Domestic Helpers Affair Programme7.

c) Family Takaful Products by Bank Rakyat

Bank Rakyat, in collaboration with Etiqa Takaful offers three family takaful schemes to meet the needs of low income segment in Malaysia. Contributions are as low as RM50 per month for 24 hour coverage. Takaful Murni is an individual plan that provides financial benefits covering the participant and his family members in the event of

[6] Microtakaful news, March 2009
[7] Microtakaful news: Bernama June, 2011

unforeseen calamity. Takaful Didik is specifically for educations fund and Takaful Amanah provides a comprehensive protection for families8.

d) Coverage for Natural Catastrophe Events

A general takaful, which is based on Index (parametric) shariah compliance insurance solution to cover house and loss of income, with premium as low as RM40 per year, with maximum coverage of RM30,000. Payout is based on an agreed value and triggered by an index describing to the identified event only (such as intensity of rainfall, lack of rain, height of flood (Jimin, 2010).

3. Takaful Ikhlas

a) Coverage for Destitute Farmers in the Agriculture Sector

Takaful Ikhlas launched a micro takaful scheme in conjuction with the Farmers Welfare Federation of Malaysia, ans NGO looking after the needs of destitute farmers. The compulsory scheme, funded by the government, provides immediate death expenses of RM500, for a premium of RM1.80, covering 100,000 members. A voluntary personal accident deathe and disability scheme provides a capital protection of RM10,000.

4. The Viability of Micro Takaful in the Malaysian Market

Micro takaful fits well with the objective and spirit of takaful as its intention is to foster solidarity, where all members in the group lend a helping hand to those in the group who are unfortunate. However, to examine the viability of micro takaful, several questions or potential problems need to be addressed.

Firstly, although the targeted customer for micro takaful is the lower income group, another question arise from here. Should it be those who are self-employed? Full-time employed? or Unemployed? Here is the grey area pertaining to micro takaful. All full time workers in Malaysia are required to participate in the Social Security Organization (SOCSO) and Employees Provident fund (EPF). Both of these schemes provide sufficient employment injury scheme that include medical benefits, temporary and permanent disablement benefits, dependents' benefit, death and funeral benefits to its contributors. In addition to that EPF also provides sufficient retirement benefits. In short, both SOCSO and EPF provide sufficient and well managed protection to its contributors.

If those unemployed is considered under micro takaful, then it should be the responsibility of the government in providing financial capacity for the poor to have the needed protection that principally cover death, medical and savings benefit. So, the conclusion is that the self-employed should be the target market for micro takaful. However, another problem may arise, where there might be difficulties to collect complete information pertaining this self-employed group. This is because there is no entity that maintain the statistics pertaining the self-employed group.

Secondly, there is an issue of liquidity and claims. Research by Sheila N.N et. al., (2015) found that takaful operators in Malaysia foresee that liquidity and claims will be an issue, unless there are some parties taking up responsibility for collection of contributions (premium) and providing such funding. The operators feel that there might be a need for an aggregate cap with regards to the liability fund and for the balance to be provided by some other party, such as government or zakat authority. It is also crucial to have large number of participants to create a mass fund where the contributions collected must be able to meet the potential claims. In terms of claims administration, any delay in meeting the claims commitments will erode public confidence on micro takaful product. Perhaps, zakat institutions or other charitable suggestions could be sourced as administrative centers for the participants to pay their contributions and submit their claims.

The third issue is on underwriting and profitability, since it is not feasible to underwrite a large volume with a minimum contribution. It is also difficult to gain a reasonable amount of profitability since the price sold is low. However, profit in other ways can be attained, such as the good image and reputation of the company, as they might be regarded as part of company's Corporate Social Responsibility (CSR) program. The move might assist the government and other charitable organizations to alleviate poverty in society.

The fourth issue is on promoting the micro takaful products. The promotion of this products require extensive and effective marketing strategy. Marketing of this product should be done on compulsory group basis, involving takaful operators, relevant government bodies and charitable organizations to minimize policy administration and collection.

[8] Mictotakaful news

The last issue is whether Malaysia is seriously in need of micro takaful products. The industry players, regulators and government would really need to study whether there is a real need to provide micro takaful products in a country like Malaysia, compared to Indonesia or India, where there are easily millions of underprivileged citizens all over the country. Furthermore, medical service and hospitalization services offered by government hospitals are easily accessible by the lower income group. In addition to the government hospitals, EPF and SOCSO also provide sufficient medical coverage for those who are employed.

5. Pricing for Contribution

The process of designing a micro takaful policy is such that it must accommodate the low-income population, providing health coverage for the whole family at a very low contribution (premium) rate. As previously discussed, micro takaful schemes should be designed for only 'protection' elements that includes death benefit, disablement and healthcare. By this, the targeted low-income groups are accessible to such protection and other specified risks. This includes payment for medical and hospital bills for the whole family.

Currently, only AIA Takaful offers a medical policy that provides "group" medical protection for the whole family with a maximum of 4 children, A-Life Medic Family. Contribution for a person age 30 with a good medical history, does not smoke and yearly claim amount amounting up to RM 150,000 per year is about RM 5,652 per year or RM 470 per month (AIA, 2018). This contribution is inclusive for the policyholder, spouse and their children with some terms and conditions apply. This such amount may not be a burden for a middle-income group. Unfortunately for low-income groups, this contribution amount is considered very expensive and they are not able to pay for this such amount. Thus, these low-income groups are not able to get themselves insured as they could not commit to the high monthly contribution rates.

Another similar "group" takaful policy that is designed for medical protection of the employees and family members by Takaful Malaysia, Takaful mySME Partner is to cater employee's benefit plan with a minimum of 5 employees. With an annual limit of RM 12,000 inclusive of employee's family members, the contribution rate is charged at RM 1,352 per year or RM 112.67 per month with terms and conditions apply (Takaful Malaysia, 2018).

Therefore, to design a micro takaful policy, the contribution rate must be 'cheap', and also could give some return to the company. If the contribution is set too high, then the low-income groups would be unable to pay, and if the contribution is set too low, then the contribution collected may not be sufficient to cover the claims and other expenses (Wrede, P et.al, 2016). In practice, it is not only important for an actuary to maintain the solvency of the company, but also to charge a fair contribution rate to all policyholders. An actuary should take considerations on few elements, such as the loading factor, the claim ratio, increase in medical cost and also wakalah charge. Some other assumptions are also made throughout the pricing calculation, such as mortality rates, morbidity rates, interest rates and expenses (to be used in the basic actuarial formulation as below) and policyholders are then priced based on rating factors such as age, gender, term of the policy, amount of reserves and amount of the benefits (Bowers, 1997). Therefore, the level of contribution (premium) would vary depending on the level of risk of the policyholder. Due to this, micro takaful scheme would be quite a unique takaful scheme that charges an average amount of contribution for a 'group protection' that caters different types of risk profiles (different age, gender and risk factor).

$$P'_{x:\overline{n}|} = \frac{A'_{x:\overline{n}|}}{\ddot{a}_{x:\overline{n}|}}$$

$P'_{x:\overline{n}|}$ = Annual Premium for an n-year term assurance for a person aged x

Recently the government has announced on providing insurance protection of between RM 10,000 to RM 20,000 per year per family to cover their medical and hospital bills. Based on the similar design with the later takaful product discussed, the contribution rate charged per month is expected to be between RM 100 - RM 200 per month (terms and conditions apply). However, this amount is still an alarming amount to be paid by the low-income groups.

6. Conclusion

The purpose of this article is to evaluate the viability of micro takaful products to assist the poor households in Malaysia. Micro takaful products might be used to alleviate poverty among the poor and prevent them from falling deeper into poverty. Since micro takaful is still in an exploratory and developing stage, several issues need to be addressed. Among the issues are to determine who are the specific target among the poor households, liquidity and claims issues, underwriting and profitability issues, marketing strategies and lastly whether a country like Malaysia is in serious need for micro takaful product. Without the assistance from the government and charitable organizations such as the zakat authority, the micro takaful product is consider not viable, due to the difficulty to gain a reasonable amount of profit, as the price of the product must be kept at an affordable level by the poor.

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Country Governance and Banks' Malmquist Productivity Index Nexus: Empirical Evidence on Islamic vs. Conventional Banks

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Abstract

This study examines the impact of country governance and others potential bank-specific characteristics and macroeconomic condition determinants on bank productivity in the period of 2006 to 2016. The productivity level of 167 banks (30 Islamic banks and 137 conventional banks) is evaluated using the Data Envelopment Analysis-Based Malmquist Productivity Index (DEA-MPI) method. A panel regression analysis framework based on ordinary least squares (OLS), a fixed effect model (FEM) and a random effect model (REM) then are used to identify its main determinants. The empirical findings indicate that the total factor productivity changes (TFPCH) of Islamic banks is higher than that of conventional banks. The results reveal that liquidity and the global financial crisis have positively influence with Islamic and conventional banks' TFPCH levels. The credit risk and economic growth have a positive relationship with the productivity level of Islamic banks solely. While, the inflation negatively influence the productivity level only on the Islamic banks. The capitalization shows a negative relationship with the conventional banks' TFPCH but positive to the Islamic banks'. On the other hand, market power and management efficiency exhibits a positive relationship with the conventional banks' TFPCH but negatively related to the Islamic banks'. On the country governance side, voice and accountability is found to positively influence both banks' productivity. Regulatory quality and rule of law positively influences the conventional parts. Political stability and absence of violence, government effectiveness, rule of law and control of corruption negatively influence only for the Islamic banks' TFPCH. The issues discussed in this study are important because the related parties can apply the empirical results to identify the potential determinants and country governance elements that may improve, enhance and maintain the productivity level of the Islamic and conventional banking sector.

Keywords: Country Governance; Islamic Banks; Conventional Banks; Data Envelopment Analysis-Based Malmquist Productivity Index; Total Factor Productivity Changes

1. Introduction

The governance practice may significantly influence the productivity level of the banks. Corporate governance is a set of rules which control and direct the management of an organization or institution. Even though Islamic and conventional banks have their own capabilities and strengths to be a greater competitor in the financial system, they are still affected by governance issue. Effective governance fosters efficient banks and capital markets. Banks that are deemed to be well governed find it easier to attract funds and clients and are more cost-effective. The corporate governance of bank is not similar to the governance of private companies, where it often called as bank governance. This separate analysis of bank evolves two related characteristics. Firstly, banks are not transparent about the services and lack of symmetry. Secondly, banks are frequently regulated in accordance with government regulations

since they are crucial for the economic growth. In spite of that, bank governance of Islamic bank is differing from the conventional one because they are governed based on Syariah rules.

Mostly, the studies on bank's efficiency (Chortareas *et al.*, 2012; Hwang and Akdede, 2011) are more focused on the micro dimension of the governance, which has concentrated on corporate governance or bank governance within the institutions. This is because capital markets are predominant in the financial sector. However, the country governance has received surprisingly little attention in the banking industry over the past few decades. In point of fact, Lensink *et al.* (2008), Chortareas *et al.* (2012) and Kamarudin *et al.* (2016) expands the view to country governance or macro governance that also may have an overall significant impact on the efficiency of the banking sector that primarily covers the governance within the country.

Kaufmann *et al.* (2010) explain that country governance covers three governance clusters. Firstly, the assessment of voice and accountability (VA) and Political stability and absence of violence (PV) on how the governments are chosen, monitored and replaced. Secondly, the evaluation of government effectiveness (GE) and regulatory quality (RQ) on the government's capability to effectively formulate and implement sound policies. Thirdly, the measurement in accordance with the rule of law (RL) and control of corruption (CC) with the respect of citizens and the state for the institutions that govern economic and social interactions among them.

In summary, this study extends the work to investigate the earlier contributions on the productivity of Islamic and conventional banks operating in the four Southeast Asian countries (Malaysia, Indonesia, Brunei, and Singapore) banking sectors and to establish new empirical evidence on the impact of country governance. To do so, 30 Islamic banks and 137 conventional banks' data collected over the years 2006 to 2016. The analysis comprises of two main stages. In the first stage, we employ the Data Envelopment Analysis-Based Malmquist Productivity Index (DEA-MPI) method to compute the banks productivity. We then employ panel regression analysis to examine the impact of country governance on the productivity of both Islamic and conventional banks. The paper also investigates to what extent others potential bank-specific characteristics and macroeconomic condition determinants influence the productivity of the banks.

The paper is set out as follows: In the next section we provide review of the related literature. Section 3 discusses the methods and variables employed in the study. We present the empirical findings in section 4. The article concludes and provides discussions on the policy implications in section 5.

2. Literature Review

Most previous studies have discovered mixed findings on the performance and efficiency levels between Islamic and conventional banks. Ariss (2010) suggest that Islamic banks are more efficient than conventional banks because Islamic banks devoted a greater number of shares of their capitals to financing operations and are well capitalized than conventional banks. Beck et al. (2013) indicates that quality of assets and capitalization of Islamic banks were functioning well during the global financial crisis. More recently, Khan et al. (2017) found that during the crisis Islamic bank's performance declined compare to the conventional banks. However, the findings show that Islamic banks are performing better than conventional banks in terms of profitability, efficiency, risk and liquidity management due to the expansion of Islamic banking industry.

While some studies provide contrary findings. Srairi (2010) and Saeed et al. (2013) the Islamic banks are less efficient compared to conventional banks due to size of Islamic banks are relatively smaller than conventional banks, overall regulation which is not supportive, higher cost of funds and labor incurred in business operations. In addition, Sillah and Harrathi (2015) reveals that the conventional banks are more efficient in adjusting their operations after the crisis and presence of large international banks are supportive to domestic conventional banks. Another study by Sukamana and Febriyati (2016) reported that the conventional banks are successful in giving facilities to attract more customers into the business, advanced technology used in their operations and efficiency of the bank management.

Chortareas et al. (2012) suggest that the country governance could influence the bank performance. Kamarudin et al., 2016; Lin et al., 2010 ; Chortareas et al., 2012 and Lensink et al., 2008 seems to suggest that VA positively influence the revenue efficiency of both banking systems. This could be due to the citizens and state institutions played their role to promote democracy and eliminate the poverty, increase the level of media independence which tends to improve the revenue efficiency of banks. Hwang and Akdede (2011) examined the impact of GE on public sector efficiency and reveal that effective government tends to increase the public sector efficiency. This claim is supported by Kamarudin et al. (2016), who suggest that greater government credibility positively influence the revenue efficiency of Islamic and conventional banks in GCC countries. They point that government's trustworthiness could be found through its involvement in formulating and implementing policies and regulations for private sector development, eventually improves the bank performance.

Kamarudin et al.(2016), Lin et al.(2010) and Beltratti and Stulz (2009), revealed that better RQ will enhance the efficiency of Islamic banks due to better regulatory quality that lead to more professional handling of bureaucracy and accountability of government employees which improves the banks efficiency. With the regards on the impact of RL, Lin et al. (2010) Lensink et al. (2008) state that a positive connection could be found between RL and banks efficiency level. Kamarudin et al. (2016) explained respect for order and law, effectiveness of judiciary system and enforceability of contracts comprises the better quality of rule of law. This shall be beneficial to the banks in terms of reducing uncertainty and risk of conducting and starting businesses and increase private sector investments, which subsequently improves the banks' efficiency and strengthen the market.

In addition, Kamarudin et al. (2016) and Huang et al. (2011) discovered PV leads to higher bank efficiency since politicians fully used their authority to maximize social welfare. This may benefit the banks in terms of cost reduction, remove asymmetric information and allow banks to handle transactions more efficiently in terms of receiving deposits and providing loans. Chortareas et al. (2012) shows the bank management in non-corruptive markets could achieve tremendous operational efficiency. In line with this study, Hwang and Akdede (2011) confirm that higher level of CC indicates higher level of public sector efficiency in terms of administration, stability and infrastructure. Kamarudin et al. (2016) explained, successful towards disciplining and monitoring banks in order to reduce the number of corruption, eventually improves the revenue efficiency of the conventional banks.

In summary, most of the studies have focused on the cost, profit and revenue efficiency of banks, while only a few have concentrated on the total factor productivity. The ignorance of productivity concept may lead to the lower profitability of the banks. Besides, empirical evidence on the effect of country governance on Islamic and conventional banks is relatively scarce. This lack of knowledge indicates the unawareness of the impact of the country governance on productivity and subsequently unexplored examination may not produce an accurate and valid finding. Hence, without the detailed investigation, we may unaware about the real impact of the country governance whether it may or may not improve the productivity of the Islamic and conventional banks. The claim is due to previous literatures indicate that the quality corporate governance may produce inconsistent results on the bank efficiency, but not on the perspective of country governance.

We try to fill these knowledge gaps and present more advanced study on the existing literatures in three ways. First, this study examines the productivity of the Islamic and conventional banks with the effect of country governance over the years 2006 to 2016. Second, the bank-specific traits and macroeconomic determinants of the productivity level particularly in Islamic and conventional banks are also discovered and revealed. Finally, to the best of knowledge, few studies, if not none, have been published to locate the impact of country governance on productivity level specifically in both Islamic and conventional banks.

3. Research Methodology

3.1 Data Sources

The study gathers data on the Islamic and conventional banks in the Southeast Asian countries, namely Malaysia, Indonesia, Brunei, and Singapore over a period of 2006 to 2016. The primary source of data for the respective banks retrieved from the Orbis Bank Focus database (formerly known as BankScope database) produced by the Bureau van Dijk. Orbis Bank Focus is a worldwide database which provides financial information such as banks' annual balance sheets and income statements of both listed and non-listed banks, with both Islamic and conventional banks. For the purpose of data standardization, this study uses the US Dollar (USD) in millions to ensure consistency in the comparison of selected banks across the country. The World Development Indicators (WDI) database and International Monetary Fund (International Financial Statistics (IFS)) database is used to retrieve the data on the macroeconomic variables such as inflation and economic growth. Besides, the country governance data are sourced from Worldwide Governance Indicator (WGI) dataset. The data covers the information on governance indicators with the views of different stakeholders, including the surveys from companies and individuals, the assessments of commercial risk rating agencies, non-governmental organizations and other public sector organizations from industrial and developing countries globally.

During this study period, the number of observation is varied across time due to bank entry and exit factor and missing data for the observation years. Therefore, an unbalanced panel data of 167 banks are taken from 4 countries (30 Islamic and 137 conventional banks) used in this study. The total observations for Islamic banks consist of 17 banks from Malaysia, 11 banks from Indonesia, one bank from Singapore and one bank from Brunei Darussalam. While the data for conventional bank includes 29 banks from Malaysia, 90 banks from Indonesia, 17 banks from Singapore and one bank from Brunei.

3.2 First Stage Analysis

3.2.1 Data envelopment Analysis

In the first stage of empirical approach, this study will employ the data envelopment analysis (DEA) to examine the productivity level of Islamic and conventional banks. Even though both parametric and non-parametric frontier efficiency approaches are commonly used by the researchers, the data envelopment analysis (DEA) from non-parametric method is popular when evaluating the efficiency and productivity of the banking industry. DEA method produces beneficial, comparative and standard data that could stimulate remarkable improvements and lead companies to the new business practices.

Charnes et al. (1978) was originally developed the data envelopment analysis, while the first to involve DEA in the banking sector are Sherman and Gold (1985). DEA is a very flexible method of comparing the efficiency of various decision-making units (DMUs), which could be individuals, branches of a company, or entire firm. This approach concentrates on measuring the relative efficiency of the various DMUs as they convert their inputs into outputs.

3.2.2 Malmquist Productivity Index

Productivity is a technical concept which measure the efficiency by a ratio of output to input where the factors of production are used. The Total Factor Productivity (TFP), however, measure productivity by taking into account all factors of production.

According to Bjurek (1996), the Malmquist productivity index has become the standard approach in total factor productivity measurement over time. It is a quantity index, defined by Malmquist (1953). Caves et al. (1982) explains that there are two approaches to measure productivity changes. First approach describes productivity changes as changes in maximum output produced on a given level of inputs. This approach contributes to output based productivity indexes. The alternative approach suggests that productivity changes as changes in minimum input on a given level of outputs. This idea leads to input based productivity indexes

There are number of advantage using the measurement of Malmquist index. Among them which it can be measured without any information on the prices of inputs and outputs and provides a decomposition of productivity change into technical change and efficiency change, and thereby offers an insight into the potential sources of change in total factor productivity. This is essential because efficiency change may show whether a firm or institution is moving closer to the best practice frontier in running the business operations or vice versa in a particular sector. While technical change shows whether the best practice frontier (or technology) to which a firm is being compared is either improving, stagnant or declining.

Over the years, increasing number of studies has utilized DEA-based Malmquist Productivity Index to study the efficiency change and/or productivity growth in the banking sector in various contexts (Kamarudin et al., 2017; Sillah and Harrathi, 2015). Matter of fact, this MPI method do not allow for random errors which can cause biased efficiency scores that leads to biased Malmquist indices.

For the purpose of this research, the productivity changes of Islamic and conventional banks are measured by employing the output-based Malmquist index and further allocation of the Total Factor Productivity Change (TFPCH) into technological change (TECHCH) and Efficiency Change (EFFCH). The EFFCH then leads to changes in Pure Technical Efficiency Change (PTECH) and/or Scale Efficiency Change (SECH) as suggested by Färe et al. (1994).

According to Färe et al. (1994) an equivalent way of writing MPI index is:

$$M_o(x^{t+1}, y^{t+1}, x^t, y^t) = \frac{D_o^{t+1}(x^{t+1}, y^{t+1})}{D_o^t(x^t,\ y^t)} \times \left[\left(\frac{D_o^t(x^{t+1},\ y^{t+1})}{D_o^{t+1}(x^{t+1}, y^{t+1})}\right) \times \left(\frac{D_o^t(x^t, y^t)}{D_o^{t+1}(x^t, y^t)}\right)\right]^{1/2} \quad (1)$$

M is the productivity change between years' t and t + 1 where most recent production point (x t+1, y t+1) corresponds with the earlier production point (x t, y t) and Ds are output distance functions. Any value greater (lower) than 1.000 will indicate total factor productivity growth (regress) between two periods, whereas value equivalent to 1.000 signals no change.

The relationship between the MPI and its two sub-indices can be written as:

$$M_o = \text{Efficiency Change} \times \text{Technical Change} \quad (2)$$

where,

$$\text{Efficiency Change} = \frac{D_o^{t+1}(x^{t+1}, y^{t+1})}{D_o^t(x^t, y^t)} \quad (3)$$

$$\text{Technical Change} = \left[\left(\frac{D_o^t(x^{t+1}, y^{t+1})}{D_o^{t+1}(x^{t+1}, y^{t+1})}\right) \times \left(\frac{D_o^t(x^t, y^t)}{D_o^{t+1}(x^t, y^t)}\right)\right]^{1/2} \quad (4)$$

The efficiency change index can be further decomposed into its mutually comprehensive components of PTECH ($\Delta\text{PureEff}^{t,t+1}$), calculated relative to the VRS technology and a component of SECH ($\Delta\text{Scale}^{t,t+1}$), capturing changes in the deviation between the VRS and CRS technologies according to the suggestion of Färe et al. (1994) as shown below:

$$\text{Efficiency Change} = \Delta\text{PureEff}^{t,t+1} \times \Delta\text{Scale}^{t,t+1} \quad (5)$$

where,

$$\Delta\text{PureEff}^{t,t+1} = \frac{D_{VRS}^{t+1}(x_j^{t+1}, y_j^{t+1})}{D_{VRS}^t(x_j^t, y_j^t)} \quad (6)$$

$$\Delta\text{Scale}^{t,t+1} = \frac{D_{CRS}^{t+1}(x_j^{t+1}, y_j^{t+1}) / D_{VRS}^{t+1}(x^{t+1}, y^{t+1})}{D_{CRS}^t\left(x_j^t, y_j^t\right) / D_{VRS}^t(x_j^t, y_j^t)} \quad (7)$$

All efficiency scores are restricted to lie between zero and one. Since 2006 is the reference year, the MPI and its components take an initial score of 1.000. Hence, efficiency scores lower (greater) than one for a firm in subsequent years indicate that it is operating below (above) the frontier. The efficiency score reflects the radial distance from the estimated production frontier to the DMUs under consideration.

3.2.3 Variable Specification in DEA Approach

The input-output specification is one of the important elements in measuring the total factor productivity change using DEA-based Malmquist Productivity Index (DEA-MPI) approach. The intermediation approach preferably adopted in this study to examine the bank's productivity as a whole since the bank considered as intermediary. Furthermore, the intermediation approach is suitable to determine the production process of both Islamic and conventional banks which act as intermediaries between depositors and borrowers.

Based on the intermediation approach, this study will include two outputs and three inputs to examine the productivity of Islamic and conventional banks in selected Southeast Asian countries from 2007 to 2016. The deposits (x1), personnel expenses (x2), and asset (x3) are determined as inputs, while loans (y1) and investments (y2) are considered as outputs (y)

3.3 Second Stage Analysis

3.3.1 Multiple Panel Regression Analysis

In the second stage of analysis, this study employs the Multiple Panel Regression Analysis (MPRA) framework based on the Ordinary Least Square (OLS) and Generalized Least Square (GLS) methods to investigate the potential determinants of total factor productivity change in Islamic and conventional banks. This panel regression technique could identify the possible correlations between data gathered from the financial statements and the macroeconomic data to measure the performance of banks. This MPRA method is more efficient, informative with variability and allows better detection and measurement of effects that simply could not be observed in other traditional analysis techniques. In order to analyze the determinants of banks' productivity, two-stage least square models are used in this study. However, it is very much important to conduct the Breusch Pagan and Lagrangian Multiplier test before the results are based on any models, in order to identify either the data appropriate to be pooled or panel. Thus, if the p-value of Breusch Pagan and Lagrangian Multiplier Chi-Square (X2) is significant at level 5%, the panel is more suitable than pooled data.

First, we use the pooled OLS model to examine the relationship between productivity level of banks and other potential determinants such as bank-specific characteristics and macroeconomic factors. Even though the pooled

OLS model has its own advantage, some additional problems may occur during the data analysis. The possibilities are there when the panel data involve both cross-section and time dimensions, heteroscedasticity and autocorrelation problems need to be addressed. Additional problems may arise when cross-correlation in individual units at the same point in time exists. Therefore, both FEM and REM models based on GLS model are employed in this study to address one or more of these problems. The FEM is based on the notion that differences across different banks can be captured in the constant term. In other words, FEM intercept is allowed to differentiate individual or cross-sectional unit that may have some special characteristics among individuals. Therefore, the model is a reasonable approach to be adopted, since it gives confidence on the identification of differences between banks. On the other hand, REM is adopted in this study because it is appropriate to use when the sampled cross-sectional units are drawn from a much larger population. Thus, the individual constant terms are randomly distributed across the cross-sectional units. Hausman test can be used to identify whether FEM or REM is appropriate based on null hypothesis. The FEM may be more appropriate to be used if the null hypothesis is rejected (at 1% to 5% significant levels only), while REM is considered to be more suitable if the null hypothesis is failed to reject (significant at only 10%)(Kamarudin et al., 2016).

In addition, this study also uses battery of parametric (t-test) and nonparametric (Mann-Whitney (Wilcoxon) and Kruskal-Wallis) tests to investigate the differences in the productivity (y-axis) of the Islamic and conventional banks in selected Southeast Asian countries. Furthermore, we perform a step-wise regression rather than simultaneous regression models in the test conducted particularly for the country governance variables. This is to avoid severe multicollinearity or redundant problem (data overlapping) due to high correlation among some of the variables used in the tests. Finally, 12 regression models are estimated to examine the relationship between potential determinants and TFPCH of Islamic and conventional banks.

3.3.2 Variable Specification in Regression Models

As mentioned in the previous section, the dependent variable used in the regression models is TFPCH of the bank in year t. While the description of the independent variables (x-axis) used in the second stage of analysis is presented in this section. These variables consist of bank-specific characteristics, macroeconomic conditions, and country governance.

Variable	Description	Hypothesised Relationship
Bank-specific characteristics (internal determinants)		
lnTA (Bank size)	Total assets	+/-
lnLLRGL (Credit risk)	Loan loss reserve over gross loan	+/-
lnETA (Capitalization)	Total book value of shareholders equity over total assets	+/-
lnBDTD (Market power)	Bank's deposit over total deposit	+/-
lnLOANSTA (Liquidity)	Total loans over total assets	+/-
lnNIETA(Management efficiency)	Non-interest expenses over total assets	+/-
Macroeconomics condition (external determinants)		
lnGDP (Economy growth)	Gross domestic product	+/-
lnCPI (Inflation)	Consumer price index	+/-
GFC (Global financial crisis)	Dummy variables that takes a value of 1 for the global financial crisis, 0 otherwise	+/-
Country Governances (world governance indicators)		
lnVA	Voice and accountability	+/-
lnPV	Political stability and absence of violence	+/-
lnGE	Government effectiveness	+/-
lnRQ	Regulatory quality	+/-
lnRL	Rule of law	+/-
lnCC	Control of corruption	+/-

3.4 Estimation Method

In this analysis, the total factor productivity change scores derived from the DEA-MPI will be the dependent variables (y-axis). The panel regression model estimated as the following equation:

$$\ln TFPCH_{ijt} = \alpha + \beta_{ijt}\ln TA_{ijt} + \beta_{ijt}\ln LLRGL_{ijt} + \beta_{ijt}\ln ETA_{ijt} + \beta_{ijt}\ln BDTD_{ijt} + \beta_{ijt}\ln LOANSTA_{ijt} + \beta_{ijt}\ln NIETA_{ijt} + \beta_{jt}\ln GDP_{jt} + \beta_{jt}\ln CPI_{jt} + \beta_{jt}GFC_{jt} + \beta_{jt}\ln VA_{jt} + \beta_{jt}\ln PV_{jt} + \beta_{jt}\ln GE_{jt} + \beta_{jt}\ln RQ_{jt} + \beta_{jt}\ln RL_{jt} + \beta_{jt}\ln CC_{jt} + \varepsilon_{jit} \quad (8)$$

where,

j	= observation for a country
i	= observation of individual bank
t	= observation for year
β	= the vector of coefficients
α	= a constant term (intercept term)
ε_{ijt}	= normally distributed disturbance term
ln	= Natural Logarithm
TA	= Total bank assets (size of bank)
LLRGL	= Loan loss reserve to gross loan (credit risk)
ETA	= Equity over total assets (capitalization)
BDTD	= bank's deposit over total deposit (market power)
LOANSTA	= Total loan over total assets (liquidity)
NIETA	= Noninterest expenses over total assets (management efficiency)
GDP	= Gross domestic product (economic growth)
CPI	= Consumer price index (inflation)
GFC	= Global financial crisis
VA	= Voice and accountability
PV	= Political stability and absence of violence
GE	= Government effectiveness
RQ	= Regulatory quality
RL	= Rule of law
CC	= Control of corruption

4. Results and Findings

4.1 Productivity of Islamic and conventional banks and its decompositions

The productivity results depicted in Panel A of Table 4.1 show that the overall banking sector in four countries has on average exhibited a TFPCH regress of -11.1% (0.889). The results seem to suggest that all banks have exhibited TFPCH regress, a lower -0.02% (0.998) in the year 2007 and a higher -1.2% (0.988) in the year 2016. During the period under study, the -11.1% (0.889) regress in the TFPCH of the overall banking sector could be attributed mainly to the -19.5% (0.805) decrease in TECHCH, as the rate of EFFCH seems to increase at 10.5% (1.105). The decomposition of the EFFCH index into its PTECH and SECH components indicates that the source of the increase in overall banks' EFFCH was mainly contributed by pure technical efficiency rather than scale efficiency. Overall, the results imply that during the period of study, all banks are operating at the wrong scale of operations, although both Islamic and conventional banks are more managerially efficient in controlling costs.

Panel B of Table 4.1 presents the findings for the Islamic banks individually. Over the period of the study, the results seem to suggest that the banks have showed a regress in TFPCH by -5.5% (0.945). The decomposition of the TFPCH index into its TECHCH and EFFCH components indicates that the regress in the Islamic banks' TFPCH was solely attributed to the -13.3% (0.867) decrease in TECHCH, as the EFFCH seems to have a more slowly increasing rate of 9% (1.090) during the period under study. The decomposition of the EFFCH index indicates that the dominant source of the increase in the Islamic banks' EFFCH is managerial rather than scale. This implies that although the Islamic banks are good in terms of managerial efficiency, they have been operating at a non-optimal scale of operations.

The empirical findings presented in Panel C of Table 4.1 show that the conventional banks' TFPCH has decreased by -11.1% (0.889), a stronger rate of decline compared to their Islamic counterparts. Similar to their Islamic peers, the decomposition of the TFPCH index into its TECHCH and EFFCH components indicates that the -19.5% (0.805) decrease in TECHCH has largely contributed to the conventional banks' TFPCH regress.

Furthermore, the conventional banks seem to have exhibited EFFCH progress at 10.5% (1.105).The decomposition of the EFFCH index into its PTECH and SECH components reveals that the dominant source of the increase in the conventional banks' EFFCH was managerial efficiency, rather than scale related. This finding clearly shows that conventional banks have been operating at the wrong scale of operations.

4.2 Number of banks Analysis for Productivity of Islamic and conventional banks

An analysis based on the productivity levels of banks may be biased by a few observations (Isik and Hassan, 2002). Hence, performing an analysis based on the number of banks, which is less sensitive to possible outliers, would be beneficial in this situation (Kamarudin et al., 2017). To address this concern, in the following analysis, this research elaborates further the productivity of Islamic and conventional banks by summarizing the developments in the number of banks experiencing productivity progress or regress. The findings are given in Panels A-C of Table 4.2.

The results in Panel A of Table 4.2 indicate that 34 (40.48%) banks from all four countries experienced productivity growth in 2007, inclining gradually to 54 (52.94%) banks during the year 2009 and increasing to 56 (44.44%) banks in the year 2016. Further observations in Panel A of Table 4.2 indicate that the number of banks that faced technological progress increased from 37 (44.05%) during the year 2007 to 95 (93.14%) during the year 2009, drastically declined to 12 (9.60%) in 2014 and increased back to 35 (27.78%) in the year 2016. In contrast, the number of banks that experienced technological regress declined from 47 (55.95%) in 2007 to 7 (6.86%) in 2009 but radically increased to 113 (90.40%) during the year 2014 before declining slowly to 91 (72.22%) in the year 2016.

The results of the analysis based on the number of Islamic banks facing productivity progress and/or regress is presented in Panel B of Table 4.2. As the findings indicate, only 7 (50.00%) Islamic banks experienced productivity growth in the year 2007, increasing gradually to reach a high of 21 (72.41%) Islamic banks during the year 2012. However, the productivity level dropped again to 13 (65.00%) Islamic banks in the year 2016. Similarly, Islamic banks that exhibited technological progress increased from none in 2007 to 21 (91.30%) in 2010 but decreased to 17 (85.00%) during the year 2016. Furthermore, the number of Islamic banks shows a technology regress for 14 (100.00%) banks during the year 2007, decreasing to 2 (8.70%) banks in 2010 and increasing to 3 (15.00%) in the year 2016.

In addition, Panel C of Table 4.2 discusses the developments in the percentage changes of the conventional banks' productivity progress or regress. From the observations, it can be seen clearly that the number of conventional banks that indicated productivity progress increased from 27 (38.57%) during the year 2007 to 52 (49.52%) in 2015 but dropped to 43 (40.57%) in the year 2016.

Table 4.1: Bootstrap Malmquist productivity index decompositions

Year	TFPCH	TECHCH	EFFCH	PTECH	SECH
Panel A: All Banks					
2006	1.000	1.000	1.000	1.000	1.000
2007	0.998	0.910	1.285	1.146	1.164
2008	0.995	0.909	1.280	1.146	1.159
2009	0.994	0.906	1.284	1.140	1.167
2010	0.992	0.904	1.307	1.146	1.185
2011	0.992	0.904	1.308	1.146	1.185
2012	0.992	0.903	1.307	1.150	1.184
2013	0.992	1.031	1.329	1.166	1.201
2014	0.989	0.891	1.371	1.173	1.251
2015	0.989	0.887	1.391	1.181	1.256
2016	0.988	0.888	1.390	1.182	1.254
Geometric mean	*0.889*	*0.805*	*1.105*	*1.059*	*1.042*
Panel B: Islamic Banks					
2006	1.000	1.000	1.000	1.000	1.000
2007	1.043	0.986	1.216	1.132	1.094
2008	1.036	0.984	1.204	1.129	1.091
2009	1.022	0.962	1.228	1.137	1.113
2010	1.020	0.963	1.220	1.131	1.116
2011	1.021	0.962	1.228	1.138	1.113
2012	1.025	0.951	1.252	1.138	1.135
2013	1.023	0.955	1.236	1.131	1.129
2014	1.022	0.962	1.222	1.127	1.122
2015	1.020	0.967	1.218	1.130	1.114
2016	1.023	0.965	1.223	1.130	1.119
Geometric mean	*0.945*	*0.867*	*1.090*	*1.062*	*1.025*
Panel C: Conventional Banks					
2006	1.000	1.000	1.000	1.000	1.000
2007	0.998	0.910	1.285	1.146	1.164
2008	0.995	0.909	1.280	1.146	1.159
2009	0.994	0.906	1.284	1.140	1.167
2010	0.992	0.904	1.307	1.146	1.185
2011	0.992	0.904	1.308	1.146	1.185
2012	0.992	0.903	1.307	1.150	1.184
2013	0.992	0.896	1.329	1.166	1.201
2014	0.989	0.891	1.371	1.173	1.251
2015	0.989	0.887	1.391	1.181	1.256
2016	0.988	0.888	1.390	1.182	1.254
Geometric mean	*0.889*	*0.805*	*1.105*	*1.059*	*1.042*

Note: The table presents the geometric mean of the bias-corrected bootstrap total factor productivity change (TFPCH) index and its mutually exhaustive components of technical change (TECHCH) and efficiency change (EFFCH) that is further decomposed into pure technical efficiency change (PTECH) and scale efficiency change(SECH).

Table 4.2: Number and percentage of Islamic and Conventional banks with productivity progress and regress

	Productivity Change TFPCH			Efficiency Change EFFCH			Technological Change TECHCH			Pure Efficiency Change PTECH			Scale Change SECH		
Period	Progress # (%)	Regress # (%)	No Δ # (%)	Progress # (%)	Regress # (%)	No Δ # (%)	Progress # (%)	Regress # (%)	No Δ # (%)	Progress # (%)	Regress # (%)	No Δ # (%)	Progress # (%)	Regress # (%)	No Δ # (%)
							Panel A: All Banks								
2006-2007	*34 (40.48)*	*50 (59.52)*	*0 (0.00)*	*32 (38.10)*	*49 (58.33)*	*3 (3.57)*	*37 (44.05)*	*47 (55.95)*	*0 (0.00)*	*38 (45.24)*	*32 (38.10)*	*14 (16.67)*	*33 (39.29)*	*49 (58.33)*	*2 (2.38)*
2007-2008	*47 (52.22)*	*42 (46.67)*	*1 (1.11)*	*41 (45.56)*	*43 (47.78)*	*6 (6.67)*	*37 (41.11)*	*53 (58.89)*	*0 (0.00)*	*44 (48.89)*	*28 (31.11)*	*18 (20.00)*	*21 (23.33)*	*63 (70.00)*	*6 (6.67)*
2008-2009	*54 (52.94)*	*47 (46.08)*	*1 (0.98)*	*81 (79.41)*	*12 (11.76)*	*9 (8.82)*	*95 (93.14)*	*7 (6.86)*	*0 (0.00)*	*60 (58.82)*	*16 (15.69)*	*26 (25.49)*	*72 (70.59)*	*20 (19.61)*	*10 (9.80)*
2009-2010	*32 (29.63)*	*76 (70.37)*	*0 (0.00)*	*25 (23.15)*	*76 (70.37)*	*7 (6.48)*	*83 (76.85)*	*25 (23.15)*	*0 (0.00)*	*25 (23.15)*	*55 (50.93)*	*28 (25.93)*	*32 (29.63)*	*68 (62.96)*	*8 (7.41)*
2010-2011	*52 (49.06)*	*54 (50.94)*	*0 (0.00)*	*45 (42.45)*	*50 (47.17)*	*11 (10.38)*	*54 (50.94)*	*52 (49.06)*	*0 (0.00)*	*50 (47.17)*	*25 (23.58)*	*31 (29.25)*	*27 (25.47)*	*68 (64.15)*	*11 (10.38)*
2011-2012	*55 (45.45)*	*66 (54.55)*	*0 (0.00)*	*59 (48.76)*	*46 (38.02)*	*16 (13.22)*	*40 (33.06)*	*81 (66.94)*	*0 (0.00)*	*55 (45.45)*	*32 (26.45)*	*34 (28.10)*	*50 (41.32)*	*56 (46.28)*	*15 (12.40)*
2012-2013	*40 (36.04)*	*71 (63.96)*	*0 (0.00)*	*74 (66.67)*	*30 (27.03)*	*7 (6.31)*	*13 (11.71)*	*98 (88.29)*	*0 (0.00)*	*61 (54.95)*	*32 (28.83)*	*18 (16.22)*	*74 (66.67)*	*23 (20.72)*	*14 (12.61)*
2013-2014	*60 (48.00)*	*65 (52.00)*	*0 (0.00)*	*90 (72.00)*	*27 (21.60)*	*8 (6.40)*	*12 (9.60)*	*113 (90.40)*	*0 (0.00)*	*70 (56.00)*	*30 (24.00)*	*25 (20.00)*	*78 (62.40)*	*38 (30.40)*	*9 (7.20)*
2014-2015	*64 (51.20)*	*61 (48.80)*	*0 (0.00)*	*91 (72.80)*	*21 (16.80)*	*13 (10.40)*	*24 (19.20)*	*101 (80.80)*	*0 (0.00)*	*65 (52.00)*	*36 (28.80)*	*24 (19.20)*	*87 (69.60)*	*25 (20.00)*	*13 (10.40)*
2015-2016	*56 (44.44)*	*70 (55.56)*	*0 (0.00)*	*66 (52.38)*	*49 (38.89)*	*11 (8.73)*	*35 (27.78)*	*91 (72.22)*	*0 (0.00)*	*64 (50.79)*	*30 (23.81)*	*32 (25.40)*	*45 (35.71)*	*71 (56.35)*	*10 (7.94)*
							Panel B: Islamic Banks								
2006-2007	*7 (50.00)*	*7 (50.00)*	*0 (0.00)*	*12 (85.71)*	*1 (7.14)*	*1 (7.14)*	*0 (0.00)*	*14 (100.00)*	*0 (0.00)*	*10 (71.43)*	*1 (7.14)*	*3 (21.43)*	*7 (50.00)*	*6 (42.86)*	*1 (7.14)*
2007-2008	*9 (56.25)*	*7 (43.75)*	*0 (0.00)*	*5 (31.25)*	*7 (43.75)*	*4 (25.00)*	*5 (31.25)*	*11 (68.75)*	*0 (0.00)*	*4 (25.00)*	*6 (37.50)*	*6 (37.50)*	*5 (31.25)*	*7 (43.75)*	*4 (25.00)*
2008-2009	*11 (50.00)*	*11 (50.00)*	*0 (0.00)*	*12 (54.55)*	*3 (13.64)*	*7 (31.82)*	*6 (27.27)*	*16 (72.73)*	*0 (0.00)*	*10 (45.45)*	*2 (9.09)*	*10 (45.45)*	*6 (27.27)*	*8 (36.36)*	*8 (36.36)*
2009-2010	*13 (56.52)*	*10 (43.48)*	*0 (0.00)*	*6 (26.09)*	*12 (52.17)*	*5 (21.74)*	*21 (91.30)*	*2 (8.70)*	*0 (0.00)*	*4 (17.39)*	*10 (43.48)*	*9 (39.13)*	*9 (39.13)*	*9 (39.13)*	*5 (21.74)*
2010-2011	*12 (54.55)*	*10 (45.45)*	*0 (0.00)*	*13 (59.09)*	*3 (13.64)*	*6 (27.27)*	*5 (22.73)*	*17 (77.27)*	*0 (0.00)*	*9 (40.91)*	*2 (9.09)*	*11 (50.00)*	*9 (40.91)*	*7 (31.82)*	*6 (27.27)*
2011-2012	*21 (72.41)*	*8 (27.59)*	*0 (0.00)*	*7 (24.14)*	*14 (48.28)*	*8 (27.59)*	*24 (82.76)*	*5 (17.24)*	*0 (0.00)*	*7 (24.14)*	*8 (27.59)*	*14 (48.28)*	*5 (17.24)*	*16 (55.17)*	*8 (27.59)*
2012-2013	*11 (42.31)*	*15 (57.69)*	*0 (0.00)*	*15 (57.69)*	*6 (23.08)*	*5 (19.23)*	*8 (30.77)*	*18 (69.23)*	*0 (0.00)*	*7 (26.92)*	*10 (38.46)*	*9 (34.62)*	*16 (61.54)*	*5 (19.23)*	*5 (19.23)*
2013-2014	*16 (66.67)*	*8 (33.33)*	*0 (0.00)*	*15 (62.50)*	*6 (25.00)*	*3 (12.50)*	*6 (25.00)*	*18 (75.00)*	*0 (0.00)*	*13 (54.17)*	*4 (16.67)*	*7 (29.17)*	*16 (66.67)*	*4 (16.67)*	*4 (16.67)*
2014-2015	*12 (60.00)*	*8 (40.00)*	*0 (0.00)*	*0 (0.00)*	*13 (65.00)*	*7 (35.00)*	*18 (90.00)*	*2 (10.00)*	*0 (0.00)*	*2 (10.00)*	*8 (40.00)*	*10 (50.00)*	*0 (0.00)*	*13 (65.00)*	*7 (35.00)*
2015-2016	*13 (65.00)*	*7 (35.00)*	*0 (0.00)*	*5 (25.00)*	*10 (50.00)*	*5 (25.00)*	*17 (85.00)*	*3 (15.00)*	*0 (0.00)*	*3 (15.00)*	*6 (30.00)*	*11 (55.00)*	*7 (35.00)*	*8 (40.00)*	*5 (25.00)*
							Panel C: Conventional Banks								
2006-2007	*27 (38.57)*	*43 (61.43)*	*0 (0.00)*	*20 (28.57)*	*48 (68.57)*	*2 (2.86)*	*37 (52.86)*	*33 (47.14)*	*0 (0.00)*	*28 (40.00)*	*31 (44.29)*	*11 (15.71)*	*26 (37.14)*	*43 (61.43)*	*1 (1.43)*
2007-2008	*39 (52.70)*	*34 (45.95)*	*1 (1.35)*	*33 (44.59)*	*39 (52.70)*	*2 (2.70)*	*32 (43.24)*	*42 (56.76)*	*0 (0.00)*	*41 (55.41)*	*21 (28.38)*	*12 (16.22)*	*16 (21.62)*	*56 (75.68)*	*2 (2.70)*
2008-2009	*43 (53.75)*	*36 (45.00)*	*1 (1.25)*	*69 (86.25)*	*9 (11.25)*	*2 (2.50)*	*1 (1.25)*	*79 (98.75)*	*0 (0.00)*	*50 (62.50)*	*14 (17.50)*	*16 (20.00)*	*66 (82.50)*	*12 (15.00)*	*2 (2.50)*
2009-2010	*19 (22.35)*	*66 (77.65)*	*0 (0.00)*	*19 (22.35)*	*64 (75.29)*	*2 (2.35)*	*62 (72.94)*	*23 (27.06)*	*0 (0.00)*	*21 (24.71)*	*45 (52.94)*	*19 (22.35)*	*23 (27.06)*	*59 (69.41)*	*3 (3.53)*
2010-2011	*40 (47.06)*	*45 (52.94)*	*0 (0.00)*	*32 (37.65)*	*48 (56.47)*	*5 (5.88)*	*50 (58.82)*	*35 (41.18)*	*0 (0.00)*	*41 (48.24)*	*24 (28.24)*	*20 (23.53)*	*18 (21.18)*	*62 (72.94)*	*5 (5.88)*
2011-2012	*34 (36.96)*	*58 (63.04)*	*0 (0.00)*	*52 (56.52)*	*32 (34.78)*	*8 (8.70)*	*16 (17.39)*	*76 (82.61)*	*0 (0.00)*	*49 (53.26)*	*24 (26.09)*	*19 (20.65)*	*45 (48.91)*	*40 (43.48)*	*7 (7.61)*
2012-2013	*30 (34.88)*	*56 (65.12)*	*0 (0.00)*	*60 (69.77)*	*24 (27.91)*	*2 (2.33)*	*6 (6.98)*	*80 (93.02)*	*0 (0.00)*	*55 (63.95)*	*22 (25.58)*	*9 (10.47)*	*59 (68.60)*	*18 (20.93)*	*9 (10.47)*
2013-2014	*44 (43.56)*	*57 (56.44)*	*0 (0.00)*	*75 (74.26)*	*21 (20.79)*	*5 (4.95)*	*6 (5.94)*	*95 (94.06)*	*0 (0.00)*	*58 (57.43)*	*25 (24.75)*	*18 (17.82)*	*62 (61.39)*	*34 (33.66)*	*5 (4.95)*
2014-2015	*52 (49.52)*	*53 (50.48)*	*0 (0.00)*	*90 (85.71)*	*9 (10.59)*	*6 (5.71)*	*6 (5.71)*	*99 (94.29)*	*0 (0.00)*	*63 (60.00)*	*27 (25.71)*	*15 (14.29)*	*87 (82.86)*	*12 (11.43)*	*6 (5.71)*
2015-2016	*43 (40.57)*	*63 (59.43)*	*0 (0.00)*	*61 (57.55)*	*39 (36.79)*	*6 (5.66)*	*18 (16.98)*	*88 (83.02)*	*0 (0.00)*	*61 (57.55)*	*24 (22.64)*	*21 (19.81)*	*38 (35.85)*	*63 (59.43)*	*5 (4.72)*

Note: Productivity Growth: TFPCH>1, Productivity Loss: TFPCH<1, Productivity Stagnation: TFPCH=1, Technological Progress: TECHCH>1, Technological Regress: TECHCH<1, Technological Stagnation: TECHCH=1; Efficiency, Pure Technical and Scale Increase: EFFCH, PTECH and SECH>1, Efficiency, Pure Technical and Scale Decrease: EFFCH, PTECH and SECH<1, No Change in Efficiency, Pure Technical and Scale: EFFCH, PTECH and SECH=1.

4.3 Univariate Parametric and Nonparametric Tests

Table 4.3 shows the results of the parametric t-test and nonparametric Mann-Whitney (Wilcoxon) test on both Islamic and conventional banks in Malaysia, Indonesia, Brunei and Singapore. The results from the parametric t-test suggest that the Islamic banks have exhibited a TFPCH progress compared to the regress in the conventional banks (1.094 > 0.961). This result is significant at the 1% level. The nonparametric Mann-Whitney (Wilcoxon) and Kruskal-Wallis tests also yield similar results. This might be because the TECHCH index of Islamic banks has a higher mean than conventional banks (1.073 > 0.842). However, both tests reveal that EFFCH progress is significantly lower in Islamic banks compared to conventional banks (1.100 < 1.457) and is statistically significant at the 1% level. This shows that Islamic banks were more technologically progressive than managerially by comparing with conventional banks. The findings also exhibit that conventional banks have a higher mean for PTECH (1.207 > 1.076). SECH shows that conventional banks have a higher mean, but this result is significantly different only on parametric t-test. This indicates that conventional banks are good in terms of managerial efficiency and have been operating at the optimal scale of operations over the period of observation.

Table 4.3: Summary of Parametric and Nonparametric Tests on Islamic and Conventional Banks

Individual tests	Test groups					
	Parametric test		Nonparametric tests			
	t-test *t (Prb>t)*		Mann-Whitney (Wilcoxon Rank-Sum) test *Z (Prb>z)*		Kruskal-Wallis Equality of Population test x^2 *(Prb > x^2)*	
Test statistics	Mean	*t*	Mean rank	*z*	Mean rank	x^2
TFPCH						
Islamic	1.094	5.061***	645.07	-4.880***	645.07	23.819***
Conventional	0.961		527.39		527.39	
TECHCH						
Islamic	1.073	7.138***	695.83	-7.500***	695.83	56.254***
Conventional	0.842		514.99		514.99	
EFFCH						
Islamic	1.100	-6.114***	498.01	-2.709***	498.01	7.341***
Conventional	1.457		563.33		563.33	
PTECH						
Islamic	1.076	-3.479***	483.85	-3.460***	483.85	11.973***
Conventional	1.207		566.79		566.79	
SECH						
Islamic	1.032	5.120***	528.33	-1.145	528.33	1.310
Conventional	1.306		555.92		555.92	

Note: *** indicate significance at the 1% levels

4.4 Determinants of Productivity Level in Islamic and Conventional Banks

In Tables 4.4 and 4.5, we have set Model 1 as a baseline regression model, which includes all bank-specific determinant variables. In Model 2, we added all macroeconomic variables. This is followed by Models 3 to 8, which represent all six country governance determinant variables, which will be explained in the following section. The estimated models allow us to identify the potential determinants of Islamic and conventional banks' total factor productivity level. In the preliminary stage, the results from Tables 4.4 and 4.5 show that the pooled data are most suitable to be used in this study because the p-value of the Breusch Pagan and Lagrangian Multiplier (BP and LM) Chi-Square (X2) test is not significant at the 5% level or lower. Except for Model 5 of Table 4.4, the test is significant at 5% for Islamic parts only. Therefore, panel data will be suitable for that particular model.

Tables 4.4 and 4.5, the credit risk (lnLLRGL) has a positive relationship with TFPCH levels only for Islamic banks, significant at the 1% level in all regression models. This indicates that higher credit risk leads to higher levels of productivity for banks. Therefore, to maximize long-run profits, Islamic banks may have rationally chosen to have lower costs in the short run by skimping on the resources that are devoted to underwriting and monitoring loans.

However, they would bear the consequences of greater problems with loan performance in the future. Previous studies by Sufian et al. (2016) and Sufian and Kamarudin (2015) also found that there is a positive relationship between credit risk and the efficiency of banks.

Likewise in Tables 4.4, the coefficient of the capitalization (lnETA) level to be positive in Islamic banks (Models 3,4,5,7 and 8) because well capitalized banks leads to more productivity in banking services. Strong capital structure is essential for banks in developing economies, since it provides additional strength to withstand financial crises and increased safety for depositors during unstable macroeconomic conditions. However, lnETA shown a negative relationship with conventional banks productivity (Table 4.5, Models 6 and 7). Under ceteris paribus assumption, these results seem to suggest that conventional banks tend to keep more equity compared with their peers. This situation also describes that the bank with lower capital ratios will lead to higher leverage and risk as well as greater borrowing cost. Therefore, the results imply that Islamic banks may have been involved in riskier business operations or investment strategies.

Turning to the impact of the market power (lnBDTD), it exhibits a significantly negative sign for the Islamic banks' productivity level. The negative relationship between market power and level of total factor productivity change shows that small market share may contribute to higher TFPCH levels. This might be due to maintaining lower costs because enlarging and maintaining market share may involve extra cost and inputs. This situation also indicates that managers will lower their efforts to maximize banks' efficiency once they obtain greater market power: They feel less pressure to keep costs down in a less-competitive market (Kamarudin et al., 2017 and Sufian and Noor, 2009). lnBDTD has positive sign but only significant at 10% level in conventional banks.

Furthermore, the empirical findings of the proxy measure for liquidity (lnLOANSTA) have consistently shown a positive relationship with banks' TFPCH levels under all Islamic and conventional regression models. The results are statistically significant at the 1% level for all Islamic bank models and a minimum of the 5% level in every regression model estimated for their conventional counterparts. The positive sign strongly suggests that banks with greater liquidity tend to perform at higher productivity levels. This could be due to higher liquidity motivating banks to extend more loans; hence, more profit could be acquired. In addition, poor asset quality and lower liquidity are the main factors in bank failure. Therefore, banks' deposit resources were effectively managed to improve the quantity of loans, which leads to higher productivity levels.

Concerning the impact of management efficiency (lnNIETA) on banks' total factor productivity level, lnNIETA was observed to have a significant negative relationship with productivity level for Islamic banks. This indicates that higher (lower) overhead expenses lead to lower (higher) TFPCH levels. Efficient managers control expenses (low cost) to improve the quality of the bank. This improves productivity level and contributes to higher profitability. This finding implies that poor management generates a negative relationship between bank overhead expenses and TFPCH levels. Poor management, overstaffing and overlapping tasks may deteriorate the banks' productivity. Technology adaptations such as automated teller machines (ATMs) and other automated means of delivering services can reduce overhead costs and increase the banks' productivity. The empirical findings by Sufian and Noor (2009) also acknowledged that quality management will increase profits by minimizing operating costs. On the other hand, lnNIETA has a significant positive relationship with productivity level for conventional banks, but this is only significant in Model 1 at the 10% level. This indicates that increases in operating expenses (such as staff costs, general and administrative costs and other expenses) contribute to the banks' increase in productivity level.

The empirical findings in Table 4.4 (Models 3,4,5,7 and 8) show that the positive sign and significant at 1% level of lnGDP in Islamic banks. That signifies the favourable economic conditions during the study period have fuelled higher demand for Islamic banking products and services, reducing default loan probabilities and thus increasing the profitability of the Islamic banks. High economic growth motivates Islamic banks to serve more loans and improve the quality of their assets.

The impacts of inflation (lnCPI) is negatively significant at 1% level for Islamic banks almost to all estimation models except Model 6 (Table 4.4) but is not significant for conventional banks. We find that lnCPI exerts a negative impact on the TFPCH levels of Islamic banks, indicating that higher inflation rates will lead to lower performance. This could be because management failed to forecast the future inflation (unanticipated inflation) and make adjustments to the costs accordingly, leading costs to rise faster than revenue. Therefore, banks will incur higher operating costs and face declining profits. Furthermore, high-risk borrowers who tend to default on their loans will enter the market during the inflation period. This will cause banks to limit the quantity of loans provided and charge higher interest, which then causes low-risk borrowers to exit the market and discourages productive investments (Kamarudin et al., 2017; Sufian and Habibullah, 2014; Muda et al., 2013).

Finally, all regression models indicate that the global financial crisis (GFC) has a significantly positive relationship with TFPCH levels in the overall view of Islamic and conventional banking sectors. This shows that both banks types tend to perform well with the increased productivity level during the crisis period. This could be

because the banks are well managed and remained stable during the crisis. Higher risk-taking investment will be associated with higher leverage. Therefore, banks with smaller investment portfolios will have lower liquidity risk, leading to better productivity during the crisis.

4.5 Impact of Country Governance on Banks' Productivity

Moving forward to analyze the third objective of this study, the impact of country governance on the TFPCH levels of Islamic and conventional banks has been examined (Tables 4.4 and 4.5). The empirical findings suggest that voice and accountability (lnVA) has a positive relationship with TFPCH levels for both Islamic and conventional banks and is statistically significant at the 1% level. This indicates that greater voice and accountability leads to higher productivity level. This could be due to the citizens and state institutions playing their role to promote democracy and eliminate poverty, which tends to improve the performance of banks. According to Tembo (2012), the theory of change indicates that the participation of citizen in voice and accountability can assist in avoiding undesired results. Therefore, greater freedom given to the citizens in the government selection process tends to increase banks' productivity. The results are consistent with other findings by Kamarudin et al.(2016), Chortareas et al. (2012), Lin et al. (2010) and Lensink et al. (2008).

Furthermore, it can be observed from Models 4, 5, 7 and 8 in Table 4.4 that the variables of political stability and absence of violence (lnPV), government effectiveness (lnGE) and rule of law (lnRL) have a significant negative relationship with Islamic banks at the 1% level, and control of corruption (lnCC) is significantly negative at the 5% level. Kamarudin et al. (2016) also suggested a negative relationship between these variables and banks' efficiency.

Referring to the proxy measure of lnPV, the negative sign indicates that political stability and freedom from violence and terrorism contribute to lower productivity levels in Islamic banks. This might be because an excessively stable political environment could be harmful for growth. The theory of public policy and regulation argues that politicians do not maximize the country's social welfare but they are more interested in maximizing their own private welfare (Becker, 1983). Hence, if politicians have the power to discipline non-compliant banks, they will benefit by distracting the credit flow of other banks and sanction the banks that are politically connected. In the process, the politicians may exercise their power to optimize private interest and fail to discipline the non-compliant banks and improve banks' total factor productivity level.

The negative relationship between lnGE implies that the higher credibility and quality of the government's commitment to policies that are beneficial to the public will lead to lower TFPCH levels for the Islamic banks. Stevens and Cooper (2010) suggested that government actions and policies that exhibit higher levels of commitment will lead to efficiency. However, this study discovers that the quality of government policies does not contribute to higher TFPCH levels. The government's taxation policies are a plausible reason for this situation because a higher corporate income tax rate charged to banks will lead to a higher interest rate applied on loans. This will reduce the banks' lending activities and net interest margin because borrowers will be unable to pay the higher interest charges (Kamarudin et al., 2016). Hence, this will lead to poor demand for bank services, which will contribute to lower bank productivity levels.

Turning to the impact of lnRL on the Islamic banks' productivity level, the negative sign suggests that higher-quality rule of law contributes to the banks' lower TFPCH levels. The theory of judicial behavior suggests that the quality of judicial behavior that is produced by quality rule of law may drive economic efficiency (Sherwood et al., 1994). However, strict rules will place high restrictions on banking activities, which reduces banks' performance (Chen, 2009). In addition, severe rulings can harm the stability of the banking system because these rulings can reduce banks' charter value and expose banks to an increase in risk-taking activities. Therefore, the lower productivity levels among Islamic banks could be caused by the increase in cost of intermediation and increased risk-taking and restrict bank activities, all of which are directly influenced by an excessively strict judiciary system.

On the other hand, the proxy measures of rule of law (lnRL) and regulatory quality (lnRQ) are positively related to the total factor productivity level of the conventional banks, although the results are only statistically significant at the 10% level. The positive impact of lnRL on the conventional banks' productivity indicates that higher quality of rule of law leads to higher productivity levels of the conventional banks. Respect for order and law, effectiveness of the judiciary system and enforceability of contracts comprise better-quality rule of law in a country. This shall be beneficial to the conventional banks in terms of reducing the uncertainty and risk of conducting and starting businesses and increasing private-sector investments, which subsequently improves the banks' productivity levels and strengthen the market. The positive sign of lnRQ indicates that higher-quality regulation leads to the higher TFPCH levels in conventional banks and should be interpreted with caution as the coefficient of the variable is

statistically significant only at 10% level. The findings suggest that governments have implemented and formulated sound regulation and policies that encourage the development of conventional banks with higher productivity levels. This shows that the quality of regulation in this country produces professional handling of the bureaucracy that influences the improvement of productivity in conventional banks. The findings are in line with studies conducted by Kamarudin et al. (2016), Beltratti and Stulz (2009) and Lin et al. (2010), who stated that better regulatory quality will lead to better bank performance.

Finally, the negative relationship between the impact of control of corruption (lnCC) and the change in Islamic banks' total factor productivity levels states that greater control of corruption reduces the banks' productivity levels. The theory of supervision indicates that a powerful supervisory agency that directly disciplines and monitors banks may improve the efficiency of the banking industry by reducing corruption in bank lending (Beck et al., 2006). Nevertheless, this study suggests that powerful supervisors or regulators will focus on supporting their private interest rather than focus on overcoming market failure. The regulators may use their excessive power for the benefit of favored constituents, attracting campaign donations and corruption (Barth et al., 2013). In addition, the restrictions might limit the development of banks in terms of providing efficient service to customers, processing firm information and building reputational capital. Hence, stringent control over banks leads to tighter restrictions on bank operations and tends to lower Islamic banks' productivity level.

Table 4.4: Regression Results on Islamic Banks: All Countries

Variable	Model 1			Model 2			Model 3			Model 4		
	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM
Constant	-2.073***	-4.076***	-2.073**	-2.578***	-4.229***	-2.578***	0.798***	-4.341***	-2.823***	1.073***	-4.268***	-2.552***
	(0.652)	(1.136)	(0.978)	(0.676)	(0.725)	(0.940)	(0.076)	(0.804)	(1.027)	(0.12)	(1.090)	(0.939)
Bank-Specific Variables												
lnTA	0.004	0.086***	0.004	0.010	0.087***	0.010	-0.001	0.087***	0.011	0.001	0.088***	0.010
	(0.018)	(0.024)	(0.037)	(0.018)	(0.032)	(0.034)	(0.001)	(0.032)	(0.034)	(0.001)	(0.026)	(0.034)
lnLLRGL	0.239***	0.174***	0.239***	0.215***	0.177***	0.215***	0.007	0.181***	0.215***	0.010	0.177***	0.219***
	(0.069)	(0.060)	(0.076)	(0.069)	(0.064)	(0.068)	(0.008)	(0.067)	(0.068)	(0.007)	(0.059)	(0.069)
lnETA	-0.052	-0.251	-0.052	-0.038	-0.261	-0.038	0.005***	-0.259	-0.028	0.007***	-0.269	-0.041
	(0.074)	(0.213)	(0.068)	(0.073)	(0.243)	(0.054)	(0.002)	(0.242)	(0.055)	(0.002)	(0.212)	(0.054)
lnBDTD	-0.072**	-0.096**	-0.072*	-0.094***	-0.098	-0.094**	-0.001	-0.102	-0.097**	-0.004	-0.101**	-0.095**
	(0.028)	(0.040)	(0.042)	(0.028)	(0.078)	(0.042)	(0.008)	(0.082)	(0.043)	(0.007)	(0.042)	(0.042)
lnLOANSTA	0.531***	0.769***	0.531**	0.621***	0.789***	0.621***	0.002	0.799***	0.644***	0.002	0.804***	0.622***
	(0.148)	(0.262)	(0.226)	(0.151)	(0.254)	(0.226)	(0.002)	(0.258)	(0.229)	(0.001)	(0.253)	(0.227)
lnNIETA	-0.252**	0.160	-0.252*	-0.259***	0.144	-0.259*	-0.026***	0.133	-0.255*	-0.031***	0.135	-0.272*
	(0.100)	(0.122)	(0.148)	(0.099)	(0.163)	(0.142)	(0.007)	(0.166)	(0.140)	(0.006)	(0.136)	(0.146)
Macroeconomic Variables												
lnGDP				0.177*	0.075	0.177**	0.029***	0.091	0.188**	0.022***	0.081	0.195**
				(0.098)	(0.060)	(0.075)	(0.007)	(0.059)	(0.076)	(0.007)	(0.063)	(0.076)
lnCPI				-0.288**	-0.058379	-0.288***	-0.025***	-0.057	-0.259***	-0.021***	-0.071	-0.329***
				(0.111)	(0.117)	(0.101)	(0.007)	(0.116)	(0.099)	(0.006)	(0.105)	(0.111)
GFC				0.287**	0.179**	0.287***	0.163***	0.184***	0.285***	0.122***	0.183**	0.302***
				(0.142)	(0.070)	(0.095)	0.026	(0.062)	(0.091)	(0.019)	(0.082)	(0.101)
Country Governance Variables												
lnVA							0.200***	-0.075	-0.083			
							(0.067)	(0.073)	(0.086)			
lnPV										-0.102***	-0.058**	-0.039
										(0.036)	(0.023)	(0.029)
lnGE												
lnRQ												
lnRL												
lnCC												
R^2	0.102	0.382	0.102	0.136	0.388	0.136	0.157	0.389	0.138	0.165	0.391	0.138
Adj R^2	0.077	0.265	0.077	0.099	0.259	0.099	0.116	0.256	0.096	0.124	0.259	0.097
F-statistic	4.031***	3.252***	4.031***	3.663***	3.017***	3.663***	3.818***	2.936***	3.334***	4.040***	2.967***	3.349***
BP & LM x^2	-	3.090*		-	2.970*		-	3.510*		-	2.670	
Hausman x^2	-	61.839***		-	57.119***		-	57.613***		-	57.548***	
No. of Obs.	220	220	220	220	220	220	220	220	220	220	220	220

Note: ***, **, * indicates significance at 1%, 5% and 10% levels respectively. Figure in parentheses ( ) are standard error.

Table 4.4: Continued

Variable	Model 5			Model 6			Model 7			Model 8		
	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM
Constant	-2.748***	1.113***	-2.748**	-2.688***	-4.249***	-2.688**	1.038***	-4.271***	-2.676***	0.952***	-4.321***	-2.680*
	(0.694)	(0.082)	(1.353)	(0.682)	(1.132)	(1.345)	-(0.125)	(1.109)	(0.952)	(0.102)	(1.142)	(1.366)
Bank-Specific Variables												
lnTA	0.013	0.001	0.013	0.011	0.088***	0.011	-0.001	0.089***	0.011	0.001	0.090***	0.011
	(0.018)	(0.001)	(0.024)	(0.018)	(0.027)	(0.024)	-(0.001)	(0.027)	(0.034)	(0.001)	(0.027)	(0.024)
lnLLRGL	0.203***	0.015**	0.203*	0.202***	0.178***	0.202*	0.01	0.179***	0.205***	0.010	0.174***	0.203*
	(0.069)	(0.008)	(0.117)	(0.069)	(0.060)	(0.116)	-(0.008)	(0.060)	(0.070)	(0.007)	(0.060)	(0.112)
lnETA	-0.029	0.005***	-0.029	-0.037	-0.262	-0.037	0.006***	-0.265	-0.033	0.007***	-0.256	-0.047
	(0.074)	(0.002)	(0.094)	(0.073)	(0.214)	(0.095)	-(0.002)	(0.214)	(0.055)	(0.002)	(0.214)	(0.097)
lnBDTD	-0.097***	-0.006	-0.097	-0.095***	-0.098**	-0.095	-0.004	-0.099**	-0.095**	-0.004	-0.098**	-0.097
	(0.029)	(0.013)	(0.067)	(0.028)	(0.042)	(0.066)	-(0.007)	(0.042)	(0.041)	(0.007)	(0.041)	(0.067)
lnLOANSTA	0.636***	0.001	0.636*	0.629***	0.792***	0.629*	0.002	0.794***	0.628***	0.002*	0.792***	0.635*
	(0.151)	(0.002)	(0.372)	(0.151)	(0.255)	(0.369)	-(0.001)	(0.254)	(0.223)	(0.001)	(0.254)	(0.372)
lnNIETA	-0.229**	-0.039***	-0.229*	-0.223**	0.144	-0.223*	-0.033***	0.146	-0.235	-0.028***	0.157	-0.231*
	(0.104)	(0.011)	(0.136)	(0.105)	(0.135)	(0.132)	-(0.007)	(0.135)	(0.145)	(0.006)	(0.138)	(0.130)
Macroeconomic Variables												
lnGDP	0.135	0.047***	0.135*	0.139	0.074	0.139*	0.027***	0.067	0.149*	0.026***	0.066	0.138
	(0.105)	(0.011)	(0.081)	(0.103)	(0.065)	(0.079)	-(0.006)	(0.063)	(0.081)	(0.007)	(0.066)	(0.084)
lnCPI	-0.207	-0.042***	-0.207**	-0.207	-0.056	-0.207***	-0.024***	-0.053	-0.226*	-0.020***	-0.041	-0.203***
	(0.135)	(0.008)	(0.081)	(0.132)	(0.105)	(0.076)	-(0.005)	(0.102)	(0.116)	(0.006)	(0.108)	(0.076)
GFC	0.244*	0.261***	0.244**	0.268*	0.173*	0.268***	0.142***	0.164**	0.262***	0.127***	0.148	0.270***
	(0.147)	(0.061)	(0.103)	(0.142)	(0.090)	(0.101)	-(0.018)	(0.079)	(0.096)	(0.022)	(0.093)	(0.094)
Country Governance Variables												
lnVA												
lnPV												
lnGE	0.075	-0.111***	0.075*									
	(0.071)	(0.038)	(0.044)									
lnRQ				0.077	-0.018	0.077*						
				(0.068)	(0.108)	(0.041)						
lnRL							-0.107***	-0.087	0.059			
							-(0.038)	(0.132)	(0.063)			
lnCC										-0.083**	-0.084	0.100*
										(0.035)	(0.097)	(0.058)
R^2	0.140	0.126	0.140	0.141	0.388	0.141	0.167	0.388	0.138	0.160	0.389	0.142
Adj R^2	0.099	0.083	0.099	0.100	0.255	0.100	0.126	0.256	0.097	0.120	0.256	0.101
F-statistic	3.411***	2.943***	3.411***	3.429***	2.924***	3.429***	4.100***	2.932***	3.354***	3.918***	2.933***	3.473***
BP & LM x^2	-	3.930**		-	3.830*		-	3.610*		-	3.590*	
Hausman x^2	-	56.367***		-	55.697***		-	56.777***		-	55.135***	
No. of Obs.	220	220	220	220	220	220	220	220	220	220	220	220

Note: ***, **, * indicates significance at 1%, 5% and 10% levels respectively. Figure in parentheses ( ) are standard error.

Table 4.5: Regression Results on Conventional Banks: All Countries

Variable	Model 1			Model 2			Model 3			Model 4		
	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM
Constant	-0.394**	0.052	-0.394**	-0.376	0.129	-0.376	-0.068	0.121	-0.068	-0.385	0.224	-0.385
	(0.198)	(0.255)	(0.196)	(0.246)	(0.280)	(0.232)	(0.265)	(0.281)	(0.245)	(0.250)	(0.276)	(0.235)
Bank-Specific Variables												
lnTA	-0.003	-0.007**	-0.003	0.002	-0.003	0.003	-0.004	-0.002	-0.004	0.003	-0.010**	0.003
	(0.004)	(0.003)	(0.004)	(0.004)	(0.003)	(0.004)	(0.004)	(0.003)	(0.004)	(0.004)	(0.005)	(0.004)
lnLLRGL	-0.002	0.024	-0.002	-0.009	0.009	-0.009	0.003	0.008	0.003	-0.009	0.015	-0.009
	(0.019)	(0.029)	(0.020)	(0.019)	(0.027)	(0.019)	(0.020)	(0.027)	(0.020)	(0.019)	(0.030)	(0.019)
lnETA	-0.034	-0.086	-0.034	-0.030	-0.083	-0.030	-0.050	-0.080	-0.050	-0.031	-0.099	-0.031
	(0.038)	(0.062)	(0.035)	(0.038)	(0.069)	(0.035)	(0.039)	(0.070)	(0.035)	(0.039)	(0.063)	(0.035)
lnBDTD	0.020	-0.019	0.020	0.023	-0.007	0.023	0.007	-0.005	0.007	0.024	0.002	0.024
	(0.040)	(0.046)	(0.040)	(0.040)	(0.049)	(0.040)	(0.040)	(0.048)	(0.040)	(0.040)	(0.044)	(0.040)
lnLOANSTA	0.070**	0.039	0.070**	0.065**	0.036	0.065**	0.057*	0.035	0.057*	0.066**	0.025	0.066**
	(0.031)	(0.051)	(0.030)	(0.031)	(0.054)	(0.030)	(0.031)	(0.054)	(0.030)	(0.031)	(0.043)	(0.030)
lnNIETA	0.047*	-0.002	0.047*	0.047	-0.010	0.047	0.022	-0.012	0.022	0.049	-0.016	0.049
	(0.027)	(0.060)	(0.027)	(0.029)	(0.054)	(0.029)	(0.030)	(0.054)	(0.030)	(0.030)	(0.052)	(0.030)
Macroeconomic Variables												
lnGDP				-0.047	-0.035	-0.047	-0.073	-0.035	-0.073	-0.048	-0.046	-0.048
				(0.075)	(0.054)	(0.063)	(0.075)	(0.054)	(0.062)	(0.075)	(0.061)	(0.063)
lnCPI				0.007	-0.056*	0.007	-0.050	-0.055*	-0.050	0.013	-0.029	0.013
				(0.047)	(0.032)	(0.045)	(0.051)	(0.033)	(0.049)	(0.058)	(0.055)	(0.055)
GFC				0.140**	0.159***	0.140***	0.140**	0.153***	0.140***	0.139**	0.154***	0.139***
				(0.068)	(0.044)	(0.051)	(0.067)	(0.045)	(0.051)	(0.068)	(0.052)	(0.052)
Country Governance Variables												
lnVA							0.354***	-0.181	0.354***			
							(0.117)	(0.250)	(0.106)			
lnPV										0.012	0.227***	0.012
										(0.061)	(0.079)	(0.050)
lnGE												
lnRQ												
lnRL												
lnCC												
R^2	0.014	0.138	0.014	0.023	0.148	0.023	0.032	0.149	0.032	0.023	0.153	0.023
Adj R^2	0.007	-0.016	0.007	0.013	-0.008	0.013	0.022	-0.009	0.022	0.012	-0.004	0.012
F-statistic	2.120**	0.894	2.120**	2.322**	0.947	2.322**	3.026***	0.943	3.026***	2.092**	0.975	2.092**
BP & LM x^2	-	1.840		-	1.400		-	1.860		-	1.440	
Hausman x^2	-	9.529		-	11.357		-	14.948		-	17.475*	
No. of Obs.	917	917	917	917	917	917	917	917	917	917	917	917

Note: ***, **, * indicates significance at 1%, 5% and 10% levels respectively. Figure in parentheses ( ) are standard error.

Table 4.5: Continued

Variable	Model 5			Model 6			Model 7			Model 8		
	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM
Constant	-0.293	0.215	-0.293	-0.177	0.807**	-0.366	-0.180	0.755**	-0.358	-0.365	0.238	-0.365
	(0.254)	(0.346)	(0.279)	(0.130)	(0.317)	(0.232)	(0.129)	(0.318)	(0.233)	(0.247)	(0.324)	(0.233)
Bank-Specific Variables												
lnTA	0.001	-0.008*	0.001	0.001	-0.021***	0.001	0.000	-0.022***	0.001	0.001	-0.006	0.001
	(0.004)	(0.004)	(0.003)	(0.001)	(0.006)	(0.004)	(0.001)	(0.007)	(0.004)	(0.004)	(0.004)	(0.004)
lnLLRGL	-0.006	0.002	-0.006	-0.007	0.021	-0.008	-0.007	0.010	-0.008	-0.008	0.008	-0.008
	(0.019)	(0.028)	(0.017)	(0.007)	(0.030)	(0.019)	(0.007)	(0.030)	(0.019)	(0.019)	(0.029)	(0.019)
lnETA	-0.028	-0.097	-0.028	-0.037***	-0.116*	-0.028	-0.037***	-0.121**	-0.028	-0.028	-0.089	-0.028
	(0.039)	(0.062)	(0.035)	(0.012)	(0.062)	(0.035)	(0.012)	(0.063)	(0.035)	(0.039)	(0.068)	(0.035)
lnBDTD	0.016	0.001	0.016	0.025*	-0.006	0.021	0.026*	0.002	0.020	0.021	-0.009	0.021
	(0.040)	(0.045)	(0.049)	(0.013)	(0.044)	(0.040)	(0.013)	(0.044)	(0.040)	(0.040)	(0.050)	(0.040)
lnLOANSTA	0.060*	0.033	0.060	0.044*	0.029	0.063**	0.044*	0.020	0.063**	0.064**	0.033	0.064**
	(0.031)	(0.051)	(0.045)	(0.024)	(0.043)	(0.030)	(0.024)	(0.043)	(0.030)	(0.031)	(0.063)	(0.030)
lnNIETA	0.030	-0.015	0.030	0.016	-0.016	0.040	0.014	-0.021	0.039	0.041	-0.013	0.041
	(0.032)	(0.059)	(0.030)	(0.011)	(0.052)	(0.031)	(0.011)	(0.052)	(0.032)	(0.031)	(0.052)	(0.031)
Macroeconomic Variables												
lnGDP	-0.031	-0.044	-0.031	-0.026	-0.062	-0.041	-0.024	-0.023	-0.042	-0.044	-0.027	-0.044
	(0.076)	(0.098)	(0.047)	(0.027)	(0.060)	(0.063)	(0.027)	(0.060)	(0.063)	(0.075)	(0.049)	(0.062)
lnCPI	-0.038	-0.054	-0.038	-0.008	-0.055	-0.011	-0.008	-0.040	-0.015	-0.007	-0.070**	-0.007
	(0.058)	(0.039)	(0.036)	(0.014)	(0.053)	(0.053)	(0.014)	(0.053)	(0.052)	(0.053)	(0.036)	(0.046)
GFC	0.154**	0.158***	0.154***	0.090***	0.157***	0.145***	0.091***	0.157***	0.146***	0.139**	0.184***	0.139***
	(0.068)	(0.056)	(0.042)	(0.021)	(0.053)	(0.052)	(0.021)	(0.052)	(0.052)	(0.068)	(0.052)	(0.051)
Country Governance Variables												
lnVA												
lnPV												
lnGE	-0.072	0.399**	-0.072*									
	(0.055)	(0.189)	(0.038)									
lnRQ				0.020*	0.390***	-0.019						
				(0.011)	(0.097)	(0.030)						
lnRL							0.017*	0.356***	-0.021			
							(0.01)	(0.092)	(0.028)			
lnCC										-0.016	0.057	-0.016
										(0.027)	(0.036)	(0.021)
R^2	0.024	0.151	0.024	0.023	0.159	0.023	0.023	0.163	0.023	0.023	0.149	0.023
Adj R^2	0.014	-0.006	0.014	0.012	0.003	0.012	0.012	0.008	0.012	0.012	-0.008	0.012
F-statistic	2.266**	0.964	2.266**	2.117**	1.021	2.117**	2.133**	1.050	2.133**	2.123**	0.948	2.123**
BP & LM x^2	-	1.250		-	1.370		-	1.350		-	1.290	
Hausman x^2	-	12.797		-	22.401**		-	24.563***		-	14.297	
No. of Obs.	917	917	917	917	917	917	917	917	917	917	917	917

Note: ***, **, * indicates significance at 1%, 5% and 10% levels respectively. Figure in parentheses ( ) are standard error.

5. Conclusion

The empirical findings suggest that Islamic banks in Malaysia, Indonesia, Brunei and Singapore over the period of 2006 to 2016 have statistically higher productivity levels compared to the conventional banks, which is mainly attributed to a more progressive in technological level. On the other hand, conventional banks have exhibited productivity regress due to a technological changes regress, but they have been highly productive in terms of efficiency level during the period under study.

The results from the panel regression analysis reveal that liquidity (lnLOANSTA) and the global financial crisis (GFC) have a positive relationship with Islamic and conventional banks' TFPCH. The credit risk (lnLLRGL) and economic growth (lnGDP) have a significantly positive relationship with the productivity level of Islamic banks solely. While, the inflation (lnCPI) negatively influence the productivity level only on the Islamic banks. The capitalization (lnETA) variable shows a negative relationship with the conventional banks' TFPCH but positive to the Islamic banks'. On the other hand, market power (lnBDTD) and management efficiency (lnNIETA) exhibits a positive relationship with the conventional banks' TFPCH levels but negatively related to the Islamic banks'. Moving on to the impact of country governance on the banks' productivity level, greater voice and accountability (lnVA) is found to have a positive impact on both banks. Furthermore, the dimensions of rule of law (lnRL) and regulatory quality (lnRQ) are positively connected with the conventional banks' productivity. Meanwhile, political stability and absence of violence (lnPV), government effectiveness (lnGE), rule of law (lnRL) and control of corruption (lnCC) negatively affect the TFPCH levels of their Islamic counterparts.

This information could have several implications for policymakers, bankers, investors and researchers in Malaysia, Indonesia, Brunei and Singapore. In designing new policies and regulations for future undertaking, policymakers should be allowed the free intervention of citizens in create the policies. This initiative could create greater transparency and credibility, which drive economic growth, which in turn influences the productivity of the financial institutions. The others policies should also considered by the policymakers to the Islamic banking sector. First, the policies should oversee politicians' actions to avoid them mixing personal interest with public welfare. Second, policymakers must take initiative in controlling tax collection activities to improve the banks' investments and service demand. Third, the policies must contribute to Islamic banks to reduce their intermediation cost and risk-taking and encourage activities that lead to higher productivity levels. Next, the new policies implemented should be effective in controlling corruption to promote banking operations. These policies will be reflected in the higher productivity level of Islamic banks.

The management teams of Islamic and conventional banks can also maintain a stable and healthy financial system to support the efficient allocation of resources and minimize the risks across the banking industry. Furthermore, the results provide a direction in which management should look for both technological and efficiency factors to improve the overall performance of their respective banks in future planning. In addition, the information of this study could provide guidance for investors whose primary focus is to earn higher profit from their investments. Total factor productivity is one of the most important factors leading to higher or lower profitability. Therefore, the findings from this study could help investors to choose efficient investment portfolios by measuring the performance of the Islamic and conventional banks. Investors also can make wise decisions today that will determine the level of expected return in the future.

Finally, very few studies have used total factor productivity to examine the performance level of banks, particularly in the Islamic and conventional banks from Southeast Asian countries. Hence, the empirical results from this study will be useful to academicians to fill these scholarly gaps. Moreover, the findings revealed in the present study show the potential internal and external determinants of the productivity level in Islamic and conventional banks, which could be a guide to explore and obtain new findings. The results on the effect of country governance on the banks' total factor productivity also contributes new dimensions in the literature.

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The Long-Run Impact Of Macroeconomic Variables On Rental Rate In The United Kingdom Islamic Home Financing

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Abstract

Rental rate has been suggested as a better alternative to replace interest rate in Islamic home financing. However, the suggested alternative has to be free from the influence of any form of interest rate. This paper examines the long-run influence of macroeconomic variables on the rental rate in the United Kingdom housing market. The aim is to investigate whether the rental rate is free from the influence of both long-term and short-term interest rates in order to substitute interest rate in Islamic home financing. The study employs Autoregressive distributed lags (ARDL) model to empirically estimate a long-run relationship between the rental rate and some selected macroeconomic variables. Using the United Kingdom housing market data from the first quarter of 1990 to the last quarter of 2016. The results show that rental rate is free from the influence of both short-term and long-term interest rate. Hence it could be recommended as an alternative to interest for Islamic home financing. The results further show that GDP, inflation rate, and share price positively influence rental rate.

Keywords: Rental rate, interest rate, Islamic home finance, and ARDL

1. Introduction

Financing based on interest rate is fundamentally unsound and insecure. It contributed to the financial economic crisis from an initial level of a regional economy to the global economy. As a result of this issue of the economic crisis caused by the interest, Islamic financial scholars recommend rental rate as an alternative to the interest rate in Islamic home financing. Similarly, the recommendation of the alternative of interest rate is as a result of the issue of destruction of the financial system caused by the interest rate as experienced in the resent global financial crisis in 2007. The interest rate is generally prohibited in Islam, despite it prohibition, it is still considered in Islamic financing. Therefore, this created a room for coming up with an alternative in Islamic home financing.

Rental rate has been recommended as an alternative to the interest rate in Islamic home financing due to the issue of the interest rate in Islam. Hence there is a need to conduct an empirical study to ensure that rental rate as the recommended alternative is free from any influence of interest rate. Another issue is that there is a scarcity of literature in Islamic financing compared to conventional financing and similarly, an inadequate empirical study in Islamic home financing. Therefore, the significance of the present study is to contribute to the body of knowledge in the field of Islamic financing. In addition, the study empirically proves whether the rental rate is free from the influence of the interest rate.

The main purpose, which motivates the present study to focus on the United Kingdom Islamic home financing is that the United Kingdom Islamic financial institutions accept the mode of home financing that is determined by rental rate rather than interest rate (Smolo & Hassan, 2011). Likewise, the United Kingdom is the first developed nation that agreed to practice Islamic home financing based on the rental rate rather than the interest rate. According to the global financial Islamic report (2016), the Kingdom is regarded as the Islamic financial center in the whole western world (Yusof, Bahlous & Haniffa, 2016) with more than 20 international banks that operate Islamic finance in the country. Therefore, the study focuses on macroeconomic determinants with more emphases on short-term and long-term interest rates to hypothesize that rental rate is free from their influence in the long run. Thus, based on this main hypothesis the research question is generated for the purpose of achieving the general objective of

illuminating interest rate in Islamic finance. Hence, the objective of replacing interest rate with rental rate could be achieved, if the rental rate is free from the influence of interest rates both long term and short term. For the purpose of achieving the objectives, the study employed the ARDL model to identify the long-run relationship between the macroeconomic variables and the rental rate in the United Kingdom Islamic home financing.

After an introductory section of the paper, the second section presents the literature review that contains an overview of Islamic home finance in the United Kingdom and empirical review on the rental rate. The third section present methodology and the discussion of the data analysis. Lastly, the paper concludes the implications of the findings and the recommendation for future research.

2. Literature Review

2.1 Overview of Islamic home financing in the United Kingdom

Islamic finance serves as the great agenda for financing in the Muslim-majority countries. The United Kingdom adopted the system with twin aims; one is to encourage Muslims to participate in the financial market due to their faith of avoiding the conventional financial market that is interest based (Ainley, Mashayekhi, Hicks, Rahman & Ravalia, 2007). Secondly is to achieve the economic development objectives of making London the center of global Islamic finance (Tameme & Asutay, 2011). Hence, this motivates the present study to focus on the United Kingdom Islamic home financing.

The history of Islamic finance in the United Kingdom sketches as per back in 1980. The country has been leading in the development of Islamic finance in the western world and contributed a lot to support the development of the global Islamic financial industry. The Islamic Bank of Britain, presently known as Al Baraka Bank, was the first United Kingdom Islamic bank and it was established in 1982. The bank is owned by Al Baraka, an Investment Company with origins in Saudi Arabia. The Islamic bank serves as the foundation for the implementation of shari'ah compliance in leasing and home financing. The bank started with a long-term Islamic mortgage as Islamic home financing in 1988 (Wilson, 1999).

The bank practices Islamic home financing as equity financing. The share is based on the percentage of the contribution between the bank and the client with the high percentage share coming from the bank. The customer would pay a fixed profit for the period of the mortgage including monthly or quarterly repayments to Al Baraka (Tameme & Asutay, 2011). The problem of diversification of ownership resulted in an unsuccessful operation, to the point that it had to surrender its license and close the bank in 1993, which later the bank return to operations as the Al Baraka Investment Company (Belouafi & Chachi, 2014).

Apart from the Saudi Arabian based investment company (Al Baraka) which initiated the implementation of Islamic home financing in the United Kingdom, another Gulf country based bank contributed to the development of the system in the country. The United Bank of Kuwait introduced home purchase finance through its Islamic division in the United Kingdom named as the Islamic Investment Banking Unit in 1997 (Belouafi & Chachi, 2014). The bank merged with Al Ahli Bank and became Al Ahli United Bank. The initial home purchase product gave birth to a new product named as "Manzil" which is an Arabic word that means dwelling. Later in 1999, the bank introduced another Islamic mortgage known as Ijarah. The word is an Arabic word that means leasing. The Ijarah version of Islamic mortgage was believed to be more popular compared to the previous Islamic home financing product operated by the bank.

In 2003, HSBC (Hongkong and Shanghai Banking Corporation) the giant international bank, joined the two Gulf-based financial institutions in the development of Islamic home financing in the United Kingdom. The bank introduced Islamic home purchase financing with the commencement of the Islamic current account in the country (Belouafi, & Chachi, 2014). The two Islamic finance products (home purchase and current account) operated under an Islamic division of the bank called Amanah. The Amanah is an Arabic word that means trust. The bank operated all over the nation, which contributed to the spread of Islamic banking and financing in the United Kingdom. The Islamic home purchase was initially based on the Ijara contract and later changed to the Musharakah Mutanaqisah contract. Unfortunately, in 2013, the bank terminated its operation of Islamic finance in the country (Islamic Finance Solution, 2018).

However, despite the termination of HSBC Islamic banking, there are six fully Islamic banks operating in the Islamic finance industry in the country. The banks include Al Rayan Bank, the

European Islamic Investment Bank, the Bank of London and the Middle East, Qatar Islamic Bank (United Kingdom), Gatehouse Bank and Abu Dhabi Islamic Bank (Belouafi & Chachi, 2014). The government involvement in the Islamic finance enhances the success of the Islamic banks in the country.

Since home financing is the foundation of Islamic financing in the United Kingdom, and the rental rate is the backbone of home financing, the present study reviews the determinants of rental rate.

2.2 Review of the determinants of rental rate.

The present study reviews the previous papers that are relevant to the determinants of rental rate in the housing market. The papers include the study of D'Arcy, McGough and Tsolacos (1997) which investigated the rent determinant of five major European cities over the period of 1980 to 1994. The cities include Amsterdam, Brussels, Hamburg, London, and Paris. The study considers time series cross-sectional methodology to test the influence of rental across the five European cities. The study considers the gross domestic product, real consumer expenditure and real value of retail sales as the determinant of rent in the five study areas. The results of the time series cross-sectional analysis confirmed that GDP is the significant variable that determined rent in the whole five cities. The issue of the study in relation to Islamic home financing for the purpose of investigating the impact of interest rate, the conclusion could not be generalized whether the rental rate is free from the influence of interest rate.

Yusof, Kassim, Majid and Hamid (2011) focused on the macroeconomic determinants of rental price and the lending rate to analyze the possibility of relying on rental rate for Islamic home financing product. The study covered data for the Malaysian housing market from 1990 until 2006 using quarterly data. The independent variables are a gross domestic product (GDP), inflation rate, exchange rate, and interest rate. The study considered Treasury bills as a proxy of interest rate, which is the component of short-term interest rate. The study employed Autoregressive distributed lags (ARDL), Granger causality and multivariate causality. The purpose of the study is to investigate whether the rental price could serve as a benchmark for Islamic home financing compared to the lending rate. The result of the findings pointed out that the rental price is significantly affected by the GDP and Treasury Bills. One of the issues of the study is that the result will not generalized on the impact of interest rates on the rental rate because it is restricted to Treasury bills which are only a single component of short-term interest rate rather than the long-term interest rate. Another issue is that the result showed that the rental price relied on the short-term interest rate in the Malaysian housing market for the period of the study. The study also compared the rental rate and lending rate that is not sharia-compliant despite that it is trying to come up with sharia-compliant in Islamic home financing.

Simon, Achsani, Manurung and Sembel (2015) examined the macroeconomic factors that affect the office rental rates and selling prices. The study considered Indonesian quarterly data covering the first quarter of 1996 to the last quarter of 2012. The result of the Vector Error Correction Model (VECM) shows the existence of a long-run relationship between the macroeconomic variables and office rental rate. The long-run results of the VECM further showed that interest rate, inflation rate, exchange rate, and employment service positively influenced the office rental rate. The result of the Impulse Response Function (IRF) indicated that office rental rate positively responded to the variables such as interest rates, inflation, exchange rate, and employment rate. At variance decomposition, the result proved that the office rental rate is predominantly influenced by the employment services sector, exchange rate, inflation, interest rates, and GDP respectively. The issue of the study is that the focus of the study is limited to the office rental rate which did not include the entire rental rate that consists both office rent and residential rental rate.

Latif (2015) studied the impact of immigration flow on the residential rent in Canada using annual data from 1983 to 2010. The independent variables are Gross Domestic Products (GDP), unemployment rate and immigration flow. The study employed Fully Modified Ordinary Least Square (FMOLS) and Dynamic Ordinary Least Square (DOLS). The result indicated suggested that immigration flow has a significant influence on property rent. The result also shows that employment rate positively influences the housing rent. The result of the study further indicates that the middle-class housing rent is significantly tied to their employment compared to other classes of housing rental rate. The issue of this study is that it did not consider interest rate among the determinants, hence, there will be no conclusion on the influence of interest rate on the rental rate. The study suggested for further investigation of the relationship between macroeconomic variables and house rent.

Salihu and Yusof (2017) analyzed the impact of some selected macroeconomic variables on house price in the South African housing market. The study employed ARDL cointegration techniques to empirically examine the determinants of house prices in the study area. The study considers the quarterly data from the first quarter of 2006 to the last quarter of 2015. The result of the ARDL bound test indicates the presence of long-run cointegration in the model. The analysis focuses more on the impact of interest rates both long term and short term. The results indicate interest rates significantly influence the house price. But the direction of the influence differed, the long-term interest rate positively affects the house price while the short-term interest rate negatively affects the house price. Similarly, Inflation rate negatively affects the house price. However, GDP and exchange rate reported an insignificant relationship with the house price. From the sharia point of view, the interest rate should not play a significant role to determine the house price.

Therefore, the present study tries to empirical investigate whether the rental rate is influenced by interest rate or it free from its influence.

3. Methodology

The present study considers cointegration analysis to test the relationship between the macroeconomic variables and rental rate. The study employs Autoregressive distributed lags (ARDL) model due to its advantage over various cointegration analysis techniques that consist of the residual-based Engle and Granger (1987), and the maximum likelihood-based Johansen (1991). The ARDL model provides consistent estimates of coefficient irrespective of the integration order of the variables, provided that none of the variables is integrated as the second order of integration (Pesaran & Pesaran, 1997). The model accommodates the variables that are either integrated of order 0 or integrated of order 1 or even a mixture of the two orders (Pesaran, Shin, & Smith, 1996, 2001). The model also provides robust result irrespective of the limited period of data or a limited number of samples of the cointegration analysis. Furthermore, the ARDL model takes a sufficient number of lags to reduce the strength of the serial correlation of residuals (Laurenceson & Chai, 2003).

The basic assumptions of the ARDL bound test states that all variables under examination are integrated at level, first difference or mixed order (Pesaran et al., 2001). The study (Pesaran et al., 2001) reported two sets of critical value; the first assumption states that all variables are integrated at level (I(0)) and the second assumption states that all the variables are integrated at first difference ($I(1)$). Hence, the study proposed to consider Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) unit root tests to ensure that none of the variables is integrated at the second order. The justification of the unit root test is to avoid violation of the two assumptions stated above. ADF and PP unit root tests are commonly used in the stationary test (Abd Karim & Gee, 2008).

The study uses quarterly time series data for the United Kingdom housing market from the first quarter of 1990 to the last quarter of 2016. The data are obtained from the International Monetary Fund (IMF) and the Organization for Economic Co-operation and Development (OECD) database. Most of the time series data contained unit roots, hence, the first stage of the analysis starts with the unit root test. Hence, there is a need to conduct the unit root test to ensure that none of the variables is integrated at second order, otherwise, the result will be spurious. The study adopts the Augmented Dickey-Fuller (ADF) unit root tests. The equation is defined as:

(1)

$$\Delta Y = \alpha_0 + \alpha y_{t-1} + \sum_{t=1}^{k1} \Delta Y_{t-1} + \varepsilon_t$$

where Yt is the value of series in quarter t (time trend), ΔY represents changes in Y (yt – yt-1) and t is a pure white noise error term. The null hypothesis for a one-tailed test of Dickey-Fuller is H0: p = 0 (this shows that the data is non-stationary or contains unit root), the null hypothesis cannot be rejected. The alternative hypothesis is H1: p< 0 (this shows that the data is stationary, or there is no unit root), the null hypothesis can be rejected.

The first one is to establish the presence of long-run cointegration among the variables. Once the presence of cointegration is confirmed, the second stage is to estimate the long run relationship between macroeconomic variables and house price. The third stage is to estimate the associated ARDL-ECM.

The last stage is to conduct diagnostic and stability test in order to determine the goodness of fit of the ARDL model. The ARDL theoretical model is presented as:

$$RR_t=\alpha 0+\alpha_1 GDP_t+\alpha_2 CPI_t+\alpha_3 REER_t+\alpha_4 SHPI_t+ \alpha_5 UER_t+\alpha_6 LTIR_t +\alpha_7 STIR_t+\mathcal{E}_t \quad (2)$$

where $\alpha 0$ is a constant and $\alpha_1 \ldots \alpha_n$ represent the coefficient of specific macroeconomic variables and $\mathcal{E}_t$ is the error term. RR represents the rental rate as the dependent variable. The macroeconomic variables employed as independent ones are real GDP which represents real gross domestic products, CPI represents consumer price index, REER represents real effective exchange rate, LTIR represents long-term interest rate and STIR is the short-term interest rate. The error term is defined as the residual error of the regressions and $t = 1 \ldots n$; T refers to the time series period. The variables α_6 and α_7 are expected to be an insignificant relationship based on Islamic home finance in order to ensure that rental rate is free from the influence of interest rates on the objective to be achieved. Table 1 shows the variables and their measurement as well as the sources of data used in the present study.

Table 1. Measurement of Variables

Variables	Measurement	period	Sources
Rental rate	Rental price index	1990Q1-2016Q4	stats.oecd.org
Interest rates	Short-term/ long-term	1990Q1-2016Q4	stats.oecd.org
Income	real GDP	1990Q1-2016Q4	imf.org
Inflation rate	Consumer price index	1990Q1-2016Q4	stats.oecd.org
Exchange rate	Real effective exchange rate	1990Q1-2016Q4	imf.org
Unemployment rate	Harmonized unemployment rate	1990Q1-2016Q4	data.oecd.org
Share price	Share price index	1990Q1-2016Q4	data.oecd.org

Source: IMF and OECD Data

The present study employed the ARDL bound test, proposed by Pesaran et al. (2001) to test the existence of long-run cointegration between the variables. The cointegration test is based on the null hypothesis which states no cointegration and the alternative hypothesis that states the existence of cointegration. The null hypothesis of the ARDL states that there is no long-run cointegration and this can be expressed as $H0 = \alpha1 = \alpha2 = \alpha3 = \alpha4 = \alpha5 = \alpha6 = \alpha7 = 0$ which was tested against alternative hypothesis that can expressed as $HA \neq \alpha1 \neq \alpha2 \neq \alpha3 \neq \alpha4 \neq \alpha5 \neq \alpha6 \neq \alpha7 \neq 0$. The F-statistics is compared to Narayan (2004) two critical values (upper and lower values). If the result is above the upper critical value, the null hypothesis is rejected. This indicates the existence of cointegration. Whereas if the result is below the lower critical value, it indicates nonexistence of cointegration. However, if the result is between the two critical values, it indicates the inconclusive result.

The further stage after establishing the existence of cointegration is long-run equilibrium and short-run dynamic. The last step of ARDL is to estimate the associated ARDL ECM. The lag error correction term (ectt-1) measures the speed of the adjustment that stabilized disequilibrium of the model by converging to equilibrium. The significant negative relationship of the coefficient of error correction model confirms the existence of long-run relationship and adjustment of disequilibrium to ensure convergence of the dynamics to the long-run equilibrium in the model (Narayan, 2004). The high magnitude of the ECT indicates the high speed of adjustment. Therefore, the short run elasticity is estimated using the ARDL error correction term (ECT). Therefore, a dynamic error-correction model (ECM) can be derived from the ARDL model equation 3.1 through a simple linear conversion (Banerjee, Dolado, Galbraith, & Hendry, 1993). The error correction model representation of the ARDL models can be presented in the equation below:

$$\Delta RR_t = +\sum_{j=1}^{k1} \alpha_1 \Delta RR_{t-j} + \sum_{j=0}^{k2} \alpha_2 \Delta GDP + \sum_{j=0}^{k3} \alpha_3 \Delta CPI_{t-j} + \sum_{j=0}^{k4} \alpha_4 \Delta REER_{t-j} + \sum_{j=0}^{k5} \alpha_5 \Delta \text{SHPI} + \sum_{j=0}^{k6} \alpha_6 \Delta UER_{t-j} \sum_{j=0}^{k7} \alpha_7 \Delta LTIR_{t-j} + \sum_{j=0}^{k8} \alpha_8 \Delta STIR_{t-j}$$

$+\beta_1 RR_{t-1}+\beta_2 GDP_{t-1}+\beta_3 CPI_{t-1}+\beta_4 REER_{t-1}+\beta_5 SHPI_{t-1}+\beta_5 UER_{t-1} + \beta_6 LTIR_{t-1} + \beta_7 STIR_{t-1} + \beta_8 ECT_{t-1} + \mathcal{E}_t$ (3)

where the used variables are as defined in equations 3.1, k is the maximum number of lags in levels of the variables, Δ is the first difference operator, and α0 is constant, the parameters αs correspond to the short run relations. Whereas βs correspond to the long run relations; ect is the error correction term, and Ɛt is the error terms. The short-run dynamics added to the above equation (3) is represented by the terms with summation signs.

The last stage of the ARDL model is the stability test proposed by Brown, Durbin and Evans (Brown, Durbin, & Evans, 1975). The test consists of the cumulative sum of recursive residuals (CUSUM) and the cumulative sum of square recursive residuals (CUSUMSQ). The tests are presented in the form of graphs. The graph is examined with the two critical boundaries (upper and lower) of five percent significance level. If the graphs of CUSUM and CUSUMSQ fall inside the upper and lower boundaries, it indicates that the coefficients of the dependent variable in the ECT of the ARDL model are stable. Hence, the null hypothesis cannot be rejected. Conversely, the null hypothesis can be rejected if the graph is found to be across the boundary of critical value. The test examines the stability of short-term movement within the long-term parameter. The CUSUM test shows whether the coefficient of regressions are changing systematically and the CUSUMSQ shows whether the coefficient regressions are changing suddenly.

Result

The analysis of the present study begins with the unit root test to ensure that none of the variables are integrated in the second order of integration. The regression of the model that consists of the second order integrated variables could produce a spurious result in the cointegration analysis (Narayan, 2004 and Pesaran et al., 2001). Table 2 shows the result of the ADF unit roots and Table 3 shows the result of PP unit roots test. The result of ADF shows that LTIR and STIR are integrated at the initial level. Whereas all the variables with the exception of CPI are integrated at first difference. Therefore, due to the importance of CPI in determining price, the study considers PP unit roots to test whether CPI could be integrated at the initial level or first difference for the avoidance of important variable. According to Abd Karim and Gee (2006), the ADF and PP are commonly used to test unit roots. The use of two different unit roots test comes up with a robust conclusion regarding the stationary of the variables. The result of PP shows that CPI is integrated at first difference and LTIR and STIR are integrated at the initial level. Hence it resulted to the mix order of integration. Therefore, the result of the unit root tests justified the use of ARDL.

4.1 Unit Root Tests

Table 2.Augmented Dickey-Fuller (ADF) Stationary Test Result

	Constant	Without Trend	Constant	With Trend
Variables	Level	1st Difference	Level	1st Difference
CPI	0.42(6)	-2.66(5)*	-2.32(6)	-2.77(5)
UER	-1.53(1)	-4.21(0)***	-1.98(1)	-4.26(0)***
LTIR	-2.47(2)	-7.47(1)***	-4.31(1)***	-7.61(1)***
GDP	-0.53(3)	-4.93(2)***	-2.23(1)	-4.91(2)***
RR	-2.18(1)	-6.44(0)***	-3.27(3)*	-6.72(0)***
REER	-2.08(1)	-6.81(0)***	-2.29(1)	-6.73(0)***
SHPI	-1.90(1)	-7.40(0)***	-2.30(1)	-7.40(0)***
STIR	-2.99(1)**	-5.62(0)***	-3.98(1)**	-5.75(0)***

Notes: Figures are the t-statistics for testing the null hypothesis that the series are non-stationary. * denote significance at 10%, ** denote significance at 5% and *** denote significance at 1%.

In addition to ADF, the study also considers the Phillips-Perron (PP) test (1988), in order to come up with a robust conclusion regarding the stationary of the variables.

Table 3. Philips-Perron (PP) Stationary Test Result

	Constant	Without Trend	Constant	With Trend
Variables	Level	1st Difference	Level	1st Difference
CPI	0.57(8)	-11.50(8)***	-1.68(8)	-11.46(8)***
UER	-1.34(7)	-4.17(2)***	-1.69(7)	-4.23(2)***
LTIR	-2.04(4)	-7.71(2)***	-2.84(3)	-7.78(4)***
GDP	-0.11(6)	-4.50(2)***	-1.79(6)	-4.49(2)***
RR	-2.52(7)	-6.74(6)***	-5.07(6)***	-7.15(6)***
REER	-1.89(5)	-6.72(2)***	-2.05(5)	-6.69(2)***
SHPI	-1.76(5)	-7.39(3)***	-2.18(5)	-7.38(2)***
STIR	-2.83(3)*	-5.67(2)***	-3.15(3)**	-5.81(2)***

Notes: Figures are the t-statistics for testing the null hypothesis that the series are non-stationary.
* denote significance at 10%, ** denote significance at 5% and *** denote significance at 1%.

The study proceeds to identify the maximum lag order since ARDL is sensitive to the lag order (Bahmani, Oskooee & Ng, 2002). The study considers Akaike, Schwarz, and Hannan-Quinn information criteria to come up with the optimum lag. The present study consists of large observation number of 104. Akaike Information Criteria (AIC) is more superior to Schwarz information criteria (SIC) in the large observation (Harvey & Harvey, 1993). Therefore, the study considers four as the optimum number of lags as selected by the Akaike information criteria. According to (Liew, 2004), the lag with the smallest value is the appropriate lag for regression. Another justification for selecting lag four as the optimum is lag is that the lag agreed with both Akaike and Hannan-Quinn selection criteria, as indicates in Table 4.

Table 4. Lag-length selection Criteria for rental rate model

Lag	AIC	SIC	HQIC

1	0.056946	0.363905	0.181275
2	0.005707	0.314527	0.130759
3	-0.006897	0.303811*	0.118887
4	-0.104069*	0.443016	0.117346*

N.B: * indicates the lowest value under each criterion.

Considering lag 4 selected by AIC and HQIC, the study proceeds to determine the optimum of the ARDL model for the purpose of the analysis. The result of the ARDL came up with the model (1, 0, 2, 0, 1, 2, 3, 4) as the optimum model as indicated in Table 5 below.

Table 5. Optimal ARDL Model Section

Selected Model: ARDL (1, 0, 2, 0, 1, 2, 3, 4)

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
RI(-1)	0.833704	0.030031	27.76153	0.0000
REER	-0.010516	0.007352	-1.430476	0.1565
RGDP	0.023982	0.064275	0.373120	0.7101
RGDP(-1)	-0.048239	0.106606	-0.452496	0.6522
RGDP(-2)	0.129402	0.070695	1.830422	0.0710
HUEMPR	0.024479	0.041020	0.596758	0.5524
SHPI	-0.000474	0.004877	-0.097243	0.9228
SHPI(-1)	0.006592	0.004772	1.381378	0.1711
LGTINTR	-0.019389	0.087835	-0.220738	0.8259
LGTINTR(-1)	-0.152648	0.131376	-1.161920	0.2488
LGTINTR(-2)	0.217298	0.090898	2.390574	0.0192
SHTINTR	-0.116886	0.075148	-1.555413	0.1238
SHTINTR(-1)	0.363820	0.095529	3.808468	0.0003
SHTINTR(-2)	-0.382208	0.093331	-4.095180	0.0001
SHTINTR(-3)	0.109160	0.053836	2.027632	0.0460
CPI	0.078332	0.052842	1.482389	0.1422
CPI(-1)	-0.011725	0.072055	-0.162725	0.8712
CPI(-2)	-0.122296	0.064127	-1.907098	0.0601
CPI(-3)	-0.011680	0.065420	-0.178546	0.8588
CPI(-4)	0.178263	0.054570	3.266706	0.0016
C	-4.052990	0.913069	-4.438866	0.0000

Akaike info criteria -0.104069, Schwarz info criteria 0.443016, Hannan Quinn info criteria 0.117346, F-statistics 36831.09 Prob. (F-Statistics) 0.0000000 Durbin Watson Stat 2.024627

After determining the maximum lag length, the study proceeds to the cointegration test. As the model is unrestricted, the linear trend term is omitted in the equation. This is because the constant coefficient value is negative and significant as indicated in Table 5 above. In this case, there is no need to include the linear trend in the model. The ARDL bound test is aimed to establish the existence of cointegration among the independent variables and the dependent variable. The study performed the ARDL bound cointegration test using the rental rate as the dependent variable as illustrated in Table 6 below.

4.2 ARDL Bound Cointegration Test

Table 6. ARDL Bound Test Results Rental Rate Model

Variables	F-Statistics	Cointegration	CV	I(0)	I(1)
FRR(CPI,UER,LTIR,REER,GDP,SHPI,STIR)	10.99597**	Present of cointegration	1%	2.96	4.26
			5%	2.32	3.5
			10%	2.03	3.13

** represent five percent

The bound test is conducted to test the existence of a cointegration relationship against the null hypothesis of the non-existence of the cointegration relationship between the dependent variable and independent variables. The result is reported based on Narayan (2004) critical value. The bound test result of F-statistics is 10.99597. The value of F-statistics is above the upper bound of the critical value which is an indication of the presence of cointegration in the model. The result of the model provides a strong evidence of the existence of long-term cointegration relationship over the period of analysis. Therefore, the null hypotheses that state no cointegration is rejected which indicate the existence of long-run cointegration. Hence, the findings suggest that rental rate in the United Kingdom is significantly linked to the selected macroeconomic variables. The bound test cointegration result is consistent with the study findings of Salihu and Yusof (2017).

4.3 Estimation of the Long-Run Relationships

The model indicates that GDP, SHPI, and CPI have a significant relationship with the rental rate in the United Kingdom housing market in the long run. The three variables positively affect the rental rate at one percent significant level. The result indicates that one unit increase in GDP resulted in 0.63 unit increase in the rental rate as shown in Table 7. The result is consistent with the studies of Salihu (2018) and Yusof et al. (2011). Economists argue that an increase in the level of income enhances the level of spending and thus raises the demand for goods and services and simultaneously increases their prices (Yusof et al., 2011).

For the SHPI independent variable, the result indicates that unit increase in SHPI resulted in 0.04 unit increase in the rental rate as shown in Table 7. Equity investment and housing investment are alternatives to one another (Sim & Chang, 2006). Therefore, they are expected to have a negative relationship with one another. According to the theory of user cost-rent equivalent, renting and buying a house are also alternatives to one another. Hence, they are expected to have a negative relationship. Therefore, the share price would positively influence the rental rate indirectly. However, the study of Clark and Daniel (2006) conducted in the South African housing in the period from 1980 to 2005, found that share price positively influences house price. The study concludes that rises in the house price would increase the rental price in the long run. Consequently, the share price could positively influence rental price indirectly.

For CPI variable, the result indicates that one unit increase in CPI resulted in 0.67 unit increase in the rental rate as shown in Table 7. The positive relationship between inflation and rental rate is consistent with the studies of Salihu (2018) and Simon et al. (2015) which found a significant positive correlation between inflation rate and rental rate. The result is also consistent with the universal aspect of the real economy which indicates that inflation affects the price of goods and services (Tze, 2013).

The results of the ARDL long-run relationship indicates that rental rate is free from the influence of interest rates both long term and short term as shown in Table 7. The results indicate an insignificant relation between rental rate and the interest rates both long term and short term. The result is consistent with the study's result of Salihu (2018). Hence, the rental rate can serve as an alternative to the interest rate in Islamic home finance.

Table 5, represents the short run estimate that expresses the dynamic behavior of the ARDL model. The coefficient of the error correction term is negatively significant at one percent. The result confirms the presence of the long run relationship between rental rate and the fundamental variables. Hence, it represents the speed of adjustment at which the model attains the long run stable state of equilibrium following an exogenous shock in the short run. The coefficient of ECM is -4.05 which indicates that the deviation from long-run equilibrium will be corrected by a speed of 40.5 percent for every quarter.

Table 7. Long Run Elasticity for rental rate model ARDL (1, 0, 2, 0, 1, 2, 3, 4)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
REER	-0.063238	0.039541	-1.599293	0.1137
RGDP	0.632278	0.050340	12.560070	0.0000***
HUEMPR	0.147202	0.256906	0.572978	0.5683
SHPI	0.036787	0.013825	2.660881	0.0094***
LGTINTR	0.272176	0.358167	0.759913	0.4496
SHTINTR	-0.157031	0.272434	-0.576399	0.5660
CPI	0.666840	0.056982	11.702736	0.0000***
C	-24.372133	6.867703	-3.548804	0.0007***

Note: *** represent 1% significance level.

4.4 Diagnostic Checks

Diagnostic checks were undertaken to test normality, serial correlation, heteroskedasticity and model specification tests. The normality test on error terms confirmed that the model is normally distributed. The result of normality in Table 8 indicates that the result failed to reject the null hypothesis which states that error terms are normally distributed. Secondly, the result of the serial correlation as per Lagrange Multiplier pointed out that the residual is not serially correlated. The result shows that the test failed to reject the null hypotheses for the model which states that the error terms are not serially correlated. The existence of serial correlation could lead to the wrong specification of the model (MacKinnon, 1992). On the hand, the nonexistence indicates a good specification of the model. The third diagnostic test of heteroskedasticity test of error failed to reject the null hypothesis which states the existence of homoskedasticity. The result confirmed the presence of homoskedasticity which is an indication of the absence of heteroskedasticity (Breusch & Pagan, 1979). Hence, this indicates that the model is free from the problem of underestimating the variables and standard error. The fourth test that consists of Ramsey's regression equation specification error test (RESET) confirmed the goodness specification and functionality of the model (Ramsey, 1969). Therefore, as illustrated in Table 8 below, the ARDL error correction term confirmed that the model is normally distributed, serially uncorrelated, and the existence of homoskedasticity is well specified and formulated. Hence, this creates room for BLUE estimates.

Table 8. ARDL Diagnostic Test Results

Diagnostic tests	Normality	Serial Correlation	Heteroskedasticity	Model Specification
F-statistics	0.324747	0.269336	1.189447	0.094280
Probability	(0.8501)	(0.8968)	(0.2857)	(0.7596)

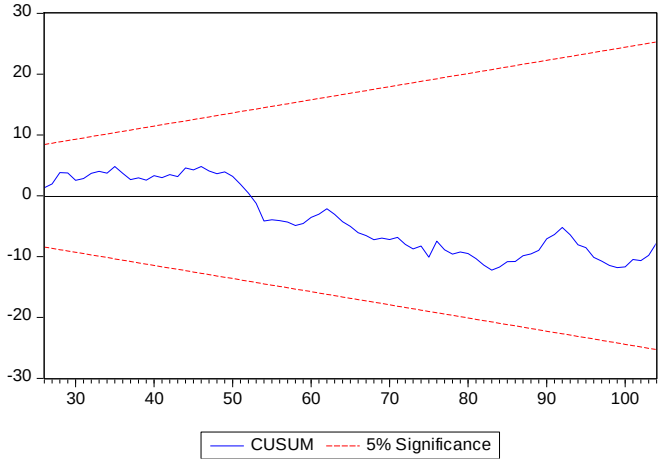
Note: None of the tests are significant even at 10 percent level.

4.5 Stability Test

Finally, the last stage of the ARDL model is to conduct the stability test. The test is conducted to examine the stability of short-run movement within the long-run parameter using the cumulative sum of recursive residuals (CUSUM) and the cumulative sum of squares of recursive residuals (CUSUMSQ)

tests. The two stability tests were proposed by Brown, et al. (1975). The tests are usually applied to the residuals of the estimated model. The purpose of the CUSUM test is to show whether the coefficient of regression are changing systematically, while CUSUMSQ is used to show changes suddenly. According to Tanizaki (1993), CUSUMSQ is more potent than CUSUM. If the plot of CUSUM falls inside the upper and lower critical limit of five percent significance level (Brown et al., 1975) which are portrayed by two straight lines, it shows that the coefficients of the dependent variable in the ECM of the ARDL model are stable. The same procedure is applied to CUSUMSQ that is based on square recursive residuals. The tests were conducted for the three models of this study which are the rental price index, house price index and rental rate models. The plotted CUSUM and CUSUMSQ of the rental rate model are within the upper and lower critical bound at five percent significance level. These confirmed the stability of the models as depicted in Figure 5.1 and Figure 5.2.

(a)



(b)

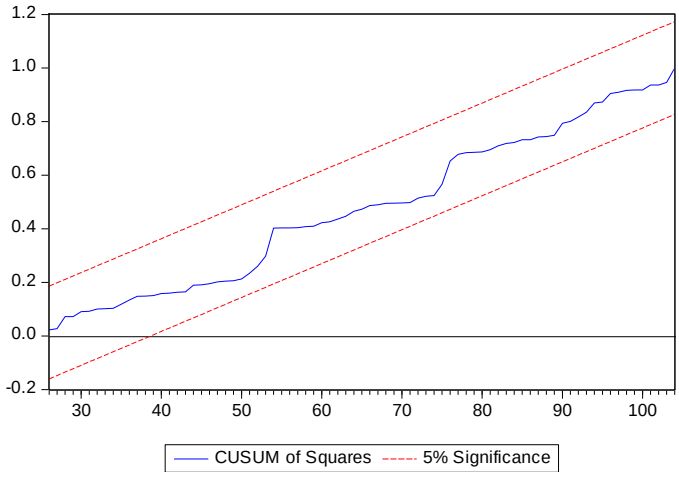


Fig. 1. (a) CISUM; (b) CUSUMQ.

4. Conclusion

The results of the ARDL long-run relation for the model indicates that rental rate is free from the influence of interest rates both long term and short term as shown in Table 7. Therefore, the result shows that rental rate is empirically qualified to substitute interest rate in benchmarking Islamic home

financing. Hence, the objectives of the present study based on the hypothesis that hypothesized that rental rate is free from the influence of long-term and short-term interest rates have been achieved.

The findings suggest that home financing institutions should either provide free interest debt financing or should consider rental rate to determine the equity home financing. Rental rate is nondiscriminatory to both financial institutions and their customers in the contract that is based on risk sharing mechanism rather than the contract which is based on the interest that is prohibited in Islam.

The present study has some limitation, and thus recommends the future study to focus on them. The study focuses only on some macroeconomic factors, it did not include taxation in the independent variables used in the study despite that it plays a role in determining both house price and rental rate. In addition, the study did not investigate the physical attributes which include the structure and location of the housing property that determines both the housing price and rental rate. Therefore, the recommends the future study to fill these gaps.

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Financial Literacy among Malaysian Young Adults

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Abstract

Interest in financial literacy has increased massively worldwide, over the past few years. There have been numerous studies and burgeoning interest undertaken into this area by academics, practitioners, government and other interested organizations. Similar development is evident in Malaysia, where academic researchers, industry associations, government and regulators, have all taken a keen interest in this important area. These studies and interest are to cater the issues related to how individual manage their own finances. In Malaysia, as reported Bank Negara Malaysia, the level of financial literacy is in a worrying state. Malaysians are described as to have low financial resilience and are vulnerable to financial shocks. Economics challenges indeed have impact on how Malaysians spend, save, invest and manage risks in order to protect their standard of living, especially for the long term. Higher level of consumer indebtedness and increasing focus on individual responsibility for financial planning indicate that there is a growing need for better financial management understanding among Malaysians. This current study is conducted to examine financial literacy level among Malaysian young adults, by looking at their demographic profile and financial literacy level.

Keywords: Type your keywords here, separated by semicolons ;

1. Introduction

Over the past few years, interest in financial literacy has increased massively worldwide. This is based on the belief that its improvement will empower people to make better financial decisions (Hilgert et al., 2003; Borden et al., 2008). Throughout the globe, financial markets have become increasingly complex and individuals are presented with new and ever-more-sophisticated financial products which are not easily comprehendible by individuals that have

minimal understanding in finance (Lusardi, 2015). Access to credit is becoming more easier and opportunities to borrow are plentiful. As a result, individuals need financial skills perhaps more now than ever before. Without an understanding of basic financial concepts, individuals are not well equipped to make decisions related to financial management. Consequently, individuals who do not have in-depth understanding may be confused by financial jargons and mechanism in order to make informed financial decision. As a result, individuals are now facing greater challenges in their investment decision as they are made more accountable for their own financial well-being.

Financial ignorance carries significant costs. Individuals who fail to understand the concept of interest compounding spend more on transaction fees, run up bigger debts, and incur higher interest rates on loans (Lusardi and Tufano, 2015; Lusardi and de Bassa Scheresberg, 2013). They also end up borrowing more and saving less money (Stango and Zinman, 2009). Meanwhile, the potential benefits

of financial literacy are manifold. People with strong financial skills do a better financial planning (Behrman et al., 2012; Lusardi and Mitchell, 2014). Given the many ways financial literacy affects financial behavior (Lusardi and Mitchell, 2014), it is important to understand the extent of people's understanding of basic financial concepts.

Scholars have come up with a different definition of financial literacy. Atkinson and Messy (2012) for instance define financial literacy as a combination of awareness, knowledge, skill, attitude and behavior necessary to make sound financial decisions and ultimately achieve individual well-being. While according to Vitt et al. (2000), financial literacy is the ability to read, analyze, manage, and communicate about the personal financial conditions that affect material well-being. It includes the ability to discern financial choices, discuss money and financial issues without (or despite) discomfort, plan for the future, and respond competently to life events that affect every day financial decisions, including events in the general economy. Whereas Hogarth and Hilgert (2002) state that the financially literate individuals are: 1) knowledgeable, educated, and informed on the issues of managing money and assets, banking, investments, credit, insurance, and taxes; 2) understand the basic concepts underlying the management of money and assets; and 3) use that knowledge and understanding to plan and implement financial decisions. To sum up, financial literacy is the confluence of financial, credit and debt management and the knowledge that is necessary to make financially responsible decisions and to effectively manage financial resources at a personal-level. It teaches critical skills to individuals on how to make informed, effective financial decisions based on their resources and circumstances. The consequences of not learning to manage and understand basic financial concepts can severely affect quality of life, leading to missed savings or investment opportunities, or worse yet, inadequate emergency funds, high debt, financial loss, bankruptcy and unfulfilled life goals.

Financial literacy is not something only reserved for adults, even though most financial decisions are made by adults. International bodies such as World Bank and the Organization for Economic Cooperation and Development (OECD) and International Network on Financial Education (INFE) appear to be in agreement that it is crucial to begin cultivating financial literacy at a young age in the hope that they will develop the skills needed to successfully manage their finances in adulthood when they will be exposed to increasingly complex financial products and services (Cordero et al., 2016). The ability to manage personal finances and make the right decisions regarding insurance, real estate, budgeting, investing and tax planning, is something that young adults should learn. With the amount of consumer debt increasing worldwide, managing money at an early age is important to help individual develop positive financial habits before earning an income as adults. There is evidence to show that young people's levels of financial literacy are consistently lower than for other demographics (Mandell, 2008; Shim et al., 2010). Therefore, the improvement of young people's financial knowledge is essential so that they can participate in modern society (Lusardi et al., 2010) as well as being beneficial for the economy and society as a whole (Gnan et al., 2007; Lusardi and Mitchell, 2011).

Similar development is evident in Malaysia, where academic researchers, industry associations, government and regulators, have all taken a keen interest in this important area. Improper financial behaviors among the general public which cause improper financial decisions later resulted in various financial and social problems such as bankruptcy and suicide. It is believed that improper financial decisions are a result of low financial literacy.

The objective of this study is to examine financial literacy level among Malaysian young adults, by looking at their demographic profile and financial literacy level. The results of this study provide a great insight in order to enhance the public's financial literacy especially among young adults. The remainder of this paper is divided into several sections. After this brief introductory section, reviews on previous studies are explained in the next section. Following that, next section focuses on methodology employed in this study. Later, results and analysis are presented. The paper ends with some brief concluding comments.

2. Literature review

Over the last decade, several researchers have started to explore whether individuals are well-equipped to make financial decisions. Bernheim (1995, 1998) was among the first to document that many U.S. consumers display low levels of financial literacy. Later Hilgert, Hogarth, and Beverly (2003) report that most Americans fail to understand basic financial concepts, particularly those relating to bonds, stocks, and mutual funds. Moore (2003) conducted a survey among Washington state residents and she finds that people frequently fail to understand terms and conditions of consumer loans

and mortgages. Nevertheless, low levels of financial skills are not only a U.S. problem. Financial literacy research from all over the world showed many individuals have low levels of financial literacy and this issue has a relationship with lack of financial planning (Lusardi and Mitchell, 2011, 2014). For example, the 2005 report on financial literacy by the Organization for Economic Co-operation and Development (OECD) and Smith and Stewart (2008) document low levels of financial literacy in several countries in the world including Malaysia.

According to Moore (2003) literacy or knowledge is acquired through practical experience and active integration of knowledge. Hence, people will become more sophisticated in terms of finance when they are more literate. However, financial literacy cannot be measured directly, and there is no standard instrument used to measure financial literacy (Moore, 2003; Huston, 2010). Nevertheless, financial literacy assesses an individual's level of understanding of the basic concepts of finance, and the individual's cap ability and confidence to manage his or her personal finances (Remund, 2010).

Prior research has mainly explored the relationship between financial literacy and several financial behaviors and outcomes. The most relevant findings are that financial literacy is correlated to more prudent financial decisions such as savings and retirement planning (Bernheim et al., 2001; Cole et al., 2011), wealth accumulation (Behrman et al. 2012); stock market participation (Abreu and Mendes 2010; van Rooij, Lusardi, and Alessie 2011), bank account management (Grimes et al., 2010) or personal loans and mortgages at lower interest rates and with fewer bank commissions (Lusardi and Tufano, 2015). Likewise, there is available evidence indicating that individuals with low levels of financial literacy are less likely to manage wealth effectively (Stango and Zinman 2009).

In a local context, there have been a number of studies on financial literacy being conducted among students and young adults in Malaysia. Majority of the studies report that Malaysians have poor financial literacy (Janor et al., 2016; Loke, 2015; Tan et al., 2011). Ali and his colleagues (2015) however find financial literacy to be moderate though the level of financial literacy varies according to demographic profile. Other studies conducted among university students find male students have higher levels of financial literacy than female students, while students majoring in business are more financially savvy than non-business majors and senior students tend to have higher financial literacy than junior students (Shaari et al., 2013; Sabri and Teo, 2014). In regard to gender, Loke et al. (2012) report that females had higher financial literacy levels than males. Studies also find that financial knowledge did not translate into proper money management among students (Shaari et al., 2013).

3. Methodology

This study involved data collection through online survey of respondents which was conducted from 1 to 10 September 2018. Survey questionnaires were distributed among undergraduate students enrolling in business related programmes in a Public University located in Negeri Sembilan, Malaysia. A total number of 413 completed survey questionnaires were received and analysed. Brief information on the research objective and procedures in answering the survey questionnaire was provided on the front page of the survey. The survey questionnaire was divided into two (2) main sections. First section contained questions on demographic profile of the respondents and section two contained statement measuring respondent's knowledge pertaining to cash flow management, savings and investment, retirement and planning, risk management, taxation, and estate planning. All items used were adopted from a research published by Malaysian Financial Planning Council (2018). SPSS software version 20 was used to analyse the data and descriptive analysis was performed.

4. Results And Analysis

4.1 Profile of Respondents

Table 1 illustrates the respondents' profiles. 26.6 percent of the respondents were male, and 73.4 percent were female. 27.1 percent of the respondents registered as first year student, second year student (23.5 percent), third year student (20.8 percent), and fourth year student (28.6 percent). The information on study funding source demonstrated that 41.9 percent of the respondents were funded by their parents, PTPN (39.5), JPA/MARA/State Foundation Loan (14.8 percent) and others (3.9 percent).

Table 1: Respondents' Profile

	(% of sample) (N = 413)
Gender	
Male	26.6
Female	73.4
Year of Study	
Year 1	27.1
Year 2	23.5
Year 3	20.8
Year 4	28.6
Study Funding Source	
PTPTN	39.5
JPA/MARA/State Foundation Loan	14.8
Parents	41.9
Others	3.9

The aim of this study is to understand the level of financial literacy among students on several aspects; cash flow management, credit management, savings and investment, retirement planning, risk management, taxation, and estate planning. As shown in Table 2, for cash flow management, 92 percent of the respondents allow expenses to be sometimes higher than income. This is quite a worrying situation because overspending seems to be a normal practice among the respondents. Nevertheless, 95.2 percent of the respondents agree that a shopping list help them to control their expenses and 98.3 percent of the respondent understand that one needs to save before spending.

With regard to credit card management, 78.8 percent of the respondents agree that credit card holders can spend without limit. 80.1 percent of the respondents think that the longer the repayment period, the lower the cost of the overall loan while more 43.8 percent of the respondents do not aware that debt cannot be inherited. Overall, 94.1 percent of the respondents are aware of CCRIS functions.

In terms of savings and investment, 88.6 percent believe that all investment in Malaysia are legal. The percentage is alarming because it was reported that more 500,000 people became victims of scams involving illegal investments in the country (Bernama, 2017). In addition, 94.2 percent of the respondents think that all types of investments are profitable and of low risk. 72.4 percent of the respondents believe that profits from investment will not be taxed. Fortunately, 92.7 percent of the respondents agree for individuals to save a minimum of 10 percent for emergency purpose.

With regard to the retirement plan, 59.8 percent agree that they can depend on one's EPF while 87.4 percent of the respondent are willing to continue working if their retirement fund is insufficient. Responses from the two statements are quite worrying because respondents do not seem to have other ways to support their retirement other than EPF and the need to work again. 85.2 percent of the respondents understand that EPF is not only open to government employees. In addition, 72.2 percent of the respondents understand that they cannot depend on their children after retirement.

Table 1 also shows respondents understanding on risk management. 85.2 percent of the respondents know that shariah compliant financial product are also available for non-Muslims and 72.4 percent of the respondents acknowledge that those products are not free from risk. 76.3 percent of the respondents agree that they will still buy insurance/takaful even if they can afford to bear the risk. Nevertheless, about 52.5 percent of the respondents feel that shariah compliant financial products can generate reasonable returns similar to conventional products.

In respect of knowledge on taxation, 74.3 percent of the respondents are unaware that not all working adult must pay income tax. In term of items subjected to tax, 74.1 know that not only salary is subjected to tax. 67.8 percent of the respondents understand that individuals who pay zakat will have to pay income tax as well. Finally, as for estate planning, 70.5 percent of the respondents understand that all their assets through will and 44.8 percent think that a will cannot be modified once it is written. 50.4 percent of the respondents will only write a will only if they have assets. Finally, 22 percent of the respondents do not know they they can include EPF and insurance/takaful savings nominees in their will.

Table 2: Knowledge on Financial Literacy

Statement	TRUE		FALSE	
	N	%	N	%
Cash flow management				
Sometimes expenses can be higher than income.	380	92	30	7.3
A shopping list help us to control our expenses.	393	95.2	20	4.8
One needs to save before spending.	406	98.3	7	1.7
Credit card management				
Credit card holders can spend without limit.	317	76.8	96	23.2
The longer the repayment period, the lower the cost of the overall loan.	331	80.1	82	19.9
Debt cannot be inherited.	232	56.2	181	43.8
Central Credit Reference Information System (CCRIS) is a credit bureau that collects, processes, stores and creates credit information.	389	94.1	24	5.9
Savings and investment				
All types of investments are profitable and of low risk.	389	94.2	24	5.8
All investment in Malaysia are legal.	366	88.6	47	11.4
Profits from investment will not be taxed.	299	72.4	114	27.6
Individuals need to save a minimum of 10% for emergency purpose.	383	92.7	30	7.3
Retirement and planning				
One can depend on one's EPF (Employee Provident Fund) savings for living after retirement.	247	59.8	166	40.2
If my retirement fund insufficient, I will continue working.	361	87.4	52	12.6
The Private Retirement Scheme (PRS) is only for government employees.	61	14.8	352	85.2
We can depend on our children after retirement.	115	27.8	298	72.2
Risk management				
If I can afford to bear the risk, I don't have to buy insurance/takaful.	98	23.7	315	76.3
Everyone can buy insurance/takaful whenever they wish to do so.	355	86	58	14
All type of risks can be insured.	140	33.9	273	66.1
Shariah-compliant financial products are only available for Muslims.	61	14.8	352	85.2
Shariah-compliant financial products are free from risk.	114	27.6	299	72.4
Shariah-compliant financial products generate reasonable returns similar to conventional products.	217	52.5	196	47.5
Taxation				
Every working adult must pay income tax.	307	74.3	106	25.7
Only salary is subject to tax.	107	25.9	306	74.1
Individuals who pay zakat do not have to pay income tax.	133	32.2	280	67.8
Estate planning				
I can distribute all my assets through my will.	291	70.5	122	29.5
A will cannot be modified once it is written.	185	44.8	228	55.2
I will only write a will only If I have assets.	208	50.4	205	49.6
My will can include EPF and insurance/takaful savings nominees.	322	78	91	22

The aim of this study is to understand the level of financial literacy among students on several aspects; cash flow management, credit management, savings and investment, retirement planning, risk management, taxation, and estate planning. Estate planning. As for cash flow management, respondents are aware of the importance of saving before spending but not practicing it when it comes to spending. Also, findings from this study shows that respondents have limited understanding on the function of credit card and this situation may contribute to a higher number of bankruptcies among young adults in future. Similar findings were found in terms of savings and investment. Respondents believe that all investment in Malaysia are legal, profitable and of low risk although number of victims involved in illegal investment is high. Fortunately, they understand the needs to save a minimum of 10 percent for emergency purpose. With regard to retirement plan, respondents understand the importance of having proper retirement plan, however, they do not mind working again if their retirement fund is insufficient.

In terms of respondents' understanding towards risk management, respondents are aware of the shariah financial product offerings. Finally, respondents understanding on taxation and estate planning is rather limited. Respondents are unaware that not all working adult must pay income tax and they feel the need to write a will only when they have assets.

5. Conclusion

The study data of the financial literacy of Malaysian young adults is not encouraging. Despite efforts by the government and private sector, young Malaysians are still lacking in financial knowledge. Thus, it is not surprising that more and more Malaysian consumers especially among young adults are getting into serious financial problems due to poor financial knowledge, wrong attitudes and poor financial habits leading to irresponsible financial behaviour. Lack of interest, insufficient knowledge, low financial literacy, shortage of funds and capital are perhaps among the major contributors to this worrying trend. Their complaints on the cost of living can never be appeased by merely asking for pay or income increase as long as they do not start improving their level of financial literacy. Perhaps the government and private sectors should redouble their efforts and commit to a national strategic plan to address the issue to ensure that all Malaysians develop responsible financial behaviour as well as make informed decisions on the increasingly complex financial products and services.

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Gap in Shariah Audit Practices: Myth or Reality?

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Abstract

Shariah audit has currently emerged as an important mechanism in ensuring Shariah compliance in line with the rapid development of Islamic Banking. It strengthens the Shariah compliance and enhance the integrity of Islamic Financial Institutions (IFIs) due to the uniqueness features of the IFIs such as the prohibition of *riba, gharar, maysir* and other requirements that its activities must be in compliance with Shariah. Research on audit expectations gap in Shariah audit practices has received little attention by researchers. Two objectives are set in this study; these are: Firstly, to examine the perceptions of the internal auditors (Shariah auditors), regulators (BNM), Shariah committee, Shariah officers, external auditors and depositors concerning the Shariah audit practices in the Islamic banks in Malaysia. Secondly, to determine the existence of expectations-performance gap between internal auditors (Shariah auditors), regulators (BNM), Shariah committee, Shariah officers external auditors and depositors concerning the Shariah auditor's performance in the Islamic banks in Malaysia. Based on the findings there is existence of gap in Shariah audit practices and auditor's performance. Thus, there is a need to strengthen the Shariah audit practices in the Islamic banks to ensure greater effectiveness of the goals of Shariah compliance. The research provides new insights into the structure, composition and extent of the audit expectation-performance gap in Shariah audit practices but, more importantly, it signals a rational, comprehensive approach towards narrowing the gap. This should bring practitioner's and stakeholders's expectations on Shariah audit practices and Shariah auditors' performance into closer accord and, as a consequence, reduce the criticism and different expectations on the Shariah audit practices in the Islamic banks.

Keywords: Compliance, Shariah auditor's performance, gap, Islamic banking

1. **Introduction**

Shariah audit practices strengthen Shariah compliance and enhance the integrity of the IFIs. It emerged to cater for the different nature and characteristics of Islamic banking practices. Many Islamic banking scholars, identified the nature of Islamic banking should be distinct from the conventional banks. Islamic banking and finance should differ from conventional banking practices in terms of: i) striving for a just, fair and balanced society as envisioned by Islamic economics, ii) constructed upon the principle of brotherhood and cooperation, which calls for a system of equity-sharing, risk-sharing and stake-taking, iii) characterised by ethical norms and social commitments as a system grounded in the ethical and moral framework of the Shariah community, iv) oriented and entrepreneur-friendly, emphasising productivity and the physical expansion of economic production and services, and v) operates within limits that ensure stability in the value of money and that curtail destabilising speculation (Chapra & Ahmed, 2002; Dusuki, 2011; Iqbal & Mirakhor, 2007).

The motivation of the study is to ensure Shariah compliance issues are properly addressed since Shariah noncompliance is a risk to all IFIs. This can be done through developing proper guidance on Shariah audit practices regarding framework, scope, independence, competency, processes, reporting, responsibilities and performance. With the expanding global Islamic banking and finance industry, there is a need for developing professional Shariah auditing practices. In addition, the failure of external auditors and Shariah Supervisory Board members to conduct a holistic Shariah audit (Najeeb and Ibrahim, 2014) motivates this research to identify gaps in current practices in Shariah audit. According to Sultan (2007), Shariah noncompliance risks may occur in products, the technology supporting the operations, operational processes, the people involved, documentations and contracts, policies and procedures, and other activities that require adherence to Shariah principles. According to Chik (2011), Shariah auditing should not address worldly corporate governance practices only, but a religious obligation on the IFIs and Shariah auditors (*muhtasib*/*mudaqqiq syar'ie*).

According to Abdul Rahman (2011), Shariah Committee of the IFIs normally expressed their opinions on the Shariah compliance of the products and services offered (ex-ante compliance). He also argued that a comprehensive and well-guided audit of the Shariah legal contracts, documentations and operations have not been adequately conducted. The ex-post compliance stage is absent in practice. Without a Shariah audit function, this scenario creates a functional gap of Shariah compliance in the Islamic financial system. From the stakeholder's point of view, it will create an expectation gap in Shariah audit practices in the IFIs. Shariah audit, in theory, should enhance the shareholders' value and confidence of the stakeholders of the IFIs. If stakeholders (i.e. customers, depositors, etc.) are suspicious of Shariah compliance, it would adversely affect the integrity of Islamic finance (Abdul Rahman, 2011; Atiqah, 2009).

Two objectives are set in this study; these are: Firstly, to examine the perceptions of the internal auditors (Shariah auditors), regulators (BNM), Shariah committee, Shariah officers, external auditors and depositors concerning the Shariah audit practices in the Islamic banks in Malaysia. Secondly, to determine the existence of expectations-performance gap between internal auditors (Shariah auditors), regulators (BNM), Shariah committee, Shariah officers, external auditors and depositors concerning the Shariah auditor's performance in the Islamic banks in Malaysia.

2. Literature Review

To date, a limited number of studies have been conducted on Shariah audit practices in Malaysia. One of the early empirical studies has been initiated by Hood and Bucheery (1999) on audit expectation gap between financial and religious (Islamic) auditors in Bahrain. Hood & Bucheery (1999) further argued that religious audit in Bahrain seems to complement the financial audit by external auditors. Nevertheless, they questioned whether religious auditors have a set of religious statements to audit as compared to financial statement audited by financial auditors. They found that a financial audit expectation gap does exist in Bahrain but not for religious auditors. They also found that financial auditors and religious auditors in Bahrain seem unaware of the tasks performed by each of them. Hood & Bucheery (1999) presumed that this finding was due to respondents' lack of understanding on religious audit. Kassim et al. (2009) examined the expectations and the actual practice of Shariah audit

function in IFIs in Malaysia. The study surveys different groups of respondents involved directly or indirectly with the process of Shariah compliance/auditing in IFIs. Based on their study, there is a gap between the 'desirable' and the 'current' practice of Shariah auditing in the IFIs in Malaysia. Kassim et al. (2009) classified the gap into framework, scope, qualifications and independence. These four components differ from previous studies on audit expectation gap.

Grais and Pellegrini (2006) mentioned that the Islamic banking industry lacks supervision and monitoring, oversight, auditing and management of risks. These are closely related to the competency level of Shariah auditors. Any risks resulting from auditor's incompetency will expose Islamic banks to potential losses (Othman and Ameer, 2015). Losses to the Islamic banks like in the case of Dubai Islamic banks in 1998, signals the importance of identifying and monitoring the gaps that exist in Shariah audit practices. Mulyani (2007) found that the academics, audit practitioners and Shariah scholars in Malaysia, agreed strongly with the creation of a new Shariah audit discipline with a separate regulatory framework. This Shariah audit should be conducted by a new group of professionals termed Shariah auditors. In addition, Yahya and Mahzan (2012) found that the practice of Shariah audit is still at the development stage and requires further improvement. Thus, there is a need to increase the understanding of Shariah auditing among internal auditors, enhance the Shariah knowledge of internal auditors, standardise the Shariah audit framework and provide general guidelines to design audit programmes for Shariah auditing. Abdul Rahman (2011) also suggested the need for establishing Shariah audit evidence, Shariah audit education, Shariah audit programmes and procedures, and reporting resulting from the Shariah audit findings. Training on Shariah audit practices must be undertaken among regulatory authorities, IFI staff and external auditors should reach a uniform level of understanding of what constitutes Shariah audit (Sultan, 2007; Abdul Rahman, 2008). Among the views from scholars and practitioners on the practice of Shariah audit in Islamic banks, there are lack of comprehensive and well-guided audit of the Shariah legal contracts, documentations and operations (Abdul Rahman, 2011). The Islamic banking industry also lack supervision and monitoring, oversight, auditing and management of risks (Grais and Pellegrini, 2006). In addition, there is also lack of auditor competency in performing Shariah audit function according to scholars and practitioners (Uddin et. al., 2015; Yusoff, 2013; Kasim, 2009; Yaacob, 2012). The lack of both Shariah and accounting knowledge has dampened the crucial needs of the Shariah auditor competency. Those with accounting knowledge tend not to have Shariah knowledge and vice versa. Any risks resulting from auditor's incompetency during Shariah audit process will expose Islamic banks to potential losses (Othman and Ameer, 2015). The rapid and tremendous growth in Islamic finance requires the IFIs to have competent Shariah auditors. And to provide the 'check and balance' an equally competent auditor who has good knowledge of accounting, auditing and finance with the equally good Shariah and fiqh knowledge and understanding (Uddin et. al., 2015). Investments for the education in shari'ah, accounting and auditing is crucial to enhance the knowledge and expertise of the actors involve with the shari'ah audit especially and IFIs in general (Rahman, 2011; Sulaiman, 2011).

Due to that, the academics, audit practitioners and Shariah scholars in Malaysia, agreed strongly with the creation of a new Shariah audit discipline with a separate regulatory framework (Yusoff, 2013; Mulyani, 2007). There is a need to increase the understanding of Shariah auditing among internal auditors, enhance the Shariah knowledge of internal auditors, standardise the Shariah audit framework and provide general guidelines to design audit programmes for Shariah auditing (Yahya & Mahzan 2012).

Some of the scholars argued that the Shariah audit is only to be conducted by Shariah professionals instead of accountants (Kasim et.al. 2009), while some others prefer the trained internal auditor to undertake the responsibilities (Yusoff, 2013; Yaacob, 2012). The Audit Committee of the IFIs should discharge their best effort to ensure that the external auditors are capable of undertaking the ex-post Shariah compliance reviews within their term of references (IFSB, 2006). They should also work with the internal auditor and the Shariah auditor, if the internal auditors are not Shariah capable, and more importantly with the SC (Abdul Rahman, 2011). Hence, the IFIs auditing should evolve into a professional Shariah internal and external auditors capable of doing the financial, management and also the Shariah audit. Chartered audit firms should acquire the necessary knowledge and personnel to undertake the Shariah audit.

As a result from the discussions above, different expectation in Shariah audit practices especially in the area of framework, independence, competency, reporting, scope and processes. Identifying components of the audit expectation gap is critical because problems arising from different components require different solutions. Possible tools to reduce the gap can be assigned only after the audit expectation gap and its components in a specific society have been identified (Judit, 2015).

Based on the previous studies and given the current scenario, there is no doubting the need to identify the existence of an expectation gap in Shariah audit practices due to different views and opinion by the scholars, practitioners and stakeholders in the practice of Shariah audit. It is crucial to get feedback from the regulators, practitioners and the stakeholders on what would be the best practices in Shariah audit and analyse their expectations to identify gaps in the implementation of the Shariah audit function based on the SGF (BNM, 2010) and Islamic Financial Services Act (IFSA, 2013). It is important to identify the gaps that exist in the practice of Shariah audit since its implementation requires improvement (Othman and Ameer, 2015). Through the identification of the factors that contribute to the expectation gap in Shariah audit practices, steps will be taken as an initiative to narrow the gaps. This is to enhance and harmonise the practice of Shariah audit in IFIs.

3. Methodology

After the validation process with the experts, the research proceeds with collecting data using the survey method. There are different methods for data collection identified in the literature, including mail, face-to-face, telephone, electronic mail, and a combination of these methods (Sekaran & Bougie, 2009). The decision to choose a survey method may be based on a number of factors that include sampling, type of population, question form, question content, response rate, costs, and duration of data collection (Cooper & Schindler, 2006). The instrument used in this research will be a mail survey questionnaire. The target respondents will read the questions themselves and mark answers on a questionnaire.

The subjects for questionnaire distribution are the regulators, the Shariah Committee, the practitioners of the IFIs (internal auditors, external auditors and Shariah officers) and the stakeholders. The target population in this study is defined as all individuals in Islamic banks that are aware and related to Shariah audit practices, which are the Shariah Committee; the practitioners (internal auditors, external auditors and Shariah officers), the regulators and the stakeholders. The regulators are representative from Jabatan Perbankan, Insurans dan Takaful (JPIT) department and related departments of BNM are included in the population due to their responsibilities in overseeing the overall operations of Islamic banks. In addition, the Shariah Committee, the practitioners of the IFIs (internal auditors, external auditors and Shariah officers) and the stakeholders are selected as the sample population of this study because they are the three line of defence as referred by IFSB in its "Guiding Principles of Risk Management for Institutions (other than Insurance institutions) offering only Islamic Financial Services" in its principle 14 states that: "IFI should have in place adequate systems and controls, including Shariah Board or Advisor, to ensure compliance with Shariah rules and principles".

4. Analysis and Findings

The research received a total of 172 questionnaires out of 340 questionnaires, which resulted in a response rate of 49%. While entering the raw data into an SPSS file, screening was the first method used to identify the completeness and quality of questionnaires. After screening, the dataset remained at 166 usable questionnaires. Table 1 reveals the demographic profile:

Table 1: Respondents Demographic

	Frequency	Percentage
GENDER		
Male	81	48.8%
Female	85	51.2%
AGE		
Below 30	40	24.1%
31-40	88	53%
41-50	32	19.3%
Above 50	6	3.6%
Designation		
Shariah Committee	14	8.4%
Internal auditors	33	19.9%
External auditors	16	9.6%
Stakeholders (depositors)	43	25.9%
Shariah officers	32	19.3%
Regulators (BNM)	28	16.9%
Years of Experience in Islamic Banks		
1-2 years	73	44%
3-5 years	49	30%
6-10 years	32	19%
More than 10 years	12	7%

Based on Table 1, 85.7 per cent of the Shariah committee members who responded to the questionnaires hold legal qualifications apart from the existing Shariah qualification that they already possess. This shows that out of 14 Shariah committee members, 12 have legal and Shariah qualification. Also, most of the internal auditors are qualified in accounting, which is 48.5 per cent. Surprisingly 18.2 per cent of the internal auditors are qualified in Shariah, and only 9 per cent have a background in law. The internal auditors of the Islamic banks who responded to the survey are from backgrounds not limited to accounting since the internal auditors of the Islamic banks are responsible for performing the Shariah audit function. 100 per cent of the external auditors involved in the survey are qualified in accounting, and only two of them hold a dual qualification in accounting as well as Shariah. Apart from that, 32 Shariah officers of whom five are the Shariah manager of the Islamic banks participated in the survey. 75 per cent of them hold Shariah qualifications while 34.3 per cent are qualified in law. 17.8 per cent of the Shariah officers are qualified in both areas Shariah and law. However, none is qualified in accounting and auditing. Also, 28 respondents from BNM participated in the study from various departments such as Jabatan Perbankan Insurans dan Takaful (JPIT) and departments related to Islamic banking operations. 42.9 per cent of the regulators who participated in the survey are qualified in accounting, 10.7 per cent are qualified in law and 28.6 per cent are qualified in Shariah. The qualifications of the respondents is illustrated in Table 2:

Table 2: Qualifications of respondents

Designation	No. of respondents / % representative		Accounting qualification	Legal qualification	Shariah qualification	Shariah audit involvement	Awareness in Shariah audit	Mean Years of experience in Islamic Banking
Shariah Committee	14	8.4%	0	12 (85.7%)	13 (92.9%)	1 (7%)	14 (100%)	10
Internal auditors	33	19.9%	16 (48.5%)	3 (9%)	6 (18.2%)	28 (84.8%)	33 (100%)	3
External auditors	16	9.6%	16 (100%)	0	2 (12.5%)	4 (25%)	16 (100%)	5
Stakeholders (depositors)	43	25.9%	5 (11.6%)	6 (13.9%)	5 (11.6%)	0	19 (44.1%)	0
Shariah officers	32	19.3%	0	11 (34.3%)	24 (75%)	9 (28.1%)	32 (100%)	5
Regulators (BNM)	28	16.9%	12 (42.9%)	3 (10.7%)	8 (28.6%)	4 (14.3%)	28 (100%)	3
Total	**166**	**100%**	**49 (29.5%)**	**35 (21%)**	**58 (34.9%)**	**46 (27.7%)**	**142 (85.5%)**	

To determine the existence of an expectation-performance gap in Shariah audit; Kruskal-Wallis test is used. Kruskal-Wallis test is used to find a statistically significant difference between two or more groups of an independent variable on a continuous or ordinal dependent variable. It is considered the nonparametric alternative to the one-way ANOVA, and an extension of the Mann-Whitney U-test to allow the comparison of more than two independent groups. Since this study involves few respondents Kruskal- Wallis test fit with one of the objectives of the research which is to determine the existence of an expectation-performance gap in Shariah audit practices among the respondents.

The present study utilised the Kruskal-Wallis to assess whether there was a significant difference among six groups of respondents. Most of the questions in the questionnaires use the 5-point Likert scale measurement (1=Strongly disagree to 5=Strongly agree). The data were ranked in nature, and the Kruskal-Wallis analysed the differences based on the mean rank of each group. For comparing among those surveyed, mean value is used to reflect the accuracy of the score for each group of respondents.

4.1 Expectation Gap in Shariah Audit Practices on Shariah Auditor's Performance

Performance gap - deficient performance is a gap between the expected standard of performance of Shariah auditor's existing duties and Shariah auditor's perceived performance, as expected and perceived by society. Based on Table 3 the findings support the hypothesis that **H_1:** *There is an expectation gap among the respondents on Shariah auditor's performance in Islamic banks.* The respondents were asked to evaluate the Shariah auditor's performance in the Islamic banks. There are 15 statements related to Shariah auditor's performance in the Islamic bank. The rating for this section is based on a five-point Likert scale which '1' represent 'poorly', '2'=adequately, '3'=average, '4'=well and '5'=excellent. The overall average mean score among the respondents for each of the statements on Shariah auditors' performance range between 3.31 to 3.95, which range from 'unable to judge' to 'well'. The findings show that all existing duties are rated significantly different among the respondents. This signifies the existence of expectation gaps among the respondents on the Shariah auditor's performance.

Table 3: Existence of Expectation Gap in Shariah Audit Practices on Shariah Auditor's Performance

H_1: ***There is an expectation gap among the respondents on*** *Shariah auditor's performance* ***in Islamic banks.***

Statements: (Expectation of Shariah auditors' performance in the Islamic bank)	SC	IA	EA	DEP	SO	REG	Avg. mean
				Mean			
a) Providing a useful service to the stakeholders.	4.14	3.18	3.00	4.00	3.71	3.10	3.54*
b) Reporting truthfully.	4.14	2.81	3.12	3.91	3.72	3.10	3.46*
c) Providing a useful service to the IFIs.	4.21	2.87	3.91	3.88	3.72	2.92	3.42*
d) Detecting errors and irregularities pertaining to Shariah.	4.42	3.12	3.12	3.97	3.56	3.51	3.51*
e) Acting independently without regard to self-interest	4.21	3.21	2.87	3.81	3.62	3.47	3.47*
f) Communicating effectively	2.85	2.90	2.87	4.04	3.56	3.31	3.31*
g) Prescribing remedies in the event of Shariah noncompliance issues.	3.57	3.03	2.81	3.91	3.53	2.96	3.36*
h) Preventing errors and irregularities pertaining to Shariah.	3.50	3.21	2.87	3.90	3.31	3.14	3.39*
i) Coping with risk and uncertainty in the transactions related to Shariah.	4.14	3.81	2.62	4.06	3.56	4.07	3.95*
j) Diagnosing problem.	3.85	3.06	2.68	3.76	3.37	3.00	3.32*
k) Predicting the future in the event of Shariah litigation.	4.14	3.27	3.06	3.88	3.43	3.21	3.50*
l) Acquiring information related to Shariah noncompliance.	3.57	3.39	3.06	3.97	3.62	3.14	3.53*
m) Enforcing Shariah legal requirements.	3.42	3.33	2.93	4.00	3.53	3.10	3.47*
n) Forming correct judgements.	3.57	3.18	3.06	4.11	3.75	3.07	3.53*
o) Coping with professional rules and Shariah rulings.	3.21	3.33	2.93	3.81	3.28	3.10	3.36*

*Significantly different among overall respondents $p<0.001$ based on Kruskal-Wallis test. IA: Internal auditors (Shariah auditors); SC: Shariah Committee; EA: External auditors; DEP: Depositors; SO: Shariah officers; REG: Regulator

The results reveal that the external auditors and the internal auditors find a deficiency in the performance of Shariah auditors concerning communicating effectively, prescribing remedies in the event of Shariah noncompliance issues, enforcing Shariah legal requirements, acquiring information related to Shariah noncompliance, forming correct judgments and coping with professional rules and Shariah rulings.

Table 4: Overall Gap among the Respondents in Shariah Audit Practices on Shariah Auditor's Performance

STATEMENT	IA/SA		USERS GROUP (OVERALL GAP)				
			SC	EA	DEP	SO	REG
a) Providing a useful service to the stakeholders.	3.18		-0.96**	0.18	-1**	0.29	0.61**
b) Reporting truthfully.	2.81		-1.33**	-0.31	-0.79**	0.19	0.62**
c) Providing a useful service to the IFIs.	2.87		-1.34**	-1.04**	0.03	0.16	0.8**
d) Detecting errors and irregularities pertaining to Shariah.	3.12		-1.3**	0	-0.85**	0.41*	0.05
e) Acting independently without regard to self-interest.	3.21		-1**	0.34	-0.94**	0.19	0.15
f) Communicating effectively.	2.90		0.05	0.03	-1.17**	0.48*	0.25
g) Prescribing remedies in the event of Shariah noncompliance issues.	3.03		-0.54**	0.22	-1.1**	0.38	0.57*
h) Preventing errors and irregularities pertaining to Shariah.	3.21		-0.29	0.34*	-1.03**	0.59**	0.17
i) Coping with risk and uncertainty in the transactions related to Shariah.	3.81		-0.33*	1.19**	-1.44**	0.5*	-0.51*
j) Diagnosing problem.	3.06		-0.79*	0.38	-1.08*	0.39	0.37
k) Predicting the future in the event of Shariah litigation.	3.27		-0.87**	0.21	-0.82**	0.45*	0.22
l) Acquiring information related to Shariah noncompliance.	3.39		-0.18	0.33*	-0.91**	0.35*	0.48**
m) Enforcing Shariah legal requirements.	3.33		-0.09	0.4	-1.07**	0.47*	0.43*
n) Forming correct judgements.	3.18		-0.39*	0.12	-1.05**	0.36*	0.68**
o) Coping with professional rules and Shariah rulings.	3.33		0.12	0.4*	-0.88**	0.53**	0.18

*****Significantly different from internal auditors overall gap at *p<0.05 and* ******significantly different from internal auditors overall gap at *p<0.01* based on Man-Whitney *U*-test. IA: Internal auditors; SA: Shariah auditors; SC: Shariah Committee; EA: External auditors; DEP: Depositors; SO: Shariah officers; REG: Regulators

Based on past study on the effectiveness of internal audit in Malaysian public sectors (Ahmad et. al., 2009), the main problems faced by the internal auditors which affect the performance of the internal auditors are due to lack of audit staff, internal audit function does not have full support from top management, lack of training, lack of independence, lack of competency, lack of experience staff and limited resources. Thus, the internal auditors and the management involved in the organisations must ensure that causes of gaps must be identified to boost the auditor's performance.

Regarding extended analysis on significant findings based on Man-Whitney U-test, there are significant differences between internal auditor's expectation with Shariah committee, depositors and regulators. Based on the average mean, the internal auditors are neutral on the statement '*Shariah auditor's provide a useful service to the stakeholders'*. The Shariah committee and the depositors agree with the statement. Unlike the Shariah committee and the depositors, the regulators score an average mean of 3.10, which shows the Shariah auditor's performance to the stakeholders is at the average level.

Even though Shariah auditors are directly involved with the Shariah audit functions, the internal auditors are unsure of their roles in the Shariah audit. This is evident since most of the questions on Shariah auditor's performance answered by the internal auditors scores an average mean between 2.81 to 3.39, which reflects that the internal auditors believe that they have 'adequately' and 'averagely' accomplished the task. The internal auditors also rated 2.81 on 'reporting truthfully', which reflect that they 'adequately' manage to report the Shariah audit findings instead of 'well' or 'excellent'. The Shariah committee, Shariah officers, depositors and regulators expect the Shariah auditors to perform well regarding performance. As such, the Shariah committee perceived that the Shariah auditors are able to predict the future in the event of Shariah litigation. Unfortunately, a significant gap exists of -0.87, which exceeds the expectation of the internal auditors on the statement. Also, the internal auditors score an average mean of 3.39 on diagnosing problems which means they averagely agree with the statement. This statement also involves a significant gap of -0.79 between the internal auditors and the Shariah committee.

Based on Table 6, it can be concluded that among the respondents, the Shariah committee, depositors, Shariah officers and regulators have a high expectation of the Shariah auditor's performance in the Islamic banks whereby the internal auditors believe that they have adequately accomplished the task in Shariah audit function.

5. Conclusion

This study contributes to the industry on the practice of Shariah audit in the Islamic banks. Audit gaps are growing rapidly in Shariah audit practices (Othman and Ameer, 2015; Zakari et al., 2014; Kasim et al., 2009; Sulaiman, 2005). Shariah audit has a key importance, as there is a growing awareness among IFIs that every such institution should contribute towards achieving the objectives of the Maqasid Shariah. There is a need to have regular independent Shariah audits in IFIs as people are now experiencing a movement along a continuum from a society that trusts everything and audits nothing to a society that trusts nothing and audits everything. The concept of Shariah auditing should be extended to the activities relating to among others, the system, the products, the employees, the environment and the society. Based on the findings, there is an existence of performance gap in Shariah audit practices which results in 'deficient standards' and 'deficient performance'. The 'performance gap' in Shariah audit practices due to poor standards and deficient performance needs to be addressed to boost the performance of the Shariah auditors. This study also found that performance gap due to 'deficient standard' as a result of inadequate legal and professional standards on the roles and responsibilities of Shariah auditors. The research provides new insights into the structure, composition and extent of the audit expectation-performance gap in Shariah audit practices and, more importantly, it rational and comprehensive approach towards narrowing the gap. This will leads to good Shariah audit practice that meet the expectations of stakeholders will reduce the criticism and different expectations on the Shariah audit practices in the Islamic banks.

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New Contribution By Professional Experts Through Waqf: A Pilot Study

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Abstract

Waqf or endowment is a kind of donation or alms giving to support the needs of a man in his daily life. The spirit for charity is encouraged by the religion of Islam as a mean to develop the ummah for economic and social sustainability. According to some Muslim classical jurists, the properties endowed may not necessarily in physical or tangible form, but it may be in intangible and various forms. In today's world, our societies demand the contribution in wider forms including contribution in the form of skills and expertise from the professional experts. Waqf of professional expertise aims to utilize professional experts in order to fulfil those demands craved by our societies in many fields such as medical, accounting, law, engineering and architecture. The objective of this article is to analyze the finding of the pilot test towards professional experts in participating this new waqf mechanism. The methodology of research in this article is quantitative methods through questionnaires among twenty (20) experts as a pilot study. The general finding of this article shows that most of the respondents (experts) who participated in the pilot test agreed with this concept of waqf of professional expertise and agreed to support and contribute through this waqf of expertise mechanism.

Keywords: Waqf; Waqf of Expertise; Professional Experts; Islamic Social Finance

1. Introduction

Waqf, derived from an Arabic term which literally means confinement or prohibition. The word is used in the Islamic Law in the sense of holding certain assets or belongings whilst preserving it for the confined benefit of certain patronage, forbidding any use or disposition of it outside its specific objective. According to Imam Abu Hanifah, the legal meaning of waqf is the detention of a specific thing in the ownership of waqif and the devoting of its profit or product for the purpose of charity to the needy. In the other hand, Imam Abu Yusuf and Imam Muhammad stated that waqf signifies the prevention and detention of an assets and donated it for the benefit of mankind solely for the sake of Allah (Baharuddin Sayin, 1996).

According to Muhammad Ridhwan (2012), the institution of waqf has played its role in poverty alleviation and socio- economic development throughout history, especially in the Islamic history. Until today, this institution still plays an important role especially in Muslim countries. Still, there are many potential mechanisms in order to make it more effective to alleviate poverty. Poverty is a universal problem, so much so that a great majority of the world population suffers from poverty. Besides income variables, it involves factors like education, health, shelter and also access to resource and physical facilities. There are many ways to address the issues of poverty. A potential way to

alleviate poverty is through charity, which can be made an effective means to overcome the poverty problem. Charity can be in many forms, but a long lasting form of charity is waqf, which has the characteristic of perpetuity.

One of the means to do charity as explained above is by providing special services such as pro-bono case, free counselling, health care, construction planning and free legal advice. All of these services can be achieved by contributing professional expertise among the professional experts. This form of waqf can be materialized if experts are willing to contribute their knowledge, skills and expertise in order to improve socio-economic development of the country. There will be a pool of experts designed to assemble and accumulate all these experts with their respective expertise who are ready to contribute and share their knowledge, skills and expertise to the good use of societies' well-being and welfare. With this new innovation in waqf sector, hopefully, it will widen up the opportunity for professional expertise especially young experts who do not have sufficient means to do waqf or endow in traditional or conventional waqf concept either in the form of cash waqf or through real assets to the societies and please Allah at the same time.

2. Literature Review

According to Asmak Ab Rahman (2009), the roles and significant of waqf instrument can be implemented in many matters such as education, housing necessities, medical treatment, religious places, agriculture, orphanage care and property alleviation. The waqf instrument can be extended to many new inventions such as cash waqf, waqf of shares, share waqf and takaful waqf. In Indonesia, the concept of productive waqf was propounded in order to reform the traditional and conventional understanding of waqf without taking into account the current situation and socio-economic status of societies as well as their demands. After all this while, the implementation and management of waqf properties only confined on immovable properties. There is a need for a momentum to act as an empowerment to improve today's waqf institution as social welfare of societies as it is an important dimension in waqf concept (Dimas Fahmi Fikri & Afif Noor, 2012).

It is noteworthy to mention here that usufruct is an important element in waqf which until nowadays is often viewed as something physical or immovable to the point it fails to significantly deliver the impact of waqf towards the socio-economic and well-being of ummah. In fact, Islam allows waqf to be endowed in other forms such as intangible and movable forms in order to serve the objective (Fahmi Medias, 2010).

Similarly, in their article, Suryani and Yunal Isra (2016) state that most Indonesian Muslims are still striving with the understanding of old waqf concept which is restricted to immovable and real property only. This situation makes it difficult for them to digest new dimension and rulings pertaining to productive waqf. This concept might be very new and alien to them. They also maintain that waqf instrument should and ought to suit and fulfil the current demands such as property alleviation, social welfare and improving socio-economy of the public.

In respect of the market wise of waqf itself, the tradition of waqf followed by western civilization since long time ago. They even adopted the concept of waqf to set up their own education institution for the benefit of their own kind. This can be seen in the establishment of the Oxford University where the concept of endowment or waqf is the foundation of the institution itself. In today's world, the demand of waqf has increasingly gaining more and more attention in both western and eastern countries. In Islamic point of view, there are some jurists agreed that waqf is an opinion based ruling which is flexible, open for innovation, dynamic and futuristic that has a potential to be extended and applied to fulfil the needs and improve socio-economy of the ummah. The waqf instrument can be changed or innovated in various forms to suit the needs in today's societies (Nurul Asykin Mahmood and Ruzian Markom, 2014).

Although there is no clear provision pertaining to legality of waqf in the form of services (waqf of expertise), either in Islamic textual sources or jurists opinion, it can be concluded that this form of waqf is permissible and accepted according to Islamic perspective as it is still within the objective of Shariah or Maqasid al-Shariah since the concept of waqf itself embodies both dimensions which is to worship Allah and to satisfy social needs of the ummah.

Based on the enactment of waqf in Negeri Sembilan 2005, it clearly stated that waqf have many ways to be contributed. One of them is services or giving the expertise to the public, which means that the Muslim scholars have discussed about how dynamic waqf can be explored in the future. In empowering waqf , all selected institution must brainstorm the idea to make the waqf as one of the new Islamic economic agendas for the ummah.

According to As-Sanaai (1998) and Khalil Ahmad As-Saharanfuri (2006), the useful words and knowledge will be rewarded in hereafter whereby the useful knowledge spread to the entire of world. The knowledge is enduring to its owner and benefits to the person in the hereafter. Similarly, with the writing of books, it will be rewarded for the

good intention and its considered as type of waqf. Al-Azhar said that it is a waqf which will bring benefits similar to sadaqah jariyah. Beneficial knowledge will be rewarded after the death of the person (Mubarakfuri & Zubair, 1998 & 2007).

Jalaluddin & Abi Abdurrahman (2000) and Marbawi (2001) share their same thought that words and knowledge which are inherited from teaching and writing or similar to it such as interviews, writing papers, publication, or knowledge that he or she is able to acquire by listening, buying books and as long as they are beneficial, will continue to be a constant reward to them.

حدثنا علي بن حجر , أخبرنا إسماعيل بن جعفر , عن العلاء بن عبد الرحمن , عن أبيه , عن أبي هريرة رضي الله عنه , أن رسول الله صلى الله عليه وسلم ، قال" **إِذَا مَاتَ الإِنْسَانُ انْقَطَعَ عَمَلُهُ إلا مِنْ ثَلاثٍ : صَدَقَةٌ جَارِيَةٌ ، وَعِلْمٌ يُنْتَفَعُ بِهِ ، وَوَلَدٌ صَالِحٌ يَدْعُو لَهُ**" (رواه مسلم.) . قال أبو عيسى : هذا حديث حسن صحيح

"The Messenger of Allah (SAW) said: "When a man dies, his deeds come to an end except for three things: Sadaqah Jariyah (ceaseless charity); knowledge which is beneficial; or a virtuous descendant who prays for him (the deceased)".

In this hadith is a proposition to explain the great reward for those who convey a knowledge and benefit from the knowledge is conveyed whether the knowledge is delivered in the form of teaching, authored books or lectures and speeches (Mahyiddin, 1994; Al-Imam Al-Hafiz Abi Abbas Ahmad Bin Ibrahim Al-Qurtubi, 2005; Anwar, 2007).

According to Syed (1999), there are Muslim Scholars who explained about this hadith namely Imam Sayuti and Iman Sanadi. Imam Sayuthi said that there were three great rewards after the death which are benefited. Al-Qadi Iyad mentioned that all of charities in the world will be disconnected except the prayer of son and the knowledge conveyed by him during the life time. Imam Sanadi debates the same thing that useful knowledge will continue to be rewarded.

Ibn Malik said that beneficial knowledge that gives constant reward is the knowledge of Allah and His attributes, His actions and His angels such as Ilm Kalam (theology), social science and health sciences. As well as knowledge relating to Prophet Muhammad, Hadith, Islamic Jurisprudence, and Usul Fiqh (Syeikh 'Ali Bin Sultan Muhammad Al-Qari, 2001).

وروى ابن ماجه (224) عَنْ أَبِي هُرَيْرَةَ رضي الله عنه قَالَ : قَالَ رَسُولُ اللَّهِ صَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ : (**إِنَّ مِمَّا يَلْحَقُ الْمُؤْمِنَ مِنْ عَمَلِهِ وَحَسَنَاتِهِ بَعْدَ مَوْتِهِ : عِلْمًا عَلَّمَهُ وَنَشَرَهُ ، وَوَلَدًا صَالِحًا تَرَكَهُ ، وَمُصْحَفًا وَرَّثَهُ ، أَوْ مَسْجِدًا بَنَاهُ ، أَوْ بَيْتًا لابْنِ السَّبِيلِ بَنَاهُ ، أَوْ نَهْرًا أَجْرَاهُ ، أَوْ صَدَقَةً أَخْرَجَهَا مِنْ مَالِهِ فِي صِحَّتِهِ وَحَيَاتِهِ ، يَلْحَقُهُ مِنْ بَعْدِ مَوْتِهِ**) حسنه الألباني في صحيح ابن ماجه

Another Hadith from Ibn Majah is the hadith speaks about seven uninterrupted things. In other quotes, there is also mentioned about 10 continuing religious practices such as the knowledge that he has spread, the prayer from sons, planting the crops and distributing it, providing the mashaf, making a canal, dug a well, draining rivers, building a house of ibn sabil, and building a place of remembrance and knowledge (Jalauddin As-Sayuthi (2012) and Hafiz Abu Tahir Zubair 'Ali Za'i (2007).

Therefore, it can be claimed that knowledge is a one type of beneficial thing that will benefit to its owner indirectly and will be rewarded in the hereafter. It is same concept of waqf of expertise which is to utilize for fulfilling the need of ummah. The new innovation of type of waqf is required in present day in order to improve the changing needs of the current requirement.

3. Research Methodology

The research methodology used in this study is quantitative approach based on a pilot test as an initial data collection method. The data collection instrument uses in this study is through questionnaires in order to allow the researchers to get information in the most accurate manner. The questionnaire forms have been printed and distributed directly to each of the targeted respondents who are professional experts in Bandar Baru Nilai which amounting of 20 respondents. To analyse the data, there are some methods which has been used. After a thorough survey, data from respondents' answers were analysed statistically through the use of SPSS version 20. The reliability of the scale was tested using the Cornbach alpha. A coefficient alpha higher than 0.7 was considered to be good (Nunnaly, 1978).

Table 1: Reliability Statistic

Cronbach's Alpha	**N of Item**
0.822	20

Based on the Table 1 above, it shows that the pilot test carried out in this study has achieved a good indicator for the reliability test which demonstrated a consistency of data collection procedure.

4. Discussion and Findings

From the survey, below are the descriptive analysis of the respondents. The Pie Chart (Diagram 1) below shows that 8 respondents are male or 40% and 12 other respondents are female or 60%. There are expert in various fields such as law and accountancy on both gender.

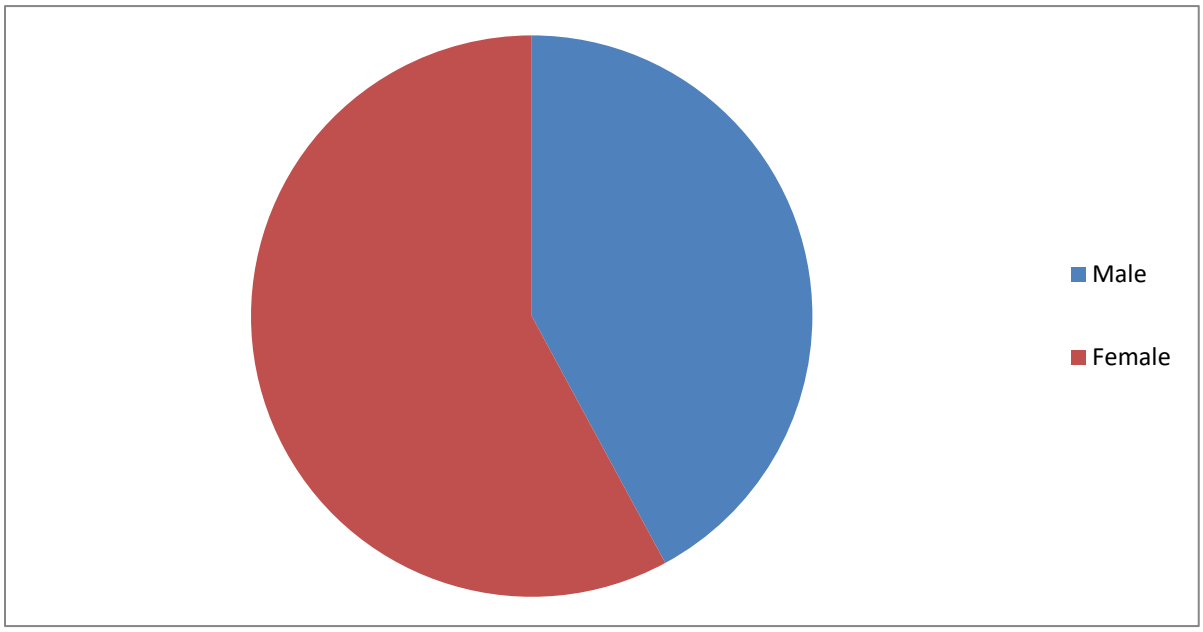


Diagram 1: Gender

The diagram 2 below reveals that 50% of respondents understand the concept of waqf of professional expertise. Waqf expertise is a new concept to understand whereby it will take time to all experts especially to understand and promote the waqf expertise. Some of them knew that contribution in waqf expertise really beneficial to the ummah. One who willing to give waqf on their expertise will absolutely sacrifice their time, energy and their money to contribute and join this waqf. They have to choose their own time to convey and share their knowledge to others. While the rest of the respondents which is 50% are unsure, unclear, unresponsive or do not know the concept. Some of respondent may be confused with the concept of waqf. They could be comparing waqf expertise with volunteering services because it have a little bit of similarity in term of work and job scope but different in objective.

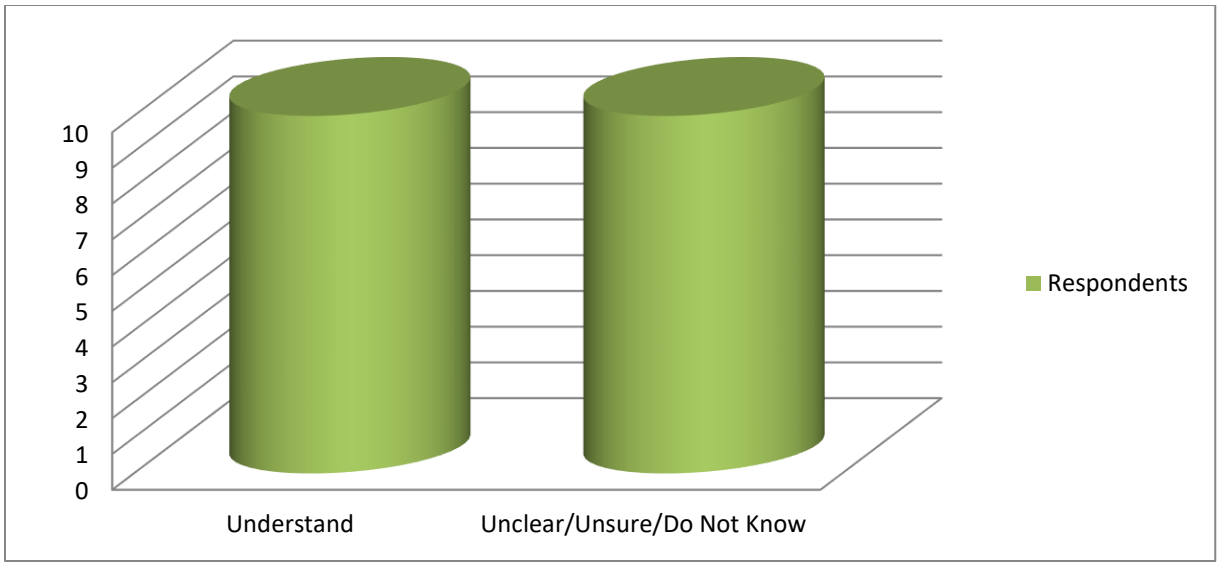


Diagram 2: Understanding on Concept of Waqf Expertise

Diagram 3 below indicates that 60% or 12 of respondents are willing to contribute their expertise through this waqf mechanism. It shows that with good understanding will ensure proper willingness to do this type of waqf. 40% of respondents probably willing to contribute their knowledge and expertise while the remaining respondents are in the view that it is depended on circumstances if they want to contribute. This shows that generally all respondents are willing to contribute to the society as none of them say no. Some of them have their commitment, therefore they are willing to contribute depend on their current situation.

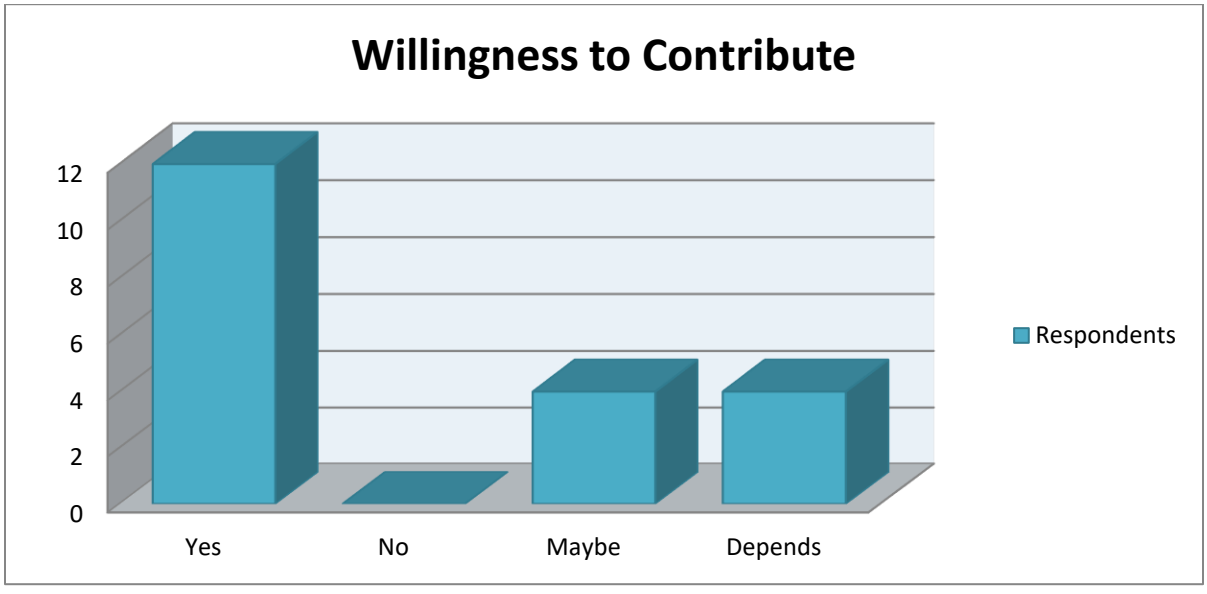


Diagram 3: Willingness to Contribute

In addition, based on the Diagram 4 below, it shows the various type of contribution that the respondents are willing to contribute. The bar chart reveals that the most popular type of contribution the respondents willing to contribute is in form of teaching, giving lectures and advisory role as well as consultation. While engineering, architecture, and treating patients are the least type of contribution which holds zero number of respondent respectively.

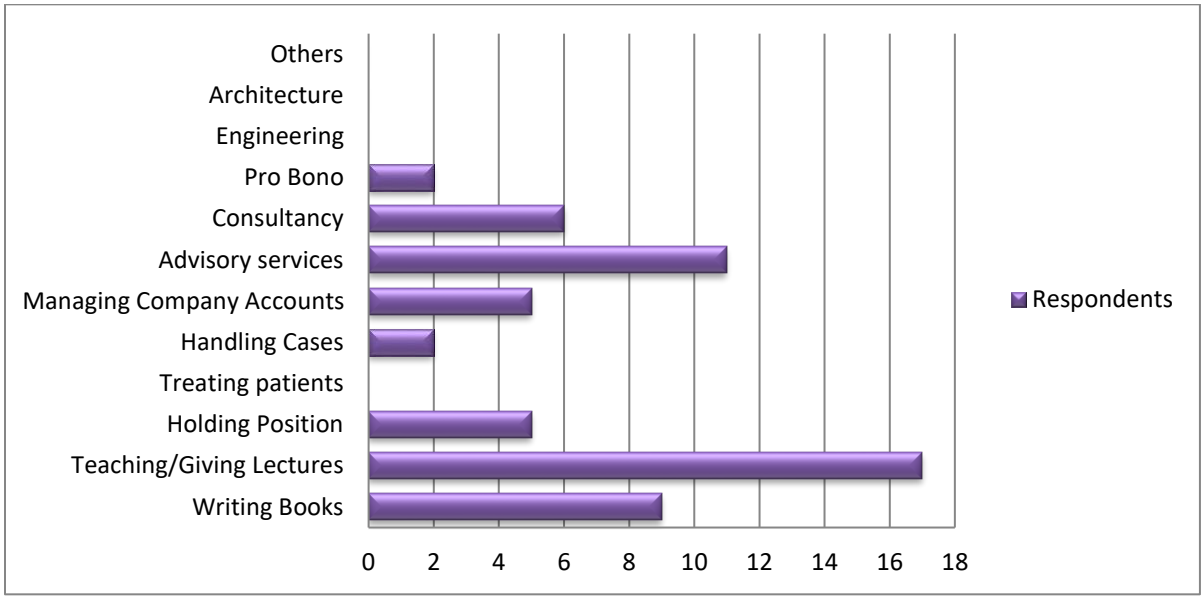


Diagram 4: Types of Contribution

5. Conclusion

This article concluded that most of the respondents (experts) who have participated in the pilot test agreed with the concept of waqf of professional expertise and willing to support and contribute through this new waqf mechanism. Waqf expertise will generate their social value to empower and develop the ummah. This new type of waqf is considerd as a new and not well known to some experts. This finding will open huge opportunity to the young experts to contribute their expertise. This will give various contribution to the ummah and will benefit Muslim and non-Muslim society in term of knowledge and skills sharing. The knowledge and skills are really important to the society to make sure that the public will not left behind and able to receive professional services free of charge.

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The Impact Of Government Spending On Gross Domestic Product For The Private Sector In Jordan (1990 – 2014)

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Abstract

This study aimed to investigate the impact of the governmental spending on the real total local output of the private sector in Jordan by focusing on time series analysis of selected variables during the period 1990 until 2014.The objective achieved the appropriate statistical tests such as data stability and co-integration tests has been used. The variables analyzed include the real governmental spending (RGP), the real total output of the private sector (RPSP), remittances of workers (RRE), energy prices (RPP) and inflation rate (RINR). This study results to a long-term statistically significant correlation between government spending and GDP of the private sector. Long-term complementary relationships exist between the real total local output of the private sector and variables used in the study. The study recommended, the Jordanian government must implement a targeted fiscal policy to support the economic activities in the Kingdom, providing customs and tax exemptions and providing appropriate infrastructure to encourage the private sector to invest.Provide appropriate environment for investment and to remove the obstacles to investment in general, in order to attract the capital of Jordanians working abroad for domestic investment, as well as for foreign investments.

Keywords: Government spending; private sector; OLS model; Jordan

1. Introduction

The private sector is defined as institutions and corporations that are not owned by the state or institutions and are subject to the capital of individuals or companies. The private sector is considered as one of the most important sectors as it takes great interest from the state and considered as one of the means of development. Many economists agree on the great role played by the private sector in developing productive capacities through the high level of technology used in production, creating employment opportunities, and increasing exports. In order to increase the size of the private sector, the state must work to provide all the business environment and support system suitable for reducing taxes and customs duties, providing the appropriate infrastructure and overcoming the various administrative difficulties.

In order to guide the role of the private sector, countries generally seek to pursue economic policies that stimulate the role of the sector, given its importance as a partner and complement to the public sector. In the early part of 20th century, government spending was the main driver of economic activity, and this spending was financed by taxes or indebtedness (Shatnawi,2011). Economic performance in many industrialized countries characterized by a phenomenon noted and accompanied by government spending with an increase in the level of unemployment. Government seeks to reduce unemployment, generate growth and employment opportunities.

The impact of government spending and its role in the economy varies depending on the political and economic systems prevailing in society. For example, the difference between government spending in Arab countries and the

extent of its impact on the private sector. The structure of government spending is characterized by an impact on economic activities. Therefore, the state uses government spending as a tool to achieve stability in its economy increases(Zaedat2000). The Jordanian government has undertaken a number of measures that would encourage the private sector to invest in Jordan. This has been done through a series of amendments to the investment promotion laws within Jordan and providing necessary infrastructure needed for these projects and to choose the appropriate place for these cities and regions to encourage more investment. For example, Exempting companies for ten years from income tax and social services and exempting the fixed assets imported by enterprises for the establishment of projects from taxes, import duties and customs, and exempted spare parts of these assets and other exemptions (Investment Encouragement Act, 2014). The government signed a number of international agreements and joined international organizations to encourage investment and increase the level of the state.

The researcher noted the scarcity in this subject since most of the dealt with subjects is close to it, such as the study (Ziyoud, 2011), which aims to know the impact of financial and monetary policy on private investment in Jordan. The study of Zyadat, (2000) aimed at knowing the impact of government spending on the production of the private sector and impact on private investment in Jordan.

2. Literature review

Barro (1990) examined the increase in taxes to support the financing of government spending on investment. This study was conducted in 98 countries from 1970 to 1985. The high tax has led to a reduction in the net returns on private investment and reflected negatively on the level of economic growth due to the decline in investment. The researcher also divided the government spending into non-productive consumption expenditure (such as government subsidies in the form of food, and spending on infrastructure). The result shows that the non-productive expenditures negatively affect growth and vice versa. For expenditure per capita income. Devarajan et al (1996) investigated to show the effect of all types of government spending on real per capita income growth. This study was conducted on a group of developing countries between 1970 and 1990. Government spending, excluding current expenditure, does not affect the per capita growth rate of real income, and the current expenditure has a positive impact on the growth rate of real per capita income. Government spending growth rate Gupta et al., (2005) studied to find out the effect of government spending on growth rates. The sample of 39 countries from 1990 to 2000 was directed to low-income countries. The countries with the largest expenditure on salaries and wages are tend to low growth rates, and the countries that allocate the largest share of government spending on capital spending have the high growth rates.

Al-Aqili (2002) measured the impact of competition in the Jordanian economy between the public and private sectors. All financial resources for borrowing and the local interest rate, and the extent to which public expenditure on private consumption has contended for the period 1976-2000. The study shows that the public sector does not compete with the private sector in each of the local financial resources available for the short term. There is competition with private consumption, both in the short and long terms, while the public and private sectors compete for financial resources through the local real interest rate in the short term.Qaqish (2005) identified the effect of government investment expenditure on macroeconomic indicators before and after the economic programs in Jordan for the period 1976 to 2001. This study shows the important role played by public investments, especially after Jordan's entry into economic programs, which provide the means required to achieve continuous economic growth in order to improve the living standards and the economy in general.Shukkani, (2005) examined the effect of fiscal and monetary policies on economic growth in Jordan for the time period from 1976 to 2004. The period was divided into two sub-periods from 1976 to 1990 and from 1991 up to 2004. The results of the first period showed that fiscal policy requires a relatively shorter period of monetary policy to influence the economy. During the second period, the monetary policy exceeded the success of fiscal policy in the economic growth. It is also found that changes in monetary policy led to increased economic activity response during the economic reform period, and that changes in fiscal policy made almost no change during the two periods of study .Massoud (2005) aimed to reveal the impact of spending to balance the economic growth. The economic objective is to obtain the largest increase in income and the highest level of the national economy in Algeria for the period 1990 to 2004. One of the main findings is that it emphasized the inefficiency of fiscal policy in increasing income and economic activity.Al-Issa (2006), examined the effect of government spending on economic growth in Saudi Arabia. The period from 1970 to 2002 in Kuwait and from 1972 to 2002 the United Arab Emirates. The most prominent findings of this study between these countries is that they depend on oil and the lack of diversity in the production of these countries and dependence on expatriate labor by a large proportion, and that the general budget of these countries has evolved. The decline in the price of oil has a direct impact on capital expenditure, while its impact is limited to current expenditure. The results also

indicate that long-term elasticity values are higher than those of short-term elasticity's that are consistent with the economic development. Podkhdakh (2009) aimed to find out the impact of public expenditure on economic growth for the period from 2001 to 2009 in Algeria. The result emphasized that the government should work to rationalize public expenditure. The work on long-term selection policies projects and encourages foreign investment in the local economy and work to support small and medium enterprises as it gives the opportunity to expand the business.

3. Objective, Study Question and Study Hypothesis

The main objective of this study is to analyze and test the empirical relationship between, government spending and private sector production in Jordan. by using macroeconomic indicators; Inflation rate, real expatriate remittances, and real energy prices in Jordan. To achieve this objective the study first reviews the theoretical and empirical literature on the impact of government spending on private sector production. The empirical analysis uses annual data for the period 1990-2014. The data used in this study are from the Central Bank of Jordan and the World Bank.

In order to achieve the objective of this study the following question has been raised

1- What is the impact of government spending on private sector production?

This study is based on a specific hypothesis, through which we reach to know the impact of government spending on private sector production in Jordan through:

H: There is no relationship between government spending private-sector production in Jordan.

4. Methodology

The unit analysis of this study includes all private sector production in every sector in Jordan covering a time provided from 1990 to 2014. By using a typical OLS to analyze the impute of the variables have been used unit root test, Co-integration Test, Granger Causality test, Error Correction Model for the measurement of the impacts of government spending on private sector production over the period from 1990 to 2014. The number of observations that were subject to analysis is 25years. The source of data was collected from the World Bank and the Central Bank of Jordan website. Real GDP of private sector (RPSP) is considered as dependent variables while real government spending (RGP), inflation rate (INR), real energy prices (PP),workers' remittances (RRE) are considered as independent variables affecting the productivity of the Jordanian economy. The following model is used to analyze the impacts of government spending on private sector production over the period from 1990 to 2014

PSP=F (RGP, PP, INR, RRE)

$RPSP_t = B_0 + B_1 RGP_t + B_2 INR_t + B_3 RRE_t + B_4 PP_t$

5. Empirical Result

The empirical result measures the impact of government spending on GDP for the private sector in Jordan using OLS model to analyze through unit root test.

A. The Unit Root Test

Conducting a Dickey - Fuller (ADF) to test According to the cutter, indicating that all variables are stabilized, depending on the appropriate deceleration period determined at the minimum value of criterion AIC where the deceleration period was equal to one for all the variables shown in the Table 1.

Table 1: Unit root test results, for standard model variables

Variable	Stability level	T Tabulate	T Calculated	Probability
RPSP	Stable at the first level	-2.2010	-3.757320	0.0099
RGP	Stable at the first level	-2.2010	-7.040581	0.0000
RINR	Stable at the first level	-2.2010	-6.078910	0.0000
RRE	Stable at the first level	-2.2010	-4.048542	0.0064
RPP	Stable at the first level	-2.2010	-6.421036	0.0000

It is stated that the absolute value for t calculate is more than t calculate for that all variables of the study at first level are stable.

B. Co-integration Test

Table 2 shows the tests applied to the co-integration test, all variables must have the same degree of dormancy making sure that all the variables of the study are not stable at their level and that they are stable at the first level, it is necessary to carry out the Johansson Co-integration Test where there can be a common integration and long-term stable relationship between the variables of the study. This means that the appropriate model for this type of data is a correction model Error (ECM) Error Correction Model. The common integration equation was as follows after reversing the signals and adopting one deceleration period according to the minimum value of the AIC test.

Table 2: Co-integration test of productivity .

Hypothesized No. of CE(s)	Eigen value	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.698076	74.38731	69.81889	0.0206
At most 1	0.599979	46.84299	47.85613	0.0621
At most 2	0.536817	25.76952	29.79707	0.1358
At most 3	0.256866	8.067950	15.49471	0.4582
At most 4	0.052474	1.239725	3.841466	0.2655

Table 2 indicates the existence of a vector for the combined integration of the variables. The value of Co integration Rank Test (Trace) is greater than the critical value at the level of 5%. The common integration equation was as follows after reversing the signals and adopting one deceleration period according to the minimum value of the AIC test.

C. Granger Causality Test

In order to determine the causal relationship direction between the government spending and GDP of the private sector, as well as the causal relationship between the other variables of the model and whether this relationship is one-way, or reciprocal direction.Table 3 shows these tests.

Table 3: Granger causality Test

Null Hypothesis:	Observation	F-Statistic	Prob.
RRE does not Granger Cause RPSP	23	0.59131	0.5640
RPSP does not Granger Cause RRE		3.88133	0.0397
RGP does not Granger Cause RPSP	23	1.39768	0.2727
RPSP does not Granger Cause RGP		6.39047	0.0080
RPP does not Granger Cause RPSP	23	0.74331	0.4896
RPSP does not Granger Cause RPP		7.92850	0.0034
RINR does not Granger Cause RPSP	23	0.65979	0.5290
RPSP does not Granger Cause RINR		1.79902	0.1940
RGP does not Granger Cause RRE	23	3.26142	0.0618
RRE does not Granger Cause RGP		2.56277	0.1049
RPP does not Granger Cause RRE	23	0.72128	0.4997
RRE does not Granger Cause RPP		1.14475	0.3404
RINR does not Granger Cause RRE	23	2.20483	0.1392
RRE does not Granger Cause RINR		0.48202	0.6253
RPP does not Granger Cause RGP	23	3.51383	0.0515
RGP does not Granger Cause RPP		2.45178	0.1144
RINR does not Granger Cause RGP	23	0.53328	0.5957
RGP does not Granger Cause RINR		2.37849	0.1212
RINR does not Granger Cause RPP	23	0.28431	0.7559
RPP does not Granger Cause RINR		3.77868	0.0426

Reject at a significant level of 5%***Reject at a significant level of 10%

The Granger Causality Test shows that there is a one-way causal relationship of private sector output to government spending, employee turnover and energy prices. On other hand, there is a causal relationship with one direction of energy prices to government spending, there is a one-way causal relationship from government spending to worker's remittances, and there is a causal relationship with direction of energy prices to the rate of inflation.

D. Error Correction Model

The objective of this study is to investigate the effect of the relationship between government spending and the real GDP of the private sector. Once the data are not at their level, and stable at the first difference, and there is a long-term mutual integration relationship between them, It can be used the error correction model. Therefore, use

some tests from the error correction model (Variance Decomposition, and Impulse Response Function) because any random shock in any variable can affect other variables of the model.

D.1. Variance Decomposition

The objective of this test is to identify the amount of the variance error for each variable that predicts the volume return to the error expectation in other variables. When applying test to the variables (Real GDP of the private sector, government expenditure, workers' remittances, inflation rate and energy prices), the following order (RPSP, RGP, RRE, RINR) indicates the results in the Table 4.

Table 4: Analysis of variance components

Period	RPSP	RGP	RRE	RINR	RPP
1	100.0000	0.000000	0.000000	0.000000	0.000000
2	94.08509	2.120178	0.118822	2.672945	1.002968
3	58.17848	6.492792	32.04469	1.195451	2.088586
4	56.15605	4.119077	36.40627	0.767635	2.550967
5	4.565588	24.60007	70.54910	0.071286	0.213953
6	4.078645	17.64220	76.67808	0.094172	1.506905
7	0.434170	24.00890	74.84314	0.093544	0.620245
8	3.047184	15.85648	80.56082	0.035971	0.499541
9	0.300800	24.89937	74.20744	0.064164	0.528228
10	2.540276	16.53009	80.57487	0.019048	0.335715

The results of the analysis in Table 4 show that the real GDP of the private sector is affected by government expenditure. This is evident in the second period. The change in government expenditure explains 2.12% of the error forecast in the real GDP of the sector which is due to random errors in government spending. The increase in the ratio in subsequent periods can be seen to reach 16.53% in the tenth period, indicating the effect of the change in government spending on the real GDP of the private sector not for one period but for future periods. The real GDP of the private sector is slowing down, with a time lag.

The results of the analysis in Table 4 shown that the real GDP of the private sector is affected by workers' remittances, inflation rate, and energy prices with existence the government expenditure in the model. It is clear that during the second period the change in workers' remittances was explained by about 11.8% of the forecasted error in the real GDP of the private sector. That is, it refers to the percentage of discrepancies in the prediction of the real GDP error of the private sector, which is due to random errors in workers' remittances.

It is also noted that the rates increase in subsequent periods to reach 80.57% in the tenth period. This indicates the impact of remittances on the real GDP of the private sector not for one period but for periods to come, and this indicates that the impact of the change in remittances of workers on GDP the real total of the private sector is at a time lag .

The results in Table 4 indicate that changes in both inflation and energy prices explain both 2.67% and 1.002% respectively of the real GDP of the private sector in the second period. Decreases in subsequent periods to reach 0.019% and 0.33% in the tenth period.

D.2. Impulse Response Function

This test aims to identify the impact of the sudden arise of the independent variable on the dependent variable in the short term, and ten periods were selected to see this effect. This test is also affected by the order of the data in the model because of the nested relationships between variable. In this test, Figure 1 shows the response of the real GDP of the private sector to the random shock in government spending. There is a positive effect of government spending on real GDP of the private sector in the end of the second period which then slowly increased until the tenth period.

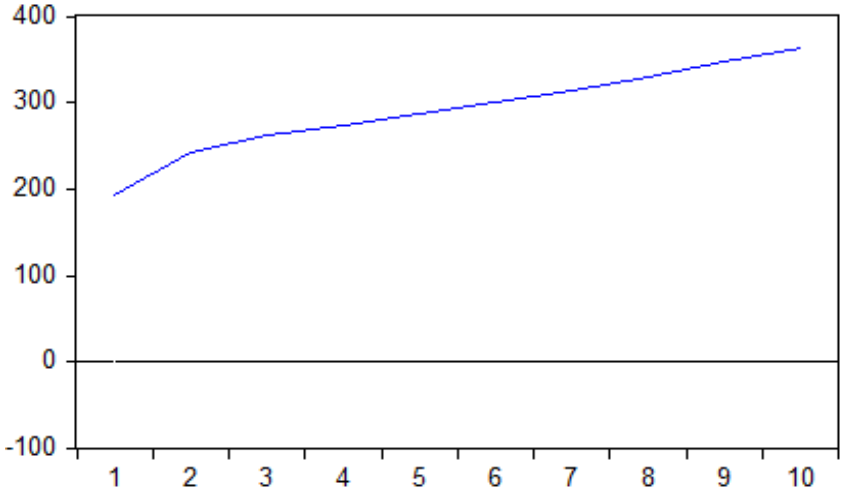


Figure 1: The response of RPSP to Cholesky on S.D RGP Innovation

6. Conclusion

This study aimed to demonstrate the impact of government spending and real GDP of the private sector in Jordan for the period 1990 to 2014, using OLS model flor annual data. The main results of this study are summarized as follows. Firstly, there is a long-term statistically significant correlation between government spending and GDP of the private sector. The results of the Granger Causality Test showed that there is a one-way causal relationship of private sector output to government spending, employee turnover and energy prices. On other hand, there is a causal relationship with one direction of energy prices to government spending, there is a one-way causal relationship from government spending to worker's remittances, and there is a causal relationship with direction of energy prices to the rate of inflation. The main recommendations of this study are: First, the Jordanian government must implement a targeted fiscal policy to support the economic activities in the Kingdom, providing customs and tax exemptions and providing appropriate infrastructure to encourage the private sector to invest. Second, to provide an appropriate environment for investment and to remove the obstacles to investment in general, in order to attract the capital of Jordanians working abroad for domestic investment, as well as for foreign investments. Finally, facilitate policies and measures aimed at activating the private sector as this sector is an important factor in increasing the flow of workers' remittances, increasing government spending and revitalizing the economy in general.

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Investigating The Dynamic Effects Of Healthcare And Education Expenditures On Economic Growth In Organisation Of Islamic Cooperation (Oic) Countries

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Abstract

The socio-economic development level of any country has been significantly attached to the state of healthcare and well-being of its people. Moreover, it is unequivocal that healthy people have substantial influences on economic advancement of a country because when they live longer there is tendency that they will be more productive. On the other hand the standpoint of education on economic growth cannot be underscored as it serves as method of evolution and progression of personalities and an essential indicator of broad production of the national income. Nevertheless, this paper examines the dynamic effect of healthcare expenditure and education expenditure on economic growth using evidence from Organization of Islamic Cooperation (OIC) countries. The study applied Pool Mean Group (PMG) method by using 1990 to 2015 data. The study reveals a robust long-run co-integrating relationship between healthcare expenditure, education expenditure, research and development (R&D) and the economic growths of OIC countries. Besides, the short-run effects indicates that, healthcare expenditure per capita significantly impact economic growth of OIC countries, while the education expenditure and R&D (technology) were insignificantly impact economic growth of OIC countries in the short-run. Albeit, the findings of the study short-run specific-effects concluded that, there is existence of a co-integrating relationship between the healthcare, education, technology and economic growth in 36 out of the 56 OIC countries, while 20 other countries have no co-integrating relationship with the economic growths. However, the study suggests that healthcare and education are device to further attain economic growth and development in OIC countries if well managed and administered.

Keywords: Economic growth; healthcare expenditure; education expenditure; OIC countries.

1. Introduction

The main value of public healthcare system is for the people to have the right and privileges to access better healthcare services. In spite of this, health is one of the human rights recognized by international laws. According to Organization of Islamic Cooperation (OIC Health Report, 2011) healthcare objectivity, as stated in most public health writings and practice, is when all and sundry in the world has the chance to "attain their full health potential" whereby no individual is "disadvantaged" from accomplishing this possibility as a result of their social condition or any other socially determined position. Regrettably, the disparities between groups health condition were triggered

on account of differences in the occurrence and pervasiveness of healthcare circumstances and healthcare status. The occurrence generally is subject to the socio-economic circumstances of a country and an individual. In addition, the question of health and advancement of up-to-date and sustainable healthcare systems has been gaining better prominence and consideration in numerous developing countries which they perceived as a major driver of socio-economic development and as a result more resources are now been invested in this sector. Currently, people are considered to be healthier, wealthier and live longer when compared to 30 years ago (OIC Health Report, 2011).

On the other hand, most of the improvement attained in healthcare sector over the years has continued to be highly concentrated in the developed countries, while several developing and least-developed countries are still far behind. Specifically, healthcare coverage and health services were still remain in extremely poor condition in South Asia, Sub-Saharan Africa and several other countries including most of OIC member countries. Although, relentless effort to attain universal healthcare coverage persisted to be highly tenuous in OIC member countries because the healthcare system in many of the OIC countries are extremely suffering from numerous difficulties and challenges that is connected to safeguarding suitable financing resources and infrastructure, personnel and international health guidelines and principles. As stated by OIC Health Report (2011), the state of affairs requires more obligation and determinations by the governments to consider the healthcare system as an important sector which should be accorded higher level in their national development plans.

Nevertheless, a considerable percentage of budgetary in developed countries are invested and allocated for the provision of better healthcare service and quality education because they believe that healthcare and education is part of the key drivers of economic growth. Jack and Lewis (2009) observed that healthcare can improve economic growth through its effect on human and physical capital accumulation. Similarly, assuming that healthier people are more productive, therefore, people who are healthy have a stout inducement to advance their knowledge and skills through quality education due to the fact that they have longer life period (Bloom and Canning, 2000). In contrary, poor health has a hostile effect on productivity, hence, the underdevelopment in several regions throughout the world has been linked to poor health (Cole and Neumayer, 2006). Also, Clayton (2010) examine health as a major player in nation growth and economic development which aid improvement in labor productivity and reduce the financial burden of diseases through saving of healthcare resources.

Moreover, it is a deeply-rooted assertion that better educated individuals are more probable to have better predictions of employability and remunerations and therefore improved standards of living. Typically, educated individuals equally enjoy countless non-monetary compensations such as better health, hygiene practices, family planning and less potential to engross in illegal doings. An educated individuals are less predicted to self-complain about a prior analysis of a severe or protracted disease, less predicted to die from severe communal and protracted diseases, and are less predicted to complain of anxiety or depression. The magnitude of the attachment between education and health varies from one situation to the other. Similarly, additional schooling minimizes the danger of heart disease and the danger of diabetes (Cutler and Lleras-Muney, 2006).

As a result, the most frequent indicator used in the econometric simulations of growth hinged on the public and private expenditures made in healthcare and education, as a proportion of the gross domestic products for overall stages of healthcare and education. The bankrolling of the country education scheme is considered as a fundamental characteristic that reflects the strength of the national establishments, both public and private to be able to develop an excellent accomplishment in the sector as well as improving economic growth. Generally, the association between the level of sponsoring and the outcomes in education is inelastic to enumerate and estimate in a short term to attain productivity rather a long term approach with a concerted effort of all stakeholders ranging from governments, corporations, establishments as well as individuals and families (Ioana et al., 2013).

Therefore, in order to enhance growth, education similar to healthcare can be considered as a fundamental sector that need government caring irrespective of any challenges the country might be facing because of its prominent role in viable economic sustainability and development. For that reason, one of the key determinants of nation's wealth is the quality of human capital accumulation through formidable healthcare system and educational attainment. Besides, healthcare and education structure in Organization of Islamic Cooperation (OIC) area comprises of high income, middle income (upper and lower) and low income countries and they are principally public and private inclined. Similarly, the municipal healthcare conveniences are administered to the general population through primary healthcare and secondary healthcare facilities, whereas education bundles are circulated through primary, secondary and tertiary establishments (Wahab & Kefeli, 2017).

Hence, this research undertakes the consequence of healthcare expenditure and education expenditure on economic growth in OIC federations. The investigation absolutely concentrated on fifty six OIC countries as Somalia was dropped because of incomplete data. Time series data of 1990 to 2015 was used for the analysis. This scholarly work complements the literature as it loosened emphasis on the Organisation for Economic Co-operation and Development (OECD) countries style to OIC countries because the earlier scholars copiously focused on OECD

exploration. Furthermore, the previous researches on this theme stereotypically focused on a selection of countries but then this study considered the entire OIC countries and the four categorizations (i.e. high income, middle income (upper and lower), and low income). Equally, empirical studies on the significance of healthcare expenditure and education expenditure on economic growth in OIC countries are seemingly absent and the inferences from the study would propose some recommendations to policy makers in OIC region.

2. Literature Review

There are numerous pragmatic studies that have examined the healthcare expenditures and economic growth and they have found out that there is positive relationship between healthcare expenditure and economic growth. Wang (2009) studied the determinants of healthcare expenditure by means of homogeneous panel of data for the US states and found out that the gross state product, the proportion of the population over the age of 65 years, the degree of urbanization and the number of hospital beds were the four key responsible factors discovered by the survey to be the fundamental determinant of healthcare expenditure.

Furthermore, Hartwig (2008) reconsidered a survey that state whether health capital development encourages economic growth in rich countries relating to the panel Granger-causality framework. The results shows that health capital formation does not promotes long-term economic growth in the OECD region. But in an instantaneous contrast, Wang (2011) presented the causality between an increase in healthcare expenditure and economic growth for OECD countries during 1986-2007. The observed method used is divided into two. The first method was the panel regression analysis while the second method was the quantile regression analysis. The assessment of the panel regression analysis discloses that, expenditure growth will encourage economic growth; on the other hand, economic growth will decrease expenditure growth. With reference to the assessment of quantile regression analysis, once economic growth is quantile, in the countries with low level of growth, the effect of expenditure growth on economic growth will be different. Hence, in countries with medium and high levels of economic growth, the effect of expenditure growth on economic growth will be positive; once healthcare expenditure growth is quantile, the effect of economic growth on expenditure growth will likely to be more different.

In addition, Tang (2011) surveyed the Granger causality test within a multivariate co-integration and error-correction framework to explore the relationship between healthcare expenditure, income and relative price in Malaysia within the period of 1970 to 2009. The outcome of the findings revealed that in the short-run there is unidirectional Granger causality running from relative price to healthcare expenditure, whereas relative price and income are bidirectional Granger causality in Malaysia. However, in the long-run healthcare expenditure and income are bidirectional Granger causality, but there is unidirectional Granger causality running from relative price to healthcare expenditure and income. This stipulate that a diverse results were established from the survey as a result of the bidirectional causality of the healthcare and income.

Mehrara and Musai (2011) studied causal relationships between health expenditure and GDP for Iran through annual data for the period of 1970-2008. The outcomes from the co-integration method submitted that there is a long-run relationship between Health expenditure and GDP. Likewise, the outcomes of Granger Causality test showed a robust unidirectional influence from GDP to health expenditure, though there is no support to the opinion that health expenditure encourages long-term economic growth. Correspondingly, from the researcher observation the survey indication used for Iran obviously cares for the 'Income point of view' above the 'Health point of view'. On the other hand, Hassan (2012) examined the existence of long run association and triangular causality among real GDP per capita, per capita education expenditures and per capita health expenditures in Pakistan, by means of Autoregressive Distribution Lag Model (ARDL) bounding and Granger Causality tests for the period of 1972-2009. It was shown from their findings that there is bidirectional granger causality between the real GDP per capita, per capita education expenditures and per capita health expenditures in the long run. In a different view, Karim (2016) analysed the connection between health expenditure and economic growth in Nigeria through ARDL bounds testing method by using 1985 to 2009 data and found out that health expenditure expounds little impression on the economic growth. The outcomes further shows that healthcare expenditures does not make a noteworthy involvement in the economic growth of Nigeria despite its involvement in enhancing of human capital and reducing of infant mortality rate.

On the other hand, the contributions of education to economic growth cannot be overemphasized, as it has been pinpointed as the black-box of the economic development of United State and European Union region, whereby a snowballing level of education of labour-force expounds a huge percentage of rapid growth of their developed nature (Woodhall, 1987 and Schultz, 1996). Similarly, there is a relationship between nation's income and proportion of literacy of a country's populace as opined by Lucas (1988), who is one of the endogenous growth theory advocates. The researcher signified that human capital development ensues in the form of education and

learning by doing or schooling and the resultant effect leads to endogenous growth. This same conclusions was also supported in other studies such as (Psacharopoulos and Woodhall, 1985; Barro and Lee, 2010).

In the same view, the findings of Asteriou and Agiomirgianakis (2001) in Greece concludes that a positive significant relationship occurs between long-run educations parameters and GDP per capita, while Li and Huang (2009) identified that in 28 China's provinces there is a positive impacts of education to economic growth. Whereas, in the study carried out by Özsoy (2008) in Turkey shows that there is a long-run and constant association between education and growth. Correspondingly, Maksymenko and Rabani (2011) displays in their findings in India and South Korea that education has a significant positive impact on economic growth. Too, Hanushek and Kimbo (2000) carried out their findings by using indexes of educational quality for 38 countries to identify the academic performance in mathematics and sciences between 1965 and 1999, the result of the findings recommend a robust connection between educational quality and rise in GDP per capita.

Moreover, technological advancement and adaptation to new innovations has been attributed to the level of schooling and exposure. As a matter of fact, Barro (2001) indicated in his findings that there is significance relationship between males' average level of schooling and economic growth, because individuals who pursued higher education or equivalents tends to adapt to new technologies and better-off than individuals who does not possess higher grades. In a similar opinion, Wolff (2001) established that adaptation to new technology requires labour force to have a somewhat degree of schooling, and training (education) is a key vivid architects in economic growth. In a like manner, an upsurge in education expenditure will stimulate economic growth and capacity building as indicated in the findings of Gyimah-Brempong et al. (2006), they accentuates that in Sub-Saharan Africa, a rise in the education expenditures for tertiary schools will fast-track the progression of closing the gap of technological know-how and guarantee economic growth which will results in labour productivity and nation's development.

In another matching interpretation, primary school, secondary school and tertiary level of schooling has been identified to have a significant influences on economic growth and a quality improvements in nation's education unswervingly encourages economic growth (Weber, 2003; Gylfason and Zoega, 2003). Also, government education expenditure has a great influence in the growth and development of the economy of a country as shown in the findings of Musil and Belassi (2004) in Uganda that surge in public education expenditures per worker positively effects economic growth. Comparably, the findings of Keller (2006) on developed and developing countries found out that public education expenditures per capita have a significant positive impact on GDP per capita. In another view, education expenditures in developing countries contributes a positive significant effect on human capital development and that cause a greater surge in economic growth.

However, despite de fact that many literatures outcomes shows a positive significant relationship between education and economic growth there are few findings which established a negative or no significance relationship. For instance, Levine and Renelt (1992) detailed that there is no robust connections between educational variables and economic growth. More so, the outcomes of a study carried out by Türkmen (2002) justified that there is negative significant association between education expenditures, school enrolment proportions and economic growth. Further, Self and Grabowski (2004) acknowledged in their study that they cannot traced any significant effects of vocational education on economic growth. Besides, in Turkey Özsoy (2008) shows that there is no causality relationship amongst higher education and economic growth.

Additionally, Caselli et al. (1996) refute the recommendations of the findings of Mankiw et al. (1992) that expenditure in human capital through education is indispensable to economic growth. Consistently, education and economic growth have been found to be oppositely related in a naturally gifted nations as highlighted in Behbudi et al. (2010), the study considered country with natural resources richness and discover that there is negative association between economic growth and education in nations that are main fuel exporters. The conclusion of the study stated that oil-reserve wealthy nations have deserted their crucial human capital reserve by dedicating laughable responsiveness and spending to education. Alike, few other findings proved that there is fragile relationship between educational accomplishment of a labour force and economic growth (Benhabib and Speigel, 1994; Pritchett, 1996; Kumar, 2006). Emphatically, a good policies implementation by government in the education industry and provision of better and quality education can create enabling environment for economic growth.

3. Method

In this paper, we examine the dynamic effect of healthcare expenditure and education expenditure on economic growth and the researcher employed dynamic panel data of OIC countries using pool mean group (PMG) model by Pesaran et al. (1999). The technique deliberated a minor degree of heterogeneity, whereas it implements homogeneity in the long-run coefficients and still accommodate heterogeneity in the short-run coefficients and error adjustments. The prime assumption of the pool mean group (PMG) estimator is that the error terms are serially

uncorrelated and are distributed separately of the regressors, which implies that, the independent variables can be observed as exogenous. Similarly, PMG estimator is satisfactorily elastic to tolerate long-run coefficient homogeneity beyond an individual subset of regressors. In addition, the data used cover the period of 26 years from 1990 to 2015. For the reporting purpose, the researcher specified a dynamic log-linear equation for the model to be able to present the estimated results in a clear style. The research empirical method assumes the best usage of both time and cross-country dimensions of accessible data sets which includes the dependent variable and explanatory variables. Thus, the study empirical model is as follows:

$$lgdp_{it} = \alpha_1 + \beta_1 lhce_{it} + \beta_2 ltgee_{it} + \beta_3 ltech_{it} + \mathcal{E}_{it} \qquad (1.1)$$

where in Eqn. (1.1), logarithm of gross domestic product (*lgdp*) in billions US dollars is the dependent variable and viewed as a function of logarithm of healthcare expenditure per capita (*lhce*) in billions US dollars, logarithm of total government education expenditure (*ltgee*) in billions US dollars and logarithm of research and development (technology (*ltech*)) in billions US dollars. Referring to the standard economic theory, $\beta_1 > 0$, $\beta_2 > 0$, *and* $\beta_3 > 0$ are adjustment parameters that could be captured for the equilibrium level and its value equals to 0. According to the economic theory, as the healthcare expenditure per capita increases, the gross domestic product is expected to increase. Consequently, $\beta_2 > 0$ which submits, increasing total government education expenditure stipulates an enhanced and optimistic impact on economic growth (i.e. gross domestic product). Moreover, $\beta_3 > 0$ which infers, increasing research and development in technology specifies a greater and expectant effect on the economic growth.

However, α_1 is a vector of constants, the error term $\mathcal{E}_{it}$, is presumed to be independent and normally distributed and the subscripts i & t are the individual effects and time periods. The coefficients β_1, β_2 and β_3 respectively, are the vectors of gross domestic product with relative to the explanatory variables. In the same way, Eqn. (1.1) is also specified to follow the technique suggested by Pesaran et al. (1999) which engaged the ARDL (p, q) model for the empirical analysis as follows:

$$lgdp_{it} = \sum_{j=1}^{p} \lambda_i lgdp_{it-1} + \sum_{j=0}^{q} \delta'_{30i} lhce_{it} + \sum_{j=0}^{q} \delta'_{31i} lhce_{it-1} + \sum_{j=0}^{q} \delta'_{40i} ltgee_{it} + \sum_{j=0}^{q} \delta'_{41i} ltgee_{it-1} + \sum_{j=0}^{q} \delta'_{50i} ltech_{it} + \sum_{j=0}^{q} \delta'_{51i} ltech_{it-1} + \mu_i + \varepsilon_{it} \qquad (1.2)$$

where $lgdp_{it}$ in Eqn. (1.2) is the logarithm of gross national income and represents the dependent variables. $lhce_{it}$ is the logarithm of healthcare expenditure per capita, $ltgee_{it}$ is the logarithm of total government education expenditure, and $ltech_{it}$ is the logarithm of technology, which signifies the vector of independent variables and the coefficient vectors, parameters are denoted by i = 1, 2,…, N, time periods by t = 1, 2,…, T, where μ_i indicates the fixed effects. Hence, it is suitable to estimate the model with the re-written form of equation (1.2) as follows; since, this can put together the long-run and short-run co-integration dynamic panel model:

$$\Delta lgdp_{it} = (\varphi_i lgdp_{i,t-1} + \beta'_{30} lhce_{it} + \beta'_{40} ltgee_{it} + \beta'_{50} ltech_{it}) + \sum_{j=1}^{p-1} \lambda^*_i \Delta lgdp_{i,t-1} + \sum_{j=0}^{q-1} \delta^{*\prime}_{31i} \Delta lhce_{i,t-1} + \sum_{j=0}^{q-1} \delta^{*\prime}_{41i} \Delta ltgee_{i,t-1} + \sum_{j=0}^{q-1} \delta^{*\prime}_{51i} \Delta ltech_{i,t-1} + \mu_i + \varepsilon_{it} \qquad (1.3)$$

The symbol Δ in Eqn. 1.3 indicates the first-difference term, $\Delta lgdp_{it} = lgdp_{it} - lgdp_{i,t-1}$ is the gross domestic product, $\varphi_i = -(1 - \sum_{j=1}^{p} \lambda_i)$ is the coefficient of error correction, $\beta'_{30} = \frac{\delta^{*\prime}_{30i} + \delta^{*\prime}_{31i}}{(1-\lambda_i)}$, $\beta'_{40} = \frac{\delta^{*\prime}_{40i} + \delta^{*\prime}_{41i}}{(1-\lambda_i)}$ and $\beta'_{50} = \frac{\delta^{*}_{50i} + \delta^{*\prime}_{51i}}{(1-\lambda_i)}$ are long-run parameters, $\lambda^*_i = -\sum_{m=j+1}^{p} \lambda_{im}$, $j = 1, 2 \ldots\ldots, p-1$, and $\delta^*_i = -\sum_{m=j+1}^{q} \delta_{im}$, $q = 1, 2 \ldots\ldots, q-1$. Where β'_i is the long-run equilibrium relation between $lgdp_{it}$, $lhce_{it}$, $ltgee_{it}$ and $ltech_{it}$. Additionally, λ^*_i and δ^*_i are short-run coefficients in association to its lag values and with the vectors of the determinants of independent variables. The error correction coefficient β'_i estimates the speed of adjustment of $lgdp_{it}$ towards its long-run equilibrium in occasioning to a change in $lhce_{it}$ and $ltgee_{it}$ and $ltech_{it}$. When β'_i is significant and negative, it suggests the existence of co-integration and there is a long-run relationship between the variables.

4. Findings and Discussion

The data used for the study were sourced from the World Bank (World Development Indicators (WDI)) and the Statistical, Economic and Social Research and Training Centre for Islamic Countries (SESRIC). From Table 1 below, the highest mean value and standard deviation belongs to the research and development (ltech) with the corresponding values of 10.37 billion USD and 2 billion USD respectively. Thus, the lowest mean and standard deviation value is government education expenditure (ltgee) with 1.47 billion and 0.52 billion accordingly. The maximum score of the model is research and development (ltech) with 16.47 billion and the minimum value belongs to the total government education expenditure (ltgee) with a corresponding value of 0.45 billion. On the other hand, the skewness and kurtosis from the results shows a desirable outcome, whereby all the variables were within normal skewness.

Table 1: Summary of Variables Descriptive Statistics

Variable	Mean	St. Dev.	Min	Max	Skewness	Kurtosis	Obs.
lgdp	7.33	1.41	4.53	11.49	0.64	2.68	1456
lhce	4.31	1.23	1.10	7.94	0.53	2.58	1456
ltgee	1.47	0.52	-0.45	3.37	0.23	3.54	1456
ltech	10.37	2.00	5.32	16.47	0.80	2.90	1456

Sources: Author's Computation, 2018

Note:

lgdp: *denotes logarithm of Real gross domestic product per capita in Billions (current price USD $)*
lhce: *denotes logarithm of healthcare expenditure per capita in Billions (current price USD $)*
ltgee: *denotes logarithm of Total government education expenditure in Billions (current price USD $)*
ltech: *denotes logarithm of Research and development in education in Billions (current price USD $)*

The results gotten from the dynamic analysis by using PMG with ARDL (p, q) structure are offered in Table 2. The PMG approach elucidates the effect of healthcare, education and technology on economic growth. This approach displays that the effect of independent variables implements a homogenous system in the long run and assumes a heterogeneous system in the short run. The results exhibited in Table 2 disclosed that, the coefficients of healthcare expenditure per capita, total government education expenditure and technology was positive and statistically significant at 1% and 5% level. Equally, this infers that an increasing healthcare per capita driven more economic growth in OIC region by nearly 0.8% in the long run. Also, the result of the total government education expenditure submits that, on average, a unit increase in education expenditure is associated to an increase in expected economic growth in OIC countries by approximately 0.2% in the long run. On the other hand, a growing research and development in technology motivated further economic growth in OIC regions by almost 0.2% in the long run. Again, the results conclusion shows that, there is long-run relationship between economic growth and the explanatory variables.

Table 2: The Long Run and Short Run Pool Mean Group (PMG) Model of Gross Domestic Product (GDP)

Variable	Long Run	Short Run
LHCE	0.814 (0.036)***	
LTGEE	0.153 (0.055)**	
LTECH	0.115 (0.034)***	
ECT(-1)		-0.069 (0.020)***
D(LGDP(-1))		0.136 (0.037)***
D(LNHCE)		0.049 (0.018)**
D(LTGEE)		0.009 (0.012)
D(LTECH)		0.004 (0.08)
C		0.234 (0.058)***
Diagnostic tests		
Breusch-Godfrey serial correlation F-test 0.838(0.668)		
Breusch-Pagan-Godfrey heteroscedasticity F-test 0.579(0.628)		
Wald test on the coefficient of lhce = 18303.75(χ2, DF = 2)		

Note: The results shows the coefficients, and in parenthesis (.) the standard deviation. The lag structure is ARDL (2, 1, 1, 1). The signs *, ** and *** indicate significance at the 1%, 5% and 10% levels.

Conversely in the short-run, the coefficient of the error-correction term, *ECT(-1)* is necessitated to be negative and significant. Accordingly, the result in Table 2 exhibits that this coefficient is -0.069 and statistically significant at the 1% level. Also, the error-correction term confirmed the existence of a co-integrating relationship between the healthcare, education, research and development (technology) and economic growth (GDP). This displays that about 7% adjustment to the disequilibria in economic development occurred in the current period, which might be as a result of previous economic shocks. In spite of this, the speed of adjustment is normal. More so, the speed of adjustment specifies that, both healthcare per capita and total government education expenditure and technology in OIC countries, modifies its preceding period disequilibrium from the short-run at a speed of 7% yearly, towards long-run equilibrium relationship to accomplish economic growth.

Besides, the short run results indicates that, the intercept (constant) term was positive and significant at 1% level. Similarly, the coefficients of D(LGDP(-1)) and D(LHCE) were positive and significantly related to the model at the 1% and 5% level respectively while the coefficients of D(LTGEE) and D(LTECH) were insignificantly related to model in the short run. The outcomes suggests that economic growth of OIC is expected to improve in the short-run. As well, an increase in healthcare expenditure per capita in the short run will increase economic growth of OIC region while a slight change in education and technology has no effect on economic growth in the short run. To conclude, the end part of Table 2 comprises of the diagnostic test results of the selected ARDL (2, 1, 1, 1) model. The outcomes shows that, the Breusch-Godfrey serial correlation F-statistic and the Breusch-Pagan-Godfrey heteroscedasticity F-statistic could not reject the null-hypotheses of no serial correlation and no heteroscedasticity of the residuals.

Thus, the outcome of this current study is persistent and resolute with previous studies which reiterated a long-run relationship between healthcare expenditure, education expenditure and economic growth. As a case in point, Mehrara and Fazaeli (2010) showed that there is long-run relationship between healthcare expenditure, education expenditure and economic growth in Middle East countries and North Africa (MENA) using the sample of 13 countries for the period of 1995-2005. Alike, Rehman and Khan (2012) established that healthcare and education expenditure accelerates a long run economic growth in Pakistan. In a likely manner, Yardimcioğlu et al. (2014) recognized that there is robust long-run relationship between education and economic growth in 25 OECD

countries during the period of 1980 to 2008. Also, Simões (2011) and Doğan et al. (2014) shows a long run relationship between education and economic growth for OECD countries. In a different view, a positive significance of research and development in technology in relation to the economic growth of OIC regions in the long run is resolute with previous studies. For illustration, Lucas (1988) and Romer (1990) takes into account of technology, as their research shows that, research and development (R&D) are an optimistic externality on capital efficiency and the impacts on economic growth cannot be ignored. As a result, the findings indisputably resolved that a resilient co-integration connection occurred between healthcare, education, technology (as a proxy of both healthcare expenditure & education expenditure) and economic growth of OIC countries in the long-run.

In spite of long-run outcome, we proceed to estimate the cross sections short-run effect of the healthcare expenditure, government education expenditure and technology in relation to economic growth to reveal the extent to which the effect differs from the general results in Table 2. Thus, the coefficients of the error-correction term, *ECT(-1)* outcomes in Table 3 demonstrates that, the coefficients are negatively significant and there is existence of a co-integrating relationship between the healthcare, education, technology and economic growth in 36 out of the 56 countries such as: Albania, Azerbaijan, Bahrain, Brunei, Djibouti, Egypt, Gabon, Gambia, Guinea, Guinea Bissau, Guyana, Indonesia, Iran, Kazakhstan, Kuwait, Libya, Malaysia, Maldives, Mauritania, Morocco, Oman, Pakistan, Palestine, Qatar, Saudi Arabia, Sierra Leone, Sudan, Suriname, Syria Arab Republic, Tajikistan, Tunisia, Turkey, Uganda, UAE, Uzbekistan and Yemen.

Alike, the estimated coefficient of error-correction terms (*ECT(-1)*) of individual effect for the OIC countries as portrayed in Table 3 signifies, the short-run specific-effect and the short-run equilibrium. The error-correction term (*ECT(-1)*) identifies the speed at which the past period disequilibrium of the healthcare and education is being adjusted towards economic growth. This suggests that, healthcare, education and technology of the 36 OIC countries, corrects its preceding period disequilibrium towards economic growth at a speed corresponding to their respective error-correction terms (*ECT(-1)*)'s as shown in Table 3 below:

Table 3: OIC Countries Specific-Effects Co-Integration Relationship

	Countries specific-effects with negative and co-integration relationship		Countries specific-effects with positive significance but no co-integration relationship		Positive & negative insignificant countries specific-effects and no co-integration relationship with GDP	
No.	Country / Variable	Co-integration ECT(-1)	Country / Variable	Co-integration ECT(+ve)	Country / Variable	Co-integration ECT(none)
1	Albania	-0.069 (0.003)***	Afghanistan	0.071 (0.008)***	Benin	0.004 (0.003)
2	Azerbaijan	-0.233 (0.010)***	Algeria	0.323 (0.028)***	Chad	0.008 (0.004)
3	Bahrain	-0.074 (0.024)**	Bangladesh	0.004 (0.001)**	Cote d'Ivoire	-0.046 (0.031)
4	Brunei	-0.078 (0.003)***	Burkina Faso	0.156 (0.004)***	Niger	0.0005 (0.0004)
5	Djibouti	-0.029 (0.001)***	Cameroon	0.222 (0.031)**		
6	Egypt	-0.049 (0.005)***	Comoros	0.163 (0.006)***		
7	Gabon	-0.225 (0.008)***	Iraq	0.040 (0.003)***		
8	Gambia	-0.126 (0.005)***	Jordan	0.005 (0.001)**		
9	Guinea	-0.017 (0.004)**	Kyrgyzstan	0.068 (0.002)***		
10	Guinea Bissau	-0.502 (0.013)***	Lebanon	0.05 (0.002)***		
11	Guyana	-0.094 (0.001)***	Mali	0.021 (0.011)***		
12	Indonesia	-0.129 (0.004)***	Mozambique	0.123 (0.005)***		
13	Iran	-0.091 (0.004)***	Nigeria	0.116 (0.002)***		
14	Kazakhstan	-0.105 (0.010)***	Senegal	0.076 (0.005)***		
15	Kuwait	-0.042 (0.001)**	Togo	0.090 (0.002)***		

16	Libya	-0.227 (0.019)***	Turkmenistan	0.0118 (0.001)***
17	Malaysia	-0.474 (0.018)***		
18	Maldives	-0.071 (0.003)***		
19	Mauritania	-0.191 (0.006)***		
20	Morocco	-0.183 (0.009)***		
21	Oman	-0.145 (0.008)****		
22	Pakistan	-0.115 (0.017)**		
23	Palestine	-0.058 (0.001)***		
24	Qatar	-0.175096 (0.007)***		
25	Saudi Arabia	-0.227 (0.004)***		
26	Sierra Leone	-0.253 (0.008)***		
27	Sudan	-0.097 (0.014)**		
28	Suriname	-0.059 (0.004)***		
29	Syria Arab Republic	-0.203 (0.007)***		
30	Tajikistan	-0.92 (0.021)**		
31	Tunisia	-0.171 (0.127)***		
32	Turkey	-0.197 (0.015)***		
33	Uganda	-0.095 (0.002)***		
34	UAE	-0.032 (0.003)***		
35	Uzbekistan	-0.44 (0.025)***		
36	Yemen	-0.075 (0.005)***		

Note: The results shows the coefficients, and in parenthesis (.) the standard deviation. The lag structure is ARDL (2, 1, 1, 1). The signs *, ** and *** indicate significance at the 1%, 5% and 10% levels.

Besides, the coefficients of the error-correction term, *ECT(-1)* results in Table 3 are positively significant and there is no co-integrating relationship between the healthcare, education, technology and economic growth in countries such as: Afghanistan, Algeria, Bangladesh, Burkina Faso, Cameroon, Comoros, Iraq, Jordan, Kyrgyzstan, Lebanon, Mali, Mozambique, Nigeria, Senegal, Togo and Turkmenistan. On the other hand, the coefficients of the error-correction term, *ECT(-1)* results confirmed that there is no significance and no occurrence of co-integration relationship between the healthcare, education, technology and economic growth in the following countries such as: Benin, Chad, Cote d'Ivoire and Niger.

In a different view, Table 4 highlights the individual countries in which gross domestic product was positive and significant at 1%, 5% and 10% respectively. This show that the economy of these countries witnessed an increasing growth rate. The following countries are as displayed in Table 4: Azerbaijan, Bahrain, Bangladesh, Chad, Djibouti, Egypt, Gambia, Guinea, Guinea Bissau, Guyana, Iran, Kazakhstan, Kyrgyzstan, Lebanon, Malaysia, Oman, Pakistan, Palestine, Qatar, Senegal, Sudan, Suriname, Tajikistan, Togo, Turkmenistan, Uganda, UAE and Uzbekistan. Accordingly, Table 4 also shows the individual countries in which gross domestic product was negative and significant at 1%, 5% and 10% respectively. This illustrates that the economy of these countries are perceiving a slow-moving growth rate, the countries include, Brunei, Burkina Faso, Cameroon, Cote d'Ivoire, Indonesia, Jordan, Kuwait, Libya, Mali, Nigeria, Saudi Arabia and Turkey. As well, Table 4 displays the individual countries in which gross domestic product was insignificant at 1%, 5% and 10% respectively. This reveals that the economy of these countries does not witness any growth within the time period under review. The countries are as follows: Afghanistan, Albania, Benin, Gabon, Comoros, Iraq, Maldives, Mauritania, Morocco, Mozambique, Niger, Sierra Leone, Syria Arab Republic, Tunisia and Yemen.

Furthermore, the short run results in Table 4 also indicates that, the coefficients of the individual countries healthcare expenditure was positive and significant at 1%, 5% and 10% respectively. The results implies that an increase in healthcare expenditure per capita in the short run will directly impact economic growth in the following countries: Afghanistan, Albania, Algeria, Bahrain, Bangladesh, Brunei, Cameroon, Cote d'Ivoire, Djibouti, Egypt, Gabon, Gambia, Guinea, Indonesia, Iraq, Jordan, Kazakhstan, Kuwait, Kyrgyzstan, Lebanon, Libya, Malaysia, Mali, Morocco, Mozambique, Nigeria, Qatar, Saudi Arabia, Sierra Leone, Sudan, Suriname, Tunisia, Turkey, Turkmenistan and UAE. Likewise, the short run results in Table 4 specifies that, the coefficients of the individual countries healthcare expenditure was negative and significant at 1%, 5% and 10% respectively. The outcomes suggests that a unit change in healthcare expenditure per capita in the short run will indirectly impact economic growth in the following countries: Benin, Burkina Faso Chad, Comoros, Guinea Bissau, Guyana, Iran, Maldives, Mauritania, Niger, Oman, Pakistan, Palestine, Senegal, Syria Arab Republic, Togo, Uganda, Uzbekistan and Yemen. Conversely, the short run outcomes stipulates that, the coefficients of the individual countries healthcare expenditure was insignificantly related to the economic growth at 1%, 5% and 10% respectively in two countries namely, Azerbaijan and Tajikistan as shown in Table 4. The outcomes submits that a unit change in healthcare expenditure per capita in the short run will have no impact on the economic growth.

In addition, the short run results in Table 4 designates that, the coefficients of the individual countries education expenditure was positive and significant at 1%, 5% and 10% respectively. The results infers that an increase in education expenditure in the short run will have an optimistic impact on economic growth in the following countries: Bahrain, Benin, Brunei, Burkina Faso, Cameroon, Comoros, Cote d'Ivoire, Egypt, Gabon, Guinea, Guinea Bissau, Indonesia, Iran, Iraq, Kuwait, Libya, Malaysia, Maldives, Morocco, Mozambique, Oman, Qatar, Sierra Leone, Togo, Tunisia, Turkey, Turkmenistan and UAE. Correspondingly, the short run results in Table 4 agrees that, the coefficients of the individual countries education expenditure was negative and significant at 1%, 5% and 10% respectively. The results put forward that a unit change in education expenditure in the short-run will indirectly impact economic growth in the following countries: Afghanistan, Algeria, Bangladesh, Chad, Djibouti, Gambia, Guyana, Jordan, Kazakhstan, Lebanon, Mali, Mauritania, Nigeria, Pakistan, Palestine, Saudi Arabia, Sudan, Suriname, Syria Arab Republic, Uganda and Uzbekistan. On the other hand, the short run outcomes requires that, the coefficients of the individual countries education expenditure was insignificantly connected to the economic growth at 1%, 5% and 10% respectively. Then, the outcomes as shown in Table 4 infers that a unit change in education expenditure per capita in the short run will have no impact on the economic growth of the following countries: Albania, Azerbaijan, Kyrgyzstan, Niger, Senegal, Tajikistan and Yemen.

Additionally, the short run results in Table 4 describes that, the coefficients of the individual countries in technology was positive and significant at 1%, 5% and 10% respectively. The results deduces that an increase in research and development in the short run will have an expectant impact on economic growth in the following countries: Algeria, Benin, Burkina Faso, Cameroon, Comoros, Egypt, Gabon, Iran, Iraq, Lebanon, Libya, Mali, Mauritania, Mozambique, Nigeria, Oman, Palestine, Qatar, Saudi Arabia, Senegal, Sierra Leone, Sudan, Suriname, Togo, Turkmenistan, Uganda and UAE. Similarly, the short run results in Table 4 supports that, the coefficients of the individual countries technology was negative and significant at 1%, 5% and 10% respectively. The results suggests that a unit change in research and development in the short-run will indirectly impact economic growth in the following countries: Afghanistan, Albania, Azerbaijan, Bahrain, Bangladesh, Brunei, Burkina Faso, Chad, Cote d'Ivoire, Djibouti, Gambia, Guinea, Guinea Bissau, Guyana, Indonesia, Jordan, Kazakhstan, Kuwait, Kyrgyzstan, Malaysia, Maldives, Morocco, Niger, Pakistan, Tajikistan, Tunisia, Turkey, Uzbekistan and Yemen. In converse, the short run outcomes shows that, the coefficients of the individual countries technology was insignificantly connected to the economic growth at 5% level in Syria Arab Republic. Then, the outcomes as shown in Table 4 concludes that a unit change in R&D in the short run has no effect on the economic growth of Syria Arab Republic, which might be as a result of the economic and political turmoil witnessing by the country.

Table 4: OIC Countries Specific-Effects of Healthcare, Education and Technology on Economic Growth (GDP)

No.	Country / Variable	Positive significant GDP (D(LGDP(-1))	Negative significant GDP (D(LGDP(-1))	Insignificant GDP (D(LGDP(-1))	Positive impact of Healthcare on GDP	Negative impact of Healthcare on GDP	Insignificant impact of Healthcare on GDP	Positive impact of Education on GDP	Negative impact of Education on GDP	Insignificant impact of Education on GDP	Positive impact of Technology on GDP	Negative impact of Technology on GDP	Insignificant impact of Technology on GDP
1	Afghanistan			0.058 (0.049)	0.139 (0.026)**				-0.125 (0.008)***			-0.02 (0.002)***	
2	Albania			0.053 (0.029)	0.136 (0.008)***					0.009 (0.021)		-0.028 (0.001)***	
3	Algeria				0.407 (0.012)***				-0.065 (0.002)***		0.209 (0.001)***		
4	Azerbaijan	0.574 (0.025)***					0.019 (0.009)			0.006 (0.003)		-0.025 (0.0003)***	
5	Bahrain	0.237 (0.052)**			0.009 (0.0004)***			0.138 (0.139)***				-0.030 (0.001)***	
6	Bangladesh	0.541 (0.038)***			0.021 (0.003)***				-0.035 (0.0003)***			-0.011 (0.0004)***	
7	Benin			-0.055 (0.075)		-0.115 (0.039)**		0.078 (0.006)***			0.004 (0.001)**		
8	Brunei		-0.017 (0.047)**		0.089 (0.002)***			0.026 (0.002)***				-0.016 (0.002)***	
9	Burkina Faso		-0.093 (0.008)***			-0.093 (0.008)***		0.073 (0.008)***			0.038 (0.001)***	-0.358 (0.028)***	
10	Cameroon		-0.292 (0.120)*		0.372 (0.047)***			0.200 (0.005)***			0.081 (0.002)***		
11	Chad	0.493 (0.005)***				-0.099 (0.007)***			-0.056 (0.004)***			-0.023 (0.005)**	
12	Comoros			0.022 (0.009)		-0.061 (0.013)**		0.028 (0.002)***			0.049 (0.001)***		
13	Cote d'Ivoire		-0.324 (0.076)**		0.279 (0.041)**			0.395 (0.034)***				-0.027 (0.002)***	
14	Djibouti	0.698 (0.018)***			0.033 (0.001)***				-0.014 (0.0001)***			-0.005 (0.0001)***	

15	Egypt	0.496 (0.032)***			0.026 (0.007)**			0.018 (0.002)***			0.006 (0.002)**			
16	Gabon			-0.015 (0.044)	0.031 (0.006)**			0.078 (0.013)**			0.007 (0.004)			
17	Gambia	0.195 (0.028)***			0.177 (0.014)**				-0.008 (0.001)***				-0.029 (0.002)***	
18	Guinea	0.263 (0.029)***			0.164 (0.008)***			0.122 (0.003)***					-0.109 (0.002)***	
19	Guinea Bissau	0.129 (0.022)***				-0.269 (0.007)***		0.067 (0.001)***					-0.074 (0.002)***	
20	Guyana	0.290 (0.013)***				-0.034 (0.001)***			-0.037 (0.001)***				-0.016 (0.0004)***	
21	Indonesia		-0.195 (0.021)***		0.157 (0.007)***			0.239 (0.006)***					-0.030 (0.005)**	
22	Iran	0.544 (0.033)***				-0.056 (0.004)***		0.051 (0.011)**			0.020 (0.002)***			
23	Iraq			0.004 (0.022)	0.188 (0.001)***			0.039 (0.007)**			0.255 (0.006)***			
24	Jordan		-0.105 (0.040)*		0.018 (0.001)***				-0.007 (0.001)***				-0.001 (0.0003)**	
25	Kazakhstan	0.371 (0.026)***			0.058 (0.009)***				-0.031 (0.006)**				-0.081 (0.003)***	
26	Kuwait		-0.261 (0.023)***		0.232 (0.005)***			0.065 (0.009)***					-0.039 (0.005)**	
27	Kyrgyzstan	0.153 (0.053)*			0.080 (0.004)***					0.001 (0.014)			-0.004 (0.001)**	
28	Lebanon	0.600 (0.012)***			0.063 (0.001)***				-0.028 (0.0002)***		0.024 (0.0002)***			
29	Libya		-0.183 (0.023)***		0.463 (0.028)***			0.035 (0.011)**			0.041 (0.009)**			
30	Malaysia	0.069 (0.016)**			0.049 (0.018)*			0.053 (0.003)***					-0.061 (0.001)***	
31	Maldives			-0.063		-0.058		0.014					-0.010	

				(0.044)			(0.002)***		(0.001)***						(0.001)***				
32	Mali		-0.412 (0.042)***			0.169 (0.004)***				-0.078 (0.001)***				0.056 (0.002)***					
33	Mauritania			0.057 (0.046)			-0.167 (0.013)***			-0.122 (0.015)***				0.016 (0.001)***					
34	Morocco			0.026 (0.040)		0.114 (0.015)***			0.025 (0.001)***							-0.042 (0.002)***			
35	Mozambique			-0.104 (0.051)		0.198 (0.005)***			0.033 (0.003)***					0.085 (0.002)***					
36	Niger			0.0211 (0.052)			-0.138 (0.014)***					0.001 (0.0004)				-0.079 (0.008)***			
37	Nigeria		-0.392 (0.05)***			0.153 (0.004)***				-0.055 (0.002)***				0.035 (0.003)***					
38	Oman	0.386 (0.22)***					-0.034 (0.006)**		0.125 (0.006)***					0.065 (0.002)***					
39	Pakistan	0.212 (0.044)**					-0.039 (0.012)**			-0.025 (0.001)***						-0.012 (0.001)***			
40	Palestine	0.289 (0.041)**					-0.043 (0.002)***			-0.045 (0.001)***				0.001 (0.0002)**					
41	Qatar	0.626 (0.029)***				0.045 (0.023)**			0.053 (0.008)**					0.019 (0.0004)***					
42	Saudi Arabia		-0.113 (0.039)*			0.064 (0.002)***				-0.205 (0.009)***				0.017 (0.0002)***					
43	Senegal	0.291 (0.107)*					-0.108 (0.009)***					0.021 (0.012)		0.017 (0.004)**					
44	Sierra Leone			0.011 (0.029)		0.067 (0.009)**			0.180 (0.008)***					0.027 (0.001)***					
45	Sudan	0.199 (0.035)**				0.062 (0.014)**				-0.050 (0.002)***				0.156 (0.005)***					
46	Suriname	0.259 (0.039)**				0.025 (0.003)***				-0.031 (0.001)***				0.085 (0.002)***					
47	Syria Arab Republic			0.017 (0.021)			-0.158 (0.014)***			-0.054 (0.002)***								-0.024 (0.002)	

48	Tajikistan	0.363 (0.038)***				0.006 (0.001)			-0.019 (0.016)		-0.097 (0.006)***
49	Togo	0.390 (0.049)***				-0.120 (0.003)***		0.068 (0.004)***		0.012 (0.003)**	
50	Tunisia			0.053 (0.032)	0.111 (0.007)***			0.097 (0.006)***			-0.015 (0.0002)***
51	Turkey		-0.167 (0.038)**		0.423 (0.023)***			0.029 (0.006)**			-0.025 (0.001)***
52	Turkmenistan	0.363 (0.054)**			0.122 (0.008)***			0.018 (0.002)***		0.023 (0.0004)***	
53	Uganda	0.276 (0.033)***				-0.047 (0.002)***			-0.012 (0.001)***	0.020 (0.0002)***	
54	UAE	0.286 (0.053)**			0.002 (0.006)**			0.031 (0.001)***		0.0002 (0.041)*	
55	Uzbekistan	0.529 (0.031)***				-0.068 (0.020)**			-0.015 (0.001)***		-0.007 (0.0004)***
56	Yemen			-0.109 (0.001)		-0.015 (0.004)**			0.012 (0.013)		-0.014 (0.0002)***

Note: The results shows the coefficients, and in parenthesis (.) the standard deviation. The lag structure is ARDL (2, 1, 1, 1). The signs *, ** and *** indicate significance at the 1%, 5% and 10% levels

5. Conclusion and Policy Implications

The current study demonstrated that, in the long run, the healthcare expenditure per capita, total government education expenditure and technology is positive and statistically significant. This infers that an increasing healthcare per capita will determine higher economic growth in OIC regions. Besides, the finding of the study disclosed that, the total government education expenditure submits that a rise in education expenditure is associated to an increase in expected economic growth in OIC countries in the long run. On the other hand, a growing research and development in technology motivated further economic growth in OIC regions in the long run. Once more, the findings displayed that, a robust and sturdy long-run co-integrating relationship occurred between healthcare expenditure, education expenditure, research and development (technology), and the economic growths of OIC countries. Further, the short-run results indicates that, healthcare expenditure per capita was positive and significantly related to the economic growth of OIC countries. Although, the education expenditure and research and development (technology) were insignificantly related to the economic growth of OIC countries in the short-run.

Generally, the conclusions of the study suggests that, on average, the economic growth of OIC countries is expected to observe growth in the short-run. In addition, an increase in healthcare expenditure per capita in the short-run will increase economic growth of OIC regions, whereas a slight change in education and technology has no influence on the economic growth of OIC countries in the short-run and this prompt for further improvement of the sectors. In view of this, the submission of the findings implies that a well-coordinated healthcare and education plays a stakeholder role in attaining robust economic growth in OIC regions. The current study shows that an easily accessible and affordable healthcare and education is a platform to improve the quality of life and status of the population of OIC member states. Also, OIC governments should take it upon themselves to heavily support research findings and innovations in both healthcare and educational institutions for effective contributions to the economic growth of the region. Similarly, policy structures should be readdressed by boosting the allocation entitled to the healthcare and education subdivisions in yearly financial plans. At the same time, the stakeholders in both divisions should be brought together to proffer the best way of appropriating funds to healthcare and education sectors to improve the economic growth and development of the region. Lastly, future study could further magnify this research by observing the performance of healthcare and education in OIC region with other economic regions.

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Participation in Islamic Insurance: Why Am I Not in Yet?

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Abstract

Purpose - This study aims to describe reasons for non-participation in any form of family takaful plans.
Design/methodology/approach - Using qualitative approach, focus group were conducted to achieve the objectives of the study.
Findings - The findings show that people were put off participating in any forms of family takaful for financial and non-financial reasons.
Practical implications - This paper makes contributions by briefly discussing several recommendation to increase takaful participation among the Bumiputera community.
Originality/value - This research paper related to Islamic insurance which can be used to formulate appropriate marketing strategies to attract non-participant of family takaful.

Keywords: family takaful, takaful participants, takaful non-participation, reasons

1. Introduction

Takaful is a form of Islamic financial protection, just like insurance that complies with Shariah principles. With the enactment of the Takaful Act 1984, the first takaful company was established in 1985. Since then, Malaysia has achieved significant milestones in the development of its takaful industry where the Malaysian takaful industry has begun to gain momentum and is increasingly recognized as a significant contributor to the overall Islamic financial system of Malaysia. From the initial asset base of only USD 1.4 million (USD 360,000) in 1986, Malaysia's takaful industry asset base has grown by approximately MYR 23 billion (USD 5.9 billion) in 2014 (Ernst & Young, 2015). Takaful insurance products command a niche market estimated at MYR 6.3 billion (USD 1.6 billion). From year 2009 to 2014, the takaful insurance segment shows encouraging growth with net contributions of 12.4 per cent compound annual growth rate (CAGR), much higher than the conventional insurance at 7.81 per cent (Ernst & Young, 2015). The overall insurance penetration rate is 55.7 per cent and the industry aspires to a target life/family takaful insurance penetration rate to be 75 per cent by 2020. Specifically, the market penetration rate of Malaysia's family takaful sector is just 14.5 per cent in comparison to the life insurance's market penetration rate of 41.2 per cent.

This study is driven by the fact that low insurance participation rate in Malaysia is evidenced. According to Bernama (2016), while only a little more than half of Malaysians have any form of insurance coverage (i.e. 55.7 percent), up to 90 per cent of life-insured Malaysians are under-insured. Under-insured means that if something bad happens to the policy holder which most likely the breadwinner of a household, the money they can spend on their family probably will last for a year or two. The sudden loss of a main wage earner carries potentially damaging 'domino effect' with dire financial consequence while may resulted in inability to pay off the mortgage, debts or children's education (Life Insurance Association of Malaysia, 2014). Such condition is seen worsen for those who have no insurance of any form. With a population of over 30 million, Malaysian citizens consist of the ethnic groups Bumiputera (68.8 per cent), Chinese (23.2 per cent), Indians (7.0 per cent), and others (1.0 per cent) (Department of Statistics Malaysia, 2017). What more worrying is that the gap is worse within the Bumiputera community with only 15 per cent of the community having any form of insurance (Heong, 2015). This situation is disturbing given the fact that Bumiputera earned on average of MYR 5,548 (USD 1,420) monthly in comparison to Chinese (MYR 7,666 or USD 1,960 per month) and Indian (MYR 6,246 or USD 1,595 per month) (Omar, 2014).

2. Factors Influencing Participation in Takaful

Takaful in general means participant contribute a sum of money to takaful fund in the form of participative contribution (*tabarru'*). The takaful protection plan is based on Shariah principles and offers many unique features to policy owners. There are two types of takaful businesses: family takaful and general takaful. Product under family takaful are family takaful, investment linked takaful, child education takaful, medical and health takaful. On the other hand, products under general takaful are home takaful, motor takaful, and personal accident takaful (Info Insurance, 2013).

In the context of academic research, previous studies show several factors contributing to the participation in takaful. For instance, Ayinde (2012) reported that individual awareness and knowledge of takaful are crucial in determining Malaysians willingness to adopt Islamic insurance services including takaful. In another study, Arifin et al. (2013) mentioned four important factors that could possibly influence family takaful demand; the agency system (*Al-wakalah*), reputation and recommendation, product and services, marketing and advertising. Others have considered factors such as demographic variables, consumer knowledge, situational factors, and consumer level of religiosity other than attitude, subjective norm and perceived behavioural control that drive consumers to participate into family Takaful schemes (Md Husin and Ab Rahman, 2013).

Md Husin and Ab Rahman (2016) proposed that individual factors such as awareness, knowledge and exposure have impacts on takaful participation while results found in Amin's (2012) study suggest that attitude, subjective norm and amount of information provide the indispensable factors in determining the Islamic insurance participation. Results from study conducted by Souiden and Jabeur (2015) showed that Islamic beliefs of individuals play important roles in determining individuals' attitude toward conventional and Islamic insurance. The authors found that the higher (lower) the Islamic beliefs of individuals, the less (more) favorable their attitude will be toward conventional life insurance and the more (less) favorable their attitude will be toward Islamic life insurance; the higher (lower) the Islamic beliefs of individuals, the weaker (stronger) their purchase intentions for conventional life insurance will be and the stronger (weaker) their purchase intentions for Islamic life insurance will be; and Islamic beliefs moderate the relationships between attitudes and purchase intentions of life insurance. Using quantitative data, Yazid, Arifin, Hussin, and Wan Daud (2012) study found that there are positive relationships between variables such as income, interest rate, financial development, pensions, stocks, price of insurance, life expectancy, dependency ratio, education, age, urbanization, household size and employment status with family Takaful demand.

With reference to the previous literature, it can be noted that most researchers have investigated the issue of participating in takaful plan from the perspective of individuals who have participated in takaful, yet, there are still limited number of studies that have examined reasons for non-participating in takaful. Hence, this study is taking the approach from the non-participant perspective and attempts to examine reasons for non-participation in any form of family takaful plans among Bumiputera community in Malaysia.

3. Methodology

A qualitative approach using focus groups were conducted to examine reasons for non-participation of family takaful plans among Bumiputera community. A qualitative approach was employed because it allows tapping the

participants' own perspective (Denzin and Lincoln, 1994). Three (3) focus groups involving a total of seven (7) male and nine (9) female participants were conducted. Participants were volunteers, aged between 21 and 60 years old, and had not participated in any existing family takaful policyholders (such as investment linked takaful, child education takaful, or medical and health takaful). Participants were briefed about the aims and objectives of the study. The discussion includes awareness on takaful and objectives of participating in takaful, reasons for non-participation in takaful, and suggestion to encourage individuals to participate in takaful. The focus groups were conducted at Bangi, Selangor, Malaysia. All sessions were tape-recorded, and each session took about 45 minutes to an hour.

To analyse the focus group discussion, method suggested by Casey (1989) has been followed. All the focus groups discussions were audio taped and transcribed. After the focus groups discussions have been carefully typed, the transcripts were reviewed so that the researcher could become familiar with the flow of the dialogue. All transcripts were merged and then all answers to question one from all the groups were moved to the same master document. This was done for each topic and question. From this master document (which contains all the relevant responses), the patterns, trends or themes across all of the responses were examined.

4. Results and Findings

The aim of the study is to examine reasons for non-participation in family takaful. For the purpose of reporting the results of the focus groups, findings are organised by topics that arose during discussion that are relevant and pertinent to this study. Findings have been grouped according to the answers given on a specific question, yielding majority opinions and views. The following is a discussion of the findings with the details that support each finding.

4.1 Awareness on takaful

As according to Bernama (2012), the insurance awareness among the Malays in Malaysia were very low (Bernama, 2012). In the meantime, previous studies have shown that individual awareness on takaful product is important in determining Malaysians willingness to adopt Islamic insurance services including takaful (Ayinde, 2012). Therefore, respondents were asked on their awareness towards takaful product. However, in this study, contradicting to suggestion by Avinde (2012), it is found that most respondents who have not participated in any form of family takaful plans were aware of the takaful concept and managed to differentiate between takaful and insurance. In addition, they acknowledge the importance of takaful to provide financial safety net for themselves and family when it is needed most. Some of the responses are as follows:

> *I always hear about takaful. It is about protection coverage for car, life, and others. Among the providers include Prudential, Etiqa, Zurich, AIA and all banks have insurance. (Male, 34 years old).*
>
> *I understand the concept of takaful as 'mutual help' among the group. Each member will contribute certain amount into the common fund to help those who need it most in times of financial difficulties (Male, 25 years old).*
>
> *Takaful is an alternative to insurance that are shariah compliant. (Female, 34 years old).*

The above responses demand for identification of other reasons that might explain non-participation of family takaful by Malay citizen.

4.2 Financial reasons for non-participation in family takaful

Respondents' reasons for non-participation in family takaful were explored in the focus group discussion. Majority of the respondents acknowledged the importance of participating in family takaful, nevertheless, financial factor has been identified as main reason for non-participation. Respondents have expressed their difficulties to contribute every month as they have many other commitments to be made such as paying for car loan, study loan, and personal loan which need to be prioritise. This is consistent with Sherif's and Shaairi (2013) that prove the influence of individual income level towards determining participation in family takaful. Other respondents also mentioned that

due to no salary increment has been received, they must prioritise their monthly takaful contribution for their children. The followings are quotes that show reasons for non-participation in family takaful.

> *I had participated in takaful before I got married but now, I have to pay attention on my kids' needs. I am not able to give my commitment to make payment for takaful. (Male, 34 years old).*

> *I plan to participate in takaful but no salary increment has been announced. So, I will continue paying takaful for my kids only and it is not my priority now. (Male, 34 years old).*

> *Yes, I know the importance of having takaful for myself. However, I have so many other monthly commitment such as study loan, car loan, and others. (Female, 27 years old).*

4.3 Non-financial reasons for non-participation in family takaful

While most respondents relate their non-participation in family takaful to financial reasons, a number of them have not participated in any family takaful plans because they have heard about bad experiences with takaful agent experienced by friends and families. The following quotes show the participant feedback.

> *I am aware of the importance of having takaful, however, I heard so many bad experience experienced by my family and friends. (Female, 25 years old).*

> *I am a bit skeptical with the takaful agents. My friend told me that the agents were very nice in the beginning but when we want to make claim, they will avoid us. (Female, 34 years old).*

Other respondents have not participated in family takaful because their employer have provided insurance coverage for them. As such, respondents do not see the reasons for participating in family takaful on their own. Here are some of the respondents' feedback:

> *My company has provided insurance and that is the reason why I am comfortable with not having one. There is no reason for me to buy one if my company has provided one. (Female, 25 years old).*

> *I am working at a government agency and I do not think takaful is necessary. If I need to get medical treatment, I will go to government hospital. (Female, 34 years old).*

4.4 Suggestions to increase takaful participation among Bumiputera

Respondents were encourage to provide suggestions that can increase Bumiputera participation in family takaful. In this study, several suggestions have been captured from the focus group discussion. It includes 1) compulsory deduction from monthly salary, 2) more reasonable plan for lower income contributors, 3) awareness programmes on importance of participating in family takaful, and 4) public education on financial planning.

5. Conclusion and Recommendation

This study aims to describe non-participants' reasons for non-participation in any form of family takaful plans. The results revealed several reasons for non-participation with financially unstable and bounded with other commitment cited as the most frequent reason for non-participation. Other reason includes bad experience of the respondent's family members and friends, making them afraid to participate in any form of takaful plans. Several suggestions to increase participation in family takaful have been captured from the focus group discussion. This includes 1) compulsory deduction from monthly salary, 2) more reasonable plan for lower income contributors, 3) awareness programmes on importance of participating in family takaful, and 4) public education on financial planning.

However, this study is descriptive and focuses solely on reasons for non-participation in family takaful among Bumiputera community. Future studies may incorporate other ethnics in Malaysia omitted in this study as they may have other reasons for non-participation. Quantitative research may also be done to confirm the relationship between various factors and takaful participation. Future research should also investigate the impact of the government policies on the demand for family Takaful in the country.

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The Dynamics of Sukuk Market Volatility Components

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Abstract

Understanding the dynamics of sukuk market volatility components in the event of shocks requires different attention because the effects of transitory (short run) and permanent (long run) components of volatility are different. This paper applies *component generalized autoregressive conditional heteroskedasticity* (CGARCH) model to three Malaysian sukuk indices. The purpose is to determine whether permanent and transitory components can be explicitly identified in the indices and, where present, whether the persistence of long-run volatility is bigger than the short-run component. Daily sukuk indices returns are used for the period 2009 until 2015 for the analysis. The results suggest that permanent components are more persistent than transitory components in EX-MYR and MFCSUKUK indices. These two indices display long memory behaviour. On the other hand, the higher volatility post-crisis period is primarily attributable to short-run volatility increases in the case of AIBIM index. The findings have several implications for both regulatory and practical purposes, i.e., the policy makers may utilize long memory dynamics of volatility components in comprehending assimilation and co-movement market behaviour.

Keywords: sukuk, volatility, permanent component, transitory component, long memory

1. Introduction

In 2016, the global sukuk market witnessed a rebound after three consecutive years of decline following its peak in 2012. However, the global market sentiment and volatility have affected the mainstream fixed income markets and influenced the global sukuk market, resulting in multiple sources of risk and high liquidity level (Islamic Finance News, 2011). A problem may arise from overly high volatility as excessive volatility induces instability in the capital market. High volatility may contribute to a crash or crisis in the financial securities industries (Okpara, 2011). Volatility persistent refers to how quickly financial markets forget large volatility shocks. The presence of long memory in volatility reveals uncertainty or risks in the behavior of sukuk indices. A predictable component in volatility may provide economic benefits to market players. The long memory property describes the

autocorrelations process if the dependence between distance observations, however small, be significantly different from zero. This means that the effect of shocks on financial series take a very long time to disappear.
Volatility refers to the sharp fluctuations in the price of a financial asset or market in a short period. It illustrates the magnitude and speed of an asset's price change. In other words, an increment in volatility will lead to increased risk and decreased returns. As volatility increases, the market's performance tends to decrease (Abu-Orabi & Abed, 2015). The 2008 global financial crisis and 2009 Dubai debt crisis erroneously gave the global investment community a poor impression of sukuk investment (Kamso and Ng, 2013). The paper is motivated by the fact that Empirical study on modelling long memory process in sukuk market is very limited. Hence, the present study contributes by examining the long memory dynamics of volatility in three Malaysian sukuk indices. The paper is organised as follows. After a brief introduction, the study continues with literature review section, research method, analysis and findings and finally draws a conclusion.

2. Literature Review

The Securities Commission Malaysia (2011) briefly outlined sukuk as certificates of equal value which evidence exclusive ownership or investment in the property using Shariah principles and concepts approved by the Shari'ah Advisory Council (SAC). Investing in sukuk not only enhances potential returns relative to conventional fixed income investing but also reduces portfolio volatility. Poon (2005) highlights that the definition of volatility as the spread of all likely outcomes of an uncertain variable. Subsequently, volatility is related to, but not the same as risk. The risk is associated with undesirable outcome, whereas volatility as a measure strictly for uncertainty could be due to a positive outcome. Therefore, it is important to empirically examine the volatility behaviour of three sukuk indices post-2008 crisis to understand the risk-return behaviour of sukuk.

2.1 Sukuk Development in Malaysia

Malaysia's government sukuk market has recorded remarkable growth over the years. As at the end of June 2015, the total outstanding amount of Malaysia's government sukuk reached USD67.4 billion, an increase from USD15.8 billion in 2008. Besides, the share of government sukuk to Malaysia's aggregate sukuk market rose from a share of 26.8 percent in 2008 to 41.8 percent as at the end of June 2015. Three major industries dominate the corporate sukuk market of Malaysia. Financial firms, including banks, recorded for the biggest share of 28 percent. Companies involved in transportation, logistics, and telecommunications industries recorded 26 percent. The energy and utility companies (electricity, oil, gas, and water) constituted an aggregate share of 20 percent.

2.2 Volatility Behavior in Financial Time Series

Financial time series exhibit certain patterns which are crucial for correct model specification, estimation, and forecasting in studying volatility behaviour. Knight and Satchell (2007) summarise them as follows:

- *Fat tails.* The distribution of financial time series exhibits fatter tails than those of a normal distribution by exhibiting excess kurtosis. The standardised fourth moment for a normal distribution is three, whereas for much financial time series it is well above three.

- *Volatility clustering.* The second stylised fact is the clustering of periods of volatility, where the large movements are followed by further large movements. This is an indication of shock persistence.

- *Leverage effects.* Price movements are negatively correlated with volatility. This was first suggested by Black (1976) for stock returns. Black argued, however, that the measured effect of stock price changes on volatility was too large to be explained solely by leverage effects.

- *Long memory.* Especially in high-frequency data, volatility is highly persistent, and there is evidence of near unit root behaviour in the conditional variance process.

- *Co-movements in volatility.* When looking at the financial time series across different markets, for example currency market, it has been observed that big movements in one being matched by big movements in

another. This suggests the importance of multivariate models in modelling cross-correlations in different markets.

The above patterns are normally observed in high-frequency financial time series data. The patterns exhibited are associated with information arrival, where many studies link asset returns to information flow.

2.3 Volatility of Sukuk Markets

Several studies examine volatility behaviour of sukuk market such as Yap and Gannon (2007), Rahman and Omar (2012), Rusgianto and Ahmad (2013), Ahmad and Rusgianto (2013), Kwan et al. (2013), Rahman, Omar, and Kassim (2013), Hafezian et al. (2015), Paltrinieri et al. (2015), Maghyereh and Awartani (2016), Naifar (2016), Sclip et al. (2016), and Naifar et al. (2016). Previous studies mostly employ *generalised autoregressive conditional heteroskedasticty* (GARCH) model to measure volatility. In these studies, the high value of the sum of GARCH estimates implies the presence of volatility persistence, where the expected future volatility takes longer to decay to the unconditional variance. This suggests that any shocks will affect the spreads of the Malaysian sukuk and it will take some time before the spreads gradually return to equilibrium (Rahman, Omar and Kassim, 2013).

Besides, Rahman and Omar (2012) mention that the small size of crisis coefficient for the volatility of AA3 sukuk spreads suggest that crisis episode gives almost no impact to the volatility of sukuk spread. Rusgianto and Ahmad (2013) examine the volatility behaviour of the sukuk market under the consideration of structural breaks for Dow Jones Citigroup Sukuk Index (2007-2011) by using EGARCH (exponential GARCH) model. The main finding indicates that structural breaks significantly alter the volatility behaviour of sukuk. It indicates that the volatility during pre-crisis and contemporaneous periods is more sensitive to market events compared to the post-crisis period.

Another study discovers that volatility of sukuk spread changes was driven mainly by the observed squared changes in sukuk spread on the previous trading day for all ratings and maturities. The authors employ GARCH specification. This term, which also measures the long-term persistence in volatility is the only factor associated to an adjustment in the risk premium, or the spreads (Manzoni, 2002; Rahman, Omar & Kassim, 2013). The ARCH term coefficient was much smaller, indicating that the volatility of spread is less affected by the past shock or news. Kwan et al. (2013) find that the series of sukuk yield was stationary, but the level series of commercial bank bond yield were non-stationary, and market participants determine the yield of a commercial bank. Also, the commercial bank yield displays sharp volatility clustering features. The results also showed no evidence of a co-integration relationship between bond and the Government Investment Issues (GII) yield series. Previous studies indicate the high value of the sum of GARCH estimates implies the presence of volatility persistence, where the expected future volatility takes longer to decay to the unconditional variance. There are volatility clustering and leverage effects being detected. This suggests that any shocks will affect the spreads of the Malaysian sukuk and it will take some time before the spreads gradually return to equilibrium. The presence positive and significant risk premium support the positive relationship between risk and returns, i.e. the higher the risk, the higher the returns.

An investigation into the presence of long memory in sukuk indices is important as an early indication of economic conditions. If there is significant evidence of the presence of long memory in sukuk market, it can be used as a forecasting tool in Islamic capital markets (Rusgianto and Ahmad, 2013). The presence of long memory reflects that a shock at the time t has an impact for a long-run on the futures returns values. Thus, the process of logarithmic returns seems effectively not self-correlated; however, it is not the same for the squared returns. In fact, the autocorrelation function of squared logarithmic returns remains significantly positive for a long time and thus indicates the existence of dependence between logarithmic returns. This fact is called the long memory which means that a shock at a time t has an impact on future returns. There is an interdependence of daily returns that persists for a long time meaning that the financial crisis influenced the Islamic index returns significantly (Chiadmi and Ghaiti, 2012).

3. Research method

3.1 Data and Variables

Nelson (1990) and Pagan and Schwert (1990) assert that volatility is a non-stationary procedure. The occurrence of a unit root during the instability also symbolises the existence of two mechanisms in the volatility, viz. the permanent trend and transitory component. Engle and Lee (1993) introduce a component-GARCH (CGARCH) model to

decompose the conditional variance into a perpetual and transitory element. They apply the *component generalised autoregressive conditional heteroskedasticity* (CGARCH) model to assess the mean reversion of volatility in the United States and Japanese stock markets and find that the transitory component has a strong force pulling the volatility back to its permanent component. Similarly, Andersen and Bollerslev (1997) show that short-run effects around the return component are large and provide information about the improvement in the long-run unpredictability.

The study employs four sukuk indices for the analysis. The daily data of historical prices for the period 2009 to 2015 are collected from Bloomberg database (Saturdays and Sundays excluded). The Dow Jones Sukuk Index (DJSI) is used as the benchmark because it is designed to assess the performance of sukuk in the global market. In this study, daily returns (r_t) are calculated as the continuously compounded returns, which are the first difference in logarithm of closing prices of *sukuk* indices as shown below.

$$r_t = \log\left(\frac{P_t}{P_{t-1}}\right)$$

where P_t and P_{t-1} are the closing prices of sukuk indices at the current day and previous day, respectively. The CGARCH method is included as Appendix 1. The four indices used in the study are Dow Jones Sukuk Index (DJSI), Bloomberg AIBIM Bursa Malaysia Corporate Sukuk Index (AIBIM), Bloomberg Malaysian Sukuk EX-MYR Index (EX-MYR) and Malaysian Foreign Currency Sukuk Index (MFCSUKUK). Each index is briefly explained in Appendix 2. Table 1 lists the descriptive statistics for all indices. All data has been tested for unit root with structural break and ARCH effect tests, and the results shown in Appendix 3. All data are stationary and exhibit ARCH effects hence volatility assessment are appropriate.

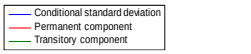
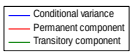
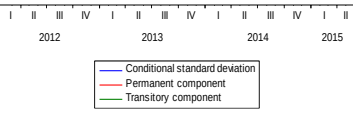
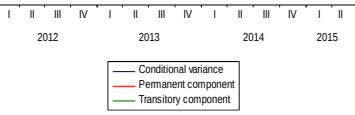
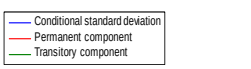
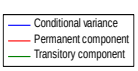
Table 1: Descriptive Statistics for Daily Market Returns of Malaysian Sukuk Indices

Variables	Mean	Max	Min	Std. Dev	Skewness	Kurtosis	Prob.	Obs.
EX-MYR	0.0002	0.0047	-0.0096	0.0011	-1.3979	14.5478	0.0000	1,138
MFCSUKUK	0.0002	0.0047	-0.0096	0.0011	-1.3979	14.5478	0.0000	1,138
AIBIM	0.0000	0.0165	-0.0149	0.0024	-0.3404	11.3282	0.0000	848

Notes: EX-MYR = (11/01/2010- 5/12/2015); MFCSUKUK = (11/01/2010- 5/12/2015); AIBIM = (2/02/2012- 5/12/2015)

The separated volatility components are shown in Figure 1. The red line represents permanent component; the green line shows the transitory component, and the blue line shows either a conditional standard deviation or conditional variance.

Figure 1: Transitory and Permanent Components of Sukuk Indices Returns

	Conditional Standard Deviation	Conditional Variance
EX-MYR (Malaysia *Sukuk Ex-MYR Index)*		
AIBIM (Bloomberg *AIBIM* Bursa Malaysia Corporate *Sukuk Index)*		
MFCSUKUK (Malaysia Foreign Currency Sukuk Index)		

Source: Authors' estimations.

4. Findings and Discussion

For the study, volatility in returns will be decomposed into two components namely transitory and permanent components. More persistent volatility implies that the shock in the market is continuously experiencing volatility. The difference between conditional variance and its trend is the transitory component of the conditional variance that dies out with time. The transitory component then converges to zero with powers of (α + β) while the long-run component converges on ω with powers of ρ. The sum of α and β represents the persistence of the transitory component. The conditional variance is covariance stationary in this model if the permanent component and transitory component are both covariance stationary which requires ρ < 1 and (α+β) < 1. Typically, the autoregressive parameter, rho, ρ is between 0.999 and 1 which makes $\boldsymbol{q_t}$ approaches its unconditional variance very slowly. For ρ = 1, the long-term volatility process is integrated. This ρ coefficient in the CGARCH model can be used to explain the existence of long and short memory of volatility. When the value of the coefficient is close to one, it is used to explain the long memory. The long-run or a permanent component refers to the long memory of volatility (Aridi and Cheong, 2016).

For 1> ρ > (α+β), the transitory component decays more quickly than the permanent component. In short-run volatility (transitory component), the value of α+β must be positive and less than one (0<(α+β)<1). In long-run volatility (permanent component), ω/(1-ρ) if 0<ρ<1. The long-run component is more persistent than the short-run component if (0<(α+β)<ρ<1). This model also explains the influence of good news and bad news on volatility where the volatility will increase with the existence of bad news ($\boldsymbol{\varepsilon_{t-1}}$< 1) and decrease with the existence of good news ($\boldsymbol{\varepsilon_{t-1}}$> 1). Positive information has an impact on α while negative information has an impact of α+γ.

The leverage effect occasionally exists in market returns. The market is said to have a leverage effect when γ>0 which indicates the presence of transitory leverage effects in the conditional variance. The market is in asymmetric condition when γ≠0 and symmetric when γ=0. Table 2 shows the results of CGARCH (1,1) model with threshold term.

Table 2: Asymmetric CGARCH (1,1) Model with Threshold Term

Index	∅ (Constant)	ω (Constant)	ρ	φ	α (ARCH)	β (GARCH)	$\alpha+\beta$	γ	LL	AIC	SC
DJSI	0.0000 (-991.603) ***	-0.0000 (106.5235) ***	0.5826 (15.7849) ***	-0.0080 (-2.700) ***	0.3150 (61.9751) ***	0.0330 (3.0343) ***	**0.3481**	0.0778 (7.7605) ***	11,717.35	-8.1069	-8.0924
EX-MYR	0.0002 (1993.037) ***	-0.0000 (2.2586) **	**0.9953** (346.3037) ***	0.0478 (4.6958) ***	0.1362 (2.8662) ***	0.6571 (8.2734) ***	**0.7934**	0.0518 (1.4520)	6415.052	-11.26	-11.23
MFC SUKUK	0.0002 (1956.453) ***	-0.0000 (2.2054) **	**0.9953** (340.7211) ***	0.0485 (4.6922) ***	0.1341 (2.8412) ***	0.6633 (8.3701) ***	**0.7974**	0.0506 (1.4227)	6415.055	-11.26	-11.23
AIBIM	0.0000 (-0.2116)	-0.0000 (2.2939) **	0.5000 (3.6716) ***	0.0400 (1.7547) *	0.0400 (2.1318) **	0.9424 (133.2426) ***	**0.9824**	0.0400 (5.1902) ***	4095.124	-9.64	-9.602

Source: Authors calculation.

The conditional variance decomposition in transitory and permanent components implies that both components are covariance stationary and satisfies the relation: ρ<1 and (α+β) <1. The permanent component also explains the (long-run) long memory of volatility. When the coefficient ρ is between 0.999 and 1 (or close to one), it signifies the existence of long memory in the CGARCH model. The ρ normally lies between 0.99 and 1, so that the long-run component will evolve slowly in an autoregressive model. The asymmetric CGARCH is determined by adding the asymmetric coefficient in the transitory equation (include threshold term). Hence, the positive value of φ describes the existence of transitory leverage effects in the conditional variance.

The CGARCH model with a threshold term with ρ coefficient close to one, signifying the existence of long memory, are EX-MYR (ρ=0.9953) and MFCSUKUK (ρ= 0.9953). DJSI, MFCSUKUK and EX-MYR indices

display $(\alpha+\beta)<\rho<1$, suggesting that the transitory component decays faster than the permanent component. Furthermore, the long-run component is more persistent than the short-run component (when $0<(\alpha+\beta)<\rho<1$) in these two indices. On the other hand, AIBIM index shows that $(\alpha+\beta=0.9824) > (\rho=0.5000)$. The α coefficient measures the degree to which volatility shocks that occur now feed through into the next period's volatility. If the β coefficient is high, it can be inferred that the shocks to conditional variance die after a long time. If α is high, it can be inferred that the volatility responses to market movements are intense. Based on the results, all four indices recorded significant values of α and β. Significant values of α and β mean any news about volatility from past periods may affect current volatility.

If the sum of α and β is close to one, a shock at time t will persist for a long time in the future, suggesting the presence of a long memory and high persistence volatility. The sum of α and β equal to one implies that any shock will lead to a permanent change in all future values (Kalyanaraman, 2014). The permanency situation is not observed in all three sukuk indices. For the asymmetric volatility test, the coefficient of leverage effects γ gives positive and highly significant results for DJSI and AIBIM indices, which means bad news has larger effects on volatility compared to good news. Table 3 summarizes the results.

Table 3: Summary of Results

1. AIBIM index records a high value on β and its sum of $(\alpha+\beta)$ is close to one, indicating AIBIM have high persistence volatility. If the β coefficient is high, it means shocks to conditional variance die after a long time.

2. EX-MYR and MFCSUKUK display long memory volatility behaviour.

3. EX-MYR and MFCSUKUK have more persistence permanent components.

Notes: 1. Volatility is persistence if $\alpha+\beta<1$ [very close to 1]
2. Existence of long memory volatility if $0.9 < \rho < 1$ [very close to 1]
3. Long-run component is more persistent than the short-run component if: $(0<(\alpha+\beta)<\rho<1)$

The study also calculates the half-life decay of the shock in the market measured following xxx(2015). Half-life decay of the market volatility is calculated as:

$$\text{Half-life of Decay} = \frac{\log((\alpha+\beta)/2)}{\log(\alpha+\beta)}$$

where, $\log(\alpha+\beta)$ stands for logarithm value of coefficient of ARCH (α) and GARCH (β). Half-life of decay quantifies the expected period for the shock in a market to persist before it decays to half of the original size. By applying the Half-life of decay approach the shock in the market can be quantified and market participants can decide on their market exposure accordingly. The result of the half-life of decay is interpreted in respect to the frequency of the series used which would be daily data for the present study. Based on the information in Table 2, the half-life of EX-MYR index is 3.995 days; MFCSUKUK is 4.061 days and AIBIM is 40.035 days. It took AIBIM index approximately 40 days for half of the shocks to decay. Therefore, it takes longer for the AIBIM index to adjust in case of any shocks taken place in the market. Therefore it will take longer time for the market to adjust in case of any shocks taken place in the market

5. Conclusion

The study analyses conditional variance decomposition in transitory and permanent components of three Malaysian sukuk indices using CGARCH model. To better capture asymmetric effects, a threshold term is incorporated in the model. Two observations are made. First, the long memory property and second, the state of permanency. The results show EX-MYR and MFCSUKUK indices exhibit long memory behavior. Long memory in volatility occurs when the effects of volatility shocks decay slowly which is often detected by the autocorrelation of measures of volatility, such as absolute or squared returns. The long memory dynamics help market players allocate appropriate portfolio selection and market exposure.

The present study sheds light on the informational efficiency of three Malaysian sukuk indices and their memory dynamics. Different results obtained might be due to market participants behavior post-crisis period where investors

increase their risk aversion by changing their asset allocation. This effect is commonly known as flight to quality and flight to liquidity, i.e. investors prefer safer and more liquid financial instruments. The present findings have significant economic implications. The long-memory dynamics in sukuk indices helps researchers and practitioners to have more accurate forecasts on the valuation process. Furthermore, the strong persistent behaviour found in volatility is important for risk management and pricing of sukuk instruments.

Future research in this field can be undertaken for other global sukuk indices and for longer time period by examining the degree of interdependence among major global indices in order to validate the possible causes of long-range dependence. An analysis of volatility interdependent provides useful insights into how information is transmitted and disseminated across different markets. In addition, studies on spillovers of returns across markets have important implications for portfolio choice and risk management.

Acknowledgement

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Appendix 1

Component GARCH model (CGARCH model)

The CGARCH model has two components. Component one captures the short-term innovation effects, while component two captures the long-run innovation impacts as shown below.

$$h_t = q_t + s_t \quad (1)$$

$$s_t = (\alpha + \beta)s_{t-1} + \alpha(\varepsilon_{t-1}^2 - h_{t-1}) \quad (2)$$

$$q_t = \omega + \rho q_{t-1} + \varphi(\varepsilon_{t-1}^2 - h_{t-1}) \quad (3)$$

The h_t is the conditional variance, which consists of volatility factor of the long-run and short-run. The q_t is the volatility factor of the long-run and s_t is the volatility factor of the short-run. The s_t is subjected to the stochastic processes of AR(1). The ε_{t-1}^2 is the impact of pre-volatility or unexpected term. $(\alpha + \beta)$ presents the mean-reverting rate of the volatility factor of the short-run where the value will be between 0 and 1. The conditional variance will recover unconditional variance by the geometric ratio of $(\alpha + \beta)$. If the recovery rate is smaller, the persistent influence on market shocks will be less. After the market takes the shocks messages, the volatility would swiftly respond to any shocks in the market. The persistent influence caused by the volatility would be the stochastic processes of AR(1), where ρ refers to the mean-reverting rate of the volatility factor of the long-run, whose value is also between 0 and 1 and it will converge to $\omega/(1-\rho)$ in the long-run.

The CGARCH model must adapt to stationary and non-negativity statistic conditions. The stationary condition is when $\rho < 1$ and $(\alpha + \beta) < 1$, at the time the model estimate the unconditional variance in a long-run (permanent component) since the volatility measure must show non-negativity. Therefore, it must satisfy $\rho > (\alpha + \beta) > 0, \beta > \psi > 0, \alpha > 0, \omega > 0$; while all the above conditions need to be sufficient but not necessary, so the component of short-run volatility does not need to allow the restraint of non-negativity. The CGARCH(1,1) model for Equation (2) and (3) can be written as Equation (4) and (5), respectively.

$$h_t = q_t + \alpha(\varepsilon_{t-1}^2 - q_{t-1}) + \beta(h_{t-1} - q_{t-1}) \quad (4)$$

$$q_t = \omega + \rho(q_{t-1} - \omega) + \emptyset(\varepsilon_{t-1}^2 - h_{t-1}) \quad (5)$$

The positive value of $\emptyset$ indicates the temporary leverage effects in the conditional variance.

Appendix 2

Dow Jones Sukuk Index (DJSI)

The Dow Jones Sukuk Index (DJSI) assesses the performance of *sukuk* in the global market. Originated in October 2005, it proposes a benchmark for investors who seek exposure to *Shari'ah* compliant fixed income, investments, and any eligible asset. The bonds must pass the screening for *Shari'ah* compliance and the index, in fact, fulfils the standards issued by the AAOIFI. The DJSI must have a minimum maturity of one year, a minimum size, prominent of USD 200 million, and a particular or total rating of at least BBB-/Baa3 by heading rating agencies (Bloomberg, 2015).

Bloomberg AIBIM Bursa Malaysia Corporate Sukuk Index (AIBIM)

This index monitors the performance of the most liquid corporate Malaysian *sukuk*. Bloomberg calculates the index daily which includes the rates and prices contributed by member banks of the Association of Islamic Banking Institutions Malaysia (AIBIM). The index has been elaborated together with the AIBIM and Bursa Malaysia. The Bloomberg AIBIM Bursa Malaysia Corporate Sukuk Index aims to serve as a benchmark for investors of ringgit-denominated *sukuk* in Malaysia (Bloomberg, 2015). Bloomberg AIBIM Bursa Malaysia Corporate Sukuk Index contributes to better price transparency that enables investors to make informed investment decisions.

Bloomberg Malaysian Sukuk Ex-MYR Index (EX-MYR)

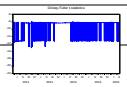
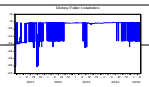
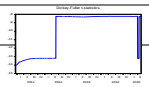
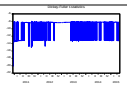
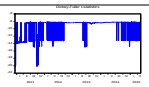
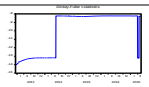
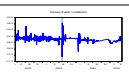
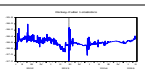
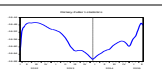
Launched on 11 January 2010, the Bloomberg Malaysian Sukuk Ex-MYR Index assesses the performance of foreign currency *sukuk* (non-Ringgit denominated) issued in Malaysia (Bloomberg, 2015). Bloomberg's Malaysian Sukuk Ex-MYR Index offers a comprehensive view of Malaysian fixed income markets. The index measures the performance of foreign currency *sukuk* (non-ringgit denominated) and uses Bloomberg's market-leading data, technology and distribution to provide dealer-independent benchmarks for the Malaysian bond markets. In general, only *sukuk* with a maturity of greater than 12 months are eligible. The quality of this index is marked by Higher than BBB- from S&P and Fitch, and Baa2 from Moody's. 100 percent Malaysian government-owned agencies (Danga Capital, Khazanah Nasional Berhad) are exempted. The currencies included in this index are USD, EUR, JPY, GBP, SGB, KRW, IDR, HKD, THB, CNY or CNH.

Malaysian Foreign Currency Sukuk Index (MFCSUKUK)

The Bloomberg Malaysian Foreign Currency Sukuk Index is a non-Ringgit denominated index developed in conjunction with Bank Negara Malaysia. It provides a global benchmark for the performance of sukuk, and it has the capability to identify the movements of foreign currency issues. This index consists of foreign currency sukuk issues listed on Bursa Malaysia or the Labuan International Financial Exchange, including investment-grade Malaysian foreign exchange sukuk priced in U.S. dollars (Bloomberg, 2015). The launch of the benchmark index for the Malaysian foreign currency sukuk market is timely given the growth of foreign currency sukuk issuances in the country. It marks another key milestone that will contribute towards the internationalisation of Islamic finance.

Appendix 3

Table A1: ADF Unit Root Test with Structural Breaks (at First Difference)

ADF (breaks)	First Difference I(1)					
Variables	C		C+T		T	
EX-MYR	**-20.1552** **[1]*** **		**-20.2615** **[1]*** **		**-14.0148** **[4]*** **	
MFCSUKUK	-20.1552 [1]***		-20.2615 [1]***		-14.0148 [4]***	
AIBIM	-17.0496 [5]***		-17.1727 [5]***		-16.6679 [5]***	

Notes: ***, ** and * denotes significant at the 1%, 5% and 10% level, respectively. [.] denotes optimum lag length selected based on AIC.

"C" refers to Constant and "C+T" refer to Constant + Trend.

Table A2: ARCH Test of EX-MYR

	ARCH Test (3 Lags)		
F-statistic	19,398.66	Prob. F(3,1131)	0.0000
Obs*R-squared	1,113.363	Prob. Chi-Square(3)	0.0000
	ARCH Test (6 Lags)		
F-statistic	10,096.57	Prob. F(6,1125)	0.0000
Obs*R-squared	1,111.361	Prob. Chi-Square(6)	0.0000

Table A3: ARCH Test of MFCSUKUK

	ARCH Test (3 Lags)		
F-statistic	19,398.66	Prob. F(3,1131)	0.0000
Obs*R-squared	1,113.363	Prob. Chi-Square(3)	0.0000
	ARCH Test (6 Lags)		
F-statistic	10,096.57	Prob. F(6,1125)	0.0000
Obs*R-squared	1,111.361	Prob. Chi-Square(6)	0.0000

Table A4: ARCH Test of AIBIM

	ARCH Test (3 Lags)		
F-statistic	341.1649	Prob. F(3,841)	0.0000
Obs*R-squared	463.8538	Prob. Chi-Square(3)	0.0000
	ARCH Test (6 Lags)		
F-statistic	195.0456	Prob. F(6,835)	0.0000
Obs*R-squared	491.3895	Prob. Chi-Square(6)	0.0000

Table A1: ADF Unit Root Test with Structural Breaks (at First Difference)

ADF (breaks)		First Difference I(1)	
Variables	C	C+T	
EX-MYR	**-20.1552 [1]*** **	**-20.2615 [1]*** **	**-14.0148 [4]*** **
MFCSUKUK	-20.1552 [1]***	-20.2615 [1]***	-14.0148 [4]***
AIBIM	-17.0496 [5]***	-17.1727 [5]***	-16.6679 [5]***

Notes: ***, ** and * denotes significant at the 1%, 5% and 10% level, respectively. [.] denotes optimum lag length selected based on AIC.
"C" refers to Constant and "C+T" refer to Constant + Trend.

Table A2: ARCH Test of EX-MYR

	ARCH Test (3 Lags)		
F-statistic	19,398.66	Prob. F(3,1131)	0.0000

Obs*R-squared	1,113.363	Prob. Chi-Square(3)	0.0000
		ARCH Test (6 Lags)	
F-statistic	10,096.57	Prob. F(6,1125)	0.0000
Obs*R-squared	1,111.361	Prob. Chi-Square(6)	0.0000

Table A3: ARCH Test of MFCSUKUK

		ARCH Test (3 Lags)	
F-statistic	19,398.66	Prob. F(3,1131)	0.0000
Obs*R-squared	1,113.363	Prob. Chi-Square(3)	0.0000
		ARCH Test (6 Lags)	
F-statistic	10,096.57	Prob. F(6,1125)	0.0000
Obs*R-squared	1,111.361	Prob. Chi-Square(6)	0.0000

Table A4: ARCH Test of AIBIM

		ARCH Test (3 Lags)	
F-statistic	341.1649	Prob. F(3,841)	0.0000
Obs*R-squared	463.8538	Prob. Chi-Square(3)	0.0000
		ARCH Test (6 Lags)	
F-statistic	195.0456	Prob. F(6,835)	0.0000
Obs*R-squared	491.3895	Prob. Chi-Square(6)	0.0000

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Assessing The Shariah Auditing Practice In Islamic Financial Institutions: The Case Of Malaysia, Indonesia And Brunei Darussalam

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Abstract

The development of Islamic finance has no doubt become one of the main attentions globally. Its acceptance is not only by the Muslim population, but the non-Muslim too has had accept this as their choice of financial system. From a regulatory and supervisory perspective, rapid financial development is a signal that regulations and supervision should also go in tandem to ensure that the market does not behave in abnormal condition that may impact the financial stability. In Islamic finance itself, it is a priority to ensure that it is conducted in the right manner as deviation from the Shariah principles are not only impact the financial but most importantly the effect is it is against the commands of Allah SWT and impediment of Allah SWT blessing. This has had led to an increase demand in Shariah compliance monitoring, amongst others the Shariah audit function. This study examines the current practice of Shariah auditing being implemented in Islamic Financial Institutions (IFIs) in Malaysia, Indonesia and Brunei Darussalam that adopt centralized model of Shariah governance. Additionally, this paper attempts to compare the Shariah auditing practice based on the following criteria: the definition of Shariah audit; the scope of audit and the qualification of Shariah auditors. This research also endeavors on the role of central bank/ monetary authority in the Shariah audit development in the IFIs as a monitoring tool for Shariah compliance. This study is qualitative research and theoretically based on Shariah Governance Framework, legislations, international standards: Accounting and Auditing Organisation for Islamic Financial Institutions (AAOIFI), Islamic Financial Services Board (IFSB). Evidence from the analysis suggests that Malaysia being the most advance in Islamic finance development compared with the other two countries, has no doubt has had lead the way. An interesting finding to note that Brunei Darussalam has made a new development in Shariah Governance Framework following the initiative made by Malaysia. This study is useful for policymaking in the jurisdictions that offer Islamic finance, with relation to Shariah governance mechanisms, especially on policies related to Shariah audit.

Keywords: Shariah Governance Framework; Shariah audit; Islamic Financial Institutions

1. Introduction

The development of Islamic finance has no doubt attract the attention the financial system globally. Its acceptance is not only from the Muslims but also the non-Muslims. With the rapid development, the regulations and supervision of the Islamic Financial Institutions (IFIs) need to be in tandem to ensure that the financial market does not behave in abnormal condition that could impact the financial stability. Thus, this lead to an increase call for Shariah compliance monitoring, the Shariah review and audit function.

This study will focus on the role of Shariah audit function which is one of the imperative functions in the Shariah Governance Framework. This paper examines the current practice of Shariah auditing being implemented in IFIs in Malaysia, Indonesia and Brunei Darussalam that adopt centralized model of Shariah governance. Additionally, this research attempts to compare the Shariah auditing practice based on the following criteria: the definition of Shariah audit; the scope of audit and the qualification of Shariah auditors. This study also endeavors on the role of central bank/ monetary authority in the Shariah audit development in the IFIs as a monitoring tool for Shariah compliance. This study is qualitative research and theoretically based on Shariah Governance Framework, legislations, international standards: Accounting and Auditing Organisation for Islamic Financial Institutions (AAOIFI), Islamic Financial Services Board (IFSB).

The paper is divided into 7 sections, beginning with an introduction, followed by a brief exploration of Shariah audit with particular reference to Accounting and Auditing Organisation for Islamic Financial Institutions (AAOIFI) standard and Islamic Financial Services Board (IFSB) standard. In Section 3, the Shariah auditing practice in Malaysia are evaluated. Section 4 and 5 highlight the Shariah auditing practice in Indonesia and Brunei Darussalam respectively. After which, a comparison is made between these three countries in Section 6. Lastly, a conclusion is drawn up with reference to limitations and potential avenue for further research is suggested.

2. Shariah Audit

The term Shariah audit is relatively a new term in Shariah. The history of auditing and its definition from AAOIFI and IFSB are as follows:

2.1 Shariah auditing from *Quranic* verses and *Hadiths*

a. Audit – Presentation and Discussion during the Reckoning (*Hisab)*

"Thou, verily O man, art working toward thy Lord a work which thou wilt meet (in His presence). Then whoso is given his account in his right hand. He truly will receive an easy reckoning. And will return unto his folk in joy" (*Surah al-'Insyiqaq*: Verses 6-9);

b. *Raqib* and '*Atid* are the best auditors

"Lo! There are above you guardians, Generous and recording, Who know (all) that ye do" (*Surah Al-'Infitar*: Verses 10-12)

c. Prophet Sulaiman AS: Leading audit exercise

"And he sought among the birds and said: How is it that I see not the hoopee, or is he among the absent? I verily will punish him with hard punishment or I verily will slay him, or he verily shall bring me a plain excuse" (*Surah al-Naml*: Verses 20-21)

2.2 Auditing from Islamic point of view: the starting of Shariah Auditing -*"Hisbah"*

The concept of '*Hisbah*' has been originated from the Islamic concept of *"Ordering good and preventing the evil*". '*Hisbah*' started with the inception of Islam.

2.3 Accounting and Auditing Organisation for Islamic Financial Institution (AAOIFI)

In its simplest sense, Shariah audit is defined as an audit attestation for Shariah compliance. However, the term is not so easy to be explained by such a simple expression.

AAOIFI Governance Standard for IFIs no. 3 (GSIFI 3) defined Internal Shariah review as "An independent department or part of internal audit examining and evaluating extent of compliance with Shariah rule, fatwas, instructions issued by the IFI's Fatwa and Shariah Supervisory Board".

2.4 Islamic Financial Services Board (IFSB) Standard No: 10 - Shariah Governance Systems for Islamic Institutions offering Islamic Financial Services (IIFS)

IFSB 10 definition is "an internal Shariah compliance review/audit for verifying that Shariah compliance has been satisfied, during which any incident of non-compliance will be recorded and reported, and as far as possible, addressed and rectified".

3. The Shariah Auditing Practice In Malaysia

Malaysia's Islamic financial system comprises of Islamic banks, Takaful operators, Development Financial Institutions and Islamic capital markets. The Islamic banks, Takaful operators, development financial institutions are governed by Bank Negara Malaysia (BNM), the central bank of Malaysia. Meanwhile, the capital market is under the authority of Securities Commission (SC) Malaysia. Malaysia has a two-tier Shariah Governance structure, one at a national level and another at the industry level.

Role of BNM:

Malaysia being the leader in Islamic finance has no doubt has an advanced Islamic financial infrastructure. Shariah Governance Framework (BNM SGF) issued in the year 2010 has seen an encouraging initiative in the development of the Shariah compliant environment. The IFIs under BNM's jurisdiction are required to adhere to the requirements set out in the BNM SGF. Apart from the BNM SGF, the central bank has come up with another inspiring development in legislation when Islamic Financial Services Act (IFSA), 2013 was introduced. Part IV of the Act clearly mentioned on the Shariah requirements which is further divided into 3 divisions. The first division is

on the Shariah compliance, followed by Shariah governance and Audit on Shariah compliance in the second and third divisions respectively. Specifically, on the third division on audit of Shariah compliance, section 37 of the Act required the IFIs to appoint person by institution to conduct audit on Shariah compliance. In addition to the Act, BNM also published a total of 14 Shariah standards and operational requirements which is really useful to the practitioners, academicians and other relevant stakeholders. The Shariah standards and operational requirements serve as one of the main references for the auditors in doing the Shariah auditing.

The following provides the literature on definition of Shariah audit, the scope of Shariah audit and the qualification of Shariah auditors.

3.1 Definition of the Shariah Audit

Shariah audit refers to "the periodical assessment conducted from time to time to provide an independent assessment and objective assurance designed to add value and improve the degree of compliance in relation to the IFI's business operations, with the main objective of ensuring a sound and effective internal control system for Shariah compliance" (BNM, 2010, p. 10).

The latest policy document from the BNM on the Shariah Governance Exposure Draft also re-defines the Shariah audit as "a function that provides an independent assessment on the quality and effectiveness of the IFIs internal control, risk management systems, governance processes as well as the overall compliance of the IFIs operations, business, affairs and activities with Shariah" (BNM, 2017, p. 18).

3.2 Scope of Shariah Audit

The scope of the audit are as follows (BNM, 2010, p. 24):

a. audit of financial statements;
b. compliance audit on organizational structure, people, process and information technology application systems; and
c. review of adequacy of the Shariah governance process

The BNM also requires that in the event that the audit on financial statement is done by the external auditor, then IFIs has to satisfy that the scope is comprehensive.

3.3 Qualification of Shariah Auditors

According to the BNM's Shariah Governance Exposure Draft, the Shariah auditor must be able to perform the following Shariah audit functions (BNM, 2017, p. 18):

a. establish an audit methodology to assess the risk profile and vulnerabilities of each auditable area;
b. generate an audit plan for the assignments to be performed;
c. establish clear documented audit programs that provide guidance to the internal audit assessment; and
d. communicate results to the board and Shariah Committee (SC) through an audit report, dealing with the audit findings and recommendations for rectification measures, as well as the auditee's responses and action plans.

The Shariah auditors in IFIs must not only acquire the auditing skills but also need to have Shariah knowledge specifically in *fiqh muamalat* (Islamic business law). This is to make sure that proper Shariah audit has been performed and that the overall operations of IFIs are Shariah compliance.

The BNM adopt a flexibility approach in overcoming the knowledge gap of the auditors in terms of Shariah knowledge whereby the internal audit may engage the expertise of IFIs Shariah officers in conducting the Shariah audit provided that the objectivity of the audit is not compromised.

4. The Shariah Auditing Practice In Indonesia

Indonesia's Islamic financial market comprises of Shariah banks (Islamic banks), Islamic capital market, non-bank (such as Takaful operators) and these are governed under Otoritas Jasa Keuangan (OJK) or the Financial Services Authority. The OJK was established in 2011 to replace the role of Bapepam-LK in regulating and

supervising the capital market and financial institutions, as well as that of Bank Indonesia in regulating and supervising the banks. Indonesia adopt a centralized Shariah governance structure, one at a national level and another at the industry level.

Based on the study conducted by Wardhany and Arshad, 2012, the following is the legislations that are applicable to the Islamic financial players:

Table 1. List of legislations to Islamic financial players.

Title	Description
The Law No. 10 of 1998	Conventional banks are allowed to have Shariah unit
The Law No. 21 of 2008	Shariah banking
Bank Indonesia Regulation (PBI) No. 11/33/PBI/2009	Good Corporate Governance (GCG) implementation for Shariah Commercial Banks and Shariah Business Units
Bank Indonesia Regulation No. 11/3/2009	About Full Fledged Shariah Bank

The following provides the literature on definition of Shariah audit, the scope of Shariah audit and the qualification of Shariah auditors.

4.1 Definition of the Shariah Audit

According to Wardhany and Arshad, 2012, there is no regulation yet pertaining to the Shariah audit, however, there is a requirement for the Shariah Supervisory Board to review the banks activity for Shariah compliance. Morever, to comply with such requirement, the Shariah Supervisory Board is supported by an internal audit (*ibid*). According to the Bank Indonesia's regulation No. 11/33/PBI/2009 as cited in Wardhany and Arshad, 2012, the internal audit is obliged to report to the Shariah Supervisory Board with regard to Shariah compliance in the bank's activity.

4.2 Scope of Shariah Audit

As there is no regulation yet and with a limited literature, the scope of Shariah audit in the Indonesian context is yet to discover.

4.3 Qualification of Shariah Auditors

Based on a study done by Wardhany and Arshad, 2012, according to the Good Corporate Governance (GCG) Report, the bank has a Shariah compliance department under the compliance and risk management division with the responsibility to conduct Shariah review.
The qualification of the Shariah compliance department is they need to have Shariah based education background.

5. The Shariah Auditing Practice In Brunei Darussalam

Brunei Darussalam's Islamic financial system consists of Islamic bank, Islamic trust fund, Takaful operators, Islamic capital market (securities, mutual funds), Islamic finance company and Islamic pawn broker. The licensed IFIs are governed under the Autoriti Monetari Brunei Darussalam (AMBD). Brunei Darussalam practices a two-tier Shariah Governance Framework, a national Shariah Financial Supervisory Board (SFSB) and Shariah Advisory Body (SAB) at the industry level. The SFSB was established in 2006 under the SFSB Order, 2006 with the objective to provide for the control of the administration and business dealings of financial institutions concerning Islamic products and any matters connected.

The following is the legislations that are applicable:

Table 2. List of legislations to Islamic financial players.

Market segment	Legislation
Islamic bank	Islamic Banking Order, 2008
Islamic trust fund	Perbadanan Tabung Amanah Islam Brunei Act, cap 163
Takaful	Takaful Order, 2008
Capital Market	Securities Market Order, 2013
Finance Company	Finance Companies Act, cap 89 Hire purchase Order, 2006
Islamic pawnbroker	Pawnbrokers Order, 2002

Apart from the above, it is encouraging to note that the AMBD has recently issued a notice (IFAU/N1/2018) and guidelines (IFAU/G/2/2018) on the SGF to the IFIs in April 2018 with a grace period of 12 months to implement. This is a new development made by the authority in an effort to create a robust Shariah compliant environment.

The following provides the literature on definition of Shariah audit, the scope of Shariah audit and the qualification of Shariah auditors.

5.1 Definition of the Shariah Audit

Shariah audit is defined as "an independent and periodical assessment, conducted from time to time to provide objective assurance designed to add value and improve the degree of compliance of the Financial Institution's activities and operations. The main objective is to ensure a sound and effective internal control system for Shariah compliance" (AMBD, 2018, p. 26).

5.2 Scope of Shariah Audit

The scope of audit is as follows (AMBD, 2018, p. 26):

a. audit of financial statements;
b. compliance audit on organizational structure, people, process and information technology application system, and pre-and post-approval process of products and services; and
c. review of adequacy of the Shariah governance process.

5.3 Qualification of Shariah Auditors

In terms of the qualification, the Shariah auditing is only to be performed by qualified internal audit with adequate knowledge on Shariah, Islamic finance and other relevant background (AMBD, 2018, p. 27). The IFIs may appoint external auditor with adequate knowledge on Shariah, Islamic finance and other relevant background to conduct the audit (*ibid*).

6. Comparative Analysis Of Malaysia, Indonesia And Brunei Darussalam On The Current Shariah Auditing Practice

Malaysia, Indonesia and Brunei Darussalam are three countries in the ASEAN region that adopt a centralized model of Shariah Governance.

The following provides the comparison in terms of definition of Shariah audit, the scope of audit and qualification of the Shariah auditors among the three countries. Due to the nature of this study on theoretical literatures, the degree of comprehensiveness need to be improved which lead to the suggested potential avenues for future research describe in Section 7.

6.1 Definition of the Shariah Audit

The definition of Shariah audit for Malaysia and Brunei Darussalam are somewhat similar that the audit is performed by an independent department, the internal audit. This definition is in line with the AAOIFI and IFSB definition that emphasized on the independent assurance and Shariah compliance.

With regard to Indonesia, as there is no regulation yet, this has had impacted the researcher to compare the definition with the other two countries. Nonetheless, based on the GCG Report in the country, the legislation emphasizes on the responsibility of the Shariah Supervisory Board to conduct the Shariah review with the internal audit for Shariah compliance purposes.

6.2 Scope of Shariah Audit

The scope of audit for both Malaysia and Brunei Darussalam are almost similar. As Brunei Darussalam has just recently issued the Notice and Guidelines on SGF in April 2018, the approach is by referencing to the Malaysian SGF. However, relevant international standards, other jurisdictions' practices as well as the local market context must have been taking into account in developing the framework. With regard to the latest policy document by the BNM issued in 2017 on Shariah Governance has given more guidance to the practitioners in conducting the audit.

In the Indonesian perspective, due to the limited theoretical literature available publicly, this has had make it difficult to make comparison against the other two countries.

6.3 Qualification of Shariah Auditors

In terms of the qualification of Shariah auditors, Malaysia put a requirement that the auditors need to have auditing skills, Shariah and *fiqh muamalat* knowledge. Brunei Darussalam emphasized on the need to have adequate Shariah knowledge and Islamic finance. However, the requirement on auditing skills is silent and put it as "other relevant background". Indonesia on the other hand, based on the GCG Report, emphasized on having a Shariah background.

7. Conclusion

Shariah compliance is vital and the negative consequences will not only impact the financial but most importantly the effect is against the commands of Allah SWT and impediment of Allah SWT blessing.

The study has shown that the three countries that adopt a centralized Shariah governance model play a role in the Shariah compliant environment. The issuance of the SGF in Malaysia in 2010 and in Brunei Darussalam in 2018 indicate a commitment from the central bank/ monetary authority in performing their function as the authority for the financial market players in maintaining the financial stability. Indonesia too, although there is no centralized Shariah governance framework yet, but the authority that governed the financial industry emphasized on the importance of Shariah compliance which is evidence from the GCG Report of the industry players. Whatever the approach from these countries is not the main focus of agenda, instead what matter most is the willingness of the financial industry in adopting the regulations.

This study is very limited to only three countries in the ASEAN region, which certainly call for a further development. Further research can include much larger scale involving different countries and regions with the different Shariah Governance models. A fieldwork based type research could have a comprehensive comparison as the theoretical literatures in this study has a limited information. Similarly, the criteria used for comparison need to be increased in order to provide a variety of observation and conclusion.

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Relationships among Ownership Structure, IFRS and Earnings Quality

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Abstract

The purpose of this paper is to investigate the role of ownership structure in enhancing earnings quality (EQ) and examine the moderating impact of International Financial Reporting Standards (IFRS) on the link among ownership attributes and EQ during 2007-2016 in Malaysia. This study used the dynamic panel data by applying Generalized Method of Moments (GMM) on a sample of 2090 firm-year observations during 2007–2016. The results confirm that family ownership, managerial ownership, and politically-connected firms significantly influence accrual-based earnings management. After IFRS adoption, governance mechanisms of managerial and institutional attributes enhance substantially in Malaysia. This study provides empirical evidence for Malaysian decision-makers on the role of IFRS in improving ownership attributes in enhancing the firm's EQ. The paper also has implications for minority shareholders and standard setting bodies.

Keywords: Ownership structure; Earnings quality; IFRS; Accrual-based earnings management; GMM, Malaysia.

1. Introduction

Due to the existence of international financial markets, a need has emerged for global accounting standards. It is argued that a generally accepted set of accounting standards improve the ability to compare financial reports arranged in various nations. The broad adoption of IFRS is expected to increase the capacity of monitoring mechanisms and transparency of reported earnings. Such standards are hence a recent debate issue in the context of improving firms' EQ and accounting disclosure strategies among leaders and academicians in developed and emerging nations (Doukakis, 2014; Hessayri and Saihi, 2015; Marra *et al*., 2011).

In current decades, EQ has become a researchable theme due to the global collapse of numerous firms. It is a summary measure that reflects firm's performance and an essential indicator for investors, professionals, and regulators (Ferentinou and Anagnostopoulou, 2016). Such information ensures numerous economic benefits, including shareholders' confidence, firm performance, market efficiency, and economic growth (Uyar 2013; Atieh and Hussain, 2012). Moreover, quality reported income is crucial towards the proficient distribution of financial resources in capital markets. It also serves as the basis for several contractual agreements, such as executive compensation conventions (Anuar *et al*., 2014), growth probabilities (Habbash and Alghamdi, 2015), and other economic decisions.

However, corporate managers attempt to control this data to acquire advantages, including official rewards, self-reputation, and a long presence (Amran and Ahmad, 2013). Such conflicting interests lead to unclear views on firms' profits and performance. According to Habib and Azim, (2008) "When managers opportunistically influence earnings, accounting profits became a less reliable measure of firm performance" (p.171). Furthermore, information users define the EQ as "The absence of earnings management manipulations" (Barth *et al*., 2008, p.469).

Several monitoring mechanisms can enhance a firm's EQ and performance. According to literature, employing consolidated accounting standards can improve corporate transparency, comparability, and quality of financial reporting (García et al., 2017). It also contributes to reducing foreign capital obstacles (Joshi *et al*., 2016), cost of debt (Persakis and Iatridis, 2017), and firms' earnings manipulations (Yurisandi and Puspitasari, 2015). Therefore, receiving IFRS is expected to enhance financial performance and promote emerging countries to be in line with developed nations.

The global introduction of IFRS is a motivation for sound corporate governance (CG). The presence of good CG restricts managers from perpetuating self-interests at the expense of stakeholders. Ownership structure, as an essential CG mechanism, contributes to monitoring earnings manipulations practices, hence increasing firms' EQ (Alzoubi, 2016). The weakness of this mechanism, however, is the factor behind crises and collapses of Enron, WorldCom, HIH, and the Asian financial crisis (Zabri *et al*., 2016). Due to this turmoil, substantial efforts have been made globally to develop CG through amendments and improvements. These efforts include the Malaysian Code on Corporate Governance and the Sarbanes–Oxley Act in the USA.

Several CG mechanisms have been enhanced post-IFRS adoption. The quality of earnings, transparency and disclosure have been enhanced worldwide (Aksu and Espahbodi, 2015; Yurisandi and Puspitasari, 2015). Moreover, the implementation of CG reduces earnings management after the IFRS period (Bryce *et al*., 2015). These reforms can enhance ownership structure monitoring abilities in moderating opportunistic earnings management.

The present investigation features numerous issues concerning this contention. First, it provides more evidence on the debate of whether the firm-level monitoring mechanisms are more active after the IFRS period in different contexts (Păşcan, 2015). Second, the current study takes into account the appropriate ownership attributes that improve EQ before and after the implementation of IFRS in the Malaysian context. Finally, this study provides evidence on the role of Malaysian politically connected and non-connected firms towards strengthening firms' EQ during the pre- and post-IFRS periods.

Malaysia has been considered in this investigation for good reasons. It has witnessed quick reforms in the CG mechanisms, namely the MCCG, to monitor corporate financial activities and performance. In 2012, IFRS were compulsorily adopted among listed companies to improve the quality of financial reporting (Chan, 2012). Malaysia is also among the fastest developing economies and aims to enhance investor protection quality (Randhawa, 2011). Additionally, this country has a systematic strategy to be a developed nation. However, there is evidence that Malaysia is among the worst earnings manipulations in the region (Fan and Wong, 2002; Wan-Hussin, 2009). It hence seeks to enhance some features related to market efficiency, enforcement of the law, and information quality (Collins *et al.*, 1996; Young *et al.*, 2008).

The current study contributes to literature, practitioners, and policymakers via several ways. First, not much documentation was found on the link between IFRS and political connections. Second, the current study also enriches literature with new evidence on the moderating impact of IFRS adoption upon the association between ownership attributes and EQ. Third, this study provides Malaysian regulators with evidence on the significance of ownership attributes in efficiently monitoring earnings manipulations post-IFRS period. Finally, this paper enriches the knowledge by applying dynamic panel data using GMM. It is appropriate when dealing with short panel data, as well as several econometric problems, such as heterogeneity, autocorrelation, and heteroscedasticity.

The remainder of this study is presented as follows: Section 2 reviews existing literature. Section 3 addresses Data and Methodology. The empirical results and discussions are presented in Section 4. Finally, Section 5 concludes the paper.

2. Literature Review and Hypotheses Development

2.1 Managerial Ownership and EQ

According to agency theory, directors holding a large amount of shares can enhance monitoring roles and reduce agency costs (Jensen and Meckling, 1976). Prior literature also suggests that managerial investors seek to improve financial performance for good reasons. First, managerial stockholders are motivated to raise corporate profits to acquire benefits under the convergence of interest's hypothesis. According to stewardship theory, managerial shareholders do not have any conflict with other shareholders' interest. Their goals are also convergent with organizational goals (Davis *et al*., 1997). Second, as significant shareholders, directors have more ability to monitor financial performance and help align their interests with other partners to achieve their goals and ensure the firm's value and continuance (Jensen and Meckling, 1976). Third, auditors are more efficient in restraining earnings

management practices in companies that have managerial ownership (Alzoubi, 2016). Prior studies also suggest that managerial ownership is a significant factor of quality assurance in corporate earnings (Alves, 2012; Alzoubi, 2016; Di Meo *et al*., 2017).

On the other hand, Al-Rassas and Kamardin (2015) argue that administrative investors lead to greater opportunistic behaviors "entrenchment effect." The entrenchment effect hypothesis suggests that director owners act to obtain more benefits at the cost of their counterparts. Accordingly, prior literature reports several drawbacks for this strategy. First, since they are closely related to the financial reporting process, managerial owners may hide information for particular purposes. Second, they can use their power to monitor essential issues suitable to their interests, rather than the interests of other shareholders. Third, such investors can purposely apply the accounting choices of significance that satisfy their interests (Francis *et al*., 2005). Bergstresser and Philippon (2006) and Gonzalez and Garcia-Meca (2014) propose that higher percentage of administrative proprietorship negatively effects monitoring mechanisms and amplifies earning management practices. Therefore, managerial shareholders might have individual goals differ from other stakeholders, leading to low EQ.

In Malaysia, Hashim and Devi (2015) suggest that managerial investors have more capabilities in monitoring managers' manipulation practices, hence improving EQ. However, other studies find that accrual-based earnings management is high in firms with substantial administrative possession (Al-Rassas and Kamardin, 2015). As a result, the second hypothesis is formed:

H1*: There is a relationship between the percentage of managerial ownership and firm's EQ.*

2.2 Institutional Ownership and EQ

The active monitoring policy proposes that institutional ownership has a proficient contributions to improving financial and working executions (Ferreira and Matos, 2008). Institutional investors regularly hold much possession as opposed to other partners. Literature proposes a few factors that lead institutional financial specialists to screen opportunistic earnings management. First, Holding large voting shares makes institutional investors efficient financial mediators and information collectors. They have resources and ability to hire financial experts to do so (Hadani *et al*., 2011). Second, potential financial investors search for information about the association's appropriate CG systems and abstain from placing resources into entrenched management firms (Ruiz-Mallorqui and Santana-Martin, 2009). Third, significant partners encourage the execution of correct accounting techniques to ensure their advantages and monitor budgetary activities (Shleifer and Vishny, 1997). They do so due to the higher agency costs that they could incur relative to other minorities (Hadani *et al*., 2011). Finally, institutional owners depend on experts in securities analysis and corporate monitor to control managers' opportunistic behaviors (Zhong *et al*., 2017). They additionally urge that external auditors prompted the decrease of such practices efficiently (Rad *et al*., 2016). In this manner crafty controls will also decrease due to institutional proprietorship voting power. Based on the aforementioned features, prior literature also suggests that institutional investors support improving disclosure requirements, monitoring mechanisms, and firm performance (Nagata and Nguyen, 2017; Rad *et al*., 2016). They hence discourage accruals manipulation behaviors to protect their investments (Hessayri and Saihi, 2015; Mehrani *et al.*, 2016; Rebai, 2011; Zhong *et al*., 2017). For instance, using static panel data models on a sample of 62 companies in Jordan in 2013, Alzoubi (2016) tests the relationship between ownership structure and discretionary accruals (DAC) and finds that institutional possession improves financial reporting quality.

Nevertheless, the investment horizon and private benefits hypotheses contend that institutional proprietorship debilitates firms' financial activities and performance. Several reasons support this view. First, institutional speculators may collude with corporate executives, as they focus on short-term money related outcomes, thus avoiding monitoring their opportunistic behaviors "the investment horizon hypothesis." Second, institutional investors decide to vote "with their feet," due to insufficient corporate results rather than upgrade or substitute administrators (Al-Fayoumi *et al*., 2010). Third, focusing on short-term investments limits institutions' ability to improve firms' CG mechanisms (Shayan-Nia *et al*., 2017). Finally, private benefits theory indicates that unseen takeover purpose of concentrated institutional ownership leads to special benefits at the expense of other stakeholders (Barclay and Holderness, 1989). Al-Fayoumi *et al*., (2010) argue that institutional investors encourage managers to provide higher accounting profits, even via the manipulation of accounting policies and procedures. Consequently, such shortcomings lead managers to manipulate earnings and obstruct EQ.

In Malaysia, institutional ownership enhances the predictive ability of earnings (Al-Dhamari and Ismail, 2013). Its ability to protect minorities is also high, due to the use of qualified external auditors (Rad *et al*., 2016) and the

monitoring resources they possess, which enhances firms' financial performance (Zhong *et al*., 2017). Accordingly, the third hypothesis is formulated:

H2*: There is a relationship between the percentage of institutional ownership and firm's EQ*

2.3 Family Ownership and EQ

The agency theory suggests that family firms have a proficient role in restricting managers' opportunistic behaviors and monitoring costs compared to non-family firms (Fama and Jensen, 1983). They are also less motivated to expropriate other stockholders (alignment perspective). Accordingly, several reasons lead family investors to carefully monitor their businesses. First, family investors are directly related to the wealth of a firm they run. They are hence motivated to limit managers' opportunistic activities and improve the firms' performance (Adıgüzel, 2013). Second, the primary goal of family member-owners is to maintain their business for a long time. This goal encourage them to protect family name and reputation (Arosa *et al.*, 2010). Third, the broad operational leadership, knowledge, and skills give family members an opportunity to improve financial performance and disclosure (Hashim and Devi, 2015). Finally, due to strong relationships among the members, the communication aspect becomes proficient and prompts rapid and better basic leadership. Based on the above, studies (e.g. Adıgüzel, 2013; Almeida-Santos *et al*., 2013; Jara-Bertin and Sepulveda, 2016) posit that family possession can monitor earnings management and enhance EQ opposed to non-family counterparts. As a result of this, family members seek to align interests with other shareholders and improve performance, due to the long-range existence.

In contrast, the economic theory of entrenchment effect argues that family ownership weakens EQ and performance. Literature provides several reasons supporting this view. Chau and Gray (2010) suggest that family owners apply policies that satisfy their interests, rather than the interests of minorities (entrenchment effect). Such policies distort corporate earnings and performance. Second, family investors can easily obtain private data and reduce transparency to benefit at the expense of minorities (Chau and Gray, 2010; Ruiz-Mallorqui and Santana-Martin, 2009). Third, ownership concentration weakens the impact of auditors on earnings management practices (Rad *et al*., 2016). Accordingly, Jiraporn and DaDalt (2009) find that family firms increase the earnings management practices, thus supporting the entrenchment hypothesis. They discover that controlling family has a negative impact on financial and operating performance. Furthermore, Gonzalez and Garcia-Meca (2014) find no relationship between family-member owners and managers' opportunistic behaviors. Thus, controlled family ownership is more likely to increase managers' opportunistic behaviors and lower EQ.

In the Malaysian context, Hashim and Devi (2015) and Kamardin and Haron (2011) suggest that family firms are active monitoring mechanisms and align interests with minority shareholders. However, other studies provide the reverse (Al-Rassas and Kamardin, 2015). Based on the above discussions, it is hypothesized that:

H3*: There is a relationship between the percentage of family ownership and firm's EQ.*

2.4 Politically-Connected Firms and EQ

According to the resource dependence theory, politically affiliated firms benefit from their relationship with governments. They can obtain several advantages relative to non-connected organizations. First, this link helps state-owned firms obtain essential resources and improve firm value (Li *et al*., 2008). Second, they rely chiefly on governments to obtain government bailouts during financial crises. Related directors can similarly enable firms to beat the market and institutional snags, and obtain for extraordinary treatment from governments (Li *et al*., 2008). Third, governments are more likely to offer lenient tax benefits to their affiliations (Lassoued and Attia, 2014). Fourth, they can easily get access to a direct channel of existing government officials, administrator, and chiefs (Blau *et al*., 2013). Accordingly, several studies suggest that politically connected firms enhance financial performance (Chi *et al*., 2016; Wu *et al*., 2012) and stock returns (Kim *et al*., 2012). Politically associated firms additionally have substantial money holdings, long-term debt, and lower financing costs (Su and Fung, 2013). Ding *et al*. (2018) also confirm that state-owned firms enhance financial activities, accounting procedures, and performance.

The agency theory, however, suggests that politically associated chiefs are mainly associated with policy pressures among organizations. They are usually appointed to adjust firm goals with government interests, leading to lower transparency and disclosure prerequisites (Gul, 2006). According to Hou *et al.* (2017), political connections reduce corporate innovation activities, market competition, and hence firms' future performance. Since they obtain

various benefits, connected firms are not willing to respond to market pressures to increase EQ (Chaney *et al.*, 2011; Harymawan and Nowland, 2016).

In the Malaysian context, the political connection is a unique feature; as such firms obtain financing from the government at proper expenses to stabilize their financial position. However, wasteful resource allocation of such firms makes financial markets inefficient and decreases foreign and domestic investors (Al-dhamari and Ismail, 2015). Furthermore, they provide lower requirements for financial reporting quality and disclosure (Al-dhamari and Ismail, 2015; Gul, 2006). Accordingly, this study re-examines this relationship, and it is hypothesized that:

H4*: There is a relationship between the percentage of political connection firms and firm's EQ.*

2.5 The Moderating Effect of IFRS Adoption

Previous studies suggest that mandatory IFRS adoption enhances information quality and market stability (Dayanandan *et al*., 2016; Joshi *et al*., 2016). Several reasons consider the IFRS to be of efficient in ensuring high-quality earnings. First, the IFRS enhance financial reporting and help companies attract foreign and domestic capitals, leading to market efficiency and economic growth (Kouaib and Jarboui, 2017). Second, the qualitative characteristics of financial reporting quality, such as relevance, understandability, and comparability improve after the IFRS period (Yurisandi and Puspitasari, 2015). Third, IFRS help investors and regulators assess quality of earnings and analyze diverse accounting policies among firms in multiple countries (Doukakis, 2014). Fourth, such standards have become the root of high-quality financial reporting and transparency (Wan Ismail *et al.,* 2013; Yurisandi and Puspitasari, 2015). Therefore, accounting data appears to better reflect firm position and performance under the IFRS.

Literature suggests that CG mechanisms are efficient in increasing quality of earnings, disclosure and transparency after the IFRS (Aksu and Espahbodi, 2015). According to Yurisandi and Puspitasari (2015), transparency and disclosure quality are enhanced in the post-IFRS period in both developed and emerging markets. Moreover, the implementation of sound CG reduces accrual manipulations after the IFRS period (Bryce *et al*., 2015). These reforms can help stockholders understand and evaluate accounting policies and reports among firms. Accordingly, ownership attributes are more likely to be proficient in reducing earnings management to ensure high-quality earnings in the post-IFRS period in Malaysia. Hence, this study formulates the following hypotheses:

H5: *The relationship between managerial ownership and firm's EQ is significantly moderated by the adoption of IFRS.*
H6: *Institutional ownership is more efficient in ensuring EQ in the post-IFRS adoption compared to the pre-period.*
H7: *Family ownership is more proficient in ensuring EQ in the post-IFRS adoption compared to the pre-period.*
H8: *Politically-connected firms are more efficient in ensuring EQ in the post-IFRS adoption*

3. Data and Methodology

3.1 Sample selection

The study sample is composed of a balanced panel of 2090 firm-your observations from 209 Malaysian firms during the period 2007-2016. The data were collected from DataStream database and firms' financial reports. The sample size included only non-financial firms reporting under Financial Reporting Standards (FRS) for the pre-IFRS period, and firms reporting under IFRS in the post-IFRS period. The current study excluded firms with incomplete CG data and observations. Firms that changed financial year-end during the selected period were also prohibited. Further exclusions are firms that have fiscal year-end other than December 31.

3.2 Earnings Quality Measures

EQ is represented by the accrual-based earnings management to examine the moderating impact of IFRS introduction on the link between ownership and EQ.

3.2.1 Accrual-based Earnings Management

As per literature, Kothari et al., (2005) model is applied in this investigation to evaluate DAC. Several factors support the use of this model. First, unlike Jones (1991), the Kothari model contains a constant. According to Kothari et al. (2005), the incorporation of an intercept lessens heteroscedasticity which is not eased by utilizing lagged total assets as the deflator. Second, Kothari et al. (2005) point out that the modified Jones model reports enormous estimated earnings management, whenever a firm grow in the pre-period, compared to the estimated-period. Finally, both the Jones and modified Jones models might encounter significant errors, since they disregard firm performance (Khamoussi and Ben Abdelaziz, 2016). Therefore, the rate of return on assets (ROA) is included as an explanatory variable to Kothari model to control for variations in accruals that result from shifts in business terms.

Additionally, the current study applies the absolute value to measure DAC, for two reasons. First, the absolute value is the best measure due to the absence of a specific estimation trend (Doukakis, 2014). Second, the measure has an ability to capture accrual reversals following the discretionary event (Cohen et al., 2008). The following steps were applied to calculate DAC:

First, the Kothari model was estimated:

$$TACCit/TSit\text{-}1=\beta0 + \beta1[1/TSit\text{-}1]+\beta2[(\Delta SAit–\Delta RCVit)/TSit\text{-}1]+\beta3[PEit/TSit\text{-}1]+\beta4ROAit+\varepsilon it \quad (1)$$

Second, the parameters estimated from Eq. (1) were used to determine the normal accruals (NDAC):

$$NDAC= \beta0 + \beta1[1/TSit\text{-}1] + \beta2[(\Delta SAit – \Delta RCVit)/TSit\text{-}1]+\beta3[PEit/TSit\text{-}1]+\beta4ROAit \quad (2)$$

Third, the DAC was obtained as:

$$DACit= TACCit/TSit\text{-}1–NDACit \quad (3)$$

Where TACCit: total accruals; TSit-1: lagged total assets, ΔSA: change in sales: ΔRCV: change in net receivables; PE: net property, plant, and equipment; and εit: error term (DAC).

3.3 Model Specification

This study employs two regression models to investigate the moderating impact of the IFRS on the association between ownership attributes and earnings reported quality.

$$\boldsymbol{DAC}_{it} = \beta_0 + \beta_1\boldsymbol{DAC}_{it\text{-}1} + \beta_2\boldsymbol{MANOW}_{it} + \beta_3\boldsymbol{INSTOW}_{it} + \beta_4\boldsymbol{FAMOW}_{it} + \beta_5\boldsymbol{PCON} + \beta_6\boldsymbol{IFRS} + \beta_7\boldsymbol{(MANOW * IFRS)} + \beta_8\boldsymbol{(INSTOW * IFRS)} + \beta_9\boldsymbol{(FAMOW * IFRS)} + \beta_{10}\boldsymbol{(PCON * IFRS)} + \beta_{11}\boldsymbol{LnSIZE}_{it} + \beta_{12}\boldsymbol{GRWTH}_{it} + \beta_{13}\boldsymbol{LEV}_{it} + \beta_{14}\boldsymbol{ROA}_{it} + \beta_{15}\boldsymbol{BIG4}_{it} + \lambda_i + \boldsymbol{\varepsilon}_{it} \quad (4)$$

Where MANOW is managerial ownership, INSTOW is institutional ownership, FAMOW is family ownership, PCON is political connections, LnSIZE is firm size, GRWTH is growth rate, LEV is a firm leverage, ROA is rate on assets, BIG-4 is audit quality, IFRS is the adoption of IFRS (dummy), λ_i is firm-specific effect, ε_{it} is the composite error term and β_0 and β_1 to β_{16} refer to the regression parameters.

Literature suggests several factors that can economically affect firm's EQ. These include auditing quality, firm size, growth, financial leverage, and profitability (Doukakis, 2014; Francis and Wang, 2008; Gunny, 2010). This study hence considers them to control for their effects on earnings management. All control variables are operationally defined in the Appendix.

3.4 Dynamic Panel Data

System GMM method is employed for this study to examine the association between ownership, IFRS adoption, and EQ. Several advantages support the use of this method compared to other panel models. First, static models, namely Ordinary Least Squares (OLS) and Fixed-effect estimators provide biased and inconsistent parameters, due to the inclusion of lagged-dependent variables or the presence of endogeneity problem caused by explanatory

variables. A lagged-dependent factor parameter estimated by OLS regression causes upward bias, due to its positive relationship with the results of a dynamic regression (Hsiao, 2014). However, fixed-effect model results in a downward bias, due to the hidden firm-specific impacts (Nickell, 1981). Therefore, the system GMM method efficiently eliminates biases generated by such methods. Second, the system GMM provides proficient and reliable results, regardless of the presence of econometric problems, namely serial correlation, endogeneity, and heteroscedasticity. Third, since applying more instruments and comprising of both level and first difference methods, the system GMM offers more efficient estimates than difference GMM (Roodman, 2009). Fourth, it provides relevant results even within short time series and unbalanced panel data.

The current study applied three diagnostic tests, which maintain the consistency of system GMM method. These include the Hansen test, Arellano-Bond test [AR (2)], and the difference in Hansen test (DHT). The Hansen test checks the instruments' validity, that shouldn't be correlated with residuals. Hence, the instruments become valid and the model is correctly indicated if the moment condition holds. Furthermore, the AR (2) examines residuals, hence considering the existence of autocorrelation amongst the changed error terms. Moreover, the DHT analyzes the additional moment conditions' legitimacy on the system GMM. This test examines the variation between the Hansen tests created by both the system and difference GMM approaches. Hence, inability to reject these tests' null hypotheses supports the overall model.

4. Empirical Results and Doscussions

4.1 Descriptive statistics and correlation matrix

Table 1 presents descriptive and correlation statistics of related variables, as well as variance inflation factors (VIF). The latter indicates that multicollinearity is not a big issue in this study. As can be seen in Table 1, there are significant correlations among MANOW, INSTOW, FAMOW, PCON, and measure of DAC. IFRS adoption also is negatively and economically correlated with DAC. The results indicate that such variables are related to the level of EQ.

Additionally, the mean value of firms' DAC is 8% (Ferentinou and Anagnostopoulou, 2016). In terms of independent variables, the mean of MANOW is 11%, confirming that the percentage of shares held by corporate managers in the sample is moderate. The results also show that Malaysian companies have a high level of INSTOW (40%) followed by politically-connected firms (22%). However, FAMOW comprises of the lowest investment in the sample (7%).

4.2 Multiple regression analysis

As seen in Table 2, the system GMM is employed, and the results confirm that the AR (2), the Hansen/Sargan, and the difference in Hansen tests are statistically insignificant, and hence valid. These test results also indicate that the empirical models are correctly specified, rendering their results interpretable. Table 2 presents empirical results for the discretionary accruals as an EQ measure. First model is employed without the moderating effect of IFRS, while the other model includes it. Additionally, the significant relationship between DAC and its lag confirms the utilization of dynamic model and supports GMM application.

4.2.1. The impact of ownership structure and IFRS on accrual-based earnings management

As per Table 2, the primary goal of this paper is to investigate the role ownership structure in enhancing EQ and examine the moderating impact of IFRS introduction on the link among ownership attributes and EQ during 2007-2016 in Malaysia. The first objective is to examine the impact of managerial ownership on EQ. The results in column (1) present significant and negative link between managerial ownership and firms' DAC. Specifically, the managerial ownership coefficient is (-0.082) and statistically significant at 5% level over the sample period. This indicates that the existence of administrative investors leads to a lower firm's DAC, thus improving firm's EQ in Malaysia. This finding is consistent with the theoretical attitude and previous literature (Di Meo *et al*., 2017). Consequently, the moderate level of managerial investors has the opportunity to observe and monitor accrual manipulations due to their monitoring experience, skills, as well as interests in the company.

The second objective of this study is to examine the impact of institutional ownership on DAC. The results in column (1) show that institutional ownership has a positive and statistically significant impact on DAC at 1% level,

noting that institutional possession concentration increases manipulation by 0.139 point. This result agrees with (Al-Fayoumi *et al*., 2010), but it is against the theoretical supposition and our prospects. Institutional investors are expected to monitor such manipulation, since they have monitoring mechanisms and are large enough to protect their investees (Zhong *et al*., 2017).

The third objective is to examine the impact of family ownership on accrual earnings behaviors. column (1) present empirical results that family ownership has negative and statistically significant impacts on DAC at 1% level, meaning that small-sized family possession decreases the firm's DAC by 0.125 point which consequently increases the firm's EQ. This result is consistent with the theoretical supposition and prior literature (Jara-Bertin and Sepulveda, 2016).

The fourth objective of this paper is to test the relationship between political connection and EQ. Column (1) in Table 2 indicates that political connections lead to a significant decrease in DAC at 10%. This result supports the study predictions and prior literature (Ding *et al*., 2018).

Regarding control variables, the results show that firm size and Big4 auditors are significantly associated with low DAC at 1% and 5%, respectively. This result indicates that big-sized firms audited by one of the big for auditors improve financial activities and EQ. However, DAC is positively related to firm growth and leverage at 1% level (Doukakis, 2014). implies that high growth with higher leveraged firms are more motivated to engage in earnings manipulations to avoid debt covenant violation. Unexpectedly, the results indicate that profitability is associated positively to accrual behaviors at 5% (Adıgüzel, 2013). This finding indicates that high profitability firms have the tendency to engage in earnings manipulations, leading to low EQ.

Table 1 Descriptive statistics and Pair-wise Pearson correlation coefficients

Variables	Mean	SD	VIF	DAC	MANOW	INSTOW	FAMOW	PCON	IFRS	SIZE	GRWTH	LEV	ROA	B4
Discretionary Accruals [DAC_{it}]	0.08	0.46	-	1										
Managerial Ownership [$MANOW_{it}$(%)]	0.11	0.15	3.35	-0.05*	1									
Institutional Ownership [$INSTOW_{it}$ (%)]	0.40	0.23	1.68	0.02	-0.6*	1								
Family Ownership [$FAMOW_{it}$ (%)]	0.07	0.13	2.87	-0.07*	0.84*	-0.55*	1							
Political connections [$PCON_{it}$ (D)]	0.22	0.42	1.03	-0.01*	0.003	0.05*	-0.04	1						
IFRS (Dummy)	0.48	0.5	1.09	-0.06*	-0.02	0.001	-0.05*	-0.00	1					
Ln (Firm Size) [$SIZE_{it}$ ($ Millions)]	5.03	0.63	1.38	-0.01	-0.32*	0.49*	-0.28*	0.01	0.06*	1				
Firm Growth [$GRWTH_{it}$ (%)]	0.06	0.26	1.14	0.13*	-0.02	0.05*	000	-0.11*	-0.25*	0.10*	1			
Financial leverage [LEV_{it} (%)]	0.38	0.21	1.10	0.13*	-0.06*	0.06*	-0.08*	-0.02	-0.07*	0.24*	0.09*	1		
Profitability [ROA_{it} (%)]	0.07	0.11	1.15	-0.02	-0.09*	0.16*	-0.04	0.01	-0.06*	0.13*	0.22*	-0.06*	1	
Audit Quality [*Big4* (Dummy)]	0.49	0.5	1.23	-0.02	-0.17*	0.34*	-0.13*	-0.07*	-0.05*	0.34*	0.02	0.03	0.12*	1

Notes: * refers to the significance at 5% level.

4.2.2. The moderating effect of IFRS on the relationship between ownership structure and EQ

The fifth objective of this paper is to examine the moderating effect of the IFRS on the relationship between ownership structure and EQ over 2007-2016. Column (2) indicates that managerial and institutional possessions became more proficient in ensuring high-quality earnings under IFRS in Malaysia. The results show that MAN*IFRS has a negative and significant impact on DAC at 5%. INST*IFRS also has a similar trend at the 1% level. This result is consistent with the theoretical supposition and previous literature (Marra et al., 2011) in a case of board of directors and earnings management relationships. However, politically-connected firms are more likely to undertake accrual manipulations during IFRS adoption at the 1% level. These results are inconsistent with the general attitude and expectations. In sum, IFRS moderate the relationships among just managerial ownership, institutional ownership, and EQ in Malaysia.

Table 2, Ownership structure, IFRS, and EQ, dynamic panel-data, System GMM

	(Without Interaction)	(Interaction with IFRS)
	Model (1)	Model (2)
DAC_{t-1}	-0.021(-4.22)***	0.017(31.64)***
$MANOW_{it}$	-0.082 (-1.98)**	0.015 (0.097)
$INSTOW_{it}$	0.139(5.99)***	0.025(2.95)***
$FAMOW_{it}$	-0.125(-3.23)***	-0.03(-1.71)*
$PCON_{it}$	-0.023(-1.86)*	-0.012(-2.62)***
$IFRS_t$	0.005(2.02)**	
$SIZE_{it}$	-0.053(-9.86)***	-0.019(-7.5)***
$GRWTH_{it}$	0.074(8.21)***	0.068(10.02)***
LEV_{it}	0.001 (4.00)***	0.003(11.87)***
ROA_{it}	0.109(2.21)**	0.169(7.75)***
BIG4	-0.013(-2.10)**	-0.004 (-1.07)
$TREM_{it}$	-0.045(-4.19)***	-0.069(-9.87)***
Constant	283(9.38)***	0.133(10.11)***
Interaction Effects		
MAN*IFRS		-0.035(-2.44)**
INST*IFRS		-0.014(-2.92)***
FAM*IFRS		0.027(1.56)
PCON*IFRS		0.046(9.84)***
Time-fixed effects	No	No
Firm-fixed effects	Yes	Yes
Diagnostic tests		
No of instruments	90	129
No. of groups	209	209
Number of obs.	1872	1873
AR(2)-p value	0.162	0.541
Hansen test	0.155	0.318
Diff. in Hansen test	0.478	0.074

Notes:***, **, * denote the significance at 1%, 5%, and 10%, respectively.

4.3. Sensitivity tests

The current study conducts some additional tests for further robustness checks. In both regression models, the firms' leverage, estimated as total debts to total assets, is replaced by leverage calculated as total debts to total equity. ROA is similarly supplanted by Return on equity (ROE) as a profitability proxy. Furthermore, the firm size, calculated as a log of total assets, is replaced by the logarithm of total sales (Akhtaruddin and Haron, 2010). Both models are run, and the results remained consistent. The relationships between ownership structure and DAC reports same signs and significance. Therefore, the robustness of the results is supported by these sensitivity checks.

5. Conclusions

The current study contributes to literature by investigating the role ownership structure in enhancing EQ and analyzing the moderating impact of IFRS adoption on the association between ownership attributes and EQ proxied by accrual earnings manipulation over 2007-2016 in Malaysia. The results are presented using dynamic panel data modeling. The results suggested that family and managerial possessions have significantly negative impacts on accrual-based earnings manipulation. Politically-affiliated firms also engage in lower level of accrual manipulations. These mechanisms demotivate corporate managers carrying out such breaches, which increase a firm's profit quality. However, institutional possession is inefficient in reducing accrual manipulations. After the IFRS period, both managerial and institutional ownership became more efficient in decreasing accrual manipulations. The likely reason for this is that owners possess leadership, monitoring skills, and the experience to apply accounting standards successfully, hence protecting their investments, as well as mutual interests. Finally, the outcomes recorded that a firm's audit quality supplements the beneficial impact of monitoring mechanisms, since organizations evaluated by a Big-4 audit firm report higher levels of EQ as opposed to their non-Big-4 counterparts.

The findings of this study have implications for decision-makers and practice. It revealed that the IFRS increase the proficiency of both managerial and concentrated institutional attributes in improving firms' EQ. Moreover, the results contribute to practitioners and investors, since they indicate that accounting earnings prepared under IFRS, controlled by managerial and institutional ownership, and evaluated by the Big-4 auditors are high-quality and more reliable. Policy-makers should place greater attention on such monitoring factors to protect domestic and foreign investments and the whole economy.

This study opens the door for more studies on salient inferences in this ongoing discussion. Future studies should focus on other factors that improve the efficiency of the ownership structure. Future research could also help resolve earnings management problem by studying this relationship between different emerging countries to enrich this debate. It would be interesting to analyze the effect of the IFRS on EQ under any legislative developments regarding the protection of investors in Asian economies. Finally, future studies could focus on real earnings management as an EQ indicator, as it is more risky and needs more work.

Appendix

Variables	Acronym	Description
Total accruals	*TACC*	The difference between net income and cash flow from operation
Discretionary accruals	*DAC*	The difference between total accruals and non-discretionary accruals
Managerial ownership	*MANOW*	Percentage of shares held by executive directors and non-independent non-executive directors
Institutional ownership	*INSTOW*	Proportion of shares held by institutional investors to the total number of shares issued
Family ownership	*FAMOW*	Percentage of family members to total number directors on the board
Politically-connected firms	*PCON*	Dummy variable that equals 1 if a member of the parliament, a minister, or the Chief of the State is top director or controls at least 10% of votes, 0 otherwise
IFRS	*IFRS*	Dummy variable that equals 1 if the year is post-IFRS adoption, 0 otherwise
Big Four auditing	*Big4*	Dummy variable that equals 1 if a firm is audited by one of the Big Four auditing businesses and zero if otherwise
Firm Growth	*GRWTH*	The change in total assets scaled by lagged total assets.
Firm Leverage	*LEV*	Total debt divided by total assets
Profitability	*ROA*	Net income before tax divided by the average total assets
Firm size	*Ln(SIZE)*	The natural logarithm of total assets

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Disclosure Practices On Goodwill Impairment By Malaysian Listed Firms: A Ten Year Perspective

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Abstract

The objectives of this study are two-fold. First, this study examines whether disclosure practices on an accounting for goodwill impairment by Malaysian listed firms has improved over a ten-year period. To accomplish this objective, the study examines the disclosure practices in three stages, i.e., prior to the implementation of the Malaysian Financial Reporting Standard 3 (MFRS 3) (in 2005), the initial year of implementing MFRS 3 (in 2006) and the most recent year (in 2015). The second objective of the study is to analyze the nature of disclosure practices on an accounting for goodwill impairment disclosed by the sample firms. To accomplish this objective, the study focuses on the most recent disclosure practices (in 2015) and explores types of information on an accounting for goodwill impairment disclosed. Focusing on top fifteen Malaysian listed firms, based on the largest market capitalization as at 2015, the findings show that, overall, the disclosure scores of the sample firms has improved over the ten-year period. The disclosure score has increased from 63% prior to the MFRS 3 implementation to 81% in the initial year of the MFRS 3 implementation. It has improved further to 87% in the most recent year (in 2015). In terms of the types of information disclosed, results are encouraging particularly for disclosure items that require firms to disclose the allocation of goodwill to each cash-generating unit (CGU) and the basis of the recoverable amount of the goodwill. Nevertheless, further improvement is needed on firms' disclosures related to segment information and events and circumstances that led to the impairment losses.

Keywords: Disclosure, Goodwill impairment, Mandatory accounting change, Emerging economy

1. Introduction

Corporate disclosure is an essential element for long-term growth and development of companies (Aksu and Kosedag, 2006). For example, to raise capital on the market, companies normally improve their compliance with mandatory disclosure or provide voluntary disclosures (Cooke, 1993). In addition, corporate disclosure is one of the potential tools for management to convey firms' performances and governances to external shareholders (Healy and Palepu, 2001). With the implementation of the International Financial Reporting Standards (IFRS) throughout the world, prior studies started to examine firms' compliance with the disclosure requirements of IFRS in general or on one specific IFRS, such as fair value disclosure or goodwill impairment (e.g., Glaum et al., 2013). This paper focuses on IFRS implementation related to goodwill impairment as it is a contemporary issue that is discussed by numerous stakeholders including standard-setters, practitioners and academics (e.g., Carlin and Finch, 2010; Abdul Majid, 2013; Baboukardos and Rimmel, 2014; Abdul Majid, 2015; Abdul Majid, 2017).

Whilst empirical work on compliance with the disclosure requirements on goodwill impairment have been conducted on a number of countries (Carlin and Finch, 2010; Glaum et al., 2013; Baboukardos and Rimmel, 2014), little work has been undertaken in analysing whether these disclosure practices have improved over time. Thus, the present study attempts to address this gap by analysing whether firms' disclosure practices on goodwill impairment by Malaysian listed firms have improved from the initial implementation year to the recent year. Specifically, the present study examines the disclosure practices related to goodwill impairment by Malaysian listed firms at three different stages. These are: prior to the implementation of MFRS 3 (in 2005), the initial year of implementing MFRS 3 (in 2006) and the recent year (in 2015). In addition, the present study analyses the nature of disclosure practices on goodwill impairment disclosed in annual reports. In addressing

this objective, this paper focuses on the recent disclosure, which is in 2015, and explores types of information on goodwill impairment disclosed.

This paper is organized as follows. Section 2 reviews prior literature on firms' mandatory disclosures while Section 3 describes the research design. Section 4 presents the findings and analyses and Section 5 ends with the conclusions of the study.

2. Prior Literature

Prior studies on mandatory disclosures (Abd-Elsalam and Weetman, 2003; Owusu-Ansah, 2005) normally focused on whether firms complied with financial reporting standards or a specific regulatory requirements. For example, Owusu-Ansah (2005) investigated whether listed firms in New Zealand complied with the Financial Reporting Act 1993 while Abd-Elsalam and Weetman (2003) analysed the compliance with International Accounting Standards (IAS) of non-financial firms in Egypt.

Once IFRS was implemented by the European listed firms in 2005, a number of studies analysed firms' compliance with all IFRS mandatory disclosure requirements. For example, using the disclosure checklist of Street and Gray (2001), Hodgdon et al. (2008) found that the quality of financial statements improved significantly upon the adoption of IFRS. Apart from prior studies (e.g., Tsalavoutas and Dionysiou, 2014; Abdullah et al., 2015) that analyse firms' compliance with the disclosure requirements of all IFRS, there were also studies that focused on a specific IFRS or a group of related IFRS so as to improve the reporting standards.

3. Research Design

3.1 Sample selection

To examine whether the disclosure practices on goodwill impairment by Malaysian listed firms have improved over a ten-year period, this study focuses on top fifteen Malaysian listed firms that have goodwill balance or reported goodwill impairment losses at three different stages of the MFRS 3 implementation, i.e., prior to the implementation of MFRS 3 (in 2005), the initial year of implementing MFRS 3 (in 2006) and the recent year (in 2015). Annual reports were obtained from the website of Bursa Malaysia. To explore firms' disclosure practices on goodwill impairment, the present study searches for several keywords, such as 'MFRS 3', 'MFRS 136', 'goodwill', 'amortisation' and 'impairment'. To avoid omitting words merely because they were spelled out in different manners (the US or UK spelling) or different tenses, the keyword was not typed in full wording such as 'amor' for 'amortisation' or 'amortization'.

3.2 Construction of the disclosure checklists

Three sets of disclosure checklists have been constructed in line with the analysis of firms' disclosures at three different stages of the MFRS 3 and MFRS 136 implementation. The first disclosure checklist is based on the disclosure requirements that were stipulated by the MASB before January 1, 2006. The second disclosure checklist follows the disclosure requirements of MFRS 3 and MFRS 136 in 2006. The third disclosure checklist is based on the recent MFRS 3 and MFRS 136, which were effective on 1 January 2012 and applied by listed firms in their annual reports for the year 2015. In analysing the data, the disclosure checklists are separated into several key items mainly by referring to the relevant paragraphs of the standards.

To ensure the validity of the disclosure checklist, this study compared the self-constructed disclosure checklist with those disclosures checklist that were formulated by three big audit firms, i.e., Ernst & Young, KPMG, and PricewaterhouseCoopers, which are available online. Similar to prior studies, the disclosure score is computed using a binary score of 1 or 0 based on the presence or absence of information disclosed by firms.

4. Findings and analyses

4.1 Descriptive analysis

Table 1 shows the descriptive analysis of the sample firms. The table shows that the proportion of goodwill balance relative to total assets varies widely among the listed firms and in all the three stages. For the majority of the listed firms, goodwill balance represents a small proportion relative to the total assets. In 2015, on average, the goodwill balance represents 5.8 per cent of the total assets. Table 1 also shows that prior to the implementation of the MFRS 3, there were various accounting treatments on goodwill. Two common treatments were an impairment review of goodwill (6 firms) and impairment review with an amortisation of goodwill (7

firms). After the implementation of the MFRS 3, all of the sample firms performed the impairment testing of goodwill as required by the standard with four firms reported the impairment losses at the year-end.

Table1 Descriptive analysis of the sample firms

	Goodwill relative to total assets			Accounting policy on goodwill	
	Pre-MFRS 3 (2005)	Initial year of MFRS 3 (2006)	Recent year of MFRS 3 (2015)	Pre-MFRS 3	Post-MFRS 3 (Impairment)
GENT	0.49	0.32	1.15	Amortisation	No loss reported
KLK	1.78	3.79	1.75	Impairment (No loss reported)	No loss reported
YTLC	2.85	2.78	8.66		
IOIC	3.06	3.75	2.64		
RHBC	1.30	1.13	2.32		
TMB	16.81	16.36	1.48	Impairment (No loss reported)	Loss reported
BAT	23.99	25.47	34.99	Impairment loss reported	Loss reported
PBB	0.66	1.4	0.65	Amortisation and impairment (No loss reported)	No loss reported
HLFG	0.74	0.68	1.15		
AMMB	0.72	0.68	2.10		
CIMB	0.47	2.83	1.80		
MISC	2.78	2.77	1.81	Amortisation & Impairment (Impairment loss reported)	Loss reported
NEST	4.52	4.20	2.54	Amortisation & Impairment (Impairment loss reported)	No loss reported
PPB	0.51	0.46	0.34		
SIME	0.02	0.01	3.22	Goodwill is written off against reserves in the year of acquisition	Loss reported
Average	4.0	4.4	4.4		

a. Disclosure practices on goodwill impairment

Table 2 reports the disclosure practices on goodwill impairment for the top fifteen Malaysian listed firms at three different stages of the MFRS 3 implementation. The disclosure score is computed by taking the total number of items that the listed firms disclosed divided by the total available disclosure items. The table shows that on average the disclosure score has increased over the ten year period from 63% in 2005 (prior to the MFRS 3 implementation) to 87% in 2015 (i.e., ten years after the MFRS 3 implementation). The improvement in the disclosure scores suggests that the top fifteen Malaysian listed firms have responded positively to the new reporting requirements.

Table 2 Disclosure scores at three different stages of the MFRS 3 implementation

Description	Disclosure Scores (%)
Pre-MFRS 3 (in 2005)	63
Initial year of the MFRS 3 (in 2006)	81
Recent year in implementing the MFRS 3 (in 2015)	87

4.3 Analysis of the types of information disclosed based on key items

Focusing on the disclosure practices in 2015 (the recent year), Table 3 presents detailed analysis of the types of information disclosed and the year when the disclosure requirements were implemented. The information disclosed is segregated into ten key items as per the disclosure requirements of the MFRS 136 from paragraphs 126 to 136. Overall, the table shows that key items 1 and 7 dominate the types of information disclosed while key item 2 had the lowest disclosure score with half of the firms do not disclose the disclosure requirements. In addition, key items 4, 9 and 10 are not applicable to the listed firms examined.

Key item 1: Impairment loss of goodwill recognised in profit or loss and the line item of the Statement of comprehensive income.

Key item 1, which is based on the disclosure requirements of the MFRS 136 in its paragraph 126, requires firms to disclose the amount of goodwill impairment loss in profit or loss during the financial year, and the line item of the Statement of comprehensive income in which the impairment loss is included. From the fifteen listed firms examined, four firms reported goodwill impairment losses while the remaining eleven firms reported zero goodwill impairment during the financial year.

Table 3 Types of information disclosed as per MFRS 136

Paragraph	Key Item	Description	Disclosure scores (%)	Year when the disclosure requirements were implemented
MFRS 136.126	(1)	Impairment loss of goodwill recognised in profit or loss and the line item of the Statement of comprehensive income	100%	Since 2005 under FRS 136_{2004}
MFRS 136.129	(2)	Segment information	50%	New requirement introduced in 2012
FRS 136.130-131	(3)	Impairment loss has been recognised during the period	76%	Since 2005 under FRS 136_{2004}
MFRS 136.133	(4)	The amount of unallocated goodwill	Not applicable	Since 2006 under MFRS 136.133
MFRS 136.134 (a)-(c)	(5)	Allocation of goodwill to each significant cash-generating unit.	93%	Since 2006 under MFRS 136.134
Paragraph	Key Item	Description	Disclosure scores (TD/TA) (%)	History of the disclosure requirements
MFRS 136.134 (d)	(6)	Recoverable amount based on value in use	89%	A large number of new disclosure requirements were added. Also, the disclosure requirements apply to all firms with goodwill irrespective of the materiality of the impairment loss recognised.
MFRS 136.134 (e)	(7)	Recoverable amount based on fair value less costs of disposal	100%	
MFRS 136.134 (f)	(8)	A reasonable possible change in a key assumption	56%	
MFRS 136.135	(9)	Goodwill allocated across multiple cash-generating units and the amount is not significant	Not applicable	Since 2006 under MFRS 136.135
MFRS 136.136	(10)	The most recent detailed calculation in the preceding period of the recoverable amount of cash-generating unit is carried forward and used in the current period	Not applicable	

Table 3 shows that all of the four listed firms disclosed Key item 1, i.e., the amount of goodwill impairment losses recognised in profit and loss, and the line item of the statement of comprehensive income in which those impairment losses are included. With regard to the line item of the income statement, three firms included goodwill impairment losses in their 'Profit before taxation' line item while one firm incorporated the impairment loss in the'Operating profit' line item.

Key item 2: Segment information

Key item 2 is applicable for firms that reported segment information (MFRS 136. 129). The MFRS 136, in its paragraph 129, requires these firms to disclose the amount of goodwill impairment loss for each reportable segment. The findings revealed that all of the four firms reported segment information. Nevertheless, two firms

(50% as shown in Table 3) did not disclosed segment information concerning goodwill impairment losses for each reportable segment.

Key item 3: Impairment loss has been recognised during the period

Similar to the previous two key items, key item 3 deals with firms that reported goodwill impairment losses. This key item covers the disclosure requirements of the MFRS 136 for paragraphs 130-131. It comprises seventeen disclosure items which require listed firms that reported goodwill impairment losses to disclose information, such as, events and circumstances that led to the impairment loss, amount of the impairment losses recognised, description of the cash-generating unit, and the recoverable amount of the cash-generating unit. Table 3 shows that a few of the disclosure items are not being disclosed, which resulted in the disclosure score of 76%. The undisclosed disclosure items relate with events and circumstances that led to the impairment loss [MFRS 136.130(a)] and the recoverable amount of the cash-generating unit [MFRS 136.130(e)]. Key item 4 will be discussed with Key items 9 and 10.

Key item 5: Allocation of goodwill to each significant cash-generating unit

Key item 5, which is based on paragraph 134 (a)-(c) of the MFRS 136, requires firms that have cash-generating unit with significant goodwill relative to the total goodwill balance, to disclose information concerning the allocation of goodwill, i.e., the carrying amount of goodwill allocated to the cash-generating unit, and the basis of the recoverable amount of the cash-generating unit. Table 3 shows that the disclosure result for key item 5 is encouraging with a 93% disclosure score. One firm did not disclose the carrying amount of goodwill for each cash-generating unit and the basis of the recoverable amount.

Key item 6: Recoverable amount based on value in use

Key item 6 also deals with all firms that have cash-generating unit with significant goodwill relative to the total goodwill balance. Nonetheless, this key item applies to firms that employ value in use in computing the recoverable amount of goodwill. Key item 6, which is based on paragraph 134 (d) of the MFRS 136, focuses on seven disclosure items, such as each key assumption on which management has based its cash flow projections, and a description of management's approach to determining the value assigned to each key assumption.
The results show that the majority of the sample firms examined applies value in use as the recoverable amount. Specifically, twelve firms applied value in use, as the only basis of the recoverable amount of goodwill while two firms employed both value in use and fair value less costs of disposal as the basis of the recoverable amount of goodwill depending on the types of cash-generating unit. As noted in key item 5, one firm did not disclose the basis of its recoverable amount. Table 3 shows the disclosure score for key item 6 is 89%. This is because one firm did not disclose all the seven disclosure items while two firms did not disclose information concerning the growth rate used to extrapolate cash flow projections beyond the period covered and the justification for using the growth rate.

Key item 7: Recoverable amount based on fair value less costs of disposal

Key item 7, which is based on paragraph 134(e) of the MFRS 136, focuses on firms that apply fair value less costs of disposal. As noted above, two firms employed the fair value basis in their cash-generating units containing goodwill. Both of these firms provided full disclosure on their application of the fair value less costs of disposal, which resulted in disclosure score of 100% for key item 7 (see Table 3).

Key item 8: A reasonably possible change in a key assumption

Key item 8 is derived from paragraph 134(f) of the MFRS 136. This key item applies to firms in which the management believes that any reasonably possible change in a key assumption would cause the carrying amount of the goodwill to exceed its recoverable amount. If such situation exists, firms need to disclose the amount by which the unit's recoverable amount exceeds its carrying amount, the value assigned to key assumptions, and the amount by which the value assigned to the key assumption must change for the recoverable amount to be equal to its carrying amount. From fifteen listed firms examined, seven firms stated that such changes are not possible while another four firms did not disclose any information concerning the possible change or the lack of it. The remaining four firms disclosed that the management believes that there are possibilities for the changes in the key assumptions that would cause the carrying amount of the cash-generating unit to exceed its

recoverable amount. Nevertheless, these four firms do not fully disclose the information as required by the MFRS 136. Overall, the lack of disclosure for Key item 8 resulted in a low disclosure score of 56% (see Table 3).

Key items 4, 9 and 10: The amount of unallocated goodwill, goodwill allocated across multiple cash-generating units, and the most recent detailed calculation in the preceding period of the recoverable amount of cash-generating units is carried forward and used in the current period

Table 3 shows that three key items are not applicable to the top fifteen Malaysian listed firms examined. These key items are: (i) Key item 4 concerning the amount of unallocated goodwill, (ii) Key item 9 deals with goodwill allocated across multiple cash-generating units and the amount is not significant, and (iii) Key item 10 on the most recent detailed calculation in the preceding period of the recoverable amount of cash-generating unit is carried forward and used in the current period.

5. Conclusions

This paper has addressed two research objectives. The first research objective focused on whether the disclosure practices on an accounting for goodwill impairment by Malaysian listed firms have improved over a ten-year period. The second research objective examined types of information on goodwill impairment disclosed by the sample firms. Focusing on top fifteen Malaysian listed firms at three different stages of the MFRS 3 and MFRS 136 implementation, namely, pre-MFRS 3 (in 2005), initial year of the MFRS 3 (in 2006), and the recent year (in 2015), the findings show that overall the disclosure scores of the sample firms have improved over the ten-year period from 63% prior to the MFRS 3 implementation (in 2005) to 87% in the recent year (in 2015). With regards to the nature of disclosure practises disclosed, the results are promising, especially for disclosure items concerning the allocation of goodwill to each cash-generating unit and the basis of the recoverable amount of the goodwill. Nonetheless, Malaysian listed firms examined need to improve their disclosures on segment information and events and circumstances that led to the impairment losses.

In conclusion, this study has contributed to the disclosure literature by highlighting that the initiatives put forward by standard-setters by enhancing the disclosure requirements, such as requiring firms to disclose information concerning the recoverable amount employed (Key items 6 and 7), are fruitful. This study has also highlighted disclosure requirements that received low compliances by Malaysian listed firms. Regulators and auditors are encouraged to closely monitor these disclosure requirements so as to further improve firms' disclosures.

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Insights on Internal Shariah Audit Effectiveness in Islamic Financial Institutions in Malaysia

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Abstract

Shariah compliance is utmost importance for the sustainability of Islamic Financial Institutions (IFIs) in the industry as stakeholders will only invest and deal with IFIs that operate within Shariah precepts. As such, internal Shariah audit (ISA) is required by Bank Negara Malaysia to provide assurance that IFIs indeed do operate on the basis of Shariah principles. Therefore, this paper performed content analysis of professional standards on internal audit (IA), regulations on ISA and review of prior literatures to analyze the definition and criteria of internal Shariah audit effectiveness (ISAE) as there are limited studies on ISAE in IFIs in Malaysia. The paper acknowledges the various methods in defining ISAE, whether it be multidimensional, quantitative or qualitative in nature. Based on analysis of prior studies and regulatory framework, this paper proposes a definition and criteria of ISAE that was further validated by industry practitioners (i.e. comprised of Heads of Internal Shariah Audit and Shariah Committee members), regulator and academic experts in this field. This criterion can be used as benchmark to further assess the extent of effectiveness of the ISA function.

Keywords: Effectiveness; internal Shariah audit; criteria; Shariah assurance

1. Introduction

History have shown that some IFIs financially suffered from incidences of Shariah non-compliance as in the case of the Bank of Credit and Commerce International (BCCI), which involved several IFIs (Grais and Pellegrini, 2006) and the collapse of Ihlas Finance House (IFH) of Turkey (Starr and Yilmaz, 2004). There have been cases of mismanagement scandals in the past involving different types of corporations including financial institutions overseas, like Barings and Bank of Credit and Commerce International (BCCI), which involved several IFIs (Grais and Pellegrini, 2006). The case involved five IFIs that deposited significant resources with BCCI with the understanding that they would be invested in commodity contracts in compliance with Shariah principles but were later found out otherwise by BCCI's external auditor**9** (Grais and Pellegrini, 2006). The size of the exposure suggests a weak due diligence process in the verification of Shariah compliance and illustrates the limits of Shariah Committee members may face in discharging its duties. Even for institution that proclaims

9 The IFIs are Faisal Islamic Bank of Eqypt, the Dubai Islamic Bank, the Khartoum-based Tadamon Islamic Bank, the Qatar Islamic Bank and Kuwait Finance House. This is as reported by the *Asian Wall Street Journal: BCCI Creditors Granted More Time*, April, 1992.

itself, as Shariah compliance is not immune from the mismanagement scandals. Further, the collapse of Ihlas Finance House (IFH) of Turkey in 2001 provides an example of how weakness in internal and external checks and balance results in misappropriation of funds that the bank was unable to pay back its depositors upon liquidation (Starr and Yilmaz, 2004). It seemed that incidences of Shariah non-compliance may be due to the absence of proper auditing process or to rarely conducted audits, or to very few institutions undertaking any ex-post Shariah compliance process (Abdul Rahman, 2008). Thus, ISA is much needed to provide internal mechanism and assurance that IFIs are indeed carrying out Shariah compliant operations.

In Malaysia, Bank Negara Malaysia (BNM) made it compulsory in its Shariah Governance Framework (SGF) for Islamic Financial Institutions (IFIs) to implement Shariah audit as one of the Shariah compliance mechanisms**10** (Bank Negara Malaysia, 2010b). BNM had instructed Shariah audit be performed by internal auditors of the IFIs. As such, from hereon, Shariah audit will be referred to as internal Shariah audit (ISA). Shariah compliance is paramount for IFIs as it differentiates IFIs from the conventional financial institutions. Malaysian International Islamic Financial Centre in its Insight Report 2014 stresses that being Shariah compliance is achieved through incorporating Shariah principles in all aspects of the Islamic system frameworks including operational, reporting, business conduct, risk management and oversight functions (MIFC, 2014).

In year 2013, Malaysia issued the Islamic Financial Services Act 2013 (IFSA) that calls for greater effort by the Islamic financial services industry to promote financial stability and Shariah compliance. Section 28(5) of the Act states that if IFIs are in breach of Shariah compliance and corrective actions not being taken, any person responsible will be liable for eight years of imprisonment or penalty amounting to RM25 million. The punitive measures designed under IFSA to act as a deterrent to potential Shariah non-compliance and reflect the high degree of importance to uphold Shariah principles. To overcome such incidence, internal Shariah audit must be effective enough in providing assurance that management have implemented internal controls to mitigate possible incidences of Shariah non-compliances.

Recent research in ISA revealed the challenges faced by IFIs in implementing Shariah audit; such as shortage of competent auditors having knowledge in both Shariah and accounting/auditing (Yahya and Mahzan, 2012; Yaacob, 2012; Yussof, 2013; Kasim and Sanusi, 2013); narrow scope of audit coverage (Yahya and Mahzan, 2012; Yussof, 2013; Kasim et al 2009); the need for Shariah audit certification and professional qualification (Shafii, Salleh, Mohd Hanefah and Jusoff, 2013; Shafii, Salleh, Zakaria, Mohd Hanefah, Mohd Ali and Yunanda, 2014); lack of standardization of Shariah audit practice because of no specific Shariah audit framework in place (Yahya and Mahzan, 2012; Yussof, 2013; Kasim and Sanusi, 2013); issue on independence and self-review threat (Kasim et al 2009; Yaacob, 2012; Kasim and Sanusi, 2013).

It is questionable on the ability of ISA in giving a meaningful impact on IFIs conduct for Shariah compliance in Malaysia amidst the various issues and problems found by empirical research. Many researchers suggest the need for the issuance of ISA framework that can provide specific guidelines, common audit architecture and mechanics to properly and effectively conduct Shariah audit (Yahya and Mahzan, 2012; Yussof, 2013; Kasim et al., 2009). However, no common ISA framework has been issued by the regulators or professional bodies in Malaysia. Despite lack of standardised audit framework, internal Shariah audit practitioners perform their best by using the current regulation and professional standards available, that is the SGF, BNM's Guidelines on Internal Audit for Licensed Institutions (BNM's Guideline on IA) and Institute of Internal Auditors' International Professional Practices Framework (IPPF).

Amidst various challenges, it warrants an investigation on the concept of internal Shariah audit effectiveness (ISAE) by comparing the available regulations on ISA and empirical findings on the concept of ISAE. This paper begins with the origin of ISA and then continues with content analysis and review of regulations and past literature to develop the proposed definition and criteria of ISAE. Then, the items were validated by industry experts and this paper concludes with a suggestion of conceptualising ISAE.

2. Origin of Internal Shariah Audit - Hisbah and Accountability

From the Islamic history, auditing or *hisbah* and the role of the *muhtasib* (auditor) started during the time of the Prophet Muhammad (pbuh) and the first four Caliphs (Kasim, 2010). The function was linked to *Quranic* verses that urge Muslims to promote right and prevent wrong. For instance in Surah Al- Imran, verse 104:

> *"Let there arise out of you, a band of people, inviting to all that is good, enjoining what is right, and forbidding what is wrong: they are the ones, to attain felicity."*

10Shariah audit is to complement other Shariah compliance functions such as Shariah Review, Shariah Research and Shariah Risk Management Control.

From this verse, it highlights that a group of people should be appointed to command good and forbade wrong conducts. This is an important feature of the Islamic society and the Quran stresses the establishment of a *hisbah* institution, either by the state or by the community member themselves. Main responsibility of the *muhtasib* was to ensure that the business practices in the market are in accordance with Islamic principles and each party is getting its due rights and performing its duties. Abdullah (2010) and Makhsin (2008) both mentioned that the institution of *hisbah* that were found in the Islamic era was inspired by the practice of the Prophet (pbuh) himself, where he used to visit the market personally and check on the accuracy of measures. The Prophet (pbuh) subsequently appointed some of his companions to perform this duty including Said Al-As in Makkah and Umar Al-Khattab in Madinah (Abdullah, 2010).

Al-Mawardi (1996) wrote a specific chapter on *hisbah* and the functions of *muhtasib.* He mentioned that the State officer is in charge of the moral and economic supervision of the market based on the principles of "*enjoining the right and forbidding the wrong*", that focuses more on a far larger moral dimension than an economic one. Abdullah (2010) supports this by providing functions of the *muhtasib* that covers aspect such as rights of Gods with regards to prayers (i.e. Friday prayers), rights of people in the community and behavior in markets and municipal administration. This is also supported by Makhsin (2008) where she asserts that *hisbah* has the objective of developing a community with good behavior and follows the command of Allah in all its daily activities. Makshin (2008) classified that *hisbah* has two main objectives. The first objective is general and relates to fulfilling our obligation to Allah. The second objective is more specific and covers four aspects such as, conduct (i.e. akhlak), municipal administration and politics, economy and social obligations.

Lahsasna et al., (2013) and Khan (1985) opined that the present auditor has the same task to perform as the classical *muhtasib* where both aims at ensuring business operations are aligned according to a certain set of rules and regulations. For instance, the external auditor's duty is mainly restricted to the extent of monitoring that everything in the financial statements is according to accounting regulations, whereas the classical *muhtasib* in the early period of Islamic history concentrated on the physical inspection of the business transactions in the market as per Shariah principles. Later, the function of *hisbah* during the Prophet (pbuh) and the caliphate times were focused on the State affairs or public protection as the role of the *muhtasib* has expanded to also include monitoring municipal and political affairs, judiciary matters, ethical and social well being of the community. In modern auditing, the roles of internal auditors and external auditors have also expanded as various brands of "value for money" auditing are being evolved in different countries (Khan, 1985). For instance, internal auditors are expected to provide advice and recommendations and act as advisors for strategic advancement of organisations (PricewaterhouseCoopers, 2014).

Both Khan (1985) and Uddin, Ullah and Hossain (2013) suggested some interesting role of the auditor in an Islamic framework where Khan's elaboration on this role is far more comprehensive and relates to the business operations as compared to Uddin's et al., (2013) that is more generic. Khan (1985) proposes that Shariah auditors should assess determination of profit and loss in *shirkah* and *mudarabah* arrangement, contract compliance, hoarding, *khiyanah* (i.e. embezzlement of funds, falsification of accounts, window dressing and misstatement of accounts), reporting on philanthropic activities and assessment of zakat determination and payment. These scope covers both economic and social activities of the organization.

Uddin et al., (2013) believed that auditing in Islam is to watch and inspect the operations of business by reviewing and reporting about transactions according to rules and Islamic jurisprudence so to provide useful, right, timely and fair reports for decision making. The characteristics of auditing under Islam should be centred on the concept of being accountable to Allah, being moral and Allah-fearing, auditing principles sourced from the Holy Quran and Sunnah, the scope of auditing also include behavioral aspects of people, spiritual and material aspects of human life.

Makhsin (2008) likened the concept of *hisbah* with monitoring of business activities. It is an important part of the management process because it measures the effectiveness of planning, organization and coordination and implementation. The result of monitoring activities is used to assist organization to correct their mistakes and make improvements to its business practices and activities. *Hisbah* has the aim of educating people to behave in accordance to Allah's guidance. Any divergence found should be corrected and be aligned to Shariah principles.

Based on the above discussion on *hisbah*, its coverage is wider and more holistic than the practice of ISA that is in existence today. It is understood that ISA practice that we have now is a subset of the concept of *hisbah* that was in existence from the Prophet's time until the Caliphate's time. Nonetheless, the principle remains the same that is identifying mistakes or divergent activities and make recommendations to correct them. Indirectly, ISA practice educates staff that is being audited on what is right and wrong in accordance to Shariah principles for business operations to be Shariah compliant.

3. Professional Framework for Internal Audit Effectiveness

In Malaysia, it is a regulatory requirement by SGF that ISA be performed by the internal audit department of all IFIs. Yussof (2013) and Yahya and Mahzan (2012) had highlighted the importance of Institute of Internal

Auditor's (IIA) International Professional Practice Framework (IPPF) and its use by IFIs in Malaysia for the conduct of ISA. In addition, IFIs also adhere to BNM's Guidelines on Internal Audit Function of Licensed Institutions (hereon will be referred to as BNM's Guidelines on IA) and also the SGF. A brief discussion on the IPPF is needed to understand its important elements and auditing standards being adapted to suit ISA practice.

IIA had issued the IPPF in year 1947. Over the years, the IPPF have been updated to reflect the changes in nature of work demanded for internal auditors due to changes in business environment. The IPPF comprises of Mandatory Guidance and Recommended Guidance. The updated IPPF was first introduced in July 2015 and was termed as the Framework for Internal Audit Effectiveness (Seago, 2015). In the updated IPPF, IIA has maintained three elements of the Mandatory Guidance, which are the Definition of Internal Auditing, the Code of Ethics and the International Standards Professional Practice of Internal Auditing (ISPPIA). ISPPIA is a set of principles-based, mandatory requirements that consist of statements of core requirements for the professional practice of internal auditing and for evaluating its performance. An updated ISPPIA was made effective on January 1, 2017 with minimal changes as compared to the earlier version issued in 2012 and made effective in year 2013. The recent changes made was to align the ISPPIA with the Mission of Internal Auditing and newly added fourth component of the Mandatory Guidance, that is the Core Principles.

The Core Principles are ten criteria required for internal audit practice to accomplish its mission. The ten criteria articulate internal audit effectiveness (IAE). For an internal audit function to be effective, all Principles should be present and operating effectively. Therefore, failure to achieve any of the Principles would imply that an internal audit activity was not as effective as it could in achieving internal audit's mission (Institute of Internal Auditors, 2017).

The ten principles were segmented by IIA's *Proposed Enhancements to The Institute of Internal Auditors International Professional Practices Framework (IPPF)* issued in 2014. The logical segmentation resembles a supply or value chain discussed in prior literatures, relating to input, process and output (Ziegenfuss, 2000b; Rupsys and Boguslauskas, 2007). However, the items for each of the segmentation differ from how prior literatures have categorised them because the Core Principles were only introduced in July 2015, whereas studies on these segmentations could be traced back to year 2000. The Core Principles and its related segmentation provided by IIA are shown in Table 1.

Table 1. IPPF Core Principles for internal audit effectiveness

No	Core Principles	Internal audit segmentation
1.	Demonstrates integrity	Input: Related to the individual internal auditor and collectively the internal audit activity.
2.	Demonstrates competence and due professional care	
3.	Is objective and free from undue influence (independent)	
4.	Aligns with strategies, objectives, and risks of the organisation.	Process: relate to the internal audit activity and its processes.
5.	Is appropriately positioned and adequately resourced	
6.	Demonstrates quality and continuous improvement	
7.	Communicates effectively.	
8.	Provides risk-based assurance.	Output: relate to the outcomes or results of an internal audit activity
9.	Is insightful, proactive and future-focused.	
10.	Promotes organisational improvement.	

Source: Institute of Internal Auditors (2015) and (2014)

The internal audit segmentation reflects the concept of value chain for the performance internal audit work. Work performance of internal auditing involves various inputs and process to provide the final outcome of providing assurance and consulting service to the institution. The input described above focuses on the internal auditor and the internal audit activity. Input focuses more on the traits of the individual auditor, that is having integrity, being competence and due professional care as well as objective and independent. The process component consists of internal audit activity at the department level and organisational level. At the department level, internal auditors must take into consideration that audit work and process is aligned with the organisational strategies, objectives and risks. Further, internal auditors must also demonstrate quality and continuously improve its services as required by ISPPIA under Quality Assurance and Improvement Program

(Attribute Standards 1300, IIA 2012). At the organisational level, it must be appropriately positioned in the organisational structure to ensure its independence and given adequate resource for staffing, training and work performance expenditures. At both the department and organisational level, internal auditors must be able to effectively communicate the audit findings and recommendations. Lastly, the output of the audit process is the provision of risk-based assurance that is insightful, proactive and future-focused. Overall, the internal audit recommendations should be geared towards promoting organisational improvement. In sum, it can be said IAE depends on various elements, be it involving the auditor themselves, the department they are attached to, the institution that they work in and also the regulatory forces that shapes how the organisation operates.

4. Regulatory Views on ISAE: SGF And BNM's Guideline on IA

BNM's SGF provides the definition, purpose, audit scope, roles, functions and the relevant audit process involved for the performance of ISA. However, little is mentioned by SGF and BNM's Guideline on IA about definition and criteria of internal Shariah audit effectiveness. Table 2 provides the comparison on the concept of IAE and ISAE by the following guidelines and standard.

Table 2: Comparison of SGF and BNM's Guidelines on IA on internal audit effectiveness

BNM's SGF (2010)	BNM's Guidelines on IA (2010)
BNM's SGF is silent on the concept of internal Shariah audit effectiveness (ISAE).	Principle 8: *The Board Audit Committee is responsible for* ***ensuring effectiveness of internal audit function****.* Paragraph 8.1: *"The Board Audit Committee should satisfy itself that the internal audit function is* ***effective*** *by* ***establishing a mechanism to assess*** *its performance and effectiveness.* *The performance of the internal audit function may be assessed against the* ***achievement of its mandate, benchmarking against best practices*** *or other considerations.*

Sources: Bank Negara Malaysia (2010a, 2010b)

There is a gap in defining the concept of effectiveness for ISA. SGF is silent on this matter. SGF predominantly focuses on Shariah governance aspect and effectiveness was articulated on Shariah Committee's effectiveness in terms of their performance (Paragraph 4.4, BNM's SGF, Bank Negara Malaysia 2010b). BNM's Guideline on IA highlight the importance of IA to be effective and its performance be assessed. Here, performance of IA can be assessed based on the achievement of its mandate, benchmarking or other considerations. More detailed criteria of effectiveness are provided by IIA's IPPF in its Core Principles as discussed earlier in preceding section. The ten core principles form the basis of its internal auditing standards – ISPPIA. Internal auditors and the internal audit function must demonstrate the achievement of all ten principles to be effective.

Further, the IPPF in its Practice Guide on Measuring Internal Audit Effectiveness and Efficiency defined IAE as "*the degree (including quality) to which established objectives are achieved*" (Institute of Internal Auditors, 2010). Effectiveness is subjective, and thus depends on the objective being given to the IA to achieve. Therefore, a comparison on the definition and objective of IA and ISA is made to further understand ISAE.

Table 3: Comparison of BNM's SGF, BNM's Guidelines on IA and IIA standards on definition and objective of ISA and internal audit

BNM's SGF (2010)	BNM's Guidelines on IA (2010)	IPPF (2013) (Internal Auditing)
Paragraph 7.7: *"..periodical assessment conducted from time to time, to provide an **independent assessment and objective assurance** designed to **add value** and improve the degree of compliance in relation to the IFI's business operations with the main objective of ensuring a sound and **effective internal control system for Shariah compliance**."*	This guideline make reference to the IIA's IPPF definition on internal auditing as stated in Paragraph 1.2 (Introduction) of the Guideline. Principle 1: *"... internal audit provides an **independent assessment** of the **adequacy** of, and **compliance** with, the institution's established **policies and procedures**."* Principle 1, Paragraph 1.1: "*..internal audit function provides the Board with **independent assurance that the risk management systems, internal controls and governance process** of the licensed institution are effective and that its operations are properly controlled."*	Definition of internal auditing: *"...an **independent, objective assurance** and consulting activity designed to **add value** and improve an organisation's operations. It helps an organisation accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of **risk management, control, and governance processes**."*

Sources: Bank Negara Malaysia (2010a, 2010b); Institute of Internal Auditors (2013).

There are similarities in the definition of ISA with internal auditing as given by the SGF, BNM's Guidelines on IA and the IIA's IPPF. Both SGF and IIA's IPPF requires internal auditors to add value to the organisation by providing independent assurance. The similarities noted are on the concept of independence and objective assurance designed to add value to the organizations that internal auditors are working in. However, the definition of ISA by SGF did not literally relate this function with improving effectiveness of risk management and governance process. Rather, SGF requires ISA to focus on internal control for Shariah compliance. Even if the definition by SGF did not mention on risk management and governance, the main objective of having internal control is for managing risk and ensuring proper governance in any organization (Pickett, 2004). In principle, the implementation of internal control framework is part of managing and mitigating risk that any institution has. It is even more important for IFIs to have an effective internal control for Shariah compliance for proper monitoring of compliance to Shariah principles. Regarding governance, and specifically Shariah governance, SGF has included a scope to review the adequacy of Shariah governance process in the IFIs. As a whole, ISA would be giving assurance on the effectiveness of internal control for Shariah compliance and how good it is in mitigating risks related to Shariah non-compliance. Additionally, ISA also provide assurance on the effectiveness of the Shariah governance process. In sum, it can be inferred that ISA's main concern would be on Shariah governance, internal control and risk management for ensuring adequate Shariah compliance.

It is evident that there is lack of definition and criteria on ISAE provided by local regulations for IFIs in Malaysia. Therefore, a review of past literature may assist in understanding this concept further.

5. Literature Review: IAE and ISAE

As the practice of ISA is relatively new, there are limited empirical and published studies on ISAE in IFIs. One of the recent study was published by Khaled, Haron and Masron (2017) on ISAE in IFIs in Bahrain using AAOIFI's auditing standards. There is also limited number of studies on IAE in financial institutions as most studies were on internal audit quality (Uc and Haxhiraj, 2015), internal banking control and internal audit (Socol, 2011), role of IA in fraud detection (Vousinas, 2015). Few studies that explored IAE in banks and financial institutions used the IIA's ISPPIA as their variables of study to explore IAE and its determinants. These studies were conducted in developing countries such as Tanzania and Libya (Ramachandran, Subramanian and Kisoka, 2012; Ashour, Sukoharsono and Gafar, 2015). Both of these studies also referred to Arena and Azzone (2009) research framework, which similarly used the IIA's ISPPIA standards in examining the IAE and its determinants in Italian companies.

Dittenhofer (2001) defined effectiveness as the achievement of goals and objectives using the factor measures provided for determining such achievement. He further elaborated that the determination of effectiveness is evaluated on the quality of internal auditing procedures. Beckmerhagen, Berg, Karapetrovic and Willborn (2004) mentioned that in order to adequately measure audit effectiveness, evaluation must not be done only on results of the audit against the planned objectives, but also the audit process (planning, execution to reporting and follow-up) and resources (auditor independence and competence).

Relating this to ISA, the main objective of ISA is to ensure "*a sound and effective internal control system is in place for Shariah compliance*" (Bank Negara Malaysia, 2010a: Paragraph 7.7). Thus, within this context, ISA

can be considered effective when it is able to identify weaknesses in internal control activities and potential risks that might affect IFIs' commitment to Shariah compliance. Further review of the SGF's principles for ISA scope indicated it must assess the adequacy of Shariah governance process and consider risk level for possibilities of Shariah non-compliance risks and events when performing the audit.

However, literature on Shariah audit published before the issuance of the SGF showed various authors proposing the objective of Shariah audit should be much broader and general. They believed that Shariah audit should ensure activities carried out by IFI do not contravene Shariah, which may include auditing the financial statements, operational activities, organisational structures, policies and procedures, documentations and contracts as well as socio-economic, religious and environmental actions (Mohamed Sultan, 2007; Abdul Rahman 2008; Mohamed Ibrahim, 2008). Even Khan (1985) highlighted that the scope of auditing in Islamic framework is much larger to also include assessment and report on various social and economic aspects of business organization. It is important to note that the discussion by Khan (1985) on the role of Shariah auditor however, was directed for external Shariah audit by comparing it to the conventional external audit practice (i.e attesting on accuracy of accounts, providing assurance on the true and fair view of the financial statements).

It seemed that this point of view is still relevant even after the issuance of the SGF. A conceptual paper published in year 2013 by Yussof argued the ideal objective of Shariah audit should not be merely assessing on legal/technical form of business transactions but to be more balanced, integrated and holistic focus to include technical, ethical and *maqasid*-based audit. An empirical study conducted after the issuance of SGF by Yahya and Mahzan (2012) found practitioners agreeing with the definition and objective of Shariah audit stipulated by BNM's SGF. They conducted in depth interviews with five individuals from five IFIs that were involved in ISA. All agreed that the definition and practices of ISA is similar to conventional internal auditing except that ISA has a unique objective of ensuring a sound and effective internal control for Shariah compliance. The respondents' internal audit department even referred to the IIA's IPPF as well as the BNM's Guideline on IA. Nonetheless, respondents believed that BNM should at least issue a general framework and general list of audit program to be used as a guideline for the IFIs. Currently, the respondents used conventional audit program with some modification to suit Islamic banking products and operations.

Empirical studies on IAE suggested various methods of defining and measuring IAE, either from the perspective of the internal auditors themselves or stakeholders of internal audit practice (Lenz and Hahn, 2015). Lenz and Hahn (2015) in their critical analysis of prior literatures suggested that the stakeholder view on effectiveness is regarded as valuable input to first measure and later improve on internal audit practice. Measurements of effectiveness can either be a multidimensional aspect consisting of various items or single-measured item (Albrecth, Howe, Schueler and Stocks, 1988; Ziegenfuss, 2000a, 2000b; Mihret and Yismaw, 2007; Rupsys and Boguslauskas, 2007; Arena and Azzone, 2009; Alzeban and Gwilliam, 2014; Lenz and Hahn, 2015).

Multidimensional aspects usually consist of criteria of effectiveness for the audit environment, audit process, audit input, audit output, quality of internal audit function and audit outcome. Alzeban and Gwilliam (2014) used multi-item measure for internal audit effectiveness. They measure internal audit effectiveness based on quality of the function as perceived by the managers of audited departments. Aspects of internal audit function that was evaluated include ability to plan, improvement of organisation's productivity, implementation of internal audit recommendations, evaluation and improvement of risk management, evaluation of internal control systems, and recommendations for improvement.

Ziegenfuss (2000b) and Cohen and Sayag (2010) both used 84 items from the 1997 IIA's Global Auditing Information Network (GAIN) questionnaires and modified to suit national internal auditing environment. Ziegenfuss (2000b) reclassify the 84 items into 16 performance measure areas and categorized it further into four audit process: audit environment, input, process and output. He found that survey results of auditee satisfaction and the percentage of recommendations that are implemented are the performance measures considered by the audit director to be most suitable to evaluate internal audit effectiveness. Cohen and Sayag (2010) had modified the GAIN 1997 survey items into 37 items. The reduction of items was based on interviews with business leaders, public sector leaders as well as comments from experts in internal auditing, academicians and practitioners. They found internal audit effectiveness consists of three dimensions that are audit quality, auditees' evaluations and added contribution of internal audit.

A recent study on ISAE in IFIs in Bahrain uses a dimension of IAE, that is outcome. Khaled et al. (2017) defined ISAE as the outcome of ISA. He uses a combination of prior literature's measure item and the Accounting and Auditing Organisation for Islamic Financial Institutions' (AAOIFI) auditing framework to develop the measured items. The ISA's performance is measured by the number of major Shariah audit findings reported, audit plan accomplished, acceptance of ISA recommendations and implementation of improvements.

It can be argued that ISAE should be analysed based on various aspect of the ISA practice. Mihret and Yismaw (2007) opined that IAE is a dynamic process and similar assumptions for SAE is put forth. It is because, its extent of effectiveness cannot be measured by only looking at its ability to complete the annual audit plan, but depends on whether it is able to adequately audit comprehensive coverage of Shariah risk areas, identify

weaknesses in internal control, instances of Shariah non-compliance events and risks, as well as the overall functioning of Shariah governance. A single case study by analysis by Shafii, Zainal Abidin, Salleh, Jusoff and Kasim (2013) found that ISA practice has an added value in ensuring Shariah compliance. Based on ISA findings, Shariah auditors recommend proper internal control system that was later approved by the Shariah Committee for establishment and implementation in the said IFI.

In the SGF, Shariah audit is one of the Shariah compliance functions that support the function of Shariah Committee and complements other functions such as Shariah Research, Shariah Review and Shariah Risk Management. Mohd Hanefah *et al.* (2012) mentioned the importance of Shariah audit as the third level of defense in mitigating Shariah non-compliance risk. Daugherty and Anderson (2012) also asserts an effective internal audit is often thought as the third line of defense in providing assurance on risk management process. Therefore, ISA plays an important role in providing assurance that IFIs have effectively manage Shariah non-compliance risk and IFIs have implemented adequate internal control system for Shariah compliance.

6. Proposed Definition and Criteria of ISAE

Based on the review of regulations on ISA and prior literatures, ISAE can be operationally defined as the ability of ISA function to provide assurance on Shariah compliance. The objective of ISA is determined by the BNM's SGF which is to "ensure a sound and effective internal control system for Shariah compliance". This is justified by the definition of IAE by IIA Practice Guide which is "*degree to which established objectives are achieved*" (Institute of Internal Auditors, 2010). In the current environment, internal audit is not merely compliance checker but more as an assurance provider (Chambers, 2014). Therefore, ISA should focus on improving the internal control for shariah compliance, management of shariah non-compliance risk, and shariah governance.

Table 4. Proposed Criteria of ISAE

Description	Sources of Reference

• **Shariah auditors should provide audit recommendations:**
  • **to improve internal control for Shariah compliance**
  • **to improve Shariah risk management process**
  • **to improve Shariah governance**
  • **to improve level of Shariah compliance**
  • **that adds value to the IFI's business operations**
	BNM's SGF, Paragraph 7.7,
	Bank Negara Malaysia (2010b);
	IIA IPPF (2013)

• **Audited department implements the recommendations given by ISA**	Arena and Azzone (2009); Khaled et al (2017)
• **Shariah audit practice supports the function of Shariah Committee to ensure Shariah compliance**	BNM's SGF, Paragraph 1.2 (Bank Negara Malaysia, 2010b); Shafii et al (2013)
• **Shariah audit practice complements other Shariah compliance functions such as Shariah Review, Shariah Risk Management and Shariah Research**	BNM's SGF, Paragraph 1.2, (Bank Negara Malaysia, 2010b); Shafii et al (2013)

The above criteria can be termed as the outcome of ISA, that is the audit recommendations provided by ISA on the effectiveness of internal controls for Shariah compliance, Shariah risk management process and Shariah governance is directed towards giving Shariah assurance. In addition, the outcome of ISA work is reflected in how well the audited department acknowledges and implement audit recommendations. IFIs may regard ISA as value adding when they believe that audit recommendations are important to improve the level of Shariah compliance. Another aspect is how well the ISA supports the function of Shariah committee as the audit report provides input to Shariah committee decision and knowledge about how effective departments in complying to Shariah principles and implement sufficient internal controls for mitigating Shariah non-compliance risks. In addition, since ISA are part of the overall Shariah governance organs, its function serves as the third line of defence where it complements the work of other Shariah compliance functions, which comprise of Shariah Review, Shariah Risk Management and Shariah Research.

Validation of these items were performed by interviewing a total of 13 experts comprising of Heads of Internal Shariah Audit Unit (4), Shariah committee members (3), academic/industry experts (4) and representative of BNM (2). All experts had agreed with the proposed criteria of ISAE and added the following items as criteria as well:

- ISA has the ability to identify Shariah non-compliance events and risks

- ISA has the ability to complete audit assignments on time
- ISA has the ability to produce quality audit reports

These criteria reflect the skill of the auditor in terms of knowledge on Shariah non-compliance events and risks. Another aspect is the efficiency of the auditor in terms of completing audit assignments on time. The auditor is also expected to produce quality audit report. The experts argued that the term quality is rather subjective and should mean preparing audit reports with in-depth discussion and analysis of the audit findings from the aspect of providing Shariah assurance to the IFIs.

A Head of ISA emphasizes the importance of "…*an output measure of effectiveness, that is ability to identify possible Shariah issues and producing quality audit report*. .. *specifically, the criteria of effectiveness consist of quality of audit report, time taken to complete the audit and the number of audit completed"*. This output measure of effectiveness is similar to the measurement criteria used in prior studies (Khalid et al 2017; Alzeban and Gwilliam (2014); Ziegenfuss, 2000b). Further, the notion of quality audit report was elaborated by another Head of ISA stating that ".. *our effectiveness also is based on our report. The quality of the audit report depends on the documentation, that is how we record the audit finding and perform audit testing*..". Audit documentation is a part of the audit process which comprise of documented proof of the sample taken, testing performed in order to arrive at a conclusion that IFIs are Shariah compliant and risks have been adequately mitigated.

Shariah committee members interviewed highlighted on "… *the ability of internal Shariah auditors to identify Shariah issues*"; "*the type of Shariah non-compliance detected and how in-depth is their analysis of the audit findings*"; "*able to identify critical Shariah area*". Shariah committee members are concern on the quality of audit findings in the area of Shariah non-compliance events and risks. ISA provide assurance for Shariah committee members to make decision on the overall IFIs operations, whether in compliance or not to Shariah principles.

A point to note is the regulator's representatives acknowledge the variation in practice of ISA by IFIs. However, they believed that the current practice is sufficient as it reflects the different structures of Islamic banks and Takaful whether they are full-fledged, subsidiaries or foreign-owned. The regulators emphasized that the current practice using the existing internal audit framework is considered as adequate for the time being. Thus, further study is needed to investigate on the extent of ISAE based on the proposed criteria identified.

7. Conclusion

The criteria of effectiveness of the ISA function can be derived from professional internal auditing standards, prior literatures and industry viewpoints. Even without a formalized and specific internal Shariah auditing standards, the practitioners provide opinion on ISAE criteria that are in line with prior studies and what is intended by the SGF. It can be said that in practice, practitioners were able to assimilate the existing requirement from the IIA's IPPF and the SGF to assist them in performing their duties as internal Shariah auditors as well as fulfilling the expectation of Shariah Committee members whom rely on the work of internal Shariah auditors. The work of ISA is imbued with ethical values as Shariah committee members expect them to identify breaches in Shariah compliance as well as provide recommendations that adds value to business operations.

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Tax and Zakat Governance by Muslim Rulers: A Summary of Yusuf al Qaradawi's Perspectives

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1. Introduction

Tax is an important source of income by many Islamic countries. Malaysia, for example, collects more than 60% of taxes from the total income each year. The government spends the collection to develop the country's fiscal, economy and social well-being of its people. Despite the importance of tax to the Islamic countries, the question on whether Muslim rulers can collect taxes from the Muslims residents is still debatable among the Muslim scholars. Muslim scholars have different perspectives on tax governance by Muslim rulers. Some scholars argue that Muslims are not required to pay tax because they have paid zakat which is a decree from Allah swt. While others agree that tax can be collected from Muslim societies but with few conditions. This study aims to analyse Yusuf al Qaradawi's opinions on zakah and tax governance.

2. Yusuf Al-Qardawi

Yusuf al Qaradawi is an influential and intellectual Muslim scholar in this modern contemporary era. He was born in Egypt on 9 September 1926 (Ghazali, 2012). He memorized 30 juzu' of al-Quran when he was ten years old and was known as Sheikh Yusuf at that age. He obtained several diplomas and degrees from Al-Azhar University including Degree in Tafseer and Hadith, and Master in Education. He also obtained the Doctor of Philosophy (PhD) degree from the same university. His ideas and aspirations on the concept of *fiqh* and *manhaj* are recognized by the Muslims around the world. He mastered various areas of *fiqh* including *fiqh al-maqasid* (sharia objectives), *fiqh al-Nusus* (syara'), *fiqh al-Waqi'* (reality), *fiqh al-Muwaznat* (consideration), *fiqh al-Taghayyur* (changes) and *fiqh al-Thaurah* (revolution). His PhD thesis titled Fiqh al-Zakah or the encyclopedia of zakat is one of the significant contributions to the public and the most cited reference by zakat scholars. Fiqh al-Zakah is the main reference of this study in understanding zakat and tax governance by Muslim rulers.

3. Differences Between Zakat And Tax

Yusuf al Qaradawi's views on zakat and tax contain in Part Nine of Fiqh al-Zakah. The explanations are divided into eight sub-topics including the theoretical foundations for levying of zakah and of taxes, and legal and moral support for zakah and tax. The majority of Yusuf al Qardawi's written works on tax and zakat are differences of zakat and tax. The comparison is restricted to modern taxation systems and does not include the old and undeveloped tax system, for example during the Roman and Persian empires. The differences between zakat and modern tax systems are summarized in Table 1 below.

Table 1. Differences between Zakat and Tax

Item	Zakat	Tax
Definition	Cleansing of purification of wealth.	Imposition, estimation and charge on income and consumption.
Nature and substance	Worship for Allah by all Muslims.	Civil obligation and will be sanctioned if not comply.
Ratios and minimum exempt	Sharia determines the rates are fixed: 20%, 10%, 5% or 2.5% which depends on type of wealth. Nisab can be altered according to economics conditions.	Changeable every year according to government's decisions.
Constancy and permanence	Fixed and permanent even if the government does not collect it.	Can be changed, altered or eliminated depending on circumstances and decisions of legislative authorities. Not permanent nor continuous or fixed.
Disbursement of proceeds.	Determined by Allah and cannot be changed or added. Humanistic aim.	Levied for multiple objectives. State or proper authority determines usage of tax proceeds.
Relation	Between payer and Allah.	Relation between payer and local authorities.
Objectives	Spiritual and ethical objectives in addition to socio-economic aims. Humanistic, moral, social and economic.	Recent view: for the benefit of socio-economics.
Theoretical grounds	Theory of obligation Theory of vice-generency Theory of mutual solidarity Theory of brotherhood	Contractual theory Insurance theory
Imposition	Zakat on capital, income and persons.	Taxes on capital, income, persons and consumption
Levy system	Proportional	Progressive

An important aspect of zakat and tax is the imposition of tax on capital, income and person. Yusuf al Qaradawi also provides the explanations on this topic by including several practical experiences. These are summarized in Table 2 below.

Table 2. Imposition of Zakat and Tax on Capital, Income and Profit, and Persons

Imposition on	Zakat	Tax
Capital	Only on growing capital.	Certain types of idle capital.
Income and profit	Rates vary in accordance with efforts expanded. Example: zakat on agriculture.	Higher rates for higher income and profit.
Persons	Zakat fitr	Seldom used nowadays

4. Can Muslim Rulers Levy Taxes Beside Zakat?

Yusuf al-Qaradawi suggests that Muslim rulers can levy taxes when they have fulfilled several conditions. First, tax can be imposed when the ruler is in true need for funds, for example, expenses for civil defense and security of the country. The additional funding is required when the ruler is facing inadequacy of treasury funds and other state resources. Muslim ruler is prohibited from levying taxes when such necessity does not exist or when the treasury still has some fund.

Second, Muslim rulers must ensure just distribution of the tax burden so that none is ever-burdened while others are exempted without reasonable cause. Zakat ensures fair contribution among the Muslim through its proportional system where the zakat rate is constant on all types of wealth. Tax, on the other hand, is a progressive tax system where people with lower income may not have to pay tax. However, if funding is required and there are no other means except progressive taxes to achieve such a purpose, such taxes can be blessed and supported by the Islamic system.

Third, tax collected must not be used for the Ruler's personal pleasures and ambitions. It must be spent for specific purposes identified when the tax was collected. Allah displeased with rulers who use the tax collected for individual and dictatorial purposes. On the judgment day Allah will ask about their responsibilities and in what way they use the money collected by Allah.

Finally, tax can be collected only when it is approved by the consultative body of the country. The ruler and his administrative commission are not the only decision maker for levying tax. *Shura* or discussion among the administrator and members of the public are necessary to achieve an agreement and to avoid agitation among the public.

5. Can Taxes Substitute For Zakah?

Muslim rulers are supposed to adopt the Islamic system in all aspects of societal organization, particularly in the management of zakat. The majority of scholars do not approve of taxes replacing zakat. Zakat and tax should be collected and distributed differently. In the case of zakat, the collection cannot be used for providing facilities to public like mosques and schools. Allah has determined that the distribution is only for the eight *asnaf* categories. Islamic countries that collect both zakat and taxes should have separate organisations to manage the collection and distribution to ensure they comply with sharia.

6. Conclusion

Yusuf al Qaradawi has explained the governance of tax system in the context of Islamic law. Tax are different from zakat in various aspects which zakat management system should be the main focus for Muslim rulers to improve public's welfare and economic level. Other than managing zakat, Muslim rulers' main responsibility is to generate income for the country and ensure economic stability. However, in dire economic situation, Muslim rulers can levy tax to public; but they must fulfill several conditions including ascertain just distribution of the tax burden and it is approved by the consultative body of the country. Future research should focus on the experiences of Islamic countries managing both zakat and tax system to understand the issues and approaches to resolve the problems. A zakat and tax system model in Islamic countries should be constructed and adopted by Muslim rulers.

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Systematic Review Of Monetary Policy Effect On Foreign Direct Investment

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Abstract

The objective of this paper is to survey researchers' efforts in monetary policy and the foreign direct investment (FDI) literatures through mapping the research landscape which form the literature into a coherent taxonomy and finding out the basic characteristics of this policy. This literature survey was conducted starting January to present updated and state-of-the-art discussion on the research about monetary policy and FDI and to highlight research trends in this area. This systematic differs from previous reviews due to focuses on evaluating the impact of monetary policy and examining the relationship between monetary policy and FDI by focusing on economic indicators only, rather than using economic determinants, economic prosperity, economic integration, economic growth, and the economic environment of developing and economically developed countries. In this paper, the survey performed search for every article on monetary policy and the foreign direct investment (FDI) in four major databases in Science Direct, EBSCO host, Emerald insight, and Web of Science (WoS) databases. Those databases are deemed broad enough to cover literatures in both monetary policy and the foreign investment. The initial query search resulted in 2018 articles: 43 from Web of Science database, 718 from Science Direct, 169 from Emerald insight, and 1088 articles from EBSCO host, over the span from 2008 to 2018. Initially, fifty-eight articles were duplicates among the four library databases. However, after scanning for the titles and abstracts, 1960 more articles were excluded, resulting in focused on 137 papers. Finally, through full-text reading, 92 articles are excluded, leaving 45 articles in the final included set. The findings of the literature survey indicate that research on monetary policy and the foreign direct investment are active and various. As such, this paper perceives that the survey has contributed to the understanding of the available options and gaps for other researchers to benefit from this line of research.

Keywords: Monetary policy, foreign direct investment, Money supply, Systematic Review.

1. Introduction

The foreign direct investment (FDI) is considered as one of the most important element to achieve the greatest level of growth and development in the economy because of the role it plays in the economy of the host country (Rădulescu & Druica, 2014). According to Gudaro, Chhapra, and Sheikh (2012) FDI has grown exponentially as a major form of international capital transfer over the past decade. Between 1980 and 1990, global FDI flows which can be defined as the cross-border outlay for acquisition corporate control or expansion of productive assets which almost tripled as compared to the size of FDI previous decade. It has become a major form of international borrowing for Japan and the United States as the largest lender and the borrower in the world, respectively. Direct investment has increased more rapidly later in the European countries. The host country provides an appropriate climate for foreign direct investment through economic policies that aim to attract a

larger amount of foreign direct investment. Among these policies, monetary policy is one of the most important policies that can be used to attract foreign direct investment to the host country (Olweny & Chiluwe, 2012).

Monetary policy aims to ensure that the money supply is at a compatible level with the real income growth target, so that non-inflationary growth will be guaranteed (Precious & Makhetha-Kosi, 2014). Thus, the role of monetary policy in foreign direct investment aims to reduce the interest rate and required reserve on Commercial Banks in the host country and through the control on money supply approaches that can affect the size attraction (Olweny & Chiluwe, 2012).

The main objective of this paper is to systematically review the literature concerning the impact of monetary policy on the FDI. As such, mapping the research landscape form the literature into a coherent taxonomy, finding out along the way few features that characterize this emerging line of research.

2. Systematic Review Protocol

This section presents the systematic review protocol used in this paper which specifically includes the keywords selection method, information sources, study selection, section search, inclusion and eligibility criteria, and the data collection process. The review search was conducted from 2008 to 2018.

The most important keywords in the scope of this paper are "Monetary policy and FDI" which consider all monetary policy-related areas, including the economic growth, economic prosperity, economic integration, monetary policy tools, economic determinants, economic liberalization, capital flow, and the economic environment.

This paper chooses four digital databases to conduct the search for target articles. These databases are the EBSCO host, Science Direct, Emerald insight, and Web of Science (WoS) service. The rationale behind this selection is to cover both economic and financial literacy and provide a broader view of researchers' efforts in a wide but relevant range of disciplines. The host academic institutions worldwide depend on this database as their core resource of scholarly information covering Academic Search Premier, Business Source Elite, and E-Journals which offer access to science, technical and economic journal articles indexing cross-disciplinary research in sciences, social sciences, economical, arts and humanities.

The process of study depends on searching the literature sources, followed by two repetitions of checking and filtering. The first repetitions excluded the duplicates and irrelevant papers by scanning the titles and abstracts, while the second iteration filtered the articles after a thorough full-text reading of the screened articles from the sources.

The search was conducted at the begging of 2018, in Science Direct, EBSCO host, Emerald insight, and Web of Science (WoS) databases via their search boxes used mixed keywords that contains "Monetary policy", "Money Supply", and "Foreign Direct Investment" in different variations, combined by the "OR" operator. The exact query text is shown at the top of Figure 1. The systematic review protocol further used the options in each search engine to exclude book chapters and other types of reports other than journal and conference articles that determines directly the stability of the economy. Is considered those venues the most probable to include up-to-date and proper scientific works relevant to this survey on the trend in economic environment, economic determinants, and economic liberalization.

Every article that met the criteria listed in (Fig1) was included in the review. Setting an initial target of mapping the space of research on the economic environment, economic determinants and economic liberalization. After the initial removal of duplicate articles, papers were excluded in both iterations of screening and filtering if they did not fulfill the eligibility criteria. Examples of exclusion reasons include; first, the paper is non-English; secondly the papers that dealt with other economic topics such as oil price, cost management, and Commercial Banking; and thirdly the target is the monetary policy rather than other economic policies.

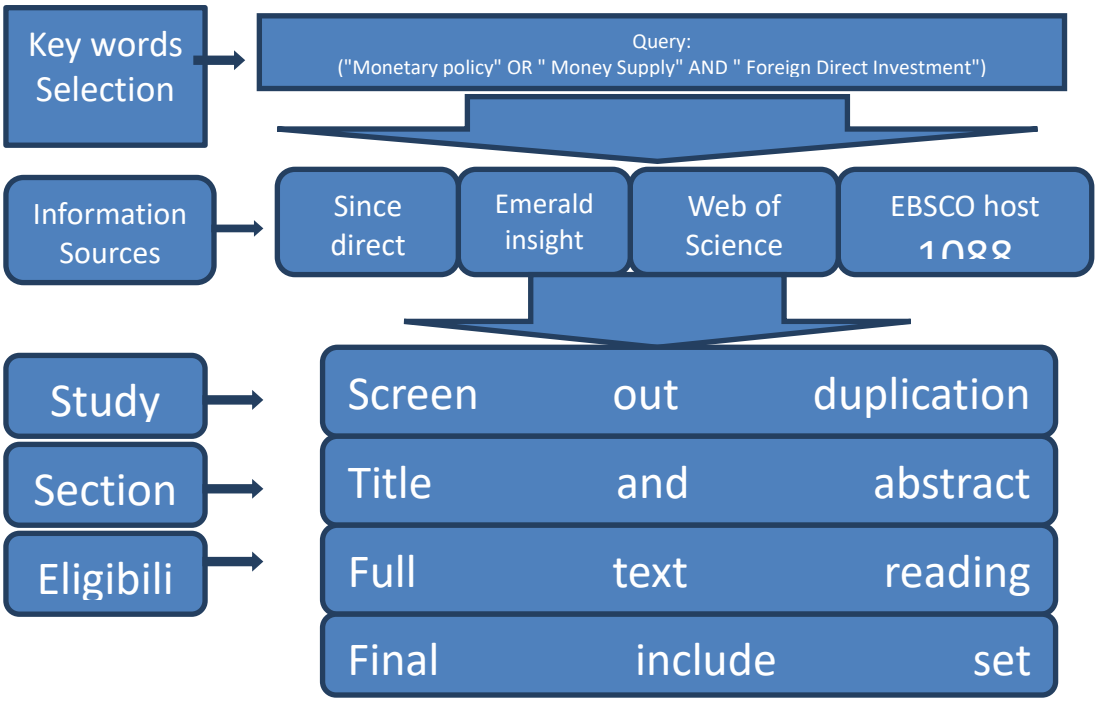


Figure 1: Systematic Review Process

The inclusion criteria that have been used in the systematic review are as follows. Firstly, the paper is an English journal or conference article. Secondly, the main focus is the monetary policy and FDI, in either one or more of the following:

i. Surveying or reviewing the new trend of monetary policy and the foreign investment fields through FDI.
ii. The article that used the most frequent model to analyze the data.
iii. The article interest is in economic growth, economic prosperity, economic determinants, economic environment, economic integration and economic liberalization.

In order to facilitate further steps, a full list of all included articles, with their corresponding initial categories, was compiled from the various sources into a single EXCEL file. Full-text readings were performed and resulted in a large collection of highlights and comments on the surveyed works, as well as in a running classification of the papers into a refined taxonomy. All comments were saved followed by the process of tabulation, summarization, and description of the main findings. Sets of all relevant information including the full list of articles, their respective source databases, purposes, summary and description tables, and review sources. Were also recorded and saved.

3. Results

The initial query search resulted in 2018 articles where 43 articles are from Web of Science database, 718 articles are from Science Direct, 169 articles are from Emerald insight, and 1088 articles are from EBSCO host. Fifty-eight articles were duplicates among the four library databases. After scanning for the titles and abstracts, 1960 more articles were excluded, resulting in 137 articles. Full-text reading excluded 92 articles, leaving forty-five articles in the final included set. Those papers were read thoroughly for the purpose of finding a general map for the conducted research on this topic. These studies were divided according to the statistical model. It was found that 36% of the previous studies used the OLS model, 20% used ARDL model, 17.8% used VAR model, 17.8% used GMM model, and 8% used other models. The summary of the statistical model is show in Figure 2 below.

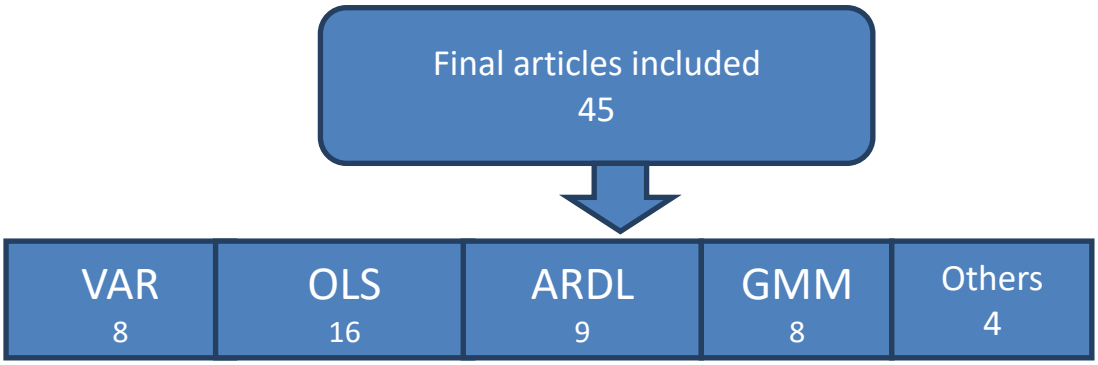


Figure 2: Summary of statistical Model used in previous studies

4. Systematic Literature Survey

Based on the result of the study the most frequently used models are OLS and ARDL. As such, this section focused on the literature pertaining to these models.

OLS model Literature

Soufan (2013) survey the causal relationship between gross domestic product (GDP) and money supply (MS) in Jordan. In order to determine the direction of the relationship, the study use Granger causality test between the two variables during the period from 1978 until 2010. The result of this study shows that there is a causal relationship between the money supply and the gross domestic product, and the direction of this relation as from money supply to the gross domestic product, not vice versa. Therefore, the study conclude that there changes in the money supply in Jordan explain the causality changes in the gross domestic product and not vice versa.

Omanwa (2013) studied on the factors that determine the Foreign Direct Investment (FDI) inflows particularly into the Kenyan economy for the period from 1996 to 2009 using annual data and utilize the OLS model to analyze its data. The main result of this article shows that the most significant factors in attracting FDI inflows into Kenya were the size of the market and the level of openness of the economy.

Cavallari and d'Addona (2013) investigate the role of output fluctuations and exchange rate volatility in driving the United State (US) FDIs. The study used annual FDI flows from the US to 46 OECD countries from 1982 to 2009. They used panel estimator with random effects and corrected for heteroscedasticity in the residuals of the OLS model using Wooldridge test. The main finding of this paper is significant to the economic prosperity where the elasticity of production foreign investment is more elastic than in the economic recession. Therefore an increase in exchange rate volatility, on the other hand, has a strong deterrent effect on the US foreign investments**.**

Mandeep and Renu (2013) study the determinants of foreign direct investment in India, by using annual data for the period from 1990 to 2010. The study uses the Augmented Dickey–Fuller (ADF) test and Co-integration analysis to analyzing the variables. The main finding of this paper shows that the determinants of FDI differ from one country to another country depend on other incentives available in the country. The result indicates that trade openness; foreign exchange reserves, GDP and long-term debt have positive impact on FDI, while negative impacts of inflation and exchange rate on FDI have been noticed.

Elfakhani and Mackie (2015) examine the main drivers which can explain the relative success of BRIC countries (Brazil, Russia, India, and China). Collectively and individually, in attracting foreign direct investment (FDI). The data over the full sampling period are from 1980 to 2008 and the analysis it by using GLM regression model. Social variables such as high population growth and educated labor and political variables account for 40 % and 7% of the variance of FDI inflows to income, respectively. However, the result shows no significance relationship for economic variables. Interestingly, for a sub-period from 1999 to 2008, the importance of financial determinants such as large GDP economy, favorable net trade balance, controlled currency risk and sovereign debt risk drive inward FDI of 44% of the variance. The finding of this paper also shows that decreased in net FDI inflows on all financial, social and political variables through the analyzed

period from 1980 to 2008, and the block regression concludes that the social variables account for 40% of the change in net inward FDI, followed by political variables which composes of 7%.

Abbes, Belmokaddem, GuellilMohammed, and Yassine (2015) analyze the relationship between FDI and economic growth. The dataset consists of cross-country observations for 65 countries over the period of 1980 to 2010 periods. This study uses the FMOLS and DOLS to analyze its data. The result shows that the causal relationship between FDI and economic growth does not exist.

Sambhary and Rasheed (2015) examine the influence of economic freedom on foreign direct investment (FDI) in 95 countries, over a six-year period from 1995 to 2000 using the generalized least square (GLS) model to analyze its data. The main finding of this paper indicate that in order to attract FDI, the best thing a government can do is to reduce its interference in the economy while, at the same time, protecting property rights and controlling the corruption.

Loris and Mary-Françoise (2015) examines the impact of FDI inflows on industrialization in African countries. This paper used annual data for 49 countries over the period of 1980 to 2009. They analyze the data with autocorrelation and heteroskedasticity tests. The main finding of this study shows that the FDI inflows did not have a significant impact on the countries' industrialization.

Boateng, Xiuping, Shaista, and Junjie (2015) examine the government policy implications on FDI inflows in Norway. The paper used quarterly data from 1986 to 2009 and use Fully Modified OLS (FMOLS) to analyze the data. The main results show that money supply, inflation, unemployment and interest rate have significant negative results. Meanwhile the real GDP, sector GDP, exchange rate, and trade openness have a positive and significant impact on FDI inflows.

Hartwell and Michael (2015) examine the presence of foreign financial institutions that helped to shape a better business environment over the long-run in emerging markets. The paper used annual country-level data on foreign bank entry and macroeconomic variables for approximately 107 developed and emerging countries for the period 1983-2012. The study used panel fully modified OLS model (PFMOLS) and panel dynamic ordinary least square (PDOLS) to analyze the data. The finding shows that the incursion of foreign banks in emerging markets has a positive effect on the broader business environment.

Lucke and Eichler (2016) examine the determinants of bilateral FDI stocks, focusing on institutional and cultural factors. This study used panel data of 55 OECD countries from 1980 to 1997. The OLS results show that a devaluation of the home currency would lead to a decrease in foreign direct investment.

ChamTamsir (2016) investigate the relationship between monetary integration, foreign direct investment (FDI) and trade in the West Africa particularly on the second monetary zone on FDI flows to zone member countries. The paper use Ordinary Least Squares (OLS) and fully-modified OLS (FMOLS) models to analyzing the data with annual time series spanning from 1980 to 2013. The finding shows that monetary integration positively enhances FDI inflows; it also revealed that monetary integration enhance trade; and FDI and trade are complementary.

Leoveanu (2016) study the possible influence of the monetary policy decisions on ale flow of foreign direct investment in Romania for the period 2003 to 2014. They use an econometric analysis namely the Granger causality test to investigate the relationship between these variables. The result of this study show that the selected variables can be successfully used in the calibration of monetary policy decisions with the purpose to attract foreign investment in the country.

Alqalawi, A, Ahmad, and Rasha (2017) examine the effect of main monetary policy tools in Jordan on price and output level. The study used yearly data from Jordanian monetary sector that cover the period between 1993 until 2013 and use OLS model. The main result of this study indicates that monetary policy can maintain the value of money, considering that the value of money is the opposite of the general level of prices. In addition, it is found that inflation was partially imported, and imported inflation was lower than non-imported inflation due to the increased money supply.

Boateng, Min, Yan, Chengqi, and Mohammad (2017) examine the trends, patterns and the impact of cultural and home country macroeconomic influences, on Chinese cross-border mergers and acquisitions (CBM&A) as foreign entry strategy. The period of study were from 1998 to 2011 and the study use ordinary least squares model (OLSs). The result of this study suggests that CBM&A as a preferred mode of market entry provides a means for obtaining strategic resources to develop competitive advantages for the Chinese emerging market firms, and all independent variables play an important role in explaining the trends of CBM&A outflows by the Chinese firms.

Hermann, Chandana, and Serapio (2017) analyze the relationship between central bank independence (CBI) and uncertainties of inflation by including the phenomena of exchange rates and foreign capital flows. There is two specific aim of this investigation. The first aim is to see whether uncertainty of inflation induces volatility of exchange rates, and vice versa, under differing degrees of CBI. Another aim is to explore whether the dynamics of the former relationship influence foreign capital flows in turn. The study was conducted 22 emerging

countries through the period from 1968 to 2013 by using Granger causality. The results of the tests for high and low CBI country subgroups show interesting differences. For the high CBI countries, an uncertainty of inflation and uncertainty of exchange rates indicates that there is no causal relationship between them. However, a weak link runs from FDI to uncertainties of inflation in the long run. For the low CBI countries, there is strong evidence of causal links running from uncertainties of inflation to uncertainties of exchange rates on the one hand and to FDI flows on the other. In addition, there is an indication of a bi-directional causal link between FDI flows and exchange rates for these countries.

ARDL model Literature

Bekhet and Matar (2013) examine the short- and long-term equilibrium relationship between the stock price index (SPI) and the macroeconomic variables in Jordan. The study used annual data from 1978 to 2010, and analyzes it by using ARDL model. The main result of this paper shows that the ARDL approach indicate the existence of the long-term equilibrium relationship between the SPI and macroeconomic variables.

Shahbaz and Mafizur (2014) explore the relationship between exports, financial development and economic growth in the case of Pakistan for the period of 1991 to 2012. The quarterly data for these periods were analyze using ARDL model. The results of this paper show the long-run co integration relation between exports, economic growth and financial development in case of Pakistan, that economic growth and financial development spur exports growth in Pakistan and Granger causality analysis reveals feedback hypothesis that exists between financial development and economic growth, financial development and exports and exports and economic growth.

Mugableh (2015) investigates the relationships between FDI inflows and their determinants in Malaysia using annual time-series data from 1977 to 2012. The analysis using ARDL model shows that decreasing the consumer price index in Malaysia increases the value of FDI inflow and stabilizes the macroeconomic and financial environments. Furthermore appreciation of exchange rates depresses the flow of FDI into Malaysia due to their negative effects on exports. Increases in output values stimulate the flow of FDI into Malaysia. The growth of gross domestic product in the host country improves the macroeconomic environment, which invites overseas investors. Finally, increasing the broadest money supply raises the domestic market capitalization of listed corporations, which induces international corporations' confidence in the Malaysian financial system.

Bekhet and Al-Smadi (2015) estimate the equilibrium relationships and to detect the directions of causality among Jordanian FDI inflows and their determinants. This paper uses the ARDL model to study the time seize data for the period from 1978 to 2012. The main results of this paper identify that there are long-run and short-run relationships among FDI and its determinants. Moreover, the Granger causality test recommends a deferent causal relationship among FDI and their determinants.

Lee (2015) examines the short-run and long-run dynamic relationships between exchange rates and foreign direct investment (FDI) in Korea. Monthly data retrieved from the Bank of Korea from January 1999 to March 2012 are used. The main result using ARDL model shows evidence of a structural break from the global financial crisis of 2007–2009 shock to FDI flows in Korea.

Sunde (2017) investigated economic growth as a function of foreign direct investment and exports in South Africa. The study use annual data for the period from 1990 to 2014 and analyze it by using ARDL model to identify the long run relationship among the variables. The results confirmed co-integration between economic growth, foreign direct investment, and exports. This implies that economic growth, foreign direct investment, and exports move in the same direction trending upwards. On the other hand, the Granger causality (VECM) analysis for the short run relationship found unidirectional causality between economic growth and foreign direct investment running from foreign direct investment to economic growth, unidirectional causality between foreign direct investment and exports running from foreign direct investment to exports and bi-directional causality between economic growth and exports**.**

Durmaz (2017) examine the determinants of foreign direct investment and concentrate on the linkage between democracy and foreign direct investment in Turkey. The data are from 1977 to 2011 and are using ARDL model. The findings show that, in the long run, FDI inflows have spillover effects on Turkey's economy. Determinants such as improved freedom with better political rights and more civil liberties in the country will have structured a stable government with better policies and institutions. This paper satisfies the established need to study the democracy and FDI inflows link, which is necessary for an emerging market such as Turkey**.**

Mamunur, Hui, and Jye (2017) investigate the determinants of FDI in the top 15 most competitive countries in the Asia Pacific region. This study used a time series and cross-sectional data from 2000 to 2013, by using ARDL model. The result of this paper indicates that FDI inflow is related positively to domestic market size, trade openness, and political stability, and inversely related to the inflation rate. Meanwhile GDP, openness, and political stability exhibit a significant long-run relationship with the FDI inflows.

5. Conclusion

This literature review aims to present updated and state-of-the-art discussion on the research about monetary policy and FDI and to highlight research trends in this area. This systematic review differs from previous reviews, due to focuses on evaluating the impact of monetary policy on FDI by using economic indicators only, and show the relationship between monetary policy and FDI, rather than on the economic determinants, economic prosperity, economic integration, economic growth, and the economic environment of developing and economically developed countries.

Furthermore, the study proposes taxonomy of related literature. Developing the taxonomy of literature in a research area, particularly, has several benefits. Taxonomy of published works organizes publications. A new researcher in monetary policy criteria, May discovered a large number of papers on the subject without any kind of structure and may fail to obtain an overview of this area. One of the advantage of this study is different papers could be review or examine to identify the tools and methods used in examine the relationship between monetary policy with FDI. Taxonomy of the related literature, as shown in Figure 2, could systematize these different studies and activities into a meaningful, manageable and coherent layout. The structure introduced by the taxonomy provides a researcher with important insights into the subject in one way through the utilize model.

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Penetapan Illah Keharusan Mencairkan Tanah Wakaf (Al-Tawriq) Berdasarkan Kaedah Masalik Al-Illah

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Abstrak

al-Tawriq boleh wujud dalam dua keadaan, iaitu yang pertama, samada menukarkan (menjual) aset kepada tunai dan yang kedua, kecairan tunai dalam bentuk (sekuriti). Oleh itu tujuan utama kajian ini adalah untuk menganalisis illah keharusan syarak dalam membenarkan aset-aset wakaf boleh dicairkan sebagai satu kerangka asas penetapan hukum pengharusan syarak berasaskan Kaedah Masalik al-Illah. Tiga proses utama yang terlibat dalam Kaedah Masalik al-Illah, iaitu Takhrij al-Manat, Tanqih al-Manat dan Tahqiq al-Manat. Akhir kajian mendapati, terdapat beberapa illah dikenalpasti antaranya aset wakaf tidak lagi berfungsi mengikut tujuan asal, ada nilai jualan, mengelakkan dicuri, kotor dan berlaku kerosakan. Antara hujah illah yang terkuat adalah aset wakaf tidak berfungsi mengikut tujuan asal dan ini akan menghilangkan 'sifat' wakaf dalam aset wakaf yang tidak dimanfaatkan. Kajian ini mengusulkan al-Tawriq digunapakai sebagai salah satu solusi kepada pembangunan aset-aset wakaf di Malaysia bertujuan untuk meningkatkan kualiti aset wakaf dengan mewujudkan kecairan tunai sebagai sumber dana baharu kepada perbelanjaan penyelenggaraan ataupun pembangunan. Dicadangkan juga untuk diwujudkan badan pemantau professional yang mengawal selia sifat 'wakaf' bagi tanah-tanah wakaf untuk mengelakkan aset wakaf hilang sifat wakafnya. Ianya penting bagi memastikan aset wakaf menjadi lebih produktif, dapat dimanfaatkan oleh penerima manfaat, dan jariah pahalanya boleh berjalan, berterusan dan memberi impak yang positif kepada pembangunan dan ekonomi umat Islam dan manusia sejagat.

Kata Kunci : Mencairkan aset wakaf, perbandingan mazhab, sifat wakaf

1. Pengenalan

Al-Tawriq iaitu mencairkan dan menjual aset wakaf diilhamkan oleh tokoh Minda Syariah Global, Mohd Daud Bakar bagi menangani masalah aset wakaf yang tidak produktif, terbiar, tiada nilai komersial dan kekurangan sumber dana, bertujuan samada untuk membiayai kos penyelenggaraan ataupun pembangunan. *al-Tawriq* dibenarkan berdasarkan ijtihad semasa melalui keputusan Qadi ataupun panel penasihatan syariah walaupun pada asalnya aset wakaf perlu dikekalkan sebagai prinsip asas wakaf berdasarkan hadith Rasulullah SAW (Fuadah et al, 2018).

Mohd Daud Bakar (2017) menjelaskan bahawa, a*l-Tawriq* dengan asal kata *al-Wariq* adalah menukarkan aset kepada kecairan tunai. Kecairan tunai ini bermaksud menjual sebarang aset iaitu ditukarkan kepada wang tunai atau bersamaan tunai dengan tempoh segera dan kos efektif. Dalam kes aset wakaf, *Tawriq* adalah menjual sebahagian harta wakaf untuk menampung kos pengurusan, penyelenggaraan ataupun pembangunan. Mencairkan harta wakaf bukan kesemuanya mungkin 1/3 atau 1/10 untuk membayar gaji Imam, Muazin, keselamatan, pengurusan sampah sarap dan sebagainya (Fuadah et al, 2018).

Al-Tawriq juga bermaksud kecairan tunai dalam bentuk (sekuriti) iaitu instrumen yang menggerakkan pelbagai aset hutang terjamin, dengan menukarnya dari hutang kepada kredit yang dibangunkan, dan kemudian ditawarkan kepada orang awam melalui cara khas untuk langganan dalam bentuk sekuriti yang sesuai untuk meminimumkan risiko dan untuk memastikan aliran tunai mudah tunai yang berterusan. Selain itu, *al-Tawriq* adalah (sekuriti) dalam penukaran pinjaman ke dalam pasaran sekuriti yang boleh dipasarkan dan pindahan hutang dari penghutang primer kepada penghutang yang lain (Ajil Jasim al-Nasyami, (tanpa tarikh); Fuadah et al, 2018).

Oleh itu, *al-Tawriq* boleh dinterpretasikan dalam dua keadaan. Pertama adalah mencairkan aset untuk mendapatkan tunai. Kedua adalah mencairkan aset tidak alih (properti sebenar) iaitu aset melalui penciptaan hutang / intrumen kewangan (sijil) baru dalam erti memindahkan aset kewangan dari pemberi pinjaman asal kepada yang lain, yang sebahagian besarnya melalui institusi kewangan dan bursa saham.

Wakaf adalah ilmu ijtihadi dan ilmu kemanusiaan yang tinggi (Mohd Daud Bakar, 2017a). Tiada nas khusus secara qat'i mengenai keharusan menjual aset wakaf di dalam al-Quran. Ianya diperbincangkan dan diputuskan diperingkat Imam-Imam Mazhab yang muktabar. Perbincangannya berkisar kepada respon terhadap permasalahan yang berlaku dari semasa ke semasa dan hadith-hadith yang dinukilkan adalah sebagai sandaran respon kepada permasalahan yang sedang berlaku pada ketika itu (Fuadah et al, 2018). Dalam pada itu, isu menjual aset wakaf masjid, mempunyai hukum tersendiri yang berbeza dari hukum bagi barang wakaf yang lain. Kecuali Imam Hambali, kesemua Imam sepakat tentang tidak boleh menjual masjid dalam bentuk apapun. Bagi aset wakaf bukan masjid, para Imam Mazhab yang muktabar ada berbeza pandangan dan alasan yang menyokong hujah masing-masing (al-Mughniyah, 2004). Berikut adalah pandangan Imam-Imam muktabar mengenai keharusan menjual aset wakaf (bukan masjid).

Jadual 1 : Pendapat keharusan Mengenai Keharusan Menjual Aset Wakaf Menurut Pendapat Mazhab

No.	Mazhab / Imam	Pendapat keharusan menjual
1.	Imam Hambali	Boleh jual
2.	Imam Syafie	Tidak boleh jual
3.	Imam Maliki	Boleh jual
4.	Imam Hanafi	Boleh jual berasaskan hukum Istihsan
5.	Imamiyah	Boleh jual untuk wakaf khusus sahaja dan bukan wakaf umum

Sumber : al-Mughniyah.(2004), Ibnu Qudamah (1997) Muhammad Abu Zahrah (1971)

Berdasarkan jadual 1, kesemua Imam (kecuali Imam Syafie) berpendapat boleh menjual aset wakaf bagi harta bukan masjid, manakala Imam Hambali berpendapat boleh jual aset wakaf termasuklah aset masjid sebagai harta wakaf. Perbezaan pendapat Imam-Iman ini disokong dengan alasan dan hujah masing-masing. Imam Syafie tidak bersetuju aset wakaf dijual, tetapi bersetuju menukarkan fungsi kegunaan aset wakaf dalam bentuk kegunaan yang lain sekiranya fungsi asalnya sudah tidak boleh dimanfaatkan. Beliau berpegang kepada aset wakaf harus dikekalkan dan tidak boleh dijual berasaskan hadith Nabi Muhammad SAW (al-Mughniyah, 2004; Ibnu Qudamah, 1997). Manakala Imam Hanafi berpendapat, pada asalnya aset wakaf tidak boleh dijual sebagaimana hadith yang diterangkan oleh Rasulullah SAW, walaubagaimanapun ianya boleh dijual berasaskan hukum Istihsan (Muhammad Abu Zahrah, 1971).

Oleh itu tujuan utama kajian ini adalah untuk menganalisis illah keharusan syarak dalam membenarkan aset-aset wakaf boleh dicairkan sebagai satu kerangka asas penetapan hukum pengharusan syarak berasaskan Kaedah Masalik al-Illah.

2. Sorotan Literatur

Wakaf pada asalnya tidak boleh dijual, diwarisi, dihibahkan dan terputus hak pemilikan pemberi wakaf kepada hartanya. Namun, dalam beberapa hal tertentu terdapat prinsip keharusan yang dibenarkan untuk mencairkan atau menjual asset-aset wakaf tersebut. Ini kerana, di mana ia perlu bagi tujuan Wakaf, qadi boleh membenarkan penjualan, atau mengubah peraturan pengurusan Wakaf, walaupun ia telah dilarang secara nyata dalam hukum asal. Qadi boleh; 1) membenarkan hutang kontrak untuk membaiki harta itu, atau untuk membayar cukai apabila tiada pendapatan atau cara membayarnya daripada Wakaf. 2) menggadai tanah yang didedikasikan hasilnya dengan cara aman untuk hutang yang dikontrakkan 3) menjual sebahagian tanah khusus untuk tujuan yang disebutkan di atas (Mohd Zain Othman, 1982: Fuadah et al, 2017). Walaupun kajian Mohd Zain Othman (1982) dan Fuadah et al. (2017) telah menjelaskan keharusnnya, manakala perbahasan mengenai keharusannya berasaskan pendapat Imam Muktabar juga telah dianalisis secara mendalam yang boleh dikaitkan dengan isu dan data semasa sebagai satu solusi dan pilihan alternatif pembangunan wakaf di Malaysia.berdasarkan kajian Fuadah et al (2018).

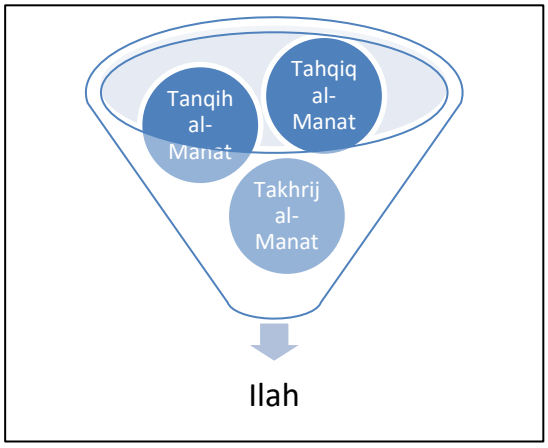
3. Metodologi Kajian

Kajian ini menggunakan kaedah kualitatif berasaskan analisis kandungan (*content analysis*) khususnya terhadap teks buku-buku rujukan Fiqh Klasik khusus membincangkan isu-isu mengenai keharusan menjual aset wakaf. Menurut Idris Awang (2001), penyelidikan kualitatif dalam pengajian Islam memfokuskan kepada pemahaman konsep, penjelasan persoalan kepercayaan, metafizik dan juga psikologi, interpretasi sesuatu fenomena yang berlaku dalam masyarakat dan perancangan strategi. Dengan menggunakan daya imaginasi yang kuat dan tajam, penyelidik kualitatif mengklasifikasi datanya, membanding dan menjalinkan data-data berbagai jenis untuk mencari hubungan antara data-data tersebut untuk membentuk entiti baru yang boleh menjelaskan keadaan sebagaimana yang dimatlamatkan kajian. Pengumpulan data melibatkan data sekunder diperolehi daripada perpustakaan untuk mendapatkan data dokumentasi daripada buku-buku fiqh klasik dan artikel jurnal. Perbincangan analisis teks menfokuskan kepada penentuan illah keharusan menjual aset wakaf (*al-Tawriq*) berasaskan kaedah *Masalik al-Illah.* Masalik al-Illah adalah satu kaedah yang diguna pakai dalam kaedah usul fiqh untuk menentukan Qiyas. Qiyas hanya digunakan kerana ketiadaan ayat-ayat yang jelas di dalam al-Quran, Sunnah atau Ijma' mengenai sesuatu hukum (Majdah Zawawi, 2002). Manakala data-data teks sebagai kes kajian dikumpulkan berasaskan perbahasan lima Imam Muktabar iaitu Imam Hambali, Syafie, Maliki, Hanafi dan Imamiyah. Kaedah Masalik al-Illah secara sistematik telah diasaskan oleh al-Ghazali yang kemudiannya dikupas oleh penyelidik-penyelidik yang lain seperti Ahmad Hassan, Ali Jum'ah, al-Zuhaily dan Mohd Daud Bakar (Mohd badrol Awang, 2017). Manakala menurut Mohd Daud Bakar (2016), Masalik al-Illah perlu melalui tiga proses seperti berikut;

1. Takhrij al-Manat : mengenalpasti illah-illah yang berkemungkinan, di peringkat permulaan bagi mengenal pasti illah secara tepat
2. Tanqih al-Manat : mengesampingkan sesetengah ciri yg dikenalpasti pada peringkat pertama. iaitu menghubungkan kes baru (kes yg memerlukan ketetapan) kepada kes asal (yg disebut dalam perbahasan fiqh) iaitu dengan mengenepikan percanggahan antara kedua ataupun menentukan illah dengan mengenepikan ciri-ciri yang tidak relevan.
3. Tahqiq al-Manat : mengesahkan ciri yg dipilih sememangnya illah yg sebenar.

Proses Masalik al-illah diilustrasikan berdasarkan rajah berikut;

Rajah 1 : Proses mengenal pasti illah berdasarkan Kaedah Manasik al-Illah



Sumber : Mohd Daud Bakar (2016)

Konsep *Tahqiq al-Manat* selalunya membincangkan dalam konteks deduktif analogi (*Qiyas*) iaitu suatu proses terakhir seusai *Tanqih al-Manat* dan *Takhrij al-Manat*. *Tahqiq al-Manat* secara Bahasa bermaksud membersihkan illah. Membersihkan illah adalah suatu proses menghapuskan ketidak wajaran illah kepada illah yang lebih tepat bila ada lebih daripada satu kemungkinan illah yang difikirkan sesuai hasil daripada proses penentuan dan eksplorasi illah-illah yang difikirkan sesuai (*Takhrij al-Manat)* bila teks tidak menyatakannya secara jelas ataupun tiada hukum mengenainya di dalam al-Quran dan al-Sunnah (Mohd badrol Awang, 2017).

4. Analisis Kajian

Analisi kandungan teks menggunakan Kaedah Masalik al-Illah boleh dijelaskan mengikut 3 peringkat di jadual 2 berikut;

Jadual 2 : Analisis Kandungan Teks Menggunakan Kaedah Masalik al-Illah

		Imam Hambali (1)	Imam Hambali (2)	Imam Hambali (3)	Imam Hambali (4)	Imam Hambali (5)	Al-Qadhi	Sayyid Kazhim (Imamiyah)	Abu bakar	Ibnu Qudamah
1.	Takhrij al-Manat	Masjid gagal digunakan sebagai tempat solat dan tiada pilihan	Masjid tidak berfungsi - Ada nilai jualan	Perbezaan asset wakaf untuk pengibadatan dan manfaat material.	Mengelakkan dicuri dan kotor	Ada masalah wujud dan ada saksi mengenainya	Masjid gagal digunakan sebagai tempat solat	Kerosakan menafikan tujuan wakaf.	Uzur atau Tua tidak boleh digunakan untuk tujuan asal (kuda perang)	asset masjid dan bukan masjid yang rosak menhentikan manfaat wakaf
2.	Tanqih al-Manat	Masjid gagal digunakan sebagai tempat solat dan tiada pilihan	Masjid tidak berfungsi	-	-	-	Masjid gagal digunakan sebagai tempat solat	Kerosakan menafikan tujuan wakaf.	Uzur atau Tua tidak boleh digunakan untuk tujuan asal (kuda perang)	Rosak menghentikan tujuan asal dan manfaat wakaf
3.	Tahqiq al-Manat	Gagal berfungsi berdasarkan tujuan asal (kes masjid dan kuda) yang akan menghilangkan sifat manfaat 'wakaf' itu sendiri.								

Sumber : al-Mughniyah.(2004), Ibnu Qudamah (1997) Muhammad Abu Zahrah (1971)

Takhrij al-Manat

Diperingkat ini terdapat beberapa kes teks yang menjadi sebab kepada keharusan menjual aset-aset wakaf. Imam Hambali sahaja telah membawakan lima kes sebagai rujukan diikuti oleh ahli fiqh yang lain iaitu al-Qadhi, Sayyid Kazhim, Abu Bakar dan Ibnu Qudamah.

Menurut Hambali terdapat beberapa kes yang menyebabkan aset wakaf boleh dijual antaranya;

Kes 1: Apabila penduduk sekitar masjid itu pindah, sehingga tidak ada lagi yang solat disitu, atau tidak mencukupi warga disitu tidak boleh diperluaskan atau dibangun sebahagiannya, kecuali dengan menjual sebahagiannya, maka boleh dijual".

Kes 2 : Berasaskan hadith Riwayat Abu Daud;

إذا كان فى المسجد خشبتان لهما قيمة جاز بيعهما وصرف ثمنهما عليه

"Jika di dalam masjid itu terdapat dua batang kayu yang memiliki nilai jual, maka keduanya boleh dijual dan hasilnya diberikan kepada masjid tersebut.

Kes 3 : Barang-barang wakaf dalam masjid tidak ada ikatan syarak. Contohnya, kedai di dalam masjid – boleh dijual. kerana ada beza antara keduanya. Masjid diwakaf untuk tujuan spiritual beribadat, manakala kedai diwakafkan untuk mendapatkan manfaatnya.

Kes 4 : Riwayat Solleh

يحول المسجد وخوفا من اللصوص وإذا كان موضعه قذرا

"Masjid itu harus dipindahkan / ditukar, kerana khuatir dicuri oleh para pencuri.(demikian pula) jika tempat masjid itu menjadi kotor.

Kes 5 : Riwayat Abdullah, menasahkan bolehnya menjual pelataran (halaman) masjid, namun diharuskan adanya kesaksian dalam masalah tersebut kepada Imam.

Berdasarkan kelima-lima kes yang dibawakan oleh Imam Hambali, terdapat berberapa illah yang wujud di dalam kes tersebut yang akan memberi impak kepada aset wakaf. Illah pertama adalah, masjid gagal digunakan sebagai tempat solat dan tiada pilihan. Jika aset ini dijual masjid yang tidak berfungsi masih boleh menambah nilai dan memberi manfaat. Illah kedua adalah, aset wakaf yang masih ada nilai jualan mewujudkan hasil yang masih boleh digunakan oleh masjid. Illah ketiga pula adalah, aset yang tidak digunakan untuk ibadat tidak

secara langsung dianggap sebagai aset wakaf. Aset-aset wakaf yang secara langsung digunakan untuk tujuan beribadat juga mempunyai hubungan dengan aset-aset yang tidak secara langsung untuk tujuan ibadat. Oleh itu aset-aset yang tidak secara langsung sebagai aset wakaf tetapi bersambung dengan aset-aset wakaf tidak ditegah untuk dijual di dalam muamalat. Illah keempat, aset wakaf perlu dielakkan daripada dicuri atau kotor. Illah keharusan menjual aset wakaf ini perlu dielakkan untuk mengelakkan kemudaratan yang lebih besar lagi pada masa hadapan.

Selain kes yang dibawa oleh Imam Hambali, terdapat kes-kes lain yang dinyatakan oleh Imam-Imam yang lain oleh al-Qadhi, Sayyid Kazhim, Abu Bakar serta Ibnu Qudamah.

Kes 6, menurut al-Qadhi, aset wakaf boleh dijual sekiranya sesebuah masjid sudah tidak boleh lagi dimanfaatkan untuk dijadikan tempat solat. Ini kerana sekiranya aset yang sudah tidak boleh digunakan, apabila dijual aset tersebut masih lagi boleh dimanfaatkan oleh orang awam dalam bentuk yang lain.

Kes 7, menurut Sayyid Kazhim (daripada Mazhab Imamiyah), melanjutkan perbahasan yang dibawa oleh Imam Hambali bagi Hadith Riwayat Abu Daud bagi aset yang ada nilai dan bukannya aset khas untuk tujuan solat boleh dijual berasaskan illah ada nilai jualan. Menurut Sayyid Kazhim, "tiada perbezaan antara masjid dengan benda wakaf yang lain. Kerosakan yang terjadi pada barang wakaf selain masjid yang menyebabkan barang tersebut boleh dijual, selagi barang tersebut memiliki sifat sebagai harta". Menurut beliau lagi, kerosakan tersebut telah menafikan tujuan asal wakaf. Ini kerana solat di dalam masjid adalah pengikat (qayd) bagi pewakafannya, sekiranya pengikat itu tidak ada maka hilanglah sifak wakafnya. Ini bermaksud hilangnya sifat harta yang boleh dimanfaatkan akan menghilangkan sifat wakaf.

Kes 8, Abu Bakar merujuk kepada kesepakatan ulamak dalam kes membolehkan menjual kuda yang diwakafkan untuk berperang, jika kuda itu sudah tua dan tidak lagi pantas untuk berperang tetapi kuda tersebut dapat digunakan untuk melakukan hal lain, misalnya memusingkan kincir air atau mengangkut tanah, atau dijadikan sebagai kuda pejantaan, atau dijadikan sebagai kuda pengangkut, kuda tersebut tersebut boleh dijual dan hasilnya dibelikan sesuatu yang dapat digunakan untuk berperang. Ini bermaksud, harta wakaf yang tidak lagi berfungsi mengikut tujuan asal, boleh dijual dan hasilnya disumbangkan kepada tujuan asal supaya hasrat asal (wakaf) berterusan.

Kes 9, Menurut Ibnu Qudamah, dibolehkan menjual aset wakaf (masjid) dan tidak ada bezanya antara aset masjid dan selainnya berasaskan illah kerosakan tidak memenuhi fungsi asal dan sifat ikatan wakaf akan menghentikan manfaat wakaf. Menjual aset wakaf adalah jalan terbaik untuk meneruskan impak wakaf secara berterusan.

Tanqih al-Manat

Tanqih al-Manat akan mengesampingkan sesetengah ciri yg dikenalpasti pada peringkat pertama. iaitu menghubungkan kes baru (kes yg memerlukan ketetapan) kepada kes asal (yg disebut dalam perbahasan fiqh) iaitu dengan mengenepikan percanggahan antara kedua ataupun menentukan illah dengan mengenepikan ciri-ciri yang tidak relevan. Secara tidak langsung membersihkan denngan menghapuskan ketidak wajaran illah kepada illah yang lebih tepat bila ada lebih daripada satu kemungkinan illah yang difikirkan sesuai hasil.

Dalam kes menjual aset wakaf ini, illah-illah yang dikesampingkan atau dihapuskan adalah illah-illah yang bersandarkan satu-satu kes sahaja seperti kes aset wakaf yang dikhuatiri dicuri, dikotorkan dan aset-aset yang mengalami kerosakan. Illah-illah ini walaupun berbeza pada literal maksud sahaja tetapi ianya sebenarnya menyokong illah yang lebih utama iaitu aset wakaf tidak dapat berfungsi seperti maksud asal wakaf iaitu aset wakaf perlukan memberi manfaat kepada orang ramai. Oleh itu illah-illah yang kurang tepat itu telah dibersihkan di peringkat ini.

Tanqih al-Manat

Di peringkat *Tanqih al-Manat* ini iaitu proses terakhir untuk menetukan illah adalah proses mengesahkan ciri yg dipilih sememangnya illah yg sebenar. Beradasarkan hujah-hujah daripada kes 1, 2, 6,7, 8 dan 9, kebanyakan illah menjurus kepada aset wakaf yang tidak lagi berfungsi sebagaimana tujuan asal aset wakaf itu digunakan. Oleh itu, illah yang paling utama dalam kes *al-Tawriq* aset wakaf ini adalah aset wakaf boleh dijual (dicairkan iaitu *al-Tawriq)* malah digalakkan dijual apabila aset wakaf tersebut gagal berfungsi berdasarkan tujuan asal yang akan menghilangkan sifat manfaat wakaf itu sendiri. Oleh itu dapatlah di Qiyaskan bahawa mana-mana aset wakaf yang sudah tidak lagi berfungsi sebagaimana tujuan asal dan ditakuti akan menghilangkan sifat manfaat wakaf itu sendiri bolehlah dijual. Berdasarkan Qiyas ini juga, ianya boleh juga diqiyaskan kepada aset-aset yang lain selain aset wakaf seperti aset harta pusaka, tanah-tanah adat, tanah-tanah rezab Bumiputera atau hutan simpan yang ada diantaranya telah diceroboh oleh kilang-kilang haram kerana

terbiar tidak diusahakan. Sekiranya kerajaan lebih proaktif dan berani untuk menjual dan mencairkannya menggunakan Kaedah al-Tawriq berasaskan Qiyas menjual aset wakaf ini, aset-aset yang terbiar tersebut bolehlah diusahakan kepada manfaat yang lebih baik lagi. Untuk itu suatu perundangan dan enakmen khusus ataupu yang paling mudah dan ringkas adalahh suatu TOR (*term of Reference*) perlu diwujudkan untuk meluaskan skop pelaksanaan al-Tawriq kepada aset-aset wakaf untuk membangunkan dan memajukan aset-aset wakaf negara.

5. Keputusan Perbincangan Analisis

Berdasarkan jadual 2, terdapat beberapa illah dalam menjaga *Tawriq* aset wakaf di Malaysia. Berdasarkan *Takhrij al-Manat*, terdapat beberapa sebab dan penetapan illah iaitu, Masjid gagal digunakan sebagai tempat solat dan tiada pilihan, Masjid tidak berfungsi - Ada nilai jualan, Perbezaan asset wakaf untuk pengibadatan dan manfaat material, Mengelakkan dicuri dan kotor, Ada masalah wujud dan ada saksi mengenainya, Masjid , gagal digunakan sebagai tempat solat, Masjid , Kerosakan menafikan tujuan wakaf dan Uzur atau Tua tidak boleh digunakan untuk tujuan asal (kuda perang). Manakala bagi *Tanqih al-Manat* pula, menyenarai pendekkan illah yang mempunyai persamaan yang hampir sama. Terdapat 4 illah yang hampir sama iaitu Masjid gagal digunakan sebagai tempat solat, Masjid tidak berfungsi, Kerosakan menafikan tujuan wakaf. Dan uzur atau tua tidak boleh digunakan untuk tujuan asal (kuda perang). Manakala di peringkat *Tahqiq al-Manat* dapatlah disatukan dan disimpulkan bahawa illah yang utama dan teratas adalah gagal berfungsi berdasarkan tujuan asal (kes masjid dan kuda) yang akan menghilangkan sifat manfaat 'wakaf' itu sendiri.

6. Kesimpulan

Dapatlah disimpulkan bahawa illah utama bagi aset wakaf yang boleh dicairkan (*Tawriq*) adalah apabila aset wakaf gagal berfungsi berdasarkan tujuan asal (contohnya kes masjid dan kuda) yang akan menghilangkan sifat manfaat 'wakaf' itu sendiri. Sifat wakaf yang utama hendaklah dapat memberi manfaat yang berpanjangan kepada penerima wakaf, dan jariah berterusan yang akan memberi pulangan pahala yang berterusan. Oleh itu sekiranya sesuatu aset wakaf tidak dapat berfungsi dengan baik ianya akan merugikan produktiviti dan sumber hasil negara bolehlah dilaksanakan solusi yang lebih praktikal iaitu menggunakan kaedah *al-Tawriq*. Illah ini boleh juga diqiyaskan bagi aset-aset tanah harta pusaka yang tidak dituntut atau tanah-tanah adat yang terbiar boleh dicairkan (*Tawriq*) untuk mengelakkan pembaziran sumber kerana tidak dioptimumkan penggunaannya. Kajian ini mengusulkan *al-Tawriq* digunapakai sebagai salah satu solusi kepada pembangunan aset-aset wakaf di Malaysia bertujuan untuk meningkatkan kualiti aset wakaf dengan mewujudkan kecairan tunai sebagai sumber dana baharu kepada perbelanjaan penyelenggaraan ataupun pembangunan. Dicadangkan juga untuk diwujudkan badan pemantau professional yang mengawal selia sifat 'wakaf' bagi tanah-tanah wakaf untuk mengelakkan aset wakaf hilang sifat wakafnya. Ianya penting bagi memastikan aset wakaf menjadi lebih produktif, dapat dimanfaatkan oleh penerima manfaat, dan jariah pahalanya boleh berjalan, berterusan dan memberi impak yang positif kepada pembangunan dan ekonomi umat Islam dan manusia sejagat.

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The Impact Of Funds And Family Characteristics On The Funds' Performance: Evidence From Malaysia

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Abstract

Islamic mutual funds (IMFs) are growing as a substitutional investment vehicle for investors who want to combine value and financial objectives in their investment. A group of the funds is managed by one Investment Company called the family of funds, different families follow different strategies that distinguish them from each other. In addition to characteristics of funds family, therefore influence the performance of the family funds. This study investigates the extent to which family and fund characteristics contribute to explaining fund returns differentiated by managers' stock selection and market timing abilities in Malaysia for the period from 2009 to 2016.

In the first step, the study uses Jensen's (1968) model to calculate the fund performance and the Henriksson and Merton model (1981), Treynor and Mazuy (1966) to separate the performance into a market timing and funds selection. In the second step, using the coefficient estimates of fund selection and timing measures as dependent variables, test the extent to which fund family and fund characteristics are associated with selectivity and timing performance measures. The results show the managers in IMFs have poor selectivity skills and good market timing ability. The results show that the family age and number of a fund in the family have an impact on managers' selectivity skills according to the H&M model, and family size, family age have an impact on managers' selectivity skills according to the T&M model. The family age has an impact on managers timing ability according to the H&M model, and family size and number of a fund in the family have an impact on managers timing ability according to the T&M model. The fund risk and fund age have an impact on managers selectivity skills according to the H&M model, and fund size and fund age have an impact on managers selectivity skills according to the T&M model. The fund size and fund age have an impact on managers market timing ability according to the H&M model, and all three variables have an impact on managers' market timing ability according to the T&M model.

Keywords: Islamic mutual fund, fund performance, fund family size, fund family age.

1. Introduction

Islamic finance has rapidly developed throughout the past decade and still continues to expand. The Global Islamic Finance Report (GIFR) (2016) reported that the total value of global Islamic financial services reached US$2.293 trillion at the end of 2016, compared to US$2.143 trillion in 2015. Moreover, the size of the industry potentially grows by at least 10 percent annually. The report forecast that by 2020, the industry would grow between US$3.151 trillion and US$4.57 trillion. In addition, today Islamic finance comprises many types of

financial services, such as funds management (mutual funds), Islamic banking, Islamic insurance (takaful), and Islamic bond (sukuk) (Kammer et al. 2015).

The mutual fund is an investment company that collects money from shareholders and invest it in assorted securities, including money market instruments, stocks, and bonds. Moreover, mutual funds offer attractive advantages such as the ability to invest in an equity fund without incurring transaction costs or cost of collecting information, thus mutual funds allow diversification and provide administration in dealing with investments to reduce the workload of individual investors (Ahmad et al. 2017). Mutual funds can influence the real economy via two channels, that is, the primary and secondary markets. Where the fund flows are positively correlated with subsequent economic growth, it leads to the fact that these flows incorporate additional information related to real economic activities that are not perceived by forecasters (Hoepner et al. 2013). Islamic funds are one of the most important types of mutual funds at the moment.

The purpose of Islamic mutual fund (IMF) is to achieve religious and ethical objectives without infringing the traditional needs of diversification, liquidity, and performance (Abd-Alsalam et al. 2014; Azmi et al. 2018). Moreover, as Sharia law prevent many high-risk activities, Islamic financial services have been much less affected by financial crises relative to their respective benchmarks (Hoepner et al. 2013; Makni et al. 2015; Boo et al. 2016). Sharia law prohibits mutual funds from *riba al nasiah, maysir, gharar* and haram products or services and it requires *haram* purification, *riba al nasiah* represents the receipt of interest on capital. Hence, IMFs cannot invest in conventional bonds, warrants, preferred stock, certificates of deposit and some derivatives. The IMF industry has recently seen a dramatic increase in the amount of wealth held by mutual fund managers. The Malaysia International Islamic Financial Center (2017) stated that the total Islamic assets under management (AUM) in 2017 were USD70.8 billion, and the number of Islamic funds was 1,535. This is a significant increase compared to 2008, when there were only 802 funds with total AUM of USD47 billion. The largest type of IMFs are equity funds, representing 40 percent of total Islamic funds. They are followed by fixed income at 17 percent, and real estate and private equity at 12 percent.

Many previous studies examined the performance of IMFs at the funds and index level (such as, Abdullah et al. 2007; Abderrezak 2008; Alam and Rajjaque 2010; Rubio et al., 2012; Agussalim et al. 2017). This study takes into considering fund family variables, because the different families follow different strategies that distinguish them from each other. fund family may utilize strategies that depend on the heterogeneity of the investors in terms of investment horizon, such as showing the possibility for investors to switch to different funds from the same family at no cost and increasing the number of fund in the family, adding more options for the investors to select from (Brown and Wu, 2012; Clare and Sherman, 2014). In addition to characteristics of fund families, including size, age, and the number of funds in the family, therefore influence on the performance of funds in these families.

Family size is calculated as the all equity funds under management by a company. The larger fund families can share expenses among a large number of funds, also can use the same economic data and experts to explain data across funds, in addition to large fund families can benefit from economies of scale from trading commissions and lending fees (Chen et al., 2004). These options act as externalities for all funds belonging to the same family, affecting the purpose level of performance the family needs to achieve and the number of funds it wants. In addition, the number of funds within the same family can increase the investors' selection options, and thus increase the diversity that leads to increased returns.

As there some studies indicate the IMFs have the ability to achieve profit and preserve positive returns through the bear market (Abdullah et al. 2007; Abderrezak, 2008). Therefore, IMFs considered an alternative in portfolio selection for investors, especially during bear markets, then can consider IMFs a good hedging investment, especially against market downturns (Elfakhani et al. 2005), They provides evidence of strong performance between the IMFs and Islamic and conventional benchmark (i.e. FTSE Islamic Indices and S&P 500 Index) during the stagnancy. Then, different Islamic indexes in different countries around the world have emerged, to provide noteworthy comparisons of funds' performance and their benchmarks performance.

The growth of the IMFs in Malaysia is foreseeable to increase from a higher demand from other different markets, also from a raised degree of awareness and confidence between investors. Malaysia is one of the key domiciles contributing to the largest market share of the global Islamic fund's industry. The IMFs industry in Malaysia started in the 1990s with 2 funds in 1993. In 2009 the number of funds is 150 funds managing total AUM of USD 12.0. In the first quarter of 2017, the number of funds in Malaysia is 388 funds managing total AUM USD 22.6. The steadily increasing importance of IMFs as an investment choice in portfolio management and its role in the development of the Islamic financial system motive us to focus on study IMF's performance (Agussalim et al. 2017). This growth can be attributed to the managers' skills in funds selection and market timing. (Abdelsalam et al., 2014). So, the objective of this study is to investigate the extent to which fund families characteristics and fund characteristics contribute to explaining fund returns differentiated by managers' stock selection and market timing abilities in Malaysia for the period of 2009 to 2016. As a high percentage of

IMFs belong to Malaysia, then investigating the IMF industry in Malaysia, it will transfer the orientations and movement of the IMF globally.

Due to the dramatic growth of IMFs, the expected that the return performance of the IMFs is higher than their benchmarks, especially in a country like Malaysia, the previous studies in Malaysia concluded to the IMF industry has the possibility to grow even faster (Nathie, 2008; Abdullah, 2009).

The importance of this study concludes provide adequate information about the performance of IMFs in the Malaysian market for both regulators and investors. Especially, provide new evidence about the Islamic fund families' characteristics in Malaysia. Also, the results will provide assistance to investors, fund managers, and market players, who want investment their money in the market. The study period from 2009 to 2016 which represent the longer period and more recent, and comprehensive relative to previous studies.

The remains of the paper are organized as the following. Section 2 reviews the previous literature, Section 3 describes the data and models are used to evaluate performance and test the fund and family characteristics, then section 4 provides the empirical results and discussion. Finally, section 5 will provide the conclusions.

2. Literature review

IMFs in Malaysia benefited from the technology growth and high oil price, which lead to excellent growth during the late 1990s. Most IMFs achieve higher returns than their benchmarks. This growth attracted the researchers' attention, to test the IMFs managers and investors behavior. In this section, previous studies on the performance of IMFs will be reviewed. The previous studies were divided into 3 parts. First, fund performance including fund selection and market timing. Second, fund performance and fund characteristics. Finally, Fund performance and family characteristics.

2.1. Fund performance including fund selection and market timing.

IMFs are analogous to ethical funds in that investors of both partake certain values such as beliefs, attitude, and perception. Fund managers also allocate assets according to investors' expectations instead of wealth maximization. Forte and Miglietta, (2007) examined whether IMF can be considered as socially responsible funds. They concluded that both funds differ in terms of asset allocation, but the broad principles are largely similar, as both restrict themselves from investing in socially- and religiously-unacceptable investments.

Abdullah et al. (2007) assessed the performance of Malaysian conventional and IMFs for the 1992-2001 period. Using adjusted Sharpe index, adjusted Jensen's alpha to evaluate selectivity ability and Treynor and Mazuy (1966) model to evaluate market timing ability, they revealed that market trends correlated with the performance of each fund. The results also suggest that fund managers are unable to correctly identify good bargain stocks and to forecast the price movements of the general market. Analogous implications were found in the Saudi Arabian market by Merdad et al. (2010).

Alam and Rajjaque (2010) investigated the performance of Islamic equities in specific markets as opposed to the general market. Islamic and conventional portfolios were created from the constituents of S&P Europe 350 for the 2007-2009 period. Three markets were created from this index, that is, the general market, market with no financial firms, and market with only Sharia-compliant equities. Their results showed that the first two markets were bested by the final portfolio, though Sharia-compliant equities portfolio experience a slight downturn in performance during an economic uptrend. Hayat and Kraeussl (2011) examined the risk and return characteristics of 145 IEFs over the 2000- 2009 period. Performance analysis was done using CAPM and the Treynor and Mazuy model. The results show that IEFs underperformed Islamic and conventional benchmarks, and their managers had low timing capability.

Hoepner et al. (2013) studied the financial performance and investment styles of 265 Islamic equity funds from 20 countries using the Carhart four-factor model. They concluded that Islamic funds from the six largest Islamic financial centers (the GCC countries and Malaysia) perform competitively or even outperform international equity market benchmarks. On the contrary, Islamic fund portfolios operating in less developed Islamic financial markets underperform the aforementioned benchmarks.

In case of IMFs performance persistence, Khamlichi et al. (2014) investigate the Dow Jones Islamic Index 100 Titans (DJI100). Their analysis was limited by their focus on the recession and booming cycles of the stocks' companies. The results mentioned are the persistence was not detected. Agussalim et al. (2017) evaluated the performance of conventional and IMFs and found that based on the level of return and Sharpe index, conventional funds outperform Islamic ones, but the contrary occurs when the level of risk was made as the basis. Arifin (2018) found sufficient evidence for the presence of performance persistence in Indonesian Sharia mutual funds, but the persistence only surfaced in the initial period of study, while in the latter stages, it appeared to fade away.

Can conclude from the above previous studies, there is a difference in opinions about the performance of Islamic funds, some evidence suggests that they are less performing than the market benchmark and conventional funds, and other evidence indicates that they excel in performance especially during the riskiest periods. Moreover, the evidence indicates the IMF managers have poor timing ability and poor selectivity ability. This study sought to contribute by using three selectivity and timing ability models at the same time, to see how adding the timing ability can affect manager's selectivity, and to see whether there is any trade-off between manager's selectivity and managers timing ability.

2.2. Fund performance and fund characteristics.

Fund characteristics are the most important determinants of fund performance. For example, the performance of large-size funds differs from small-size funds, which can be attributed to the fact that the fund manager can manage small funds more easily. On the contrary, the size of the large fund could provide more investment alternatives, which would improve the performance of the fund. In addition to the age of the fund, the performance of the young fund may be less than the old fund, because young funds usually incur a significant amount of costs in the form of marketing, floatation, and printing in the early stage of funds.

Bialkowski and Otten (2011) study the performance of the mutual fund in Poland. The results find the positively related between fund size and fund performance, analogous implications were found in (Otten and Bams 2002; Fortin and Michelson 2005; and Ferreira et al. 2006). The results also find no significant relation between expense ratio and the performance.

On fund age, Otten and Bams (2002) investigates the influence of fund characteristics on risk-adjusted performance in European mutual funds. The results find that the fund age is negatively related to fund performance, but Low (2010) and Bialkowski and Otten (2011) find no evidence of significant relationships. On fund risk, Low (2010) examines the relationship between fund performance and fund characteristics in Malaysia. The results indicate that riskier funds are able to generate higher returns.

Yaqoob et al. 2017 investigated the fund-specific determinant of the performance of Islamic and conventional mutual funds for the period from 2011 to 2016 in Pakistan. They divided the sample into three subsamples, included overall, Islamic and conventional funds. The result shows that turnover and new money have a significant positive impact on Sharpe ratio for all three samples of funds. Liquidity is positively and significantly related with Sharpe ratio in case of Islamic funds while for conventional funds age has a significant positive effect on the fund's performance. The expense ratio is negatively associated with Sharpe ratio in case of conventional funds. Fund family and liquidity have been found to be significantly positively related with Jensen Alpha of conventional funds while new money has a significant negative effect on the Jensen Alpha.

Can conclude from the above previous studies, evidence of the impact of fund characteristics on the performance of the Islamic fund is very few. The fund's various characteristics affect its performance, and the effect varies between Islamic and conventional funds. This study contributes by focusing on IMFs in particular for a relatively long period compared to previous studies

2.3. Fund performance and family characteristics.

The strategies of fund families are different to attract investors and improve their performance. Moreover, the family characteristics different, then this differential lead to different performance between different funds in these families. As for family characteristics, the study on their impact on fund performance is fairly limited.

Guedj and Papastaikoudi, (2004) examine whether mutual fund families affect the performance of the funds they manage, for the period from 1990 to 2002 in the USA. The results show that there exists persistence of performance of funds inside their respective families. This persistent excess performance is related to the number of funds in the family which we interpret as a measure of the latitude the family has in allocating resources unevenly between its funds. This is consistent with the view that fund families allocate resources in proportion to fund performance and not fund needs.

Bhojraj et al. (2011) examine whether the previously documented positive association between fund family size and fund performance is affected by significant regulatory changes, for the period from 1992 to 2008 in the USA. The results indicate that while fund family size was positively associated with fund performance in the period prior to the regulatory changes, this advantage is significantly weaker in the period subsequent to the regulatory changes, and that the greater stock-picking skill of larger fund families also weakened subsequently to the regulatory changes. Brown and Wu, (2012) evaluating mutual fund skills based on a fund's own performance and the performance of its family. For the period from the January 1999 to December 2009 in the USA. The results show family performance has a stronger impact on money flow to a member fund in larger families, and families with a larger fraction of team-managed funds, while the sensitivity of flow to a fund's own

performance decreases with family size and increases with the correlation of idiosyncratic returns within families.

Clare and Sherman, (2014) use a large and long sample of US and European mutual funds, to examine the strategic and competitive behaviors among family funds and whether this affects performance persistence and risk-taking. The results do not find evidence of stronger performance persistence among family funds versus non-family funds. The results also show strong evidence that a fund's mid-year ranking within its family and within its sector affects its risk-taking over the remainder of the year.

Can conclude from the above previous studies, the family in allocating resources unevenly between its funds. Moreover, the family size and the number of funds in a family are positively related to fund performance. Finally, all previous studies mentioned above focused on characteristics of conventional mutual fund families. So, this paper focuses on IMF family's characteristics.

3. Data and Methodology

The sample in this study comprises 50 IMFs, distributed to 20 families. The study uses data includes the rate of return, total asset, inception date for each fund, and market index prices collected from Bloomberg database, which provides information on mutual funds, it also offers data in the form of media and news, in addition to an Islamic finance platform, presenting comprehensive data on IMFs and other Islamic instruments, and provides an Islamic window that provides data on a range of Islamic financial institutions. In addition to the rate of return on a 3-month Malaysian Treasury bill collected from (www.Investing.com). The fund families' characteristics variables, such as family age and the number of the fund in each family collected from the annual reports of fund family. The study used the monthly fund return data to estimate the beta of each fund. The monthly market return was calculated based on the Kuala Lumpur Composite Index (KLCI). Since the family and fund age is an annualized, so the researcher converted to a monthly equivalent, to be consistent with the monthly returns of fund and market return.

The analysis section employs regression in a two-step. In the first stage, the analysis employs Jensen's (1968) model to calculate the overall fund performance and after that the model of Henriksson and Merton (1981), and Treynor and Mazuy (1966) to divide the performance into market timing and fund selection. In the first step, the regression aims to be a point estimation, to get coefficient estimates of fund selection and timing measures. That means the Jensen's (1968), Henriksson and Merton's (1981) and Treynor and Mazuy (1966) models are used to getting fund selection and timing coefficient estimates for each of the 50 funds. Following Low, (2012), these coefficient estimates are then used as (dependent variables) in the second step regression analyses that seek to test the extent to which fund and families characteristics are associated with selectivity and timing performance measures.

As mention previously, in the first-step, study use regression analysis in the Jensen (1968) model, Henriksson and Merton (1981) model, and Treynor and Mazuy (1966). Then, the Jensen (1968) model and Henriksson and Merton (1981) and Treynor and Mazuy (1966) model regression purpose is merely to get selectivity and timing estimates to be used in the second-step analyses.

The Jensen's (1968) model is shown by the following regression:

$$R_{i,t} - R_{f,t} = \alpha_i + \beta_i\left(R_{m,t} - R_{f,t}\right) + \epsilon_{i,t} \quad (1)$$

Where, $R_{i,t}$is the rate of return of the fund at time t, $R_{f,t}$ is the risk free rate calculated from 3-month Malaysian Treasury bill, $R_{m,t}$ is the rate of return of market at time t. β_i is the estimated coefficient for the systematic risk of the fund, α_i is the Jensen's performance of the fund, and $\epsilon_{i,t}$ is the random error term. The above equation supposes that the systematic risk of a fund is fixed over time and thus has disregarded the presence of timing activities of fund managers. So, Jensen's performance model refer to a fund's overall performance fully to the fund manager's stock selection ability. Since it is possible that fund managers participate in market timing activities, Henriksson and Merton (1981) developed a model that allows market timing and selectivity to be estimated in same time. Henriksson and Merton's (1981) model take into consideration market timing and stock selection abilities to elimination the biases in Jensen's performance estimate that disregard market timing activities of fund managers.

The market timing model of Henriksson and Merton (1981) is following the regression equation:

$$R_{i,t} - R_{f,t} = \alpha_i + \beta_i\left(R_{m,t} - R_{f,t}\right) + \delta_i(R_m - R_f)D_t + \varepsilon_i \quad (2)$$

Where, $\boldsymbol{\alpha_i}$ measures stock-selection ability, δ_i is the market timing coefficient, D_t is a dummy variable that take a value of one if the market returns is positive and zero otherwise, and other variables are defined in equation (1). In this equation, δ_i measures a manager's market timing ability and a significant positive (negative) estimate of δ_i is indicative of good (poor) market timing ability.

TM (1966) built a model that recognizes good market timing funds. The market timing is cached by the square of market returns. The model is as follows:

$$T.M = R_i - R_f = \alpha_i + \beta_i R_m - R_f + \gamma_i (R_m - R_f)^2 + \varepsilon_i$$
(3)

Where, $\boldsymbol{\alpha_i}$ measures stock-selection ability, ${R_{m,t}}^2$ is the squared market returns, $\gamma_{i,t}$ indicates market timing, if positive and significant then fund are successful and exposure to the market is increased when markets are doing well.

In the second-step analyses, to estimate the importance and the impact of fund and families' characteristics on managerial selectivity and market timing returns, the $\boldsymbol{\alpha_i}$,t , δ_i ,t calculated from equation (2), and $\varphi_{i,t}$, $\gamma_{i,t}$ calculated from equation (3), in addition to some fund and family characteristics variables as shown in Equations (3), (4) and (5), (6) respectively.

$$\alpha_{i,t} = \beta_0 + \beta_1 FR_{i,t} + \beta_2 FS_{i,t} + \beta_3 FA_{i,t} + \beta_4 FMZ_{i,t} + \beta_5 FMA_{i,t} + \beta_6 FMN_{i,t} + \epsilon_i$$
(4)

$$\delta_{i,t} = \beta_0 + \beta_1 FR_{i,t} + \beta_2 FS_{i,t} + \beta_3 FA_{i,t} + \beta_4 FMZ_{i,t} + \beta_5 FMA_{i,t} + \beta_6 FMN_{i,t} + \epsilon_i$$
(5)

$$\varphi_{i,t} = \beta_0 + \beta_1 FR_{i,t} + \beta_2 FS_{i,t} + \beta_3 FA_{i,t} + \beta_4 FMZ_{i,t} + \beta_5 FMA_{i,t} + \beta_6 FMN_{i,t} + \epsilon_i$$
(6)

$$\gamma_{i,t} = \beta_0 + \beta_1 FR_{i,t} + \beta_2 FS_{i,t} + \beta_3 FA_{i,t} + \beta_4 FMZ_{i,t} + \beta_5 FMA_{i,t} + \beta_6 FMN_{i,t} + \epsilon_i$$
(7)

Where $\alpha_{i,t}$ and δ_i are the selectivity and market-timing measures of fund i at time t calculated from equation (2), $\varphi_{i,t}$ and $\gamma_{i,t}$ are the selectivity and market-timing measures of fund i at time t calculated from equation (3), $FR_{i,t}$ is the fund i risk at time t calculated from fund beta, $FS_{i,t}$ is the fund i size at time t calculated from log of fund total assets, $FA_{i,t}$ is the fund I age at time t calculated from fund inception date, $FMA_{i,t}$ is the fund family i age at time t calculated from family inception date, $FMS_{i,t}$ is the fund family i size at time t calculated from log family total asset, $FMN_{i,t}$ is the number of fund in the family i at time t, and $\epsilon_{i,t}$ is the error term.

4. Empirical Results and Discussion

In the selectivity and market timing models as shown in table 3, 4 for HM model and table 5, 6 for TM model, the Breusch-Pagan / Cook-Weisberg test for heteroscedasticity show H0: constant variance means there is no heteroscedasticity, and prob>chi2 are 0.1780, 0.1820 respectively for HM model and 0.1630, 0.1580 respectively for TM model, more than 0.05 suggesting that the null hypothesis cannot be rejected. Given the potential problems of multicollinearity among the fund attributes variables, a diagnostic check was performed using variance inflation factors (VIFs). As a rule of thumb, a VIF >10 is taken as an indicator of the presence of multicollinearity and the diagnostic results in table 3, 4 for HM model and table 5, 6 for TM model, show that none of the family and fund characteristics variables has a value greater than 10.

4.1. The Summary of Descriptive Analysis

Table 1 reports summary statistics for Islamic mutual fund performance measures estimated from the models of Jensen (1968), Henriksson and Merton (1981), and Treynor and Mazuy (1966). In Jensen's (1968) model,

α1 has a mean value of -0.0030 and it measures selectivity performance when market timing ability is not taken into consideration. That means IMFs managers have poor selectivity skills according Jensen (1968) model.

In Henriksson and Merton (1981) model, when separate selectivity and market timing αH has a mean value of -0.00502 and $\delta_i$which represent market timing has a mean value of 0.09636. In Treynor and Mazuy (1966) which that recognizes good market timing funds by cached the square of market returns, αT has a mean value of -0.00831 and ϒi which represent market timing has a mean value of 0.08279.

Table 1 also show summary statistics for independent variables. The mean of individual fund size is 1.966 with standard deviation .808, and the mean of individual risk is negative -0.00325 with standard deviation .042565, and the mean of individual fund age is .9135 with standard deviation .7975, and the mean of fund family size is 2.141 with standard deviation .7348, and the mean of fund family age is 1.894 with standard deviation .868, and the mean of the fund number in fund family is .9791 with standard deviation .5481.

Table 1. Summary statistics for IMF performance and independent variables.

Variable	Mean	Standard Deviation	Minimum	Maximum
α_i **Jensen**	-0.0030	0.1743	-0.5551	0.3961
α_i**HM**	-0.0050	0.2365	-0.4721	0.7451
δ_i **HM**	0.0964	0.4482	-2.1631	0.7277
α_i**TM**	-0.0083	0.2792	-1.6101	0.3526
γ_i **TM**	0.0828	0.1624	-0.5452	0.3273
Fund Size	1.9658	0.8079	-0.2145	3.7485
Fund Risk	-0.0033	0.0426	-0.2101	0.1651
Fund Age	0.9135	0.7975	0.0833	3.7500
Family Size	2.1407	0.7348	-0.6324	3.1517
Family Age	1.8941	0.8681	0.2500	3.4167
Family Number	0.9792	0.5481	0.0833	2

4.2. The correlation between performance measures and family, fund characteristics.

Table 2 presents pairwise correlations for performance measures and independent variables. Selectivity and market timing measures in both HM and TM models have a low significant correlation coefficient of 0.1503 and 0.0398 respectively, suggesting that there is no trade-off between an IMFs manager's stock selection and market timing abilities that means that the IMF managers can excel in both activities. Selectivity performance in HM model is related positively with the fund family age with a correlation coefficient of 0.1306, similarity, selectivity in TM models is positively related with Fund family age with correlation coefficient of 0.1471. This suggests that funds with old family managers have good selectivity returns. It is shown that selectivity performance ability has a humble correlation of -0.0615 with fund size that means the funds with small size managers have good selectivity returns. On contrary, selectivity performance in TM model has positive related with fund size with correlation coefficient of 0.0422, but has negative related with fund risk with correlation coefficient of -0.0282, that means managers of fund with high risk have poor selectivity skills. Market timing performance in HM model is shown to be positively correlated with fund family age also, with a correlation coefficient of 0.1145. This suggests that funds with old family are better managed by managers with market timing abilities also. On contrary, market timing in TM model has negatively related with fund family age with correlation coefficient of -0.029, this suggests that fund with young family are better managed by managers. It is shown that the timing performance in HM and TM model is found to be humility correlated with the fund risk with a correlation coefficient of -0.0698 and -0.0203 respectively. This suggests that risky funds characterized by high exposures to broad market movements have poor market timing ability.

Fund family size is negatively and significantly correlated with fund risk, and fund age. The correlation coefficients are -0.0451 and -0.284 for fund risk and fund age respectively suggesting that larger funds have less risk that characterized by low exposures to broad market movements and these funds are smaller in size. The high positive correlation of 0.851 between fund family size and fund size due to that the fund family size included the average of all individual funds size.

Table 2. Pairwise correlation coefficients

	Selectivity HM	Timing HM	Fund Size	Fund Risk	Fund Age	Family Z	Family A	Family N	Selectivity TM	Timing TM
Selectivity HM	1.000									
Timing HM	0.1503	1.000								
Fund Size	-0.0615	0.1004	1.000							
Fund Risk	0.0281	-0.0698	-0.0312	1.000						
Fund Age	0.0764	-0.0176	-0.2835	0.0538	1.000					
Family Z	0.0462	0.0976	0.8251	-0.0451	-.02739	1.000				
Family A	0.1306	0.1145	0.5276	-0.0607	-0.1127	0.6160	1.000			
Family N	0.0381	0.0966	0.6704	0.0301	-0.1117	0.8457	0.7326	1.000		
Selectivity TM	0.0054	0.0065	0.0422	-0.0282	-0.0471	0.0747	0.1471	0.0807	1.000	
Timing TM	-0.0080	-0.0034	0.0254	-0.0208	-0.0283	0.0387	-0.029	0.0024	0.0398	1.000

4.3. Islamic mutual fund selectivity and market timing according Jensen, HM, and TM models.

As mention on section 4.1, that the IMFs managers have poor selectivity skills according Jensen (1968) model. Since the Jensen model doesn't account market timing in the model, the Jensen's model would over-estimate the selectivity performance and cause a bias in the estimate of $\boldsymbol{\alpha_i}$. Henriksson and Merton's HM (1981) model and Treynor and Mazuy TM (1966) model provide the separate selectivity and market timing components as shown by the estimates of $\boldsymbol{\alpha_H}$, $\boldsymbol{\delta_i}$, and $\boldsymbol{\alpha_T}$, $\boldsymbol{\gamma_i}$ respectively. In table 1 on average, the manager's market timing activity contributes positively to fund's return $\boldsymbol{\delta_i}$= 0.09636 for HM model and $\boldsymbol{\gamma_i}$ =0.08279 for TM model, that means managers in IMFs have good timing ability according HM and TM models.

The return attributed to a manager's stock selection ability after filtering out his market timing activity is captured by $\boldsymbol{\alpha_H}$ = -0.0050 for HM model and $\boldsymbol{\alpha_T}$= -0.0083. By taking both market timing and stock selection abilities into consideration, HM and TM models remove the biases in Jensen's estimate of which ignores market timing activities of fund managers. The negative mean values of$\boldsymbol{\alpha_i}$,$\boldsymbol{\alpha_H}$ and $\boldsymbol{\alpha_T}$ indicate that on average, fund managers' stock selection ability is not adding value to fund returns. Comparison of the three selectivity measures indicates that $\boldsymbol{\alpha_i}$= -0.0030 is less negative than $\boldsymbol{\alpha_H}$= -0.0050 and $\boldsymbol{\alpha_T}$= -0.0083. Thus, the presence of positive timing returns to the Jensen's model has in fact over-estimated the selection ability of manager as shown by a lower negative value of$\boldsymbol{\alpha_H}$, $\boldsymbol{\alpha_T}$. Given that the Jensen's model does not filter out the effects of market timing activities, the presence of positive timing return as indicated by a positive value of $\boldsymbol{\delta_i}$ and $\boldsymbol{\gamma_i}$ has somewhat mitigated the degree of negative return associated with selection skill.

4.4. The relationship between selectivity, timing under HM model and family, fund characteristics

Table 3 reports the panel data regression results of selectivity performance as represented by Equation (4). The selectivity regression model is significant and has adjusted R-squared of 0.302 suggesting that family and fund characteristics variables explain almost 30 percent of the regression variations in managers' selectivity performance. On fund risk, since it is measured using a beta, this fund risk variable captures a fund's exposure to market risk or broad market movement. The coefficient of fund risk is found to be positively and significantly related to selectivity performance, suggesting that risky funds characterized by high exposures to broad market movements seem to show good selectivity returns. That suggests that the IMFs it performs better in bearish market periods which may be associated with high risk, allowing fund managers to find worthwhile investments alternatives which eventually has the effect of increases managerial selectivity performance.

The significant positive coefficient of fund age suggests that the newly born or young funds usually incur a significant amount of costs in the form of marketing, floatation, and printing in the early stage of funds, and the

young funds are exhibit a higher market risk. Thus, the young funds are underperformance than old funds. Similarly, there is the significant positive coefficient to fund family age. The significant negative coefficient of number funds in the family suggests that as the number of the funds in the family becomes larger, it becomes more difficult for the fund manager to find worthwhile investments alternatives which eventually has the effect of increases managerial selectivity performance. This could possibly be the reason that managers managing a family with large funds are associated with inferior security selection decisions. The findings show that fund size, and family size, play no significant roles in influencing the variation in selectivity performance, this can be because the manager in IMFs is bound by limited options when choosing investments and therefore whether the size of the fund or the family is large or small does not affect when making the investment decision.

Table 3. Selectivity under HM model regression results.

Dependent variable: Selectivity Performance $\alpha_{i,t} = \beta_0 + \beta_1 FR_{i,t} + \beta_2 FS_{i,t} + \beta_3 FA_{i,t} + \beta_4 FMZ_{i,t} + \beta_5 FMA_{i,t} + \beta_6 FMN_{i,t} + \epsilon_i$				
Variable	**Coefficient**	**t-Statistic**	**Pr>[T]**	**VIF**
Constant	-0.0089	-0.12	0.902	0.000
Fund Size	0.0432	1.17	0.243	6.59
Fund Risk	0.3638	3.42	0.001	5.18
Fund Age	0.0924	-4.13	0.000	3.24
Family Z	-0.0042	-0.07	0.942	2.22
Family A	0.3015	10.56	0.000	1.15
Family N	-0.3247	-4.71	0.000	1.04
F Value= 25.87	Prob>F= 0.000	AdjustedR^2= 0.302		N= 4800
Breusch-Pagan / Cook-Weisberg test for heteroscedasticity				
H0: Constant variance	**Chi2 (1) = 1.81**		**Prob > chi2 = .1780**	

Table 4 reports the panel data regression results of timing performance as represented by Equation (5). The regression model is significant with adjusted R-squared of 0.164 indicating that family and fund characteristics variables explain 16 percent of the variations in market timing performance. The coefficients of fund age and family age are highly significant and are shown to be positively related to timing return. The directions of the relationships are the same to those found for selectivity performance as reported in table 3. This somewhat reinforces the findings of the section 4.2 that if a manager is engaged in both stock selection and market timing activities, there is no trade-off between an Islamic mutual fund manager's stock selection and market timing abilities that means that the Islamic mutual fund managers can excel in both activities.

The finding also shows the positive significant relationship between market timing and funds size that means the larger funds have better timing returns than smaller ones implies that large funds put managers in a better position to exploit the predictability of market returns to increase fund returns. This possibly reflects the efficiencies of large funds in responding to changes in broad market movements. In other words, if a change in market trend is anticipated by a fund manager, it would cost less to make an adjustment to the portfolio holding possibly due to the existence of economies of scale among large funds. Hence, this contributes to increasing fund returns from the market timing activities of fund managers. The findings also reveal that fund risk, family size, and the number of the fund in a family have no significant relations to a manager's market timing performance.

Table 4. Timing ability under HM model regression results.

Dependent variable: Market Timing Performance $\delta_{i,t} = \beta_0 + \beta_1 FR_{i,t} + \beta_2 FS_{i,t} + \beta_3 FA_{i,t} + \beta_4 FMZ_{i,t} + \beta_5 FMA_{i,t} + \beta_6 FMN_{i,t} + \epsilon_i$				
Variable	**Coefficient**	**t-Statistic**	**Pr>[T]**	**VIF**
Constant	-0.0459	-0.42	0.673	0.000
Fund Size	0.1091	1.96	0.050	6.59
Fund Risk	-0.4540	-0.76	0.449	5.18
Fund Age	0.1096	-3.25	0.001	3.24
Family Z	0.0551	-0.63	0.528	2.22
Family A	0.1708	4.98	0.000	1.15
Family N	0.0476	0.46	0.647	1.04
F Value= 14.36	Prob>F= 0.000	Adjusted R^2= 0.164		N= 4800
Breusch-Pagan / Cook-Weisberg test for heteroscedasticity				
H0: Constant variance	**Chi2 (1) = 1.92**		**Prob > chi2 = .1820**	

4.5. The relationship between selectivity, timing under TM model and family, fund characteristics.

Table 5 reports the panel data regression results of selectivity performance as represented by Equation (6). The selectivity regression model is significant and has adjusted R-squared of 0.267 suggesting that family and fund characteristics variables explain almost 27 percent of the regression variations in managers' selectivity performance.

On family age, the coefficient of a family age is found to be positively and significantly related to selectivity performance, suggesting that the managers in the old family have a good selectivity, due to the old family has more stability. Since the young family usually incur a significant amount of costs in the form of marketing and floatation, the same result was recorded for the fund age. The results also show that the fund size, family size and number of funds in the family negatively and significantly related to selectivity, suggesting that the managers in the small fund and a small number of funds in the family have a good selectivity, due to the managers can easily manage these funds and families. The results also indicate there is no significant related between managers' selectivity and fund risk that may due to the managers in IMFs seek to achieve religious objective next to traditional goals.

Table 5. Selectivity under TM model regression results.

Dependent variable: Selectivity Performance $\varphi_{i,t} = \beta_0 + \beta_1 FR_{i,t} + \beta_2 FS_{i,t} + \beta_3 FA_{i,t} + \beta_4 FMZ_{i,t} + \beta_5 FMA_{i,t} + \beta_6 FMN_{i,t} + \epsilon_i$				
Variable	**Coefficient**	**t-Statistic**	**Pr>[T]**	**VIF**
Constant	-0.0389	-0.64	0.525	0.000
Fund Size	-0.1025	-3.28	0.001	6.21
Fund Risk	-0.2143	-0.64	0.526	1.01
Fund Age	0.0443	2.34	0.019	1.11
Family Z	-0.1021	-2.08	0.037	5.76
Family A	0.2189	9.07	0.000	1.64
Family N	-0.1301	-2.23	0.026	5.18
F Value= 21.84	Prob>F= 0.000	AdjustedR^2= 0.267		N= 4800
Breusch-Pagan / Cook-Weisberg test for heteroscedasticity H0: Constant variance Chi2 (1) = 1.28 Prob > chi2 = .1630				

Table 6 reports the panel data regression results of timing performance as represented by Equation (7). The regression model is significant with adjusted R-squared of 0.282 indicating that family and fund characteristics variables explain 28 percent of the variations in market timing performance. The coefficients of fund age are highly significant and are shown to be negatively related to timing return. That means managers of the old fund have poor market timing ability, may due to the old fund need to high experience managers.

The finding also shows the positive significant relationship between market timing and family size that means the larger family have better timing returns than smaller ones implies that large family put managers in a better position to exploit the predictability of market returns to increase fund returns. This possibly reflects the efficiencies of a large family in responding to changes in broad market movements. On fund risk, the coefficient of fund risk is found to be positively and significantly related to timing ability, suggesting that risky funds characterized by high exposures to broad market movements seem to show good timing ability. That suggests that the IMFs it performs better in bearish market periods which may be associated with high risk, allowing fund managers to know the good time related with good performance. With regard to the number of funds in the family, a similar result was recorded to result in selectively skills, negatively and significantly related to managers timing ability. Suggesting that the managers in a small number of funds in the family have a good selectivity, due to the managers can easily manage these funds and families. The results also indicate that no significant related between mangers timing ability and find size and family age.

Table 6. Timing ability under TM model regression results.

Dependent variable: Market Timing (TM)

$$\gamma_{i,t} = \beta_0 + \beta_1 FR_{i,t} + \beta_2 FS_{i,t} + \beta_3 FA_{i,t} + \beta_4 FMZ_{i,t} + \beta_5 FMA_{i,t} + \beta_6 FMN_{i,t} + \epsilon_i$$

Variable	Coefficient	t-Statistic	Pr>[T]	VIF
Constant	0.2977	4.21	0.665	0.000
Fund Size	-0.0395	-1.09	0.273	6.59
Fund Risk	0.3048	0.78	0.021	5.12
Fund Age	-0.0103	-0.47	0.002	3.21
Family Z	0.2252	3.97	0.015	1.22
Family A	-0.0120	-0.43	0.665	1.05
Family N	-0.1982	-0.43	0.003	1.14
F Value= 22.57	Prob>F= 0.002	AdjustedR^2= 0.282		N= 4800
Breusch-Pagan / Cook-Weisberg test for heteroscedasticity				
H0: Constant variance				
Chi2 (1) = 1.33	Prob > chi2 = .1580			

5. Conclusion

The objective of this study is to test the Islamic mutual funds' managers' selectivity skills and market timing ability. Also, aims to explore which of a family and fund's characteristics are helpful in identifying fund with superior investment decisions driven by managers' activities of selecting stocks and timing the broad market movements, for the period from 2009 to 2016 in Malaysia. The results show the managers in IMFs have poor selectivity skills and good market timing ability. On family characteristics, the results show that the family age and number of a fund in the family have an impact on managers' selectivity skills according to the H&M model, and family size, family age have an impact on managers' selectivity skills according to the T&M model. In addition, the results indicate that the family age has an impact on managers timing ability according to the H&M model, and family size and number of a fund in the family have an impact on managers timing ability according to the T&M model. On fund characteristics, the results show that the fund risk and fund age have an impact on managers selectivity skills according to the H&M model, and fund size and fund age have an impact on managers selectivity skills according to the T&M model. In addition, the results indicate that the fund size and fund age have an impact on managers market timing ability according to the H&M model, and all three variables have an impact on managers' market timing ability according to the T&M model.

The findings of this study are useful to investors and provide potential policy implications to the fund management industry. Since the investment actions of managers are not directly observable by investors, the findings on what family and fund characteristics affect managerial performance components provide useful insights to investors in making investment decisions. This study delivers a new evidence on the determinants of performance related to the fund family characteristics. The findings of this study expand existing scarce literature that highlights the important influence of fund characteristics in general, and family characteristics in particular, on managerial selectivity and market timing returns. Finally, this study can encourage researchers in the realm of a mutual fund to further extend this subject. Firstly, by employing more sophisticated models of performance such as CAPM, Fama French, and Carhart models. Secondly, this study can be extended to other countries. Third, more studies can be done to incorporate the fund manager attributes as well in determining the fund performance.

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Corporate Governance Index For Large Saudi Firms

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Abstract

This paper constructs a Corporate Governance Index, CGI for the largest Saudi listed firms in Tadawul. Based on Four Corporate Governance categories: the board of directors; the shareholders' rights and general assembly; the public disclosure and transparency; and stakeholders, I find that the cumulative corporate governance score for Saudi listed firms ranges from 46 to 92 points out of 100. The mean value was 70 points for all firms with a standard deviation of 8%. This indicates that Saudi firms vary significantly in corporate governance practices. Investigating the four categories separately show that Saudi companies are doing well in general in the board of directors and shareholders as compared with public disclosure and stakeholders' categories.

Keywords: Corporate governance; Index, Board of directors, Shareholders rights, public disclosure and transparency

1. Introduction

Corporate governance deals with the methods of how the suppliers of capital make ensure they receive the returns on their investments (Shleifer and Vishny, 1997). The OCED, 2015 defines corporate governance as *"a set of relationships between a company's management, its board, its shareholders and other stakeholders"*. Corporate governance also provides the structure through which the objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined**.** Corporate Governance can also be defined as the *"stewardship responsibility of corporate directors to provide oversight for the goals and strategies of a company and foster their implementation"* (Cornelius 2005, p.12). Fahy et al (2004) p.163 says *"Put in its simplest form, corporate governance is the systems and processes put in place to direct and control an organisation in order to increase performance and achieve sustainable shareholder value".* Kaen (2003) states that *"Corporate governance is about who controls corporations and why".*

Most definitions of corporate governance go around guaranteeing fair treatments for all parties involved in the corporations and for better performance and sustainability. The massive literature on corporate governance suggests that good corporate governance is the key for successful companies and economies. Good corporate governance practices increase the investors' confidence in the market and makes all parties (corporations, regulators, investors and stakeholders) know exactly their rights and responsibilities. See of example Gompers et al. (2003), and Bhagat and Bolton (2008). on corporate governance and a better firm performance.

Particularly, good governance offers a solution for principle-agent (Jensen and Meckling, 1976) problems and conflict of interest issues by aligning the goals of everyone toward long-term corporate growth and profitability. See for example Sung (2003) on a study on Korean firms. He finds that good governance is associated with better firms' performance and value. The ultimate benefit of good governance is to develop efficient and effective rules and institutions for higher productivity and long-term economic success. Companies are expected to have strong-will, mechanism, and institutions to implement corporate governance rules and report the outcome.

The literature on corporate governance has received much attention since the scandals of some successful corporations such as Adelphia, Enron and WorldCom (Brown and Caylor, 2006). See also Adams et al., (2010)

on the role of the boards of directors on corporate governance. Furthermore, the globalization and liberalization of financial markets, and stronger demands for accountability and transparency contribute to the rising importance of corporate governance (Pugliese, Bezemer, Zattoni, Huse, Frans and Volberda, 2009).

In emerging markets, the Asian Financial Crisis of 1997-1998 affected all countries open to Capital flow. Measures of corporate governance explain the extent to stock market collapse (Johnson, Boone, Breach, and Friedman; 2000). The explanation of this severe markets decline is due to the fact that weak legal framework facilitates the expropriation by managers and directors.

Despite the massive research on corporate governance, we need much more. Claessens and Yurtoglu(2013) on a survey on emerging markets corporate governance proposed a lot of areas for future research. They state that "much can be learned from corporate governance research in general, and from emerging markets specifically". I take the pioneering attempt in establishing a corporate governance index for an important emerging market "Saudi Arabia".

This paper aims to shed light on a country that is characterized by a weak legal framework (Saudi Arabia). A massive body of literature found that cross-country differences in laws and their enforcement affect ownership structure, dividend payout, cost of capital and market valuations (see La Prota et al., 1999, 2000; Claessens et al. 2000; Berkowitz et al, 2003; Lombardo and Pagano, 2000; Beck et al. (2003;2005); and Klapper and Love 2004).

Emerging markets are in general characterized by a weak legal framework (Yurtoglu, 2013 and Klapper and Love, 2004). As these markets are integrating more into the global markets, the importance of corporate governance increases. This is the case with Saudi Arabia as it is the largest market in the MENA (Middle-East and Northern Africa) region and as it becomes a member in the G20 after the Global Financial Crisis, the GFC of 2008. Therefore, it is necessary to develop a sound corporate governance assessment tool to monitor and promote good governance among Saudi corporations and Saudi nation as a whole. Saudi experience is of a great interest for other emerging markets and for international investors as the country opens its market for foreign investors.

I construct the first Corporate Governance Index, CGI for the largest 92 Saudi listed firms for the fiscal year of 2015. It is the first paper on corporate governance in the GCC (Gulf Cooperation Council) region that addresses such an important issue. I use the Saudi Capital Market Authority, the CMA standards and some standards set by the OECD to investigate the compliance of Saudi firms to the corporate governance policies. I divide the index into Four sub-categories: The Board of Directors, BoD; the Shareholders Rights and General Assembly, SRGA; the Public Disclosure and Transparency, PDT; and the Stakeholders Rights, SR. Basically, most standards set by the CMA cover the first three sub-categories, while the last one, the SR is mainly taken from the OECD.

Analysing and investigating the Saudi firms' compliance, I find many notable findings. First, out of 100 scoring total points, Saudi firms score ranges between 46 points minimum and 92 points maximum. This show the large variations among Saudi listed firms in corporate governance practices. The median cumulative corporate governance score for the whole sample was 70 points, which indicates a reasonable compliance with corporate governance principles in general.

When looking at the corporate governance scoring by corporate governance sub-categories, I find that Saudi firms are doing well in the board of directors and shareholders rights sub-categories, but they are doing poorly when it comes to public disclosure and stakeholders' sub-categories. I interpret this as a lack of understanding the importance of adopting robust corporate governance roles on the long-run. Saudi firms do not adopt more than what is required and obligatory by the Capital Market Authority, the CMA of Saudi Arabia. Actually, Saudi listed firms are unwilling to take any extra step towards better corporate governance practices. This is consistent with Claessens and Yurtoglu (2013) who find that voluntary and market corporate governance mechanisms have less effect when a country's governance system is weak such as in emerging markets in general.

The rest of the paper is organized as follows: Section 2 explains the data and the sample used in this paper, Section 3 explains the methodology used; Section 4 reports the results and the findings and I conclude in Section 5.

2. **Date and companies' selection**

Saudi stock exchange market known as Tadawul has gone through a substantial changes and restructuring since 2006. The year of 2006 was a memorable year for most Saudis when the market collapsed from its peak above 21,000 points to as low as 5,000 points in few months. The rise in oil price in the last decade started in 2003 was associated with the development of Tadawul. In 2003, there was around 50 listed companies only. The privatization of the Saudi Telecommunication Company in 2003 has encouraged many companies to follow

(Initial Public Offerings, IPOs). The period between 2005 and 2010 particularly was very hot and active where many IPOs joined the Saudi market and in few years Tadawul has tripled in size (see Alanazi, Al-zoubi, Extreme IPO underpricing and the legal environment in wealthy emerging economies, 2015).

Saudi stock market is the largest in the Gulf Cooperation Council, the GCC region and in the Middle East. The general market index Tadawul All Share Index "TASI" currently stands at 7,870 points. Tadawul now is divided into 19 sectors or industries with 175 companies listed on the market.

In order to examine which companies would be qualified to be included in the index, I used three filters. First, I use the market capitalization as the key determining criteria for qualification. See the survey on Corporate Governance by Shliefer and Vishny (1997). The median market value was set as the threshold since the mean was not suitable measure due to Saudi firms' large variation in size. Companies that have a median market of value of 2 billion Riyals for the fiscal year of 2015 were included. The second filter was that the company has to be listed in the market for a minimum of three years. This is to ensure enough time for the transition of the company from private ownership into public ownership. Third, I eliminate all financially troubled firms since the pressure on them from the market authority is high.

In total, 87 companies meet the criteria. Per suggestion from the CMA, I also added five companies from those, which do not meet the criteria: The final list includes one red firm, one orange, one yellow[11], one from media sector that was excluded entirely, and one new firm. The 92 companies, which made to the list collectively, have a market value of about SAR1.8 trillion, which represents 95% of the total Saudi market value. I used the new Tadawul sectors classifications. Table 1 below shows the number of companies in each sector and the number of qualified firms.

Data on the sampled firms have been collected from the Saudi stock market "Tadawul". Tadawul keep all the financial reports and other announcements on its website. In addition, data on the companies' bylaws were collected from the Ministry of Commerce and Investment, the MCI[12].

Table 1. Saudi sectors and companies

	Sector	Number of companies	Qualified firms
1	Energy	4	3
2	Materials	42	25
3	Capital goods	15	5
4	Commercial and professional services	2	1
5	Transportation	4	3
6	Consumer durables and apparel	5	1
7	Consumer services	6	3
8	Media	2	1
9	Retailing	6	4
10	Food and staples retailing	4	2
11	Food and beverages	12	6
12	Health care equipment and services	5	4
13	Pharmacy, Biotech and life science	1	1
14	Banks	12	12
15	Diversified financials	4	2
16	Insurance	35	5
17	Telecommunication services	4	3
18	Utilities	2	2
19	Real estate management and development	10	9
	Total	175	92

[11] Companies with colours are companies received warnings from the CMA due to cumulative losses exceeding the limits.

[12] I would like to thank the MCI for providing the Bylaw documents for all firms.

3. **Methodology**

The majority of Corporate Governance Indices are constructed in the developed economies. This is a big gap in the literature by focusing only on developed economies and ignoring emerging economies. Developing economies also need to have Corporate Governance measures as they integrate more into the global market. Saudi Arabia is of a great interest as it is the largest economy in the Middle-East.

Studies on Corporate Governance indices include the Corporate Governance Index developed by Khanna et al (2001), and by Klapper and Love (2002), the index developed by Black, Jang and Kim (2003a and 2003b), the Gompers, Ishii and Metrick (2003) index and the index developed by Ananchotikul (2008). Recently, the index developed by Ananchotikul (2008) was specifically formulated for developing countries. I evaluate corporate governance by creating an index, which assesses companies in terms of their compliance to the related governance rules in the country and best governance practice around the world. Those rules are expected to promote equal treatment of shareholders; ensure transparency through constant flow of relevant information related shareholders and stakeholders; provide effective structure to hold decision makers' accountability for their business decisions; and ensure responsible acts in terms of complying with related laws and regulations.

A major 2013 World Bank report[13] on developing CG index recommends the following eight steps to come up with an efficient CG index:

1) Use a wide initial consultation
2) Define objective of the index
3) Select the index approach
4) Customize the governance criteria for the country when adopting international standards
5) Build a transparent and credible evaluation process
6) Achieve maximum possible disclosure
7) Effectively monitor the index criteria
8) Develop the index.

I have followed the recommendation above in developing the corporate governance index for Saudi companies. I used wide range of consultation to make sure that I come up with best measurable criteria to evaluate corporate governance policy and practices. I collaborated with international consultants and worked with local partners to establish an index with proper categories and variables. With this index, I aim to provide data-based independent guidance to Saudi companies helping them to adopt good governance principles. I believe that the adoption of those principles would help companies to make better decisions and resolve challenges that could emerge between corporate executives, shareholders, and stakeholders in the course of doing business.

The corporate governance assessment is based on 117 measures within four categories. Each category is evaluated over 100 points. The final corporate governance score is the weighted average of the four categories over 100 points. The corprate governance score reveals the compliance of companies to good corporate governance principles, which are determined by the Capital Maket Authority, the CMA and OECD. The four categories and their weight on the final CG score are as follows[14]:

- Board of Directors and Executive Management (35%)
- Shareholders' Rights and General Assembly (25%)
- Public Disclosure and Transparency (30%)
- Stakeholders (10%)

The corporate board of directors is a body entrusted with power to make economic decisions affecting the well-being of investors' capital, employees' security, communities' economic health, and executives' power (Molz, 1985). The Boards of Directors sub-category is given the heaviest weight because the board becomes the center of attention if anything goes wrong. They are the safeguards for corporations and manage day to day operations (Adams, Hermalin and Weisbach, 2010). See also Keasey and Wright (1993) and Bainbridge (2003) on the roles of board of directors.

Each category contains the items used and the corresponding number of questions used to evaluate the firms' compliance with those items. After evaluating the companies based on publicly available data, I contact

[13] Raising the Bar on Corporate Governance: A study of eight stock exchange indices, World Bank, June 2013.

[14] The weight of sub-categories is determined based on their relative importance, number of criteria, empirical evidence, and international practices.

the company for double-check and to give the company the opportunity to provide any missing information. The questions used to evaluate the performance remain confidential as is the case with the companies ranking identity. This is to avoid any conflict with the companies. Figure 1 below shows the Four CG sub-categories and the number of variables within each one.

The table shows the Four sub-categories for the CG index and the items used within each category and the number of questions used to evaluate the companies adherence.

1) The Board of Directors (39 variables)

Variables by Category	Number of Variables
Main Functions of the Board of Directors	13
Responsibilities of the Board	4
Formation of the Board	7
Qualifications of Independent Board Members	9
Committees Formed within the Structure of the Board of Directors	2
Nomination and Remuneration Committee	2
Meetings of the Board	1
Remuneration and Indemnification of Board Members	1

2) Shareholders (30 variables)

Variables by Category	Number of Variables
Facilitation of Shareholders' Exercise of Rights and Access to Information	6
Investor Relations	3
Shareholders' Rights Related to the General Assembly	13
Voting and Minority Rights	3
Dividend Rights of Shareholders	4
Transfer of Shares	1

3) Public Disclosure and Transparency (35 variables)

Variables by Category	Number of Variables
Policy and procedure	15
Board of Directors' Report	20

4) Stakeholders (13 variables)

Variables by Category	Number of Variables
Stakeholders	13

Figure 1. The Four Corporate Governance Categories used in Developing the Index

The lowest cumulative CG score is zero, which means no compliance at all to good corporate governance principles measured through 117 variables. The highest cumulative CG score would be 100 points, which mean 100% compliance with the assessed principles. Table 1 below shows rating methodology for all categories based on the compliance to CG principles. Table 2 shows CG rating scale. I consider companies below 60 point as failure to comply while above 90 is excellent compliance.

Table 1. Rating methodology

Categories	**Variables**	**Earned Points**			**Cat. Total**	**Weight**	**C. Total**
	#	Yes	Partial	No			
BoD (m.)[15]	14	0.5	0.25	0	100	.35	100
BoD (v.)	25	1	0.5	0			
SHR (m.)	0	NA	NA	NA	100	.25	
SHR (v.)	30	1	0.5	0			
PD (m.)	13	0.5	0.25	0	100	.30	
PD (v.)	22	1	0.5	0			
STR(m.)	0	NA	NA	NA	100	.10	
STR(v.)	13	1	0.5	0			

BoD: Board of Directors; SHR: Shareholder rights; PD: Public disclosure; STR: Stakeholder rights; m: mandatory compliance; v: voluntary compliance; Cat: categorical; C: cumulative (normalized)

[15] Following CMA recommendation, I give more weight to voluntary CG principles. A company gains half point if a CG principle is mandatory, while full point if it is voluntary.

Table 2. Rating scales

Score	Letter Grade	Description
90-100	A	Excellent
80-89	B	Very good
70-79	C	Good
60-69	D	Fair
Below 60	F	Very weak

4. Results

a. The Corporate Governance Index, the CGI

I report the top Ten Saudi listed companies in Table 4 Panel A. Saudi Investment Bank was number one on the index followed by Saudi Arabian Mining, Saudi Airline Catering Co, Almarai Co and Arabian cement Co. These five companies come from different industries and they vary widely in size. Therefore, good corporate governance practices is not necessarily related to industry or size. Nevertheless, these corporations have concentrated ownership. This is consistent with Claessens and Yurtoglu (2013) on that more concentrated ownership can be beneficial.

Extending the index to focus on the top ten reveals the same patterns of varying industries and scores. The competition among the top 10 was very strong as it is clear in the close scores. The competition among the top 10 was very strong as it is clear in the close scores. The top 10 are successful profitable corporations. This is in line with Brown and Caylor (2006); Gompers et al. (2003) who found strong link between good governance score and firms' value.

In Panel B of Table 4, I report the whole index for all 92 listed firms with the associated scoring and ranking. The score ranges from 92 for company ranked 1 and 46 for the company ranked 92. This is 46 points difference between the best and the worst company. Only 6 Six companies failed to score above 60 and almost half the sample are in the 60-70 zone. This shows that most companies in the Saudi market has a long way to go for improvement.

Panel A: Top Ten listed companies CGI score and ranking

Compnay Name	CG score	CG ranking
Saudi Investment Bank	92	1
Saudi Arabian Mining Co.	90	2
Saudi Airline Catering Co	88	3
Almarai Co.	88	4
Arabian Cement Co.	87	5
Bupa Arabia for Cooperative Insurance Co.	81	6
Saudi Electricity Co.	81	7
Rabigh Refinning and Peterochemical Co.	81	8
Zamil Industrial Investment Co.	80	9
Savola Group Co.	80	10

Panel B: The CGI score and ranking for the 92 listed Saudi firms

CGI score%	CGI rank	CGI score%	CGI rank	CGI score%	CGI rank
91.9	1	71.9	32	66	63
90	2	71.6	33	65.7	64
88.3	3	71.3	34	65.5	65
88.2	4	71.3	35	65.5	66
86.9	5	71	36	65.3	67
81.4	6	71	37	65.3	68
80.8	7	70.7	38	65	69
80.6	8	70.3	39	64.9	70
80.3	9	69.4	40	64.8	71
80.3	10	69.2	41	64.7	72
80.2	11	69.2	42	64.6	73
79.9	12	69.1	43	64.5	74
79.8	13	69.1	44	64.4	75
79.7	14	69	45	64.3	76
79.2	15	68.9	46	64.2	77
78.8	16	68.8	47	63.8	78
78.6	17	68.3	48	63.7	79
78.4	18	67.9	49	63.6	80
78.4	19	67.7	50	62.9	81
78.4	20	67.7	51	61.9	82
78.3	21	67.5	52	61.4	83
77.4	22	67.3	53	61.3	84
76.2	23	67.2	54	60.7	85
75.6	24	67.2	55	60.4	86
75.1	25	67	56	59.8	87
74.7	26	66.9	57	59.3	88
74.5	27	66.9	58	59	89
74.3	28	66.9	59	58.1	90
73	29	66.8	60	56.8	91
72.9	30	66.3	61	45.7	92
72.6	31	66.1	62		

The overall CG score is a composite score of four categories based on the weight stated before. The cumulative CG scores range from 46 points to 92 points with a mean of 70 and standard deviation of 8%. This shows that companies vary significantly in terms of their CG practices. While half the companies scored 70 or above, the other half scored less than 70. This indicates that in general Saudi companies are doing well in terms of corporate governance, even though they have large room for improvement. This is in line with Klapper and Love 2004 who found that firm level corporate governance varies significantly in Emerging markets. Table 4 below shows the mean, median, standard deviation, minimum score, maximum score, and percentiles statistics for the assessed companies. The scores for subcategories reveal that companies are particularly doing well in terms of the CG principles related to board of directors and shareholders' rights. However, they need great improvement in the areas of public disclosure and transparency, and stakeholders.

Table 4. CGI for 92 Saudi listed companies

		Cumulative CG Score	BOD Score	Shareholders Score	Public Dis. and Tran. Score	Stakeholders Score
N		92	92	92	92	92
Mean		70	82	81	59	32
Median		69	81	83	58	31
Std. Deviation		8	7	11	13	17
Range		46	33	70	60	81
Minimum		46	63	28	30	8
Maximum		92	97	98	89	88
Percentiles	10	61	75	72	43	12
	20	64	78	77	47	15
	30	65	78	78	53	23
	40	67	79	80	54	23
	50	69	81	83	58	31
	60	71	83	85	61	35
	70	74	84	85	67	38
	80	78	87	88	70	46
	90	80	93	92	75	54

b. Industry analysis

Given the limited number of companies traded on the Saudi Stock Market for some sectors, I reduced the number of sectors from 19 to 12 by merging the relevant ones together. Table 5 shows industries comparison for cumulative CGI scores and sub-categories.

The industry analysis reveals that the commercial and retailing sector has the highest cumulative CG score followed by the following sectors: energy and utilities; food and beverages & food & staples retailing; telecom & media; and banks & diversified financials. The real estate development and transportation sectors scored the lowest. It is important to note that the highest score is 82/100, which means that all sectors have long way to go to reach excellence in corporate governance. The lowest CG score is 65 out of 100, which might barely be considered as passing grade.

The CG score by categories reveal that generally all sectors are doing relatively well in terms of their practices related to Board of Directors and Shareholder's rights. However, they have relatively poor performance in the areas of Public Disclosure and Transparency, and Stakeholders' rights. It seems like companies generally follow the mandatory principles, but ignore advisory ones. Particularly, in the area of Stakeholders' Rights, almost all principles are advisory. Thus, I see the lowest adherence to those principles. The industry performance within each category varies as well. For the Board of Directors and Shareholders' rights, all sectors except commercial and retailing sectors scored quite similar. In the area of Public Disclosure and Transparency, half of the sectors scored 19 and above out of 30 points while the other half scored below 17/30. In the area of Stakeholder's Rights, only five sectors scored 3 to 5 out of 10.

Table 5. Saudi CGI by sector

Sector	Score	BOD	SH	PDT	ST	# of comp.
	100%	35%	25%	30%	10%	92
Commercial & Retailing	81.75	32.22	23.07	22.17	4.28	5
Energy & Utilities	73.63	28.29	21.53	19.04	4.78	5
Food & Beverages & Food & Staples Retailing	72.51	29.12	21.49	18.60	3.30	8
Telecom & Media	71.53	29.91	20.97	17.89	2.76	4
Banks & Diversified Financials	70.73	28.32	20.43	18.88	3.09	14
Insurance	69.70	28.78	19.42	18.74	2.77	5
Materials	68.72	28.49	20.32	16.76	3.15	25
Healthcare & Pharma	67.57	28.68	19.27	17.50	2.12	5
Capital Goods	67.26	28.11	21.00	16.00	2.15	5
Consumer Services & Consumer Durables	67.04	28.06	20.35	15.88	2.76	4
Real Estate Development	65.50	27.90	20.09	15.67	1.84	9
Transportation	65.41	27.04	19.31	17.02	2.05	3

c. Corporate Governance Index by the size of the firm

I also did comparisons by company size as seen in Table 6. I divided all companies into three categories based on their market capitalization: large, medium, and small. The companies with 60th percentile and above were considered to be large; those within 40th and 60th percentile were considered to be medium; and those below 40th percentile were considered to be small. It is clear that large and medium size companies have better corporate governance than small size companies. This is expected given that most successful companies in Tadawul are those large ones with institutional investors existence such as General Investments Fund, GIF.

The cumulative CG sore is almost same for large and medium size companies while six points less for small size companies. The sub-categorical comparison reveals that all companies had similar performance in terms of their adherence to the principles related to Board of Directors. For the Shareholders' Rights and Public Disclosure small companies did score 2 points less compared to big and medium size companies. The gap was smaller for the Stakeholder's Rights.

Table 6. CGI scores by the size of the company

Size	Score	BOD	SH	PD&T	ST	# of Comp.
	100%	35%	25%	30%	10%	92
Large	72.91	29.05	21.15	18.87	3.84	39
Medium	72.19	29.67	21.03	18.42	3.08	15
Small	66.18	28.09	19.12	16.30	2.67	38

5. Conclusion

The paper constructs a corporate governance index for 92 largest Saudi traded firms for the fiscal year of 2015. The index used four categories: board of directors, shareholders' rights, public disclosure and stakeholders by examining 175 variables. In general, Saudi companies are doing good, but they have a substantial room for improvement. The average score for all listed firms was 70 points on a scale of 100 points. The results show that there is a lack of understanding of the importance of the CG in emerging economies. Even though the average cumulative corporate governance score is good, the study reveals that companies are relatively doing good in terms of corporate governance practices related to the Board of Directors, and Shareholders Rights. However,

they did score quite poorly in terms of practices related to Public Disclosure and Transparency, and Stakeholders. The relatively higher standard deviation for these two categories also indicates that the good practices are not equally divided among the companies. It seems that there is a long way to go before Saudi companies realize that CG is a cultural issue rather than a pressure from the regulatory body.In addition, the study reveals that large traded companies are better than small ones in practicing good corporate governance. This is due to the fact that large firms are stronger and more capable of adopting the regulatory authority roles. Finally, the industry analysis reveal that the commercial and retailing sectors score the best on the CG index, while the real estate and transportation scored the lowest. This could be due to the fact that most listed companies in the real estate and transportation are new listed firms having difficulty in adjusting with the new market roles imposed on them. Future research would focus on measuring the corporate governance index with firms operating performance and stock returns. Also, tracing the index over time with performance is indeed necessary.

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Do Merger and Acquisition (M&A) affect Acquirer Bank's Performance? A Comparative Analysis of Pre and Post Performance

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Abstract

Merger and Acquisition (M&A) is a strategy adopted by the organizations globally to meet the needs of the dynamic business environment, especially in the banking sector. The aim of the study is to investigate and explain the factors of M&A on the acquirer bank's performance. Several factors associated with M&A deal, i.e. synergy, size, mode of financing, economics areas, regional effect and bank-specific factors, i.e. liquidity, cost to income and total equity to total asset have been examined and discussed. Ordinary Least Squire (OLS) method is applied on panel data of 47 acquirer banks year 2008 - 2016. It is found that ROA explains better acquirer bank's performance rather than ROE. Interestingly, pre-M&A bank's performance is better than post-M&A bank's performance. The findings of the paper show that size of the bank is not significantly impact the post-merger bank's performance. The reason is due to lack of proper management of fund within short period of time (two years after M&A deal). Further, the efficiency ratio is also more sensitive to the performance meaning that it reduces the post merger bank's performance if the cost to income is higher. While the post merger bank's performance is not affected by liquidity ratio as their asset size is larger than before the merger. Lastly, dummies for regional, i.e. ASEAN and MENA acquirer banks have negative effect but not significant on the performance which could be due to its poor governance. However further research is needed to study the impact of the corporate governance standard of a country of the acquirer banks.

***Keyword**: Mergers & Acquisitions (M&A), Factors, Acquirer bank's performance, and OLS.*

1. Introduction

Mergers and Acquisitions (hereafter M&A) for this study is defined as a process of amalgamation of bidder and target. The terminological definition of the merger is the combination of two or more banks whereas either new

entity exists or combination of both (e.g. $bank_A$+ $bank_B$ = $bank_C$ or $bank_{AB}$) whereas, acquisition implies the combination of two or more banks and target bank cease to exist (e.g.$bank_A$+ $bank_B$= $bank_A$). M&A is a transaction in which the ownership of bank is transferred or combined. M&A is one of the major aspects of corporate finance in the world.

Generally, the reason behind M&A is that two separate companies together create more value compared to being on an individual stand. With the objective of synergy (i.e., performance enhancement) and wealth maximization, companies keep evaluating different opportunities through the route of merger or acquisition. M&A refers to the aspect of corporate strategy with the buying, selling or combining of bank that enable a bank in a given industry grow rapidly without creating another business entity (Nicholas et. al., 2015). According to Gurusamy (2009), M&A is also to undervalue the target.A merger occurs when two separate entities (i.e., usually of equal size of both companies) combine forces to create a new ownership, management structure, joint organization in which theoretically both are equal partners. Moreover, it is euphemistically called "merger of equals". Furthermore, in an acquisition or takeover, one business buys a second and generally smaller company which may be absorbed into the parent organization or run as a subsidiary. Legally bigger banks will acquire smaller banks. A company can acquire another company with cash, stock or a combination of the two.

Due to the competitive business arena, financial enlargement, technological innovation, structural modification of the financial system and demand for the financial products. Financial institutions have to face numerous problems and need to change their business approach accordingly. With a view to keeping pace with this changing trend, financial institutions need to espouse strategy to survive in the competitive business world.M&A has been in the mainstream news in the recent past (Massoudi and Fontanella-Khan, 2016). The global trend shows a record of 1.2 trillion value of M&A deal in the 1Q 2018 which is 60% higher than 1Q 2017 but the number of deals reduced by 11%. Globalization and financial deregulation of the banking sector went through a period of considerable consolidation during the 1990s. The financial world has experienced the downside of financial innovation and deregulation in the recent global financial crisis which leads to massive bank failures in the developed economies. Moreover, this scenario has been spread in the developing countries as well.

The next section provides a brief discussion of the theoretical underpinnings followed by empirical underpinnings in M&A. A review of factors of M&A and the methodology are presented in the following sections, respectively. In section 6 reports estimation result and discussion. The conclusion and recommendation are presented in the last section.

2. Methodology and Data: Theoretical Underpinnings

Generally, theories of M&A are divided into two such as shareholder's value maximization (value creation strategy) and shareholders non value maximization (value reduction strategy), Weitzel & McCarthy (2011). Shareholder holder's value maximization is explained by efficiency or synergy theory while shareholder's value reduction theory is explained by management entrenchment theory and hubris theory. Other theories are also used by the previous study such astheory of merger waves, i.e. behaviour theory &neoclassical theory.
Shed light on that, efficiency theory of merger has applied by [Daniya, Onotu, & Abdulrahaman, (2016); Weitzel & McCarthy, (2011)] while application of neoclassical theory [Mitchell & Mulherin(1996) and (Polemis & Paleologos (2014), Petmezas (2009)] moreover, behavioural theory [Shleifer & Vishny (2003), Polemis & Paleologos (2014)] and furthermore, resource dependency theory [Kandil & Chowdhury (2014), Das &Rao (2011), Morris (2004), Kiel & Nicholson (2003)]. On the other hand, shareholder's non value maximization theory, i.e. management entrance theory is used by Shleifer &Vishny (1989) and Weitzel & McCarthy (2011)and Managerial hubris theory has used byHayward & Hambrick (1997); Malmendier &Roll (1986) and Tate (2008).

Specifically, within the sphere of the banking sector, many studies have used efficiency theory and resource dependency theory (RDT). According to efficiency theory, mergers are planned, and it will only occur when they are expected to generate enough realizable synergies to make the deal beneficial to the parties, bidder, and target. Similarly, several studies [i.e., Daniya et al. (2016) Wadhwa&Syamala (2015) and Weitzel& McCarthy (2011)]mention that the main motive of M&A is to gain synergy (operating and financial synergy). These synergies could be in the form of the reduction in cost or increase in revenue. It is the symmetric expectations of gains which results in a 'friendly' merger being proposed and accepted. If the gain in value to the target is not positive, it is suggested that the target firm's owners would not sell or submit to the acquisition. Similarly, if the gain negative to the bidders' owners, the bidder would not complete the deal.

Whereas, Resource Dependency Theory (RDT) is defined as an explanation of how the external resources like i.e. skilled worker, total asset, money, technology, and raw materials etc. of an organization affect the behavior of the said organization. Nair, Trendowski& Judge (2008) claimthat the resources of a firm consist of tangible assets, human and other intangible assets which produce productive services planned by the firm. In addition, Rao-Nicholson (2003) notes that board members contribute to the important external resources and can maximize firm's performance. Similarly, Morris (2004) states that RDT is could explain the impact of social action and organizational changes towards an organization. RDT offers an externally focused perspective of why an organization might acquire or merge with another organization. Since the issue is not clear and become inconsistency among studies and need efforts to further investigate. Therefore, the following paragraphs discuss the empirical investigation on the issue.

3. Empirical Underpinnings

Merger and Acquisition (M&A) is an ancient business expansion strategy that took place in the late 19th century with the 1st wave of merger in 1895.M&A is adopted by the organizations globally to meet the needs of the dynamic business environment. Although M&A is an old strategy it is still applicable in the several industries, i.e. technology, life science, fiancé and telecommunication (Table A1.4). Since the financial sector is concerned, this study discusses on details the banking sector. As shown in the Table A1.4, column 3, financial sector is the second largest sector compared to other sectors. A big deal (e.g., 68% growth) has conducted in 2015 which is the highest growth for years among the sectors. Following literature reviews have discussed empirically regarding the impact of M&A on the financial performance.

Since factor is concerned, synergy is one of the important factors of having M&A deal. Without proper justification, none of the financial organization would engage in the deal. It is strongly argued and explains in M&A, synergy is the main motive. As supported by Smirnova (2014) motives of having M&A deal. Among them, economies of scale and scope, cost minimization strategy, market expansion, innovation and development of products & services, value creation strategy, amalgamation of the human capital, liquidation strategy, reduction of tax liability and adjustment of debt, reduce the number of competitors and ensure corporate growth and strategy have been selected.

Moreover, Aladwan (2015) has analyzed the impact of size on the performances of the Jordanian commercial banks. The estimation result explains that there is an inverse relationship between size and bank performances, i.e. bank performance tends to increase when bank size decrease. Shed light on that, Kosmidou, Pasiouras, Doumpos, & Zopounidis (2006) argue small banks are better than larger producing more performances. By applying GMM method, Micco et al. (2007) have conducted the study in Kenya in the commercial banks and finding reveals that the size does not matter in determining bank performance.

Otterspeer (2016) has used Kogut and Singh index to measure national culture. This index is used to measure cultural distance based on the four cultural dimensions of Hofstede, i.e. individualism, power distance, uncertainty avoidance, and masculinity. The empirical analysis has found that there is a positive relationship between cultural differences, i.e. more cultural differences more change in performances.

Finally, mode of financing, i.e. cash, stock or both also have a great impact of the performance of M&A. According to the recent study by Oyetade, & Dobreva, (2017) and Iankova (2014), involving parties can exchange cash, stock or both of them but more precisely when the value of the stock of acquirer is overestimated in the market then better to offer stock otherwise cash. Interestingly the study of the André & L'Her (2004) has investigated that the relationship between post-M&A performance and the method of payment. They have proved that, in general, the M&A deals financed by stocks have a weaker performance in the long-run. Most of the cases cash rather stock has a positive impact on the performances of the target and acquirer.

However, on the basis of the above empirical analysis, the impact of factors on the bank's performance is inconclusive. It needs to revise, re-examine and further effort is needed. Therefore, this paper analyses the stated factors theoretically as well as empirically to investigate the issue.

4. Factors of M&A that impact on bank's performance

In the previous studies that are mentioned in the following paragraphs and summary of reviews is presented in Table 1, there is relatively lacking, inconclusive and mixed evidence on the impact of M&A on bank's performance. This paper gives further efforts to re-examine the selected factors such as synergy, sizes, regional effect and mode of financing. Following literatures are reviewed.

According to George et al. (2012), characteristics of the banking sector, the size and activity of the financial market play a vital role in M&A. While, Salama (2015) has used the choice of strategic partner, pay the right price and target evaluation. However, in this paper, four factors such as synergy, size, regional effect and mode of financing are analyzed and discussed.

4.1 Synergy

According to the efficiency theory, synergy is one of the most important factors for the bank to engage with M&A deal. A number of studies are reviewed in the following paragraphs.

Many attempts have been made by the previous study to explain the motives behind M & A. An institution involves in M & A with several intentions to expand into new markets of both national and international such as to exploit strategic opportunities (challenges) through synergies and convergence of industries, to reduce the number of competitors, to enhance and obtain new integrated knowledge, to combine superior technology, to gain access to better and greater resources, to achieve greater efficiency through economies of scale and scope as well as to increase market power [Smirnova (2014), Antoniadis et al. (2014) and Abbas et.al(2014), Guo & Yang (2013), William (2009), McClure (2009), Miller (2008), Pasiouras & Zopounidis (2008), Cigola and Modesti (2008)]. Furthermore, Michael Taillard (2012) highlights that the ultimate goal for any M&A activity is to make money.

In addition, Gattoufi & Soie (2009) and Pinter (2011) state that there are two ways in which the acquirer may take over the target banks, i.e. either through statutory merger or purchase of assets. They argue that this action could lead to an improvement of the shareholder value, efficiency enhancement and the boost of operating synergies and managerial motives. They categorize motivations for M&A into three broad types; shareholders wealth maximization goals, managerial self-interest and other factors which make the environment is more attractive to M&As.

Accordingly, Smirnova (2014) has mentioned and discussed motives of having M&A deal. Among them, economies of scale and scope, cost minimization strategy, market expansion, innovation and development of products & services, value creation strategy, amalgamation of the human capital, liquidation strategy, reduction of tax liability and adjustment of debt, reduce the number of competitors and ensure corporate growth and strategy have been selected.

4.2 Size

With regards to the announcement time of the size-adjusted combined performance of both the bidder and the target, Cybo-Ottone & Murgia (2000) find that this factor is important in M & A deal and it is economically relevant. They argue that only the combined value of domestic deals creates shareholder value, whilst cross-border deals do not capture positive expectations from the market.

As analyzed by Kasimodou et al. (2006), two types of bank size, i.e. big and small according to their asset volume. The results of their study conclude that small banks show higher performance compared to large banks.

Similarly, as critically analyzed by Aladwan (2015), bank profitability increases as the asset size decreases. He has conducted his study in Jordan commercial banks from 2007 to 2012. He argues that regression result shows that small and medium-sized banks have statistically significant impact on the Jordanian commercial banks. Furthermore, bank size increase and decrease its profitability and vice versa. Inversely, Micco, Panizza & Yanez (2007)have conducted the study in Kenya in the area of the commercial banks and their empirical analysis has revealed that the size does not matter in determining bank profitability.

In addition, it becomes incentives for Islamic banking sector to have economies of scale and scope through M&A deal. In line with that, Ibrahim & Rizvi (2017) and Iqbal (2008) emphasize that to become-mega bank or big bank, there is no other alternative way except for M&A. Through M&A, the problem of economic scale and scope operation could be minimized.

4.3 Regional effect

Three regions i.e. the Middle East and North Africa (MENA), Association of Southeast Asian Nations (ASEAN) and European Union are selected to examine the effect on bank performance. A number of regional studies are reviewed and discussed in the following paragraphs.

Cultural differences, i.e. the transfer of capabilities and the sharing of the resources is one the regional effect on the M&A activities, Otterspeer (2016). However, firm can better share and transfer knowledge between individuals and groups than markets. Human integration is the development of a shared identity and positive attitudes towards the new organization. This socio-cultural integration is most important to realize

synergy. In sum, cultural differences could result in conflicts and difficulties and therefore make the economic performance of M&As less likely. This statement is supported by Basuil & Datta (2018), differences in culture make it difficult for acquiring firms to accurately assess foreign targets, especially in service industries where such assets are often intangible. Failure to do so can result in overpayment and acquisition failure.

4.4 Mode of financing

Mode of financing, i.e. cash, stock and combination of both also has a great impact of the performance of M&A performance. According to Kwenda, Oyetade, & Dobreva, (2017) and Iankova (2014), when the value of the stock of acquirer is overestimated in the market, it is advisable-to offer stock rather than cash. Interestingly André &L'Her (2004) proves that, in general, the M&A deals financed by stocks have a weaker performance in the long-run.

Table 1 Summary of studies on factors of M&A

Author (s)	*Sample of study*	*Variables*	*Methodology*	*Findings*
Albuquerque et al. (2018).	Firm, 64 countries 2005-2014	ROA, cash and short term investment, total asset,	Regression analysis	Cross-border M&A activity is associated with subsequent improvements in the governance of non-target firms when the acquirer country has stronger investor protection than the target country.
Cortés, L. M., Agudelo, D. A., & Mongrut, S. (2017)	Latin America 1995-2010	**Country specific variables**: interest rate, unemployment rate, GDP, country risk, business freedom index, fiscal freedom index, **Industry specific variables:** ROE, Market to book value (MBV), standard deviation of the market to book value,	Methodology of Harford (2005)	Two M&A waves have found, first between 1995 and 2002, second wave between 2003 and 2010.
Triki, T., Kouki, I., Dhaou, M. B., & Calice, P. (2017).	Africa , banks	Bank efficiency Regulations, liquidity, restriction on exist, restriction on activities, size, business freedom	Regression analysis	Tighter restrictions on exit and on permitted activities negatively affect bank efficiency. Furthermore, more stringent restrictions on entry increase the efficiency of large banks while reducing the efficiency of small banks.
Erel, I., Jang, Y., Minton, B. A., & Weisbach, M. S. (2017)	European union (15 European countries), Merger Waves, 1997 to 2006	GDP growth rate, Unemployment rate	Descriptive statistics	Governments of countries where the target firms are located tend to oppose foreign merger attempts while supporting domestic ones that create so-called national champions, or companies that are deemed to be too big to be acquired.
Aladwan, M. S. (2015).	Jordan , bank, 2007-2012	ROE	Simple Regression	Profitability tends to increase with the decrease of bank size.
Aik et al. (2015).	Malaysia, Firms, 1994-2004	Efficiency, cost efficiency, technical efficiency	DEA	M&A in Malaysia does not create synergy but only increase market power
Mejia., Aljabrin, Awad, Norat & Song (2014)	General discussion	NA	NA	Although there is a differences in risk that has faced by both banks, there need proper regulation, protection as conventional bank.
Smirnova, Y. (2014).	Kazakistan , banks, 1991 to 2011	NA	NA	Factors (internal & external) have been examines and discussed that motivates to engage in M&A deal. Internal forces (expand market position, increase revenue) and external forces such as, legal, political, technological, and competitive forces
Gattoufi, S., Al-Muharrami, S., & Shamas, G. (2014)	GCC countries, Banks 2003-3007	ROE, Capitalization ratios, net financial margin (NFM), Loan loss provision to total assets,, Loan loss provision to net interest revenue, cost to income ratio.	Regression analysis	No significant impact on operational performance.

Nagano (2013)	Asia and OCENIA	R&D, GDP, Population, corporate tax, bilateral trade corporate tax	Recreations analysis	Firstly, when in host country intellectual property right is high and have regional network then investor choose green field investment (GFFDI). Secondly, when there is protection of shareholder value and expansion of market then investor chooses cross boarder M&A (CBMA). Thirdly, host county population is high and per capital income is low then both goes to the host county.
Jatkar, K. (2012).	India, banks,	NA	NA	Need for large investment banks are the primary factors for drivingfurther consolidation in the banking sector in India and other Asian economies.
Goyal, K. A., & Joshi, V. (2011)	India, Banks	Human ResourcesManagement and Organization Behaviour	NA	Motives behind the M&A deal.
Pinter, E. (2011)	Banking and insurance companies	General discussion	NA	Banks need to broaden their activity to be competitive, but success depends on several factors, on aligning the people, organisational, cultural and financial assets
Neto, P., Brandão, A., & Cerqueira, A. (2010)	53 Countries, FDI (Greenfield investment), 1996-2006.	Mode-encompassing variables (such as economy's size, openness, governance and human development index) and mode-specific variables.	Panel (fixed and random effect)	Investor's protection and cultural variables seem to play an important role in the explanation of M&A and Greenfields.
Sufian, F., & Habibullah, M. S. 2009	Malaysia, Bank, technical efficiency, 1997-2003	Total Deposits, Capital, Personnel Expenses, Loans, Investments, Non-Interest Income	DEA	The mergerprogramme among the Malaysian domestic commercial banks was driven by economic reasons.
Zou, H., & 9Simpson, P. (2008)	China, Industry, 1991-2005	Industry size, profitability. Technological intensity	Panel study	Deregulation, as a specific industry shock, affects acquisition activities significantly.
Iqbal, Z. (2008)	General, Islamic Financial Institutions (IFIs)	General discussion.	NA	It is essential that IFIs expand the scope of their products and services to meetthe challenges of domestic and international markets. Due to small size of the economy, larger banks unable to efficiently use resources and minimize the cost.
Micco, A., Panizza, U., & Yanez, M. (2007).	Developing and industrial countries, banks, 179 countries around the world, 1995-2002	ROA, interest margin, overhead cost, employment, politics	Regression analysis	State own bank in developing countries tend to be lower profitability and higher cost then their private counterparties. Moreover, there is no strong correlation between ownership and the performance of the bank located in the industrial area.

Kasimodou et al. (2006)	UK, Banks 1998-2002	Loan loss reserves/Gross loans, Equity/Total assets, Capital funds/Liabilities, Net interest margin Return on average assets (ROAA)on average assets	PAIRCLAS Multicriteria methodology	Small banks exhibit higher overall performance compared to large ones.
Amel et al. (2004).	General discussion	NA	NA	consolidation in the financial sector is beneficial up to a relatively small size in order to reap economies of scale, but there is little evidence that mergers yield economies of scope or gains in managerial efficiency.
Hassan, M. K., & Bashir, A. H. M. (2003)	World wide Bank 1994-2001	Asset quality ratio (LLR/GL, LLR/IL), Capital ratio (equity/total asset, equity/liability), operation ratio (ROE, ROA)	Regression analysis.	Reserve requirement does not have a strong impact on the profitability measures. favourable macroeconomic environment seems to stimulate higher profits Higher growth rate of GDP seem to have a strong positive impact on the performance measures
Amihud, Y., DeLong, G. L., & Saunders, A. (2002)	General, Banks, 1985 to 1998	Total risk (variance of firms stock return)	Panel techniques.	Acquirers' risk neither increases nor decreases.
Linder, J. C., & Crane, D. B. (1993)	Bank, New England, 1982-1987	ROA, operating income,	Matched pair approach	Bank that merged with newly acquired institution, difficult to have performance. Intraholding company likely to yield overall performance gain. It is difficult to reduce operating expenses in first 2 years of merger.

3. Methodology and data

3.1 Data Collection

This paper employs a panel data of 47 (out of 70 commercial banks) acquirer banks from the year 2008 to 2016 (Table A1.3). Data is collected from Bloomberg, FitchConnet database and Financial statement. After filtering, 23 banks are omitted from the data set due to outlier, missing financial information and data range don't fell within seleced time.
Using this sample, pre (e.g., an average of two years before M&A deal) and post (e.g. an average of two years after M&A deal) M&A financial performance of acquirer bank is measured. This time range is chosen based on Yener &Ibáñez (2004) suggestion that two years is sufficient to avoid alteration and inaccuracy of results. He explains that longer time spans may negatively affect the accuracy of results due to effects of other external economic factors. This is supported by Achtmeyer (1994), the benefits of M&A do not take more than two years to materialize.

3.2 Variables

The endogenous variable such as Return on asset (ROA) and return on equity (ROE) are used a proxy for performance (synergy). While, focus variables or key variables such as total asset &cost to income and control variablrs such as liquidity, total equity to total asset along with dummies such as mode of financing, economic areas, and regional effect are used as an explanatory variable.

3.2.1. Model specification

Two models are designed that is,one general model and extension of that general. Both models are demonstrated below.

(a) General model: Synergy (proxied by performances): Pre& Post

$$ROA/ROE = \alpha+\beta_1 SIZE+ \beta_2 EA+ \beta_3 CI+ \beta_4 LDTY+ \beta_5 LATA+\varepsilon \quad (1)$$

(b) Extension of general model: application of dummies& Post

$$ROA/ROE = \alpha+\beta_1 SIZE+ \beta_2 EA+ \beta_3 CI+ \beta_4 LDTY+ \beta_5 LATA+\Upsilon_1 d_cash+\Upsilon_2 d_stock+ \Upsilon_3 d_domestics+\Upsilon_4 d_cross+\Upsilon_5 d_r_mena+\Upsilon_6 d_asean+\Upsilon_7 d_other+\varepsilon \quad (2)$$

Whereas, ROA; return on asset, ROE; return on equity, SIZE; total asset, EA; equity to asset, CI; cost to income, LDTY; liquidity, LATA; liquid asset to total asset,$D_{_R}$; dummies of regional effect, i.e. ASEAN, Middle East and Others (D_1= 1, ASEAN, D_2= 1, Middle East, D_3=1, other, 0, otherwise), $D_{_P}$; dummies mode of financing, i.e. (D=1, Cash, D= 1, Stock &D= 1, Cash &Stock and 0, Otherwise), $D_{_A;}$ dummy for domestic and cross boarder M&A (D=1, domestic, o, otherwise), α; constant term, β/Υ; coefficient and ε; error term.

4. Results and discussion

The descriptive statistics of the panel data set for relevant variables is presented in Table 2. In the table, two sets of summary are reported, i.e. statistical summary for pre-merger bank's performance and post-mergerbank's performance respectively. While Correlation matrix of variables is presented in Table 3. The correlation matrix of this table shows that there are no problem of multicollinearity since the correlation between the factors is less than 50 percent.

Table 2
DescriptiveStatisticsof pre & post bank's performance

	Pre					Post					
	Mean	Median	Maximum	Minimum	Std. Dev.	Mean	Median	Maximum	Minimum	Std. Dev.	Orbs
Dependent variables											
ROA	0.014	0.0130	0.0450	0.000	0.009	0.014	0.013	0.041	0.000	0.008	47
ROE	0.135	0.1410	0.2910	0.000	0.076	0.138	0.125	0.341	-0.007	0.069	47
Focus variables											
CI	0.451	0.470	0.8930	0.000	0.191	0.497	0.495	0.876	0.191	0.151	47
LTA	0.261	0.2890	0.3880	0.000	0.094	0.293	0.308	0.415	0.142	0.073	47
Control variables											
LATA	0.158	0.148	0.5020	0.000	0.127	0.135	0.118	0.431	0.000	0.111	47
TETA	0.100	0.102	0.2200	0.000	0.047	0.105	0.103	0.175	0.037	0.030	47

Tabel 3
Correlation Matrix

	CI	LTA	ROA	ROE	LATA	TETA
CI	1.000					
LTA	0.056	1.000				
ROA	-0.242	0.292	1.000			
ROE	-0.167	0.261	0.870	1.000		
LATA	0.079	0.127	0.027	-0.054	1.000	
TETA	-0.057	0.475	0.555	0.271	0.144	1.000

Table 4
Regression Results of Pre & Post Bank's Performances Based on Return on Asset (ROA)

	(1)	**(2)**
	Pre M&A	**Post M&A**
Log of Total Asset	0.126**	0.011
	[0.05]	[0.05]
Total Equity to Total Asset	0.079**	0.168***
	[0.04]	[0.04]
Cost to Income	-0.015	-0.026**
	[0.01]	[0.01]
Liquidity	-0.045**	-0.006
	[0.02]	[0.02]
D_cash	0.011	0.005
	[0.01]	[0.01]
D_stock	0.000	0.000
	[.]	[.]
D_domestics	-0.002	0.000
	[0.00]	[0.00]
D_cross	0.000	0.000
	[.]	[.]
D_R_MENA	-0.008*	-0.010**
	[0.00]	[0.00]
D_R_ASEAN	-0.009**	-0.003
	[0.00]	[0.00]
D_R_other	-0.004	-0.001
	[0.00]	[0.00]
Constant	0.002	0.009
	[0.01]	[0.01]
Observations	47	47
R-Squared	0.524	0.502
Adjusted R-Squared	0.391	0.364
F-statistic	3.957	3.629
Probability	0.001	0.002

Note: Return on asset (ROA) is defined as income after tax as a percentage of total asset, Return on equity (ROE) is defined as income after tax as a percentage of total equity), size is defined natural log total asset in USD, liquidity ratio is defined liquid asset to total asset,
Standard errors in brackets
* p<0.1, ** p<0.05, *** p<0.01

Result for pre & post-M&A performance (proxied by ROA) is reported in Table 4. Column 1 indicates pre performance whilecolumn 2 post performance. Adjusted R squared 39% and 36% that indicate the variation on

the ROA is explained by the model. Interestingly, column 1 is the best compared tocolumn 2 since adjusted R squired is higher 39%. Whereas, F value significance at $p<0.01$ further indicates that explanatory variables have the significance on the explaining the variation on the ROA.

In column 1, the coefficient of the total asset is positive and statistically significant at 5% level. Meaning that 1% increase in the total size that leads to increasing bank's ROA to 12.6%. This finding is different from the finding of Aladwan (2015). His findings indicate that bank performance increase when bank size decrease. Interestingly, Micco et al. (2007) have conducted the study in Kenya in the area of the commercial banks and their empirical analysis reveals that the size is not a matter in determining bank's performance.

Similarly, Kosmidou, Pasiouras, Doumpos, & Zopounidis (2006) argue that small banks are better than larger to impact on the bank's performances. The coefficient of equity to asset and liquidity are statistically significant at 5% significance level. Implying that 1% increase in equity to total asset, performance would increase to 7%. While 1% increase in liquidity that would reduce performance to 4.5As bank hold more money that impacts on the bank's performance negatively. The dummy variables for regional effect, i.e. ASEAN and MENA are statistically significant at 10% and 5% significance level indicating that bank's performance in ASEAN is 0.9% less compared to other regions. While in MENAis 0.8% less compared to others regions. This findings indicate that M&A deal within the region is not profitable meaning that it is better to involve in cross boarder M&A instead domestic M&A deal.

In column 2, post-M&A performance is reported. The coefficient of equity to total asset is statistical significance at 1% level meaning that 1% increase in capitalization that leads to increase performance to 16.8% which is better than column 1. Similarly, efficiency ratio is measured by cost to income which is disadvantenious from performance persfective.The coefficient of efficiency ratio is negative and statistically significant at 5% level implying that 1% increase in the cost that would reduce performance to 2.6%. Other variables are not statistically significant. The coefficient for dummy MENA is negative and statistically significant at 5% level meaning that bank's performance within MENA region is negative compared to other regions However, remaining regions are not statistically significant.

Table 5
Regression Results of Pre & Post Bank's Performance Based on Return on Equity (ROE)

	(1)	(2)
	Pre M&A	**Post M&A**
Log of Total Asset	1.572***	0.397
	[0.43]	[0.46]
Total Equity to Total Asset	0.106	0.691
	[0.34]	[0.41]
Cost to Income	-0.115	-0.281***
	[0.09]	[0.10]
Liquidity	-0.497***	-0.142
	[0.16]	[0.17]
D_cash	0.077	0.023
	[0.08]	[0.07]
D_stock	0.000	0.000
	[.]	[.]
D_domestics	-0.018	-0.005
	[0.02]	[0.02]
D_cross	0.000	0.000
	[.]	[.]
D_R_MENA	-0.075*	-0.078*
	[0.04]	[0.04]
D_R_ASEAN	-0.069**	-0.030
	[0.03]	[0.03]
D_R_other	0.009	0.022
	[0.04]	[0.04]
Constant	0.048	0.208*
	[0.09]	[0.12]
Observations	47	47
R-Squared	0.388	0.341
Adjusted R-Squared	0.218	0.159
F-statistic	2.280	1.867
Probability	0.034	0.083

Note: Standard errors in brackets
* p<0.1, ** p<0.05, *** p<0.01

Result for pre and post M&A performance (proxied by ROE) are reported in Table 5, column 1 and column 2respectively.Adjusted R squared 22% and 16% indicate in the two models imply variation on the ROE explained by the models. Interestingly, column 1 shows the best compared tocolumn 2 since adjusted R squired is 22%. Whereas F value significance at p<0.05 further indicates that explanatory variables are the significance on explaining the variation on the ROE.

In column 1, the coefficient of total asset is positive and statistically significant at 1% level which stats that 1% changes in asset size, it would increase bank's performance to 1.57%. Similarly, the coefficient of liquidity is negative and statistically significant at 1% level implying that 1% raise liquidity proportionally it reduces bank's performance to0.397%. Two regional dummies are statistically significant at 10% level. M&A deal in Both regions ASEAN and MENA are not beneficial for acquirer since the coefficient is negative and significant at 10% significant level. These values explain that within the region M&A deal is not profitable compared to other regions.

While column 2 implies post M&A performance, the coefficient of cost to income is negative and significance at 1% significance level that explain that 1% increase in cost that reduces performance to 0.281%. Dummy for MENA region is significant at 10% level meaning that M&A performance in the MENA region is not well compared to other regions. If M&A deal has occurred in the MENA region, bank's performance reduce to 7.8%.

Finally, comparing both ROA & ROE, ROA is the best proxy for bank's performance of M&A deal since adjusted Rsquared is 39% which is higher than 22%. Moreover, pre M&A bank's performance is better than

post-performance this finding is supported by Sufian et al. (2012) but contradictory with finding of Okpanachi (2011) and Said, Nor, Low & Rahman (2008). While Sufian & Habibullah (2009) have found performance is improved after M&A.

5. Conclusion

This paper reviews and examines the factors of Merger and Acquisitions (M&A) that impact on acquirer bank's performance (proxied by ROA & ROE). Shed light on that, several factors associated with M&A deal, i.e., synergy, bank size, mode of financing, economics area, regional effect and banks specific factors, i.e. liquidity, total equity to total asset and cost to income ratio are also examined and discussed.The findings of the paper show that size of the bank is not significantlyimpact the post-merger bank's performance. The reason is due to lack of proper management of fund within short period of time (two years after M&A deal). Further, the efficiency ratio is also more sensitive to the performancemeaning that it reduces the post merger bank's performance if the cost to income is higher. While the post merger bank's performance is not affected by liquidity ratios their asset size is larger than before the merger. Lastly, dummies for regional, i.e. ASEAN and MENA acquired banks have negativeeffect but not significant on the performance which could be due to its poor corporate governance. However further research is needed to study the impact of the corporate governance standard of a country of the acquirer banks.

Appendix A

Table A1.3
List of mergred and acquired banks

SL	Deal Type	Announce Date	Payment Type	Acquirer Country	Acquirer Bank	Target Bank	Target Country
1	M&A	6/4/2014	Cash	U.A.E.	Abu Dhabi Islamic Bank PJSC	United Arab Emirates retail banking operations	U.A.E.
2	M&A	27/3/2011	Cash	Nigeria	Access Bank PLC	Intercontinental Bank PLC	Nigeria
3	M&A	18/7/2013	Cash	Completed	Nigeria	Guaranty Trust Bank PLC	Fina Bank Ltd
4	M&A	11/11/2013	Cash	Nigeria	FBN Holdings Plc	FBNBank Ghana Ltd,FBNBank Sierra Leone Ltd,FBNBank Gambia Ltd,FBNBank Guinea Ltd	Palstine
5	M&A	21/1/2010	Cash	Malaysia	Hong Leong Bank Bhd	EON Capital Bhd	Malaysia
6	M&A	6/1/2011	Cash	Malaysia	Malayan Banking Bhd	Maybank Kim Eng Holdings Ltd	Singapore
7	M&A	4/9/2013	Cash	Malaysia	AFFIN Holdings Bhd	AFFIN Hwang Investment Bank Bhd	Malaysia
8	M&A	7/1/2013	Cash	Malaysia	AmBank M Bhd	AmMetLife Insurance Bhd,AmMetLife Takaful Bhd	Malaysia
9	M&A	3/4/2014	Cash	Malaysia	Alliance Bank Malaysia Bhd	AllianceDBS Research Sdn Bhd	Malaysia

10	M&A	1/7/2015	Cash	Bahrain	ahli united bank BSC	the united bank of PLC	bahrain
11	M&A	1/4/2015	cash	Kuwait	Al ahli bank of kuwait	piraeuse bank egypt	Egypt
12	M&A	14/6/2012	Cash	Kuwait	National Bank of Kuwait SAKP	Boubyan Bank KSCP	Kuwait
13	M&A	12/11/2011	Cash	Kuwait	Kuwait Finance House KSCP	Swedish Warehouse	Sweden
14	M&A	14/10/2014	Cash	Saudi Arabia	Alawwal Bank	Marine Services Co Ltd	Saudi Arabia
15	M&A	9/3/2015	Cash	Egypt	Arab African International Bank	Egypt loan & deposit portfolio	Egypt
16	M&A	9/6/2015	Cash	Egypt	Commercial International Bank Egypt SAE	Citibank Egyptian Retail Unit	Egypt
17	M&A	23/12/2014	Stock	Philippines	BDO Unibank Inc	One Network Bank Inc	Philippines
18	M&A	18/9/2013	Cash	Philippines	China Banking Corp	Planters Development Bank	Philippines
19	M&A	19/3/2012	Cash	Philippines	Rizal Commercial Banking Corp	RCBC Leasing & Finance Corp	Malaysia
20	M&A	8/12/2010	Cash	Philippines	Bank of the Philippine Islands	Asset Management Unit In Philippines	Philippines
21	M&A	15/2/2012	Cash	Philippines	Asia United Bank Corp	Banking Assets and Liabilities	Philippines
22	M&A	25/1/2012	Cash	Thailand	Bank of Ayudhya PCL	Retail Banking and Wealth Management business/Thai	Thailand
23	M&A	15/11/2011	Cash	Thailand	Bangkok Bank PCL	Bualuang Securities PCL	Thailand
24	M&A	28/1/2011	Cash	Lebanon	Bank of Beirut	Laiki Bank Australia Ltd	Australia
25	M&A	22/3/2016	Cash	Lebanon	Byblos Bank SAL	Banque Pharaon	Lebanon

						& Chiha SAL	
26	M&A	29/9/2016	Stock	Palestine	Bank of Palestine PLC	Palestine Commercial Bank	Palestine
27	M&A	9/12/2014	Cash	U.K.	HSBC Holdings PLC	Retail assets in Livingston	U.K.
28	M&A	31/3/2011	Cash	U.K.	Lloyds Banking Group PLC	Land & Building	U.K.
29	M&A	9/10/2012	Cash	U.K.	Barclays PLC	ING Direct UK Business Assets	U.K.
30	M&A	20/5/2013	Cash	U.K.	Standard Chartered PLC	Wealth management assets/India	India
31	M&A	20/9/2012	Cash	Switzerland	Credit Suisse Group AG	Edificio Teleporto	Brazil
32	M&A	10/12/2013	Cash	Switzerland	UBS AG	161 MW Spinning Spur Wind Project	U.S.
33	M&A	12/8/2014	Cash	Singapore	Oversea-Chinese Banking Corp Ltd	OCBC Wing Hang Bank Ltd	Hong Kong
34	M&A	31/10/2016	Cash	Singapore	DBS Group Holdings Ltd	Wealth and retail businesses	Taiwan
35	M&A	20/9/2010	Cash	Singapore	United Overseas Bank Ltd	Asian Wholesale Banknotes Business	Hong Kong
36	M&A	3/6/2010	Stock	Turkey	Turk Ekonomi Bankasi AS	Fortis Bank AS	Turkey
37	M&A	26/10/2010	Cash	Turkey	Turkiye Is Bankasi AS	Bank Sofia	Russia
38	M&A	2/10/2013	Cash	Turkey	Turkiye Vakiflar Bankasi TAO	Factory/Egeplast	Turkey
39	M&A	4/6/2013	Cash	Turkey	Turkiye Halk Bankasi AS	Bilesim Alternatif Dagitim Kanallari AS	Turkey
40	M&A	11/4/2013	Cash	Turkey	DenizBank AS	Turkey Consumer Banking Business	Turkey

41	M&A	18/3/2013	Cash	Qatar	Commercial Bank PQSC/The	Alternatifbank AS	Turkey
42	M&A	16/3/2011	Cash	Qatar	Qatar International Islamic Bank QSC	Al Rayan Bank PLC	U.K.
43	M&A	16/4/2014	Cash	Qatar	Doha Bank QPSC	Banking business/India	India
44	M&A	6/11/2017	Cash	South Africa	FirstRand Ltd	Aldermore Group PLC	U.K.
45	M&A	10/9/2012	Cash	Pakistan	JS Bank Ltd	Banking Business/Pakistan	Pakistan
46	M&A	13/7/2010	Cash	Indonesia	Bank Rakyat Indonesia Persero Tbk PT	Bank Rakyat Indonesia Agroniaga Tbk PT	Indonesia
47	M&A	21/4/2011	Cash	Indonesia	Bank Central Asia Tbk PT	Transpacific General Insurance PT	Indonesia

Table A1.4
Sectorwise M&A

Year	Technology				Life Science				Finance				Telecommunications			
	Volume	Growth	Size	Growth	Volume	Growth	Size	Growth	Volume	Growth	Size	Growth	Volume	Growth	Size	Growth
2000	6573	0	343	0	771	0	129	0	1468	0	327	0	1852	0	535	0
2001	4148	-37%	58	-83%	796	3%	74	-43%	1355	-8%	206	-37%	1279	-31%	108	-80%
2002	3138	-24%	48	-17%	736	-8%	83	12%	1284	-5%	126	-39%	856	-33%	61	-44%
2003	3024	-4%	66	38%	845	15%	63	-24%	1460	14%	196	56%	866	1%	76	25%
2004	4043	34%	87	32%	1087	29%	126	100%	1705	17%	272	39%	1200	39%	220	189%
2005	4576	13%	106	22%	1143	5%	121	-4%	1862	9%	236	-13%	1192	-1%	227	3%
2006	4364	-5%	123	16%	1108	-3%	142	17%	1740	-7%	367	56%	1153	-3%	229	1%
2007	4317	-1%	221	80%	1169	6%	174	23%	1807	4%	404	10%	1121	-3%	189	-17%
2008	3612	-16%	89	-60%	954	-18%	142	-18%	1309	-28%	229	-43%	758	-32%	127	-33%
2009	3105	-14%	90	1%	821	-14%	175	23%	1072	-18%	106	-54%	670	-12%	67	-47%
2010	3981	28%	104	16%	1065	30%	153	-13%	1458	36%	109	3%	833	24%	145	116%
2011	4235	6%	115	11%	1081	2%	176	15%	1468	1%	120	10%	771	-7%	88	-39%
2012	4182	-1%	133	16%	1082	0%	96	-45%	1243	-15%	122	2%	724	-6%	105	19%
2013	3977	-5%	142	7%	1138	5%	137	43%	1232	-1%	95	-22%	820	13%	232	121%
2014	4865	22%	253	78%	1358	19%	387	182%	1461	19%	130	37%	823	0%	240	3%
2015	5348	10%	282	11%	1375	1%	325	-16%	1577	8%	218	68%	864	5%	153	-36%
2016	4883	-9%	321	14%	1283	-7%	282	-13%	1511	-4%	152	-30%	865	0%	223	46%

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Financing SME's through the Islamic *Qard al-Hasan*: A Proposal of Islamic Fintech Interest-Free Lending for Governments Initiatives

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Abstract

Financing small and medium enterprises (SMEs) is one of the most important mechanisms to boost economic growth in both developed and developing nations. The contributions of SMEs in many countries' gross domestic product (GDP) have been overwhelming. SMEs improve job creations in all sectors of the economy and contribute to the people's economic well-being. However, many SMEs are not getting financing from their counties due to strict regulation mechanisms and interest rate hike. With this kind of regulations and high interest payable, many brains are being wasted, and many ideas are vanishing with the jobs opportunities attached them. Government agencies are therefore in need to innovate different ways to facilitate SME's financing and support new businesses for achieving and maintaining sustainable economic growth. The paper proposes an Islamic benevolent loan known as *Qard al-Hassan*. In this initiative, government agencies can support SMEs with benevolent loans in order to build their legitimate businesses by using Fintech facility in ensuring the effectiveness and the reliability of the project. This mechanism is aimed at reducing the dependency on interest-based debt industry which is actually discouraged by the lawgiver. The facility will therefore open more doors for giving back to the society through the Islamic system of *Qard al-Hassan*. This facility is a benevolent loan that will be given by the government using new financial technology in identifying suitable candidates and to facilitate payment and reimbursement system. The facility might attract many players out of the banking system to participate, and this will generate more returns and economic benefits to the society. The Islamic benevolent lending regulations will be strictly followed in other to avoid any misconception or violation of the Islamic laws related to the application of *Qard al-Hassan*.

Keywords: Islamic Finance, Qard al-Hassan, Islamic Fintech

1. Introduction

Small and Medium Enterprises (SMEs) financing is growing rapidly and are becoming one of the most important mechanisms to help create jobs in the private sector economy. Financial technology is one of the most important mechanisms for enhancing people's well-being and can also lead to the achievements of financial prosperity in almost all economies, big or small and developed or developing. Islamic economic system is more than ever in need of modern technology enhancement to develop its unique techniques of doing business and digitalize its financing contracts for better application in modern societies. *Qard al-Hasan* (benevolent debt) is one of the most important mechanisms initiated to help those in need or with the business good ideas to engage their businesses by offering them interest-free loans for societal development and public enrichment purposes. MSE's can find this a way to go in every society as it is meant for their personal business development and economic well-being of the society.

2. SMEs Financing Initiatives

Small and Medium enterprise financing has gradually improved throughout the years, according to the investigations initiated by the Organization for Economic Cooperation and Development OECD's the findings on the development of SMEs financing shows a very encouraging development. Lending to SMEs generally improved in 2015, with a significant upward trend in new SME loans. While in 2013, only 6 out of 20 countries reported an increase in new SME lending, this number increased to 9 in 2014 and to 11 in 2015. For example, the volume of new SME loans in Finland rose by more than 23% in 2015 after seven consecutive years of decline. The median value of the annual growth rate of participating countries rose from -2.6% in 2013 to -0.1% in 2014, and then to 6.4% in 2015, illustrating a significant recovery in new lending to SMEs over this period.[16]

In 2015, the average interest rate charged to SMEs reduced for many countries, it may be, however, due to loose monetary policies in place. SME interest rates in 2015 were less than half of their level in 2008 in Belgium, France and Luxembourg peculiarly as low as one third.[17] Demand-side surveys also suggest a continued easing of credit conditions in a majority of participating countries, including a decline in loan rejection rates. At the same time, large cross-country differences persist, with credit standards remaining comparatively tight and interest rates relatively high in the economies most affected by the financial and ensuing sovereign debt crisis, such as Greece, Hungary, Ireland, Portugal, and Slovenia. Moreover, in emerging economies with relatively high inflation rates, including Brazil, Chile, Colombia, Georgia, Malaysia, Mexico, the Russian Federation, Serbia and Thailand, 2015 interest rates remained on average more than twice as high as the median value of participating countries.[18]

3. Identifying SMEs Financing Pain Points

SMEs always experience several pains in their fight to secure funding and execute their businesses amicably. SMEs are constantly hassling to physically rushing to their multiple funding banks accounts; manual dealings will papers, check issues and many troubling payments procedures. Fintech is determined to solving all these worrying pain points. And one of the most daring revelations was that of RSA group which reports that the majority of nearly (55%) of small and medium-sized enterprises (SME) don't actually survive over five years in business activities, RSA is a UK big commercial insurer, according to its new research, the research study "Growing Pains" uncovers the latest nature of the economy and barriers to developing SMEs, the study reveals a sinking development in one to five year business survival rates since 2004. Despite a recent improvement in economic conditions, survival rates remain worse than before the financial crisis.[19] The diagram below exposes the common SMEs pain points.

[16] OECD report "Financing SMEs and Entrepreneurs 2017": AN OECD SCOREBOARD p.1
[17] OECD report "Financing SMEs and Entrepreneurs 2017": AN OECD SCOREBOARD p.2
[18] OECD report "Financing SMEs and Entrepreneurs 2017": AN OECD SCOREBOARD p.3
[19] https://www.rsagroup.com accessed 23/09/, 2018 at 2:40pm



Source: Cesar J. Richardson, 2016

4. Benevolent Lending (*Qard al-Hasan*)

Qard refers to a contract of lending money by a lender to a borrower where the latter is bound to repay an equivalent replacement amount to the lender.[20] *Qard al-Hasan* is an Islamic interest-free loan which is given by the lender to the borrower on the basis of benevolence and kindness. According to the *Shari'ah*, *Qard al-Hasan* loans are not profitable loans, the lender should not whatsoever benefit from the loan given by getting an extra amount in return. The borrower is obliged to pay only the principal amount. However, since the benevolent loans are meant for assistance kindness and compassion, the borrow might do the same if he wishes, by paying better than the amount he has collected, but that should not be with prior arrangement, and must not be included in the contract, it is by the initial interest of the borrower and his generosity. The reason why it is lawful for the borrower to do so was the action of the Prophet Muhammad peace be upon him, the prophet was reported to have borrowed camels of young ages from his companions, when the repayment comes he discovered that has only the older camels, the prophet peace be upon gave the older camels and said the better among you are those who gave better than what they have taken"[21]

For that reason, *Qard al-Hasan* is a costless loan extended to people in need, for a specified period of time. At the end of that period, the face value of the loan *(asl al-qard)* is to be paid off. *Shari'ah* prohibits the stipulation of an excess for the lender, as it amounts to *riba*, whether the excess is expressed in terms of quality or quantity, or whether it is a tangible item or a benefit. *Qard al-Hasan* initiative shows the spirit of cooperation and brotherhood which will help improve the societal wellbeing and social security. If the Islamic Banks are required to attain certain socio economics objectives, then it will be vital for them to provide *Qard al-Hasan* products instead. Moreover, this will boost the corporate social responsibility of the Islamic banks.[22]

5. *Qard Al-Hasan Shari'ah* Regulations

Qard comprises three important components, contracting parties, offer & acceptance and the money to be lent. These three components are essentials for an Islamic acceptable Qard contract. There should be no contractual advantage that will benefit the lender in *Qard al-Hasan*, therefore there will be no pre-agreed periodic rebate (*ibra*) to the contract in which the buyer in an installment of a deferred selling price that has link to the *Qard al-Hasan*

[20] Bank Negara Malaysia, "Qard application to Islamic Banks and other Islamic Financial Institutions" 26th February, 2018, p.4
[21] Hadith reported by Imam al-Bukhari, the book of debt, vol.3 p.117 Hadith No.2392.
[22] Ahmad Zainal Abidin, Norhayati and Arifin (2011)

contract. There should be no any benefit whatsoever, including *hiba* that is given by the borrower to the lender be it in cash or in kind or any benefit if it is conditional to the *Qard* contract. However, any contractual benefit which is generic and has no any connection with the *Qard* and not special to the lender is permissible. Likewise any *Ibra* which has been given after settlement of a full selling price of an independent contract of sale that has no connection to the *Qard* contract shall not be regarded as a contractual benefit to the lender.[23] It is also not regarded as contractual benefit to the lender, any specific services, privileges or facilities provided by the borrower which are not exclusive to the lender, and they are allowed.[24]

Qard contract is considered completed once the following are fulfilled, if the *Qard* amount has been paid in full at the maturity or an early settlement via a mutual agreement of the contracting parties or by a transfer of the *Qard* payment obligation to be paid to or paid by a third party. Or by a complete waiver which has done voluntarily by the lender or by settlement via *al-Muqassah* with another *Qard* of the same value and maturity between the contracting parties. If the *Qard* contract is completed through any of the methods mentioned above, the contract of *Qard* is considered completed and the parties are free from any liability.[25]

6. Fintech Facility and Islamic *Qard al-Hasan*

Fintech has rapidly grown in the middle of the new millennium, with a huge growth in the last few years. However, Fintech is still signifying a very small share of business funding. One of the most important concerns here with that instrument is that it mostly assists to finance some particular projects other than an enterprise. It has been used in specific non-profit organizations and the entertainment industry, where non-monetary benefits or an enhanced community experience represent important motivations for donors and investors. Yet, over time, crowdfunding has become an alternative source of funding across many other sectors, and it is progressively used to support a wide range of profit-wise undertakings and businesses.[26]

In the Fintech industry, many technologies are feasibly active in various areas, some use tested tech to fulfill markets and consumer requirements, while others chased more experimental technologies like blockchain systems that store and remembered series of transactions that led to efficiency and cost friendly. Some Fintech used a robo-advisory system of technologies which gives automated advice by minimizing human impute. Furthermore, Fintechs are actually moving beyond business finances to offering a wider range of services for expanding industry's boundaries. The following diagram has illustrated more than thirty areas emerging as new norms in banking with the Fintech solutions.

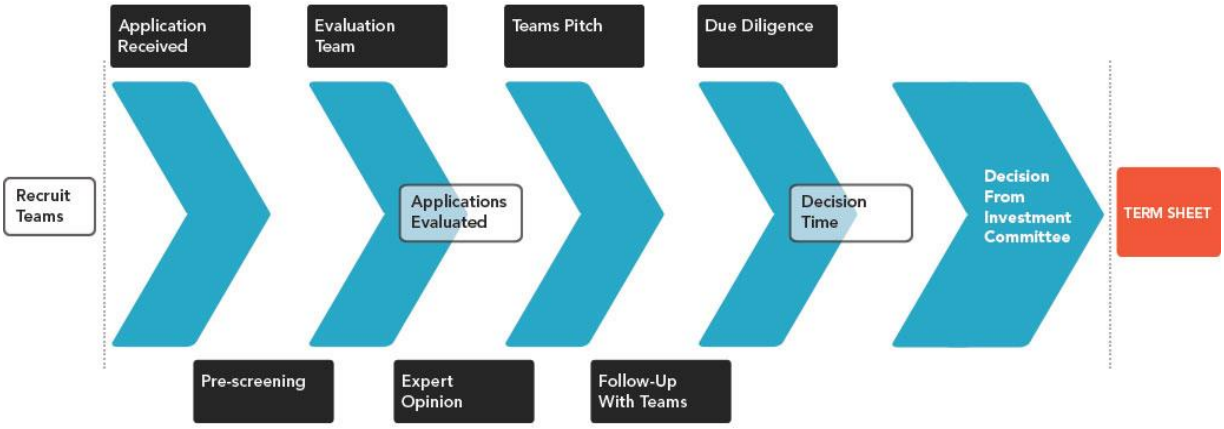
[23]Bank Negara Malaysia, "Qard application to Islamic Banks and other Islamic Financial Institutions" 26th February, 2018 p.16
[24] AAOFI Shari'ah Standard, 2010 standard No.1-7 p. 270
[25] [25]Bank Negara Malaysia, "Qard application to Islamic Banks and other Islamic Financial Institutions" 26th February, 2018 p.17
[26] SME report, OECD 2015 p.6



7. The *Smart Qard*

Smart Qard is a short-term loan for small businesses that aimed at helping the entrepreneur's pay off their immediate bills in order to move their businesses faster so as to facilitate better growth and sustainable income. One of the examples of Smart *Qard* was SmartloansUK; the interest based smart loans firm gives away short-term loans for a twenty percent interest, one of the uniqueness of smart loans is that they are very fast, once lender's requirements are fulfilled, the approval will not last more than thirty minutes and the borrower will get the loan in the same working day.[27] This diagram illustrates how it works.

[27] https://www.smartloansuk.com accessed 23/09/2018 at 3:18pm



Source: https://apx.ac/investment

Furthermore, a similar platform was initiated in Singapore called smart funding; this is a platform that links local investors with SMEs who wants to trade their unpaid invoices for loans, this platform was initiated in order to create an alternative investment platform that gives high returns to local investors and also facilitates the preferred funding opportunities for SMEs and support their growth. This facility works very well for the Singaporean economy as investors secured 1.7% and 2.5% a month, or around 20% and 30% return per annum. The diagram below shows how the Smart funding platform works.[28] Below diagram shows how the Fintech facility works for invoice sellers in Singapore.

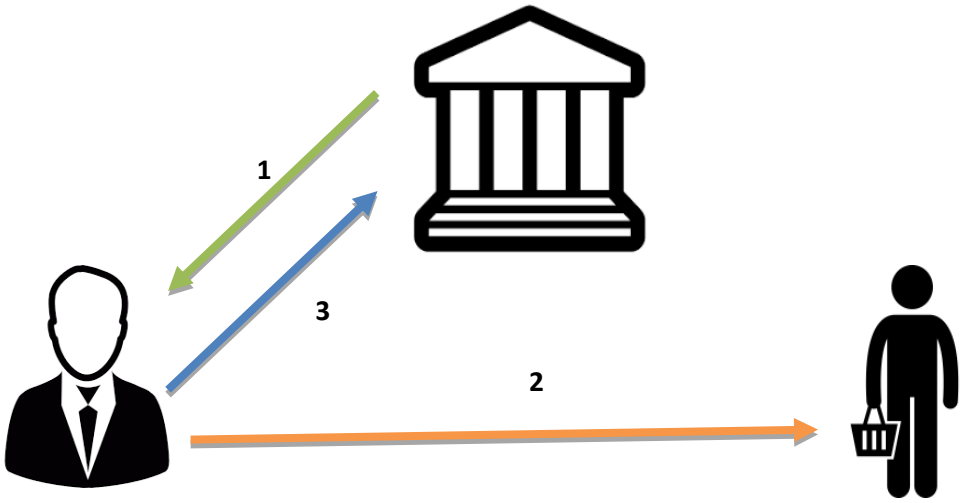


Source: http://fintechnews.sg

However, the *SmartQard* has a different approach as it is based on Islamic *Qard* which is not an interest-bearing loan, the *SmartQard* will be given benevolently by the government to the borrowers whose businesses are experiencing slow in growth; this is to accelerate their business capabilities that will lead to and better returns. *SmartQard* will not charge any interest or fee, and by using Fintech, the *SmartQard* will be very fast and deliver the needful for SMEs growth and development. The following diagram illustrates how the *SmartQard* works.

[28] http://fintechnews.sg accessed 25/09/2018 at 11:44pm

Diagram for Smart Qard

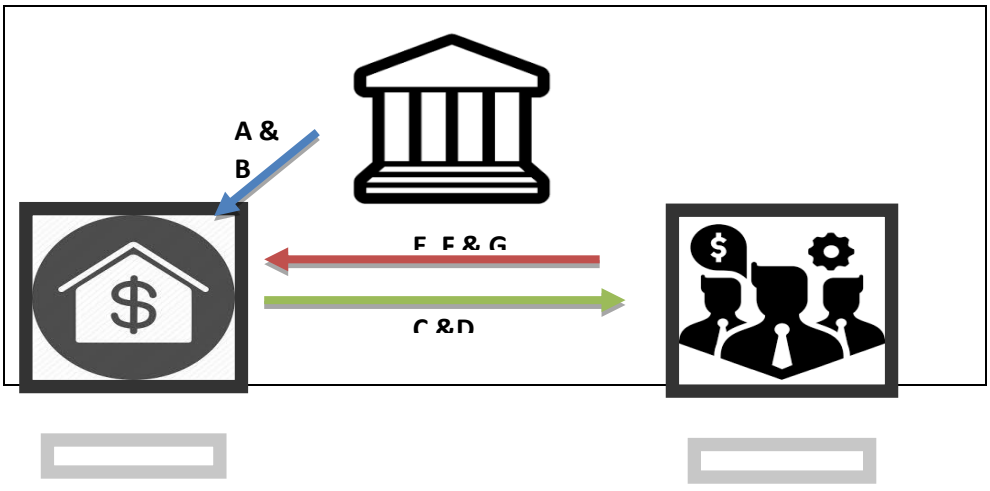


Author's Illustrator

1. The entrepreneur who has constraints of cash will receive *Qard al-Hassan* financing from the government.
2. The entrepreneur will operate his/her business as usual which to offer products and services to their customer.
3. The entrepreneur will pay back the financing to government which the amount of payment is the same with the amount received for financing.

8. Islamic Fintech Solution for *Qard al-Hasan* Financing

Qard al-Hasan is a benevolent instrument used to help the needy but not a free donation, the beneficiary/bowworwer/SMEs should repay back the *Qard al-Hasan* at the repayment schedule. In this initiative, an SME will be applying for the *Qard al-Hasan* through the Government related agency, in which the evaluation process will be done by the relevant experts of the investment comity of the facility, the *Qard al-Hasan* will be paid directly to the SMEs account in a single click. SMEs *Qard Al-Hasan* Facility SQAF is designed to facilitate loans with a bit longer maturity than the *SmartQard*, as it is attempting to boost stronger businesses and startups. The diagram below shows how the *Qard al-Hasan* Financing works.



A. The government will be providing the fund for SMEs funding purposes.hannels the fund to the Fintech facility
B. The Facility identifies the eligible SMEs for funding Purposes
C. The facility will distribute *the Qard al-Hasan* funds to the selected SMEs
D. After the maturity, the SME company will reimburse the *Qard al-Hasan* to the facility
E. The profitable SME may pay an extra amount to the facility by its own choice; the amount to be paid shouldn't be a fixed amount, and will be determined prior to the Qard al-Hasan contract, as this is aimed at showing appreciations only.
F. In the case where were SME experiences lose and do not profit from it business, no appreciation amount will be expected.

9. Payment and reimbursement of *Qard al-Hasan* financing

The payment and reimbursement of *Qard al-Hasan* should be designed based on the electronic and digital system, the system should comprise the mobile payments, online payments, and in-store payments capabilities, offering solutions that are multi-country, multi-currency and multi-sales channels. However, most of the developed payment technologies available are there to facilitate mostly interest based payments and deals, a new Islamic driving payment technology should be created from the scratch which will be supported with the Islamic principles and Shari'ah based contractual obligations. The new payment technology should support Islamic business to business supply chain and Islamic e-invoicing platforms for suppliers and traders, an Islamic mobile point of sale solutions should also be in a place where traders and retailers get consumer payments easily. These technologies could be used to enhancing the deals between SMEs and the Investors or the Government funding initiatives platforms, it will also help SMEs overcome many business hassles and elevate their market strategies and push for a stronger and faster economic growth.

10. Conclusion

Qard al-Hasan has proved to be one of the most boosting mechanisms that facilitate SMEs funding in the era of financial technology advancement. 'Fintech' will thus be playing an imperative role in achieving most of the Governments initiatives and do the needful for job creation, economic growth, business enhancement, and social development. The Islamic *Qard al-Hasan* is an answer to the difficulties experienced by a large number of SMEs in securing funds that will support to flourish their business ultimately leading to the GDP growth of the country. The Islamic *SmartQard* can be one of the most efficient methods of enhancing and funding small and medium businesses that often stuck in paying their immediate bills. This is because *SmartQard* is very fast and the refund will not take much longer, most of the developing nations are actually in need of some kind of *SmartQard* so as to touch the very small businesses out there, which never experience any government hand. The implementation of *Qard al-Hasan* using 'Fintech' technology can be a way forward in enhancing Islamic concerned businesses and drag many players into the SMEs financing platform who are skeptical of the current SMEs financing mechanisms, and this will be the way to boosting the Islamic financial system by moving together with the modern technology, which is playing a significant role in shaping the future of world banking and finance industry.

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Salient Issues of Islamic Banking Product Development: Towards Achieving Socially-Oriented Innovation

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Abstract

Islamic banking product development has not been given much attention. Despite the uniqueness and dynamism of Islamic banking activities especially its products variance, limited study has been conducted to highlight the issues challenged the product development activity especially when socially-oriented product innovation is aimed. This paper aims to explore the salient issues of Islamic banking product development activity by engaging socially oriented innovation which is based on the theory of Maqasid al-Shari'ah. The paper used content analysis to derive several issues in the product development activities of Islamic bank. Semi-structured interview also has been benefited to receive into conclusion. The data were then analysed using framework analysis. The conclusion contributes to bring readers to several issues on the product development activity of Islamic bank. The study is hoped to contribute to the operational dimension of service innovation references mainly in socially-oriented product development regime in Islamic banks.

Keywords: Islamic Banking Product Development; Islamic Financial Innovation; Socially-Oriented Innovation; *Maqasid al-Shari'ah*

1. Introduction

The importance of a product development is in its contribution towards the overall success and development of a product-oriented company. New Product development (NPD) is defined as a process that "involves transformation of a market opportunity into a product available for sale" (Krishnan & Ulrich, 2001). There have been a number of literature studies on product development like in Raphaël (2005), Krishnan and Ulrich (2001), Balachandra and Friar (1997), Griffin and Hauser (1996), Brown and Eisenhardt (1995), Cusumano and Nobeoka (1992). Some conceptual and empirical studies found that developing a successful new product is utmost important and critical (Raphaël, 2005);(Baker, Hart, & Hart, 2007);(Brown & Eisenhardt, 1995);(George & Paulina, 2000);(Hassan, 2008); (Tzokas, Hultink, & Hart, 2004). Compared to a tangible product innovation, service innovation or intangible product innovation is less sophisticated albeit complicated (Raphaël, 2005). New service development (NSD) deals with subjective and intangible ideas that need imagination and keen perception. Such characteristics of service product like intangibility, inseparability (simultaneity), heterogeneity and perishability (Johne & Storey, 1998); (Lievens & Moenaert, 2000, 2001) should be considered important when innovation of service product takes place. Although it does not involve large machineries and high cost, its intangible characteristics make the innovation process more complex and obscure (Johne & Storey, 1998). The importance and intensity of the NPD and NSD processes were reported by Cooper and Scott J (1996) where almost 50 percent of new financial service product fails during the launching stage. This explains why more effort is necessary when dealing with this crucial stage of development.

In banking sector, developing a new product is somewhat different from manufacturing industry that demands high cost and innovations of tangible products. Financial Innovation aims at producing products that are characterised as intangible, service-based blueprint which involves several processes (Shostack, 1982). Ahmed (2011b, p. 12) adds that in-depth and proper planning are thus essential for the process of developing the product's blueprint and its delivery infrastructure. Hence, it is suggested that providing a cost-effective new product throughout the overall processes will enhance the financial performance of the bank (Saubert, 2005). It is vital then to understand the product development process and its recommended practices to achieve the said objective. In the area of financial business-related literatures, studies on financial innovation are still at its infant stage (Lievens & Moenaert, 2000,

2001). Moreover, in Islamic banking and financial services, the product development stages have not been given much attention when issues on Islamic Banking products are revealed (Ahmed, 2014). The gap in this area is wide as strongly mentioned by Al-Suwailem and Hassan (2011)[29]:

> *"Although scholars as well as bankers increasingly talk about financial engineering and further development within the industry in order to ensure future growth and profitability, a consolidated body of relevant literatures documenting various aspects of Shari'ah-compliant financial innovation and its process of implementation is noticeably lacking."*

Islamic banking and financial activities is one of the agendas in the fulfillment of world objective of human in terms of wealth protection. Similarly, it also aims at fulfilling the social requirement of the society by circulating back the wealth collection activity to the society. The objective is known as *Maqasid al-Shariah* which aims at both *maslahah khassah* (personal benefit) and *maslahah 'amah* (social benefit). In Islamic bank, prevailing justice, maintaining social needs (*maslahah*) and all the good deeds which is naturally imbued in human is one of the objectives. This is presented in the term "social-oriented innovation" in which this paper aims to elucidate.

The objective of this paper hence to explore the salient issues of Islamic banking product development activity by engaging socially oriented innovation which is based on the theory of *Maqasid al-Shariah*. By highlighting salient issues in product development activities, the social oriented innovation can be further explored and developed within the financial and banking framework. Furthermore, by underlining the issues, the conceptual nature of the theory of *Maqasid al-Shar'iah* could be spelled out in operational and practical activities of Islamic banking and financial institutions mainly in their PD activities.

2. Methodology

The development of themes to come out with salient issues of the chosen topic is based on a few stages of qualitative data collection and analysis; firstly, the data was qualitatively collected from existing literatures and expert interviews to seek in-depth process of product development in financial sector mainly in Islamic banks and direct observations from the interview. The focus of the data collection are on the viability of the theory of *Maqasid al-Shari'ah* and PD stages of current Islamic banks; secondly, from the variety of evidence, the data were triangulated against one another and analysed based on inductive approach of framework analysis of the data to develop a structured framework as suggested by Ritchie and Spenser (2002). The framework analysis also includes the thematic study and content analysis of the data that accessed the data until the framed themes emerged and converged. In the study, by having a framework of *Maqasid al-Shariah*, the emerged themes followed and fulfilled the required process of the development of the salient issues.

The first stage is data collection. Expert semi-structured interview has been chosen since the primary information on the data is only sought from classical theory of *Maqasid al-Shari'ah.* Consistent with the choice, Ritchie and Lewis (2003) suggests that in depth face to face interview is appropriate for detail clarification and understanding from the participants. The method allows the researcher to develop and further enhance the framework and inculcate some additional values appreciating the current practices of PD in Malaysia context. It also allows rigid-less format and open ended responses to appreciate the qualitative method used (Mohamad et al., 2011).

For the said interview purpose, a reasonably appropriate number of interviewees have been selected consist of those directly involve with product development of Islamic Banking products in Islamic banks. All of them are representatives as according to their portfolios and have direct commitments towards product development of Islamic banks that normally involved by product development officers, Shariah department officers and risk management officers. The following Table 1 shows the respondents involved in the interview sessions.

[29] Sami Al-Suwailem (Dr.) is the Deputy Director of Islamic Research and Training Institute and M. Kabir Hassan (Dr.) is the Professor of Department of Economics and Finance, University of New Orleans, Louisiana, USA

Table 1: The Participated Interviewees of Semi-Structured Interview

POPULATION	PARTICIPANTS	NO.
REGULATOR	Shariah Advisory Council Members, Bank Negara Malaysia (SAC, BNM)	3
	Top management and Researcher, International Shari'ah Research Academy for Islamic Finance (ISRA)	3
	International Islamic Banking and Finance Expert	1
ISLAMIC BANKING EXPERTS	Head of Shari'ah and officers of Malaysia Islamic banks	5
	Shari'ah Committee (SC) of Malaysia Islamic banks	6
ACADEMICIAN	Islamic Banking and Finance Academicians	2
TOTAL		**20**

Note: The authors were honoured for the time and commitment contributed by all the experts and would thank all of them for their rich ideas and comments.

The interview guide was self-designed by the researcher. It contains the interview questions that was designed based on textual analysis and literatures on the current practice of product innovation in Islamic bank particularly the Shari'ah and Product Development Divisions / Units. The guide was reviewed and commented by experts in qualitative research method. Since this study monitored the observance of PD process towards *Maqasid al-Shari'ah,* a complex system, processes and personal experience of the interviewers are really sought for. The interview sessions hence allow researcher to relate the concept of *Maqasid al-Shari'ah* developed from the texts to the present construct in the industry. It seeks factuality and actual phenomena where product development process will be observed. The main aim in this method in to get in-depth understanding and experience of the subjects when issues pertaining to product development, socially oriented development and *Maqasid al-Shari'ah* are injected in Islamic banking industry. Opinions and suggestions from the respondents had been taken seriously to further develop the themes. Employing semi-structured interview in this research resulted to the richness of data for the construction of product development salient issues for socially-oriented product based on the theory of *Maqasid al-Shari'ah*.

The second stage involved the qualitative data analysis process where the author used framework analysis to analyse the qualitative data. According to Ritchie and Spenser (2002), there are five stages involve in framework analysis including familiarisation, identifying a thematic framework, indexing, charting, mapping and interpretation. The process is simplified in Table 2 below. In the familiarisation, the researcher becomes familiarized with the transcripts of the data collected, lists the key ideas and recurrent theme. Besides semi-structured interview, data also was sought from content analysis of the published materials. Both data; the interview and contents were analysed in this familiarisation stage. This process is done in all the referred writings of the socially oriented product development mainly based on the theory of *Maqasid al-Shari'ah* by Al-Ghazali, the components and its indicators in Malaysian Quality of Life 2012 report and Human Development Index (HDI), the concepts, dimensions and elements in PMMS Model and the interviews' transcripts of the above-mentioned experts.

Table 2: Five Stages in Framework Analysis

STAGES	DESCRIPTION
Familiarisation	The researcher becomes familiarized with the transcripts of the data collected, lists the key ideas and recurrent theme
Identifying a Thematic Framework	The researcher recognizes emerging themes or issues in the data might be arisen from a priori themes and the key issues, concepts and themes expressed during data collection process. The data will be sifted and sorted to identify the theme.
Indexing	The researcher indexes the theme systematically in their textual forms based on thematic framework.
Charting	The researcher arranges indexed data in charts of the themes. The data is lifted from its original context and placed in charts that consist of the headings and subheadings that were drawn during the thematic framework or from a priori research inquiries.
Mapping and Interpretation	The researcher pulls together the key characteristics laid out in the charts and interprets the data as a whole. This analysis should be able to provide a schematic diagram of the event/phenomenon.

Source: Adapted from Ritchie and Spenser (2002)

The second stage is identifying a thematic framework that requires the researcher to recognise emerging themes or issues in the data might be arisen from a priori themes and the key issues, concepts and themes expressed during data collection process(Ritchie & Spenser, 2002). The process requires the researcher to use intuition and logical thinking in making judgments about meaning, the relevance and importance of issues, and implicit connections between ideas (Srivastava & Thomson, 2009). Hence, in depth knowledge and reading on the topic and its issues is essential in this stage.

The third stage is known as indexing where the researcher indexed the theme systematically in the textual forms based on thematic framework. The process requires the researcher to repeatedly read the text from the literatures and interview transcripts to identify portions or sections of the data that correspond to a particular theme. In the process, the researcher benefited self-developed strategic mapping, EndNote X5 Software and also Atlas t.i qualitative data analysis software to arrange the data and assign the required index.

In charting stage (fourth stage), the researcher arranged indexed data in charts of the themes. The data is lifted from its original context and placed in charts that consist of the headings and subheadings that were drawn during the thematic framework or from a priori research inquiries (Ritchie & Spenser, 2002). In the current process of the study, the charting stage was done in a few phases since the priori themes of the study require operational touch and practical to be applied in Islamic banks. The priori themes (the concept of socially oriented banking based on the theory of *Maqasid al-Shariah* by Al-Ghazali also had been rephrased several times to ensure that its coverage fulfil the standard requirements and regulations endorsed by the regulators of Islamic bank in Malaysia; BNM.

Lastly, in the stage of mapping and interpretation, the researcher pulled together the key characteristics laid out in the structured writings and interpreted the data as a whole. The themes were finally reached into saturation stage and finally five (5) themes were derived namely as salient issues in PD activity of Islamic bank. The issues are absent of standard product process, success and failure of Islamic financial product, the contention of Shari'ah based

and Shari'ah compliant product, variance of organisational management of Ijtihad and practice of jurisdiction, and effort towards socially-driven product. According to Srivastava and Thomson (2009), the aim of this stage is to provide a schematic diagram of the phenomenon to guide the researcher in interpreting the data set.

3. Findings and Discussion

Despite its importance in manifesting successful Islamic financial industry, product development area has not been given due attention. There are thousands of literatures on Shari'ah compliance issues in Islamic banking, but the researcher opines that the connectivity to PD has not been given the attention that it should. This part will explore those scanty literatures by dividing the issues into five (5) themes namely: absent of standard product process, success and failure of Islamic financial product, the contention of Shari'ah based and Shari'ah compliant product, variance of organisational management of Ijtihad and practice of jurisdiction, and effort towards socially-driven product.

3.1 Absent of Standard Product Process

The absence of standard product process in Islamic banks has prompted the research to explore the potential gap. In the Islamic PD processes, extensive attention has been given to their Shari'ah process and issues (Hassan & Lewis, 2007; Lahsasna & Hassan, 2011; Muda & Abdullaah, 2007). Scanty studies, however, were done on the processes particularly those related to the financial development process of Islamic banking. Product process is found to be among the important factors contributing towards the success of product development activities for both conventional or Islamic banking institutions (Al-Suwailem, 2007; Al-Suwailem & Hassan, 2011; Cooper & Scott J, 1996; Ernst, 2002; Lahsasna & Hassan, 2011). A number of literatures do take the initiative to preliminarily explore the financial innovation systematic process and model of Islamic bank conceptually such as in the works of Khan (2007), Al-Suwailem and Hassan (2011) and Muda and Abdullaah (2007). However, these authors admit that the scopes of their discussion are not on the process or the model itself, but more to the conceptual Shariah issues in PD. With that, suggestions and recommendations for improvement have been given to promote PD process adherence applicable in Islamic banking and financial innovation activities.
Khan (2007) who attempts to discuss Islamic financial PD opines that product process standardisation in Islamic finance is more relevant to the industry, but the author does not indicate that the standardisation process is part of success and failure factors. However, he contemplates that standardisation process could be a significant factor that will make Islamic banking different and unique compared to its conventional counterpart (Khan, 2007).

Similarly, Al-Suwailem and Hassan (2011) declare their concern on this matter by indicating the absence of a systematic and well-defined PD process as the important stage in Islamic banking development. The authors alternatively, suggest a model as shown in Figure 1 below to evaluate the financial product innovation but just limit the model to specific level of innovations only on the PD model of Islamic banking.

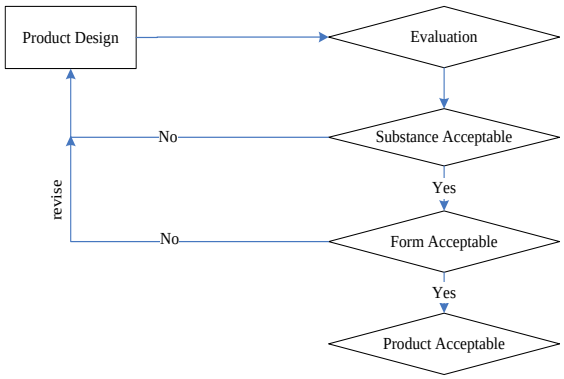


Figure 1: Process of Product Evaluation
Source: Al-Suwailem (2007); Al-Suwailem and Hassan (2011)

Moreover, the authors show their worries in the development where the conventional banking providers are more dynamic in showing their commitment in developing new Islamic banking products (Al-Suwailem & Hassan, 2011) under their windows or subsidiaries. Hence, the PD process or a model fully based on Islamic financial activities is necessary to ensure a smooth development of an innovative environment. Ahmed (2011b) in his empirical study of PD processes in 20 Islamic banks all around the world finds that 60 percent of the banks observe certain PD framework or model in formal written process, 30 percent only refer to broad written guidelines and 10 percent has no written guideline at all.

Concerning the lack of PD process in Islamic banking, Muda and Abdullaah (2007) analyse the PD process of Islamic bank in view of its Shariah aspect. The focus of this study however, is more towards the emphasis of PD Shariah observation rather than the overall process of innovation. Nevertheless, the authors believe that their efforts would accelerate the advancement of the PD process or model for the utilisation in Islamic banking and financial product in meeting the demands of profitability, liquidity, assets value, risk management and product acceptability (Muda & Abdullaah, 2007).

The above literatures have proliferated ideas and promoted future studies to explore and impose certain standards in PD process in Islamic bank. However, as pointed in the above discussions, the PD process in Islamic bank in Malaysia does not adhere to one standard process. There might be a specific process practiced by the financial institutions, but whether a standard model is used or not is still vague. The process might also be a part of job-specification as written in the bank's *standard operating procedure* (SOP). Moreover, in relation to the *Maqasid al-Shariah*, none of the above discussed literatures incorporate the theory in the product development process. All these assumptions on the real practice of PD process in Islamic banks in Malaysia have thrown some queries. The existence of a vacuum in previous literatures has provided the opportunity for the researcher to explore and fill in the gap.

3.2 Success and failure of Islamic Banking and Financial Product

Product Development strategy plays an important role in shaping the success and failure of a company (Ernst, 2002). Other factors according to the author include organisation, culture, role and commitment of senior management and strategy. In general, Cooper and Scott J (1996) draw ten significant factors determining the success or failure of financial services products with regards to its financial development:(1) adopt a high-quality, systematic, and visible new product process; (2) Build go/kill decision points into the process to focus your resources; (3) Focus on quality of execution throughout the new product process; (4) Do solid up-front homework before the project proceeds into development; (5) Incorporate the voice of the customer into every facet of the project; (6) Plan for a high-quality launch effort; (7) Seek synergies so you can attack from a position of strength; (8) Develop unique, superior products; (9) Be sure you have product-market fit and; (10) Deliver the new product with customer-defined service expertise.
It is observed the success factors in product development of conventional product that were laid down extensively in many literatures varied according to the types of business run by the company. These factors, however, do not all fit the requirements in Islamic banking and financial system since this unique field solely developed under the pillars of Shari'ah (Islamic Law). Moreover, study on product development success and failure in Islamic banking and financial services is very limited as for the knowledge of the author. One of the studies of the success factor of Islamic financial services product is proposed by Ullah and Patel (2011). In their study on the importance of context in designing Shariah compliant financial services, emergent context is found to be able to enhance design and planning activities for all parties involved in the process including product designers, regulators and institutions.

A greater effort has been done by Lahsasna and Hassan (2011) and Gainor (2000) where they list success and failure causes of products in Islamic banking in a theoretical manner. Successful product, according to Gainor (2000), are those that accomplished the Islamic bank's strategy and goals with attainable profit. In terms of failure, Lahsasna and Hassan (2011) divide the causes of failure into two types known as cultural infrastructure failure causes and innovation process failure causes. The factors delivering to the failure of Islamic banking product are due to cultural infrastructure as cited by O'Sullivan (2002) in Lahsasna and Hassan (2011). According to O'Sullivan (2002), the cultural infrastructure causes consists of four factors namely: (1) poor organisation; (2) poor communication; (3)

poor empowerment; and (4) poor knowledge management. With regards to the innovation process, five causes were listed by the authors and they are (1) poor goal definition; (2) poor alignment of actions to goal; (3) poor participation in teams; (4) poor monitoring results; and (5) poor communication and access to information. However, Lahsasna and Hassan's study does not test the failure factors and the factors remain as conceptual.

The above literatures have generally provided conceptual factors of the success and failure of Islamic banking products. Hamoudi (2006) claims that Islamic banks have failed to achieve their objectives mainly the *Maqasid al-Shariah*. His argument further relates to no actions being taken to test and examine the failure factors by any of the scholars. This claim calls for further examination and appraisal of the overall activities of Islamic banking. Therefore, the scanty of study in product innovation success and failure in Islamic banks has resulted in a huge gap, and the factors also are not well established and tested.

3.3 Differentiating the Shari'ah-based and Shari'ah Compliant Product

Islamic bank is known to be unique in terms of its product. There are various ways in developing product in Islamic banking as discussed in the previous part of this chapter. However, a number of literatures have highlighted some differences in the way how product is innovated.

There is product innovated from zero and absolutely new and named as Shari'ah-driven product[30]. Most literatures refer this type of product as Shari'ah-based product. There is also product which is formerly initiated from conventional product and a re-invention process is taken place to Islamically legalise it and this is termed as conventional-driven product. Most literatures use the term "Shari'ah compliant product" (Schoon, 2009; Lahsasna & Hassan, 2011; Asyraf Wajdi, 2011). There is product which is manifested from the customer and resulted from the market push and it is labelled as market or customer-driven product. Some literatures attribute the product as satisfaction (Al-Suwailem, 2007; Al-Suwailem & Hassan, 2011). Table 3 categories the various product development strategies and source of innovation in developing a product discussed in these literatures.

Table 3: PD Strategies of Islamic Bank

AUTHOR/ BASIS OF INNOVATION	CONVENTIONAL-DRIVEN	SHARIAH-DRIVEN	MARKET / CUSTOMER-DRIVEN
Al-Suwailem, 2007	Imitation	Mutation	Satisfaction
Iqbal and Mirakhor (2007)	Reverse Engineering	Innovative Engineering	-
Mohd Daud, 2008	product enhancement	product development	-
Schoon, 2009	Shariah compliant	Shariah based	-
Lahsasna and Hassan, 2011	Shariah compliant	Shariah based	-
H. Ahmed, 2011a	Pseudo-Islamic Product / Shariah compliant	Shariah based	Shariah based
Al-Suwailem & Hassan, 2011	Imitation	Mutation	Satisfaction
Asyraf Wajdi, ed. 2011	Shariah compliant	Shariah based	-

[30] The name is inspired from Schoon, 2009, Lahsasna and Hassan, 2011, H. Ahmed, 2011a and Asyraf Wajdi, ed. 2011

In developing a new product, Iqbal and Mirakhor (2007) for instance, have made a comparison between newly developed product and conventional-rooted product. The completely new developed product is termed as "innovative engineering", while the conventional-rooted product is termed as "reverse engineering". They admit that producing "innovative engineering" is more difficult in real banking operation rather than proposing "reverse engineering" product that basically converts conventional product into Islamic product with similar operation.

Moreover, Lahsasna and Hassan (2011) make a distinction between Shariah based and Shari'ah compliant products based on a number of parameters. The authors define Shariah based as "products produced based on the concepts and rules in al-Qur'an, al-Sunnah and other sources of Islamic Law", while Shari'ah compliant as "products imported from conventional finance and converted into Islamic products". These views have made the process in developing related products differs for the fulfilment of the parameters. Consequently, the authors distinguish the process and parameters for those two types of product as shown in

Figure 0.

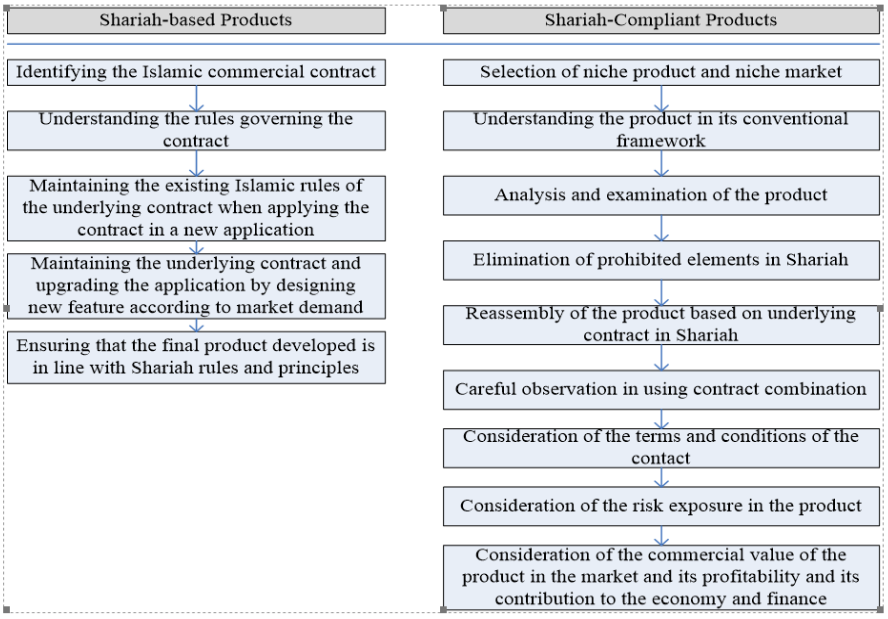


Figure 0: Parameters in processing Shari'ah compliant and Shari'ah based Products
Source: Lahsasna and Hassan (2011)

In relation to the above-stated parameters, Ahmed (2011a, 2011b) instead divides the products into three categories; (1) pseudo-Islamic product; (2) Shari'ah compliant product; and (3) Shari'ah based product. The pseudo-Islamic product requires a product to only observe its legal form .In this kind of contract, *hilah* (legal device) is always used to legalise the illegal contracts. However, according to the author in certain circumstances, these contracts can be proposed with some strict conditions like in dire needs (Ahmed, 2011a, 2011b).

The Shari'ah compliant products satisfy in a higher degree the form and substance of the contract, but not fully observe the social goal. The Shari'ah-based product is a product that fully satisfies all the requirements of the form and substance of the Shari'ah, the social objective of the product, and also the market segments' security needs incuding the poor and mico-enterpreneurs (Ahmed, 2011a; 2011b, pp. 167-168). It is thus attributed as market-based product that contributes to the survival of all segments of users from deficits, surplus units, and underprivileged poor customers. These three levels of Islamic banking product is simplified by the author in

Table below.

These categories provide enhancement towards the Shari'ah compliant status of Islamic banking product instead of labelling all products with the only one status that is Shari'ah compliant only. In relation to the existing research, these categories assisted the researcher to evaluate Islamic banking products in their stages of product development process.

Table 4: Shari'ah requirements and product categories

PRODUCT TYPES	**LEGAL**		**SOCIAL**	
	Form	**Subtance**	**Market Segment**	**Needs**
Pseudo-Islamic product	✓	**?**	**?**	**?**
Shari'ah compliant product	✓	✓	**?**	**?**
Shari'ah based product	✓	✓	✓	✓

Source: Ahmed (2011a); 2011b, p. 169)

Schoon (2009), on the other hand, distinguishes Shari'ah-based and Shari'ah compliant product in terms of its owner. Shari'ah compliant product is when the product is produced by a conventional bank as its window or subsidiary, thus contemplating the fund mingling of its conventional father funds. Shari'ah based product, conversely, is a product of Shari'ah based bank and operates in accordance to the Islamic Laws and their ethical conducts. Thus according to Schoon (2009), this product is more Islamic and operationally transparent in its reporting. On a similar demarcation, Mohd Daud (2008) distinguishes between product development and product enhancement. He opines that product enhancement is practiced in conventional banks that upgrade their existing conventional loan products to be Islamic products. Product development, however, is seen in Islamic banks that produce product from its raw Shari'ah concept. It is however, will only be product enhancement if the concept is maintained whilst its operation or package is upgraded (Mohd Daud, 2008).

Contrary to the above literatures, Asyraf Wajdi (2011) purports that categorising the product to Shari'ah based and Shari'ah compliant has no effect towards the legality of a product; whether it is coventional-driven or originally Islamic. The author asserts that the two terms; which the former means "products which do not originate from conventional practice" and the latter implies "product originally conventional is Islamised by inserting Shari'ah modification" have been examplified previously by the prophet (PBUH) when he acknowledged the *murabahah* and *musharakah* contracts practiced in pre-Islamic period (Asyraf Wajdi, 2011).

The diversity of the way Islamic banking products is produced and innovated has its relevance to product development. Since the products are produced by different owners and sources of innovation, the process will also differ accordingly. Thus, there is an issue or gap to further analyse the product development process for the two types of products namely Shari'ah compliant product and Shari'ah based product. Whether or not the different characteristics would influence the PD process of Islamic bank is also another gap to be explored. In light of *Maqasid al-Shariah*, the criteria of Shari'ah-based product would partly contribute to the development of framework for the current research. However, the extension of the social requirements under the Shari'ah-based product should be given greater attention for the purpose of the realisation of *Maqasid al-Shariah* in the industry. More elaboration should also be placed to highlight the elements of *Maqasid al-Shariah* to suit the need of the stakeholders and regulatory demand of the industry.

3.4 Variance of Organisational Management of Ijtihad

Ijtihad or *fatwa* management is an important tool of legalising banking and financial products in Islam. The process or model of PD in Islamic banking as discussed in the previous sections of this chapter has shown tremendous efforts done on *fatwa* management of Islamic banking. Most of the models presented by the previous literatures especially Shari'ah-driven literatures highlight the *fatwa* or *Ijtihad* management more than the PD overall process (see Mohd Daud (2008) and Zaharuddin (2010)). This sub-chapter will not explore the countless literatures on *Ijtihad* and *fatwa* practices in Muamalat and Islamic banking and financial issues, but rather aims at exploring emerging issues of *fatwa* and *Ijtihad* management dealing with PD process.

Basically, *fatwa* and *Ijtihad* management in Islamic banking is applied when the product is to be approved, has been approved, and after approval. The process varies from one county to another; however the idea is almost similar. In Malaysia for instance, Lahsasna and Hassan (2011) report two layers of approval where they named them as "the first layer internal product process" and "the second layer external product process". Rusni (2012) however, depicts three layers of Shari'ah approval named as Shari'ah advisory, Shari'ah supervisory and Shari'ah review/audit. Both layers are similar in context, but with different interpretations. In addition, Lahsasna and Hassan (2011) list comprehensive *fatwa* management of Islamic banking leading towards product development. It is observed that besides adhering to primary and secondary sources of Islamic Laws, the *fatwa* process also appreciates the mainstream and minority opinions, common regulatory standards, moderation with justice and fairness, *Maqasid al-Shariah* and many others (Lahsasna, 2010).

Besides the different managerial levels in relation to Shari'ah observance, *ijtihad* management also faces difficulty in dealing with fragmented Shari'ah opinions. The issue of harmonisation and *fatwa* -respectful is a non-ending subject in fiqh including Islamic banking and financial activities. The dynamic nature of fiqh (Islamic jurisprudence) is deemed unique in the international Islamic banking development. However, its dynamism may lead to confusion if total understanding of the *fatwa* and *Ijtihad* management is not solid (Muda & Abdullaah, 2007). Thus, in Islamic banking particularly, some literatures argue whether harmonisation is a requirement or hurdle. Khan (2007) is of the opinion that process standardisation is more viable than harmonisation. Some opine that multiplicity of *ijtihad* from one country to another may hinder the development of Islamic banking (Benaissa, Parekh, & Weigand, 2005 in Hassan and Lewis (2007).

Al-Suwailem and Hassan (2011) however, suggest that the hurdle can be converted into strength for Islamic banks to develop a variety of products that are fully based on Shar'iah. The power of innovation and creativity will thus be developed due to the differences in giving *ijtihad*. Moreover, to appreciate the innovation environment, the authors suggest that specialised institutions deal with different types of products, hence product focus and variation can be produced in an innovative and creative manner (Al-Suwailem & Hassan, 2011).

In relation to the top management contribution for PD positive environment, Ahmed (2011b) finds that there is a strong relationship between strategic planning that is approved by top managerial level and PD motivation. This is true especially in relation to Shari'ah-based products that are associated with observing the market-based product that contributes to the survival of all segments of users ranging from deficits, surplus units and underprivileged poor group of customer. Thus, further exploration in this area is suggested to foster more innovation atmosphere in the Islamic banking and financial industry.

The nature of Muamalat should be left as it is. Any endeavour for harmonisation or standardisation also should be given respect and support. However, if the *fatwa* divergence leads to a bigger problem, effort to make the society understand and contemplate the technical solution is recommendable. Hence, the issues of conflicting resolution, contradicting views of scholars and other issues will not be the focus of the study since the centric is the objectives, and not the means. The objectives here might refer to many interpretations; make it *maslahah* of the society, survival of the industry, profitability of the institution and many others that will be further refined in research methodology chapter. Therefore, the observance towards *Maqasid al-Shariah* that prevails/highlights/expounds the welfare and interests of the stakeholders including financial institution, regulators, bank's customer and the whole society should be placed in its important degree.

3.5 Efforts Towards Socially-Driven Product

To derive towards actual issue pertaining to PD activity and efforts towards socially oriented product, a few strategies have been utilised. The section first explores all the keywords used in the literatures when Islamic and conventional banking PD reacts towards the theory of *Maqasid al-Shariah* or social banking. The strategy is to ensure that all the important indications or applications motivating towards *Maqasid al-Shariah* is attended especially in conventional banking structure. Secondly, the section thoroughly discusses all the literatures on the initiatives imposed by the Islamic financial institutions to inculcate *social requirements* in their PD process. The third strategy is to highlight on how socially-driven product could be innovated as observed in the previous literatures. All the above three strategies will finally synthesize the existing various and mixed practices of the industries into one piece.
Islamic banking is built upon Shari'ah ruling, and the final aim of Shari'ah is presented in a framework known as *Maqasid al-Shariah*. Thus, *Maqasid al-Shariah* is the aim and objective, but not the means. It can be presented or operationalised in many variations. Many literatures have also relate the issue of *Maqasid* observation in PD process like in Ahmed (2011b); Al-Suwailem (2007); Al-Suwailem and Hassan (2011); Lahsasna and Hassan (2011); Muda and Abdullaah (2007).

From a managerial point of view, assigning the observance towards *Maqasid al-Shariah* during *fatwa* and *ijtihad* management in PD process (Lahsasna, 2010) will promote towards socially-driven product. Similarly, Muda and Abdullaah (2007) promote the doctrine of *maslahah* in dealing with PD process particularly when society's interest is part of the objectives. In dealing with the process, product owner must firstly categorise the product into its prioritisation according to the range of customers (Muda & Abdullaah, 2007).

To be socially-driven product, customer satisfaction should be one of the objectives of Islamic bank. Many literatures such as Ahmed (2011a, 2011b) suggest that products in Islamic banks should be customer-oriented product. The customer, besides being the main client of the bank, also acts as one of the sources of product innovative ideas (Gainor, 2000). Considering customers' needs in the process to innovate customer-driven product will acknowledge them as important stakeholders. This has been evident in the ways the literatures classify the product to be Shari'ah compliant, Shari'ah based and customer-based products.

Product innovation bases should prevail the concept of *maslahah* or public interest (Al-Suwailem, 2007; Al-Suwailem & Hassan, 2011; Muda & Abdullaah, 2007). Besides the fulfilment of customer's necessity, *maslahah* also connotes wider coverage that includes all stakeholders and society as a whole. Thus, the *maslahah* of the other stakeholders also are within the doctrine of *Maqasid al-Shariah* when developing a product. However, most literatures emphases mainly on the *maslahah* of the customer compared to the other contributors of the bank. Moreover, the available literatures promote *Maqasid al-Shariah* from a conceptual approach rather than an operational one especially in dealing with product innovation or financial innovation of Islamic banking products. The issue on how to observe *Maqasid al-Shariah* as reflected in the product development process of Islamic bank is a gap for further exploration.

4. Conclusion

The existing literatures of product development linked mainly to manufacturing rather in service and financial sectors. This study adds the existing number of literatures in Islamic banking product development process. It also highlights the importance of the process towards success of Islamic banking products especially when dealing with

Shariah-compliant versus Shariah-based products issue. The paper hence highlights five (5) salient issues in PD activity of Islamic bank. As elaborated above, the five issues are absent of standard product process, success and failure of Islamic financial product, the contention of Shari'ah based and Shari'ah compliant product, variance of organisational management of Ijtihad and practice of jurisdiction, and effort towards socially-driven product. These issues bring another dimension in observing the existing product development activity in Islamic banking moving towards social oriented innovation. Since industry players are the hero of the study, this study is hoped to enhance the reputation of Islamic banking and financial products with breakthrough social innovation based on the suggested theory of *Maqasid-al-Shariah*. The study also hoped to promote the industry by receiving better feedbacks especially in matter related to observance towards *Maqasid-al-Shariah* or justice prevalence by Islamic banks. Extension and further exploration of the study is suggested in other stages of product development such as in post-product approval process. The study also could be extended to international framework and regulation, since the current study is mainly backed by the regulation of Malaysia Islamic banking and financial services.

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Investigating the Role of Islamic Service Quality in Relation to Achieving Competitive Advantage at Malaysian Islamic Banking Sector in the State of Johore

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Abstract
One major focus on providing high quality service by business organization such as banking firms, is to manage current and future challenge to sustain competitive advantage. Islamic banking approach has been deemed as one strategic niche that serves as one competitive advantage in Malaysian banking, as the nation is predominantly Muslims. By applying CARTER's model, this study aims to determine the relationship between service quality and competitive advantage in Malaysian Islamic banks, focusing on the state of Johore. A questionnaire was used to collect primary data from 243 customers, using non-probability sampling technique. Data were analysed using SPSS's and SmartPLS frequencies and percentages, means, and path coefficient. The study was based on three research objectives: (a) to determine the level of service quality in Malaysian Islamic banks, (b) to determine the relationship between service quality and competitive advantage in Malaysian Islamic banks (c) to determine the impact and importance strategies relating to competitive advantage. Findings relating to this study indicated that both the level of service quality was at mean value of 5.5 (high level), out of 7-point Likert scale. The findings also indicated that a significant and positive relationship between six service quality dimensions (namely reliability, responsiveness, assurance, empathy, tangibility and compliance) and its competitive advantages, respectively. Furthermore, the reliability dimension was identified as the most detrimental dimension with regard to achieving a competitive edge. However, the compliance dimension demands a vast room of improvement in relation to achieving competitive advantage, in Malaysian Islamic banking environment.

Keywords: Islamic bank service quality; competitive advantage; Islamic banking.

1. Introduction

It is generally acknowledged that in highly competitive business environment, service sector is one most imperative sector that contributes immensely to the nation's growth and economic performance. The service sector, as asserted by Abdullah (2006), is an emerging competitive aspect in the perspective of dynamic business environment and it has also been viewed as a strategic feature in attaining extraordinary economic success. Due to the existing nature of business environment, the service sector is comparable to any other industry which is continuously in search for a unique and favorable ways that will specifically lead to differentiating their product

offering and most importantly the quality of their overall service performance. Such uniqueness, in the forms of product and service, is generally known as being innovative with new innovation including in work process and market (Tasmin & Woods, 2007). At present, various business organizations especially service-based firms have reacted to the strategic and financial benefit of quality, hence this has resulted to business firm's alike treating service quality as a strategic weapon (Paradise-Tornow 1991). The essence of focusing and providing quality service by business organization such as banking firms is to encounter the current challenge of achieving a strategic competitive edge (Warraich, Warraich & Asif, 2013). By focusing on delivering quality services, the business organization such as banks tends to measure the level of their customers expectation and perception on the service they receive from such organization which at the end enables them to define their competitive edge. In this way, the provision of an excellent service to the business client strictly relies on the customers needs which when properly exploited will result-in increase in profitability, customer satisfaction, customer loyalty, client retention and a positive word of mouth (Giese & Cote, 2000).

In today's banking environment, the provision of Islamic services has become the basic tool for banking firms to create competitive advantage and to enhance the customers banking experience. The quality of such services significantly affects customer satisfaction, company revenues, cross selling and also repeat purchase behaviour (Berry, 1986; Hummel & Savit, 1988; Reichheld & Sasser, 1990). Given the fast paced growth of Islamic banks in Malaysia, the industry is faced some challenges. However, in today's competitive environment and with the growing importance of services, delivering high quality services that are inline to Islamic laws has become the basic banking strategy.

Despite countless efforts by both banking firms and regulatory agencies, there is still a mounting challenge in terms of improving the quality of Islamic banking service which at the long run will serve as deliberate competitive edge. The main purpose of this study is to determine the effectiveness of banking service quality on competitive advantage in the Malaysian Islamic banking sector. However, the following objectives are specifically established to be achieved:

1) To determine the level of service quality in Malaysian Islamic banking setting.
2) To determine the relationship between service quality and competitive advantage.
3) To determine the impact and performance of service quality dimension on competitive advantage.

2. Literature review

Arguably, the concept of service quality as developed by various researchers possess different and alternative meaning. For instance, generally European perspective of service quality suggests that service quality should possess three dimensions, which includes the technical quality, functional quality and corporate image. On the other hand, commonly American perspective suggests that the evaluation of service quality should be strictly based on functional quality dimension which is also widely known as the five components of SERVQUAL which consist of tangibles, reliability, responsiveness, assurance and empathy.

Based on Parasuraman's notable work, service quality is characterized as the difference between the service expected and the service performance. Such proposed service quality characterization is strictly based on the function of pre-purchase customer expectation, perceived process quality and perceived output quality. However, service quality needs to be addressed in the form of questions which include: is the service delivered to the business client according to what they expected or was the experience of the service delivered different from what was expected? Was the service received close to what the client expected or better or worse than expected? Such questions had led more studies in the search of a criteria that can contribute towards the evaluation of service quality in the traditional service environment (Lehtinen & Lehtinen, 1982).

As suggested by Parasuraman, Zeithaml & Berry (1985) service quality dimension comprises on the following: reliability, responsiveness, competence, access, courtesy, communication, credibility, security, competence understanding of the customer and tangibles. Given these ten (10) service quality dimensions, reliability is considered by far as the most important factor. However, given the current research on service quality dimension, the ten (10) determinants of service quality where further distilled into five (5). These include: tangibles, reliability, responsiveness, assurance and empathy, which are both globally accepted as the measurement tool for service quality. However, relating to this study, the provision of products and service with regard to Islamic laws and principles was also considered. This was in line with the study conducted by Othman & Owen (2009) which comprises service quality dimension in line with Islamic banking perspective. Such dimension includes:

- Reliability: this represents how the business firm provide or performance its service considering the right manner and attitude and the ability of the firm to honor its promise.
- Responsiveness: this signifies the speed of the service delivery. It focusses mainly on how the business employees are willing to provide such service. It also involves the ability of providing adequate information to the business client.
- Assurance: this involves the employee courtesy and their ability to deliver trust and confidence of their business client.
- Empathy: this relates to how the business firm care and providing individualized attention to their business firms.
- Tangibles: these are described as the physical facilities, equipment, personnel, and communication materials that are used to provide such service by the bank.
- Compliance: this entails the provision of product and services in line with Islamic laws otherwise known as the Shariah principles which defines what is halal and what is haram.

a. Competitive advantage

Competitive advantage, as described by Michael Porter, is the process by which a firm organizes and manages its related activities in an effective way through such process and related activities, the firm creates value. Furthermore, competitive advantage can be achieved when a firm offers a high form of value to the customer (Passemard & Kleiner 2000). Moreover, competitive advantage can be considered and created when such related qualities, features, activities, of the related business firm are better than their business rivals. Therefore, competitive advantage can only be termed successful only when compared to their business rivals this is essential because competing business organizations such as banks need to create more value their rivals. There are two basic features that exist in the process of creating and maintaining a competitive edge which consists of external environmental factors and the internal environmental factors. These factors are mainly considered as the specific resources, capabilities and knowledge. Both internal and external factors are considered to be dominant to the business performance. Relatively, the external factors are considered less significant as they affect all the players' equally.

b. Islamic banking service quality and competitive advantage

Islamic banking institution has long been in existence; however, its international stardom and operation can be traced from the 21st centuries and since then, it has been competing against the already established conventional banks. The nature of their competition of both Islamic and conventional banks has been largely based on the same product and service offered to wide range of clients which has been largely been dominated by the conventional commercial banks. Due to expected future growth of the Islamic banking system, most conventional banks have jumped into the market provision of similar services. This has become a growing task for Islamic banks towards attaining their old client and convincing new ones. More importantly, Islamic banks do not only compete against each other but rather also against the more established conventional banks (Ahmed, 2010). Business organization such as banks have clearly understood the true importance of service quality which a key factor to the survival and the level of successfulness in its competitive environment (Wang, Lo & Hui, 2006). Therefore, service quality is a critical component measuring the level of success and the achievement of a business organization. Competitive advantage on the other hand strictly lies on how well a service meets or exceed the expectation of the client (Zeithaml, Parasuraman & Berry, 1990). This is the real reason why it's essential for banks to develop a customer service standard that will lead to creating and maintaining a profitable relation with the business client. Most importantly, trust and commitment are considered to be an essential factor that influence the likely hood of repurchasing intention of the business client. Therefore, banks in today's business world are considering the importance of quality and their service delivery process. Hence, by improving their service quality, this will essentially lead to attracting new customers.

To test the relationship between customer service quality dimensions and customer satisfaction, we propose the following hypotheses:

Compliance centres on the Islamic rules and procedures that are considered applicable to the Islamic banking principles. Such indicate that, the provision of products and services should be in line with Islamic law, and business transactions are based on profit sharing and, consequently, prohibiting the practice of interest on saving and

borrowing. According to Owen & Othman (2001) compliance is the most important dimension when providing Islamic services, which aide toward customer satisfaction. Yet, some Islamic banks avoid to comply with such Sharia'h principles due to existing economic systems, government rules and regulations and lack of research and development (Ullah, 2014). Therefore, Awan & Bukhari (2011) called for the need to create public awareness on the competitive features of Islamic banking solutions and importance of Sharia'h compliance for making investment choices. Furthermore, Amin & Isa (2008) shed light on the need of Islamic banks to improve the relationships with their customers based on customer trust toward the principles of Sharia'h compliance. Therefore, Islamic banking customers place more emphasis on the compliance dimension. Thus, we hypothesize H1 whereby

H1. Compliance has a positive effect on competitive advantage in Islamic banking.

Assurance is an agreement between bank employees and their customers that deliver trust, faith and confidence to customers. It also includes good manners, attitudes, politeness and knowledge of employees (Owen & Othman, 2001). Service quality in Islamic banking is influenced by a good level of assurance (Qureshi *et al.*, 2014). Hence, good service quality requires staff to be polite with clients, competent, work on providing appropriate financial advice and have easy access to customer account information. Furthermore, a competitive edge in Islamic banking could be developed through the banks credibility (Ashraf, 2014). Therefore, we propose H2:

H2. Assurance has a positive effect on competitive advantage in Islamic banking.

Reliability implies the provision of the services as promised in an accurate manner. According to Armstrong & Seng (2000), the speed of transaction is the most important item influencing customer satisfaction. Reliability is found to be one of the major service quality determinants in the Islamic banking (Qureshi *et al*., 2014). Reliability makes an Islamic bank more efficient and positively reflects on the level of it competitive offerings. Based on this, the following H3 is proposed:

H3. Reliability has a positive effect on competitive advantage in Islamic banking.

Tangibility refers to physical factors of service delivery such as ease of accessibility to building or utilities in the building, the way in which the required information and descriptive materials for the service delivery are presented (Sureshchander *et al.*, 2002). Service quality works well in Islamic banking when is supported by the element of tangibility (Qureshi *et al*., 2014). Al-Tamimi & Al-Amiri (2003) stated that tangibles offers a competitive edge in Islamic banking which leads to customer satisfaction. We therefore posit H4:

H4. Tangibility has a positive effect on competitive advantage in Islamic banking.

Empathy is the act of individualized clients care. Banks are expected to pay special attention to the confidentiality of client information, and makes staff and management available to help customers. Some of elements that assess overall competitive offering in the banking sector, is the staff helpfulness (Al Shemmery, 2010). Qureshi *et al*. (2014) demonstrated that a strong relationship between empathy and services quality that leads to competitive advantage in Islamic banking sector. Al-Tamimi & Al-Amiri (2003) stated that empathy and tangibles appear to be the most important dimensions in Islamic banking. Empathy dimension, therefore, refers to the level of caring and individualized attention a bank can provide for its customers. Based on this discussion, H5 is postulated:

H5. Empathy has a positive effect on competitive advantage in Islamic banking.

Responsiveness defines the speed and accuracy of services provided. The provision of fast and efficient customer service staff, sufficient banks' branches and ATM are all examples of good responsiveness. Responsiveness was found to have a significant positive effect on service quality in Islamic banking (Qureshi *et al*., 2014). Al Shemmery (2010) stated that remote satisfaction determines the overall customer satisfaction in retail banking. Islamic banking can increase customer satisfaction when banks meet or exceed a required level of responsiveness thereby offering a competitive edge as compared to business rivals. Based on this, H6 is posited:

H6. Responsiveness has a positive effect on competitive advantage in Islamic banking.

3. Methodology

The research methodology adopted is based upon quantitative approach due the sheer number of customers (population), using Islamic banking transactions in the district of Batu Pahat, Johore state. Since determining the whole or total number of customers of the relevant Islamic banks was considered an uphill task, this research resorts to adopt applying approach of variance-based SEM which claims for 10 times the largest number of formative indicators used to measure a single construct (Hair *et al.,* 2013). Twenty-five (25) items was used to evaluate service quality which is the construct with most number of formative indicators, in the respective sector. Hence, a total of 243 usable respondent datasets are quite readily met (25 X 10), representing about range of 250 minimum required samples, as shown in Table 1. Statistically, in which based on Krejcie and Morgan (1960) of determining sampling size, a sampling of 243 is representing a population of 650.

Table 1: Distribution of respondents via respective Islamic banks

Banks	**Percentage**	**Frequency**
CIMB Islamic Bank	23.9	58
Maybank Islamic	32.1	78
Public Bank Islamic	21.4	52
RHB Islamic Bank	22.6	55
Total	**100**	**243**

Thereby, questionnaires were used as research instrument for gathering customer's perceptions on both competitive advantage and service quality. The questionnaire comprises of three sections: first, the demographic information of the respondents. While the second section consist of the CARTER's service quality dimensions as adopted from Owen & Othman (2001) which incorporate 35 items in relation to empathy, reliability, compliance, responsiveness, tangibility and assurance. Lastly, section three comprises of the competitive advantage which consist of: price measured by three items, quality measured by 4 items, delivery measured by 3 items, product innovation measured by 3 items and time to market measured by 3 items. Notably, all of the related items were examined with the aide of the 7-item scale ranging from "very strongly disagree" (1) to "very strongly agree" (7). Demographic variables on the other hand were only used as controlling variables because the aim of the study is focus on the customer's perception. In relation to the questionnaire respondents, our study was empirically conducted on the main Islamic bank operating in Malaysia and we selected a convenient sample of 250 customers who were engaged with the bank. Therefore based on the selected sample, the survey instrument was distributed to bank customers, namely CIMB Islamic, Maybank Islamic, Public Bank Islamic, RHB Islamic Bank on-site respectively. The data gathered from the respective respondents in Malaysian Islamic banks was analyzed with the help of Statistical Package for Social Sciences (SPSS version 20) and Smart Partial Least Square (SmartPLS version 3) software's. SPSS was utilized to perform descriptive statistics which comprises of mean, frequency and standard deviation. Smart PLS on the other hand, was used for further evaluation of the model.

4. Results and Discussions

In general, a total of 243 respondents were considered valid for the subsequent stage of data analyses. Sixty two percent of respondents were males while thirty seven percent were females. The majority of the participant were between the ages limit of 31- 40 years old (31.7%) and held a bachelor's degree (45.7%). Sixty percent of the respondents were Muslims and 82.7 percent had more than 3 years of banking experience with their respective Islamic banks.

a. Level of Service Quality

The first objective in relation to this study, is to determine the level of service quality in Malaysian Islamic banking institutions. With regard to the stated objective of this study, twenty-five (25) items was used to evaluate service quality in the respective sector. Such items were distributed to the respective banking clients in a form of a questionnaire. Such will enable respective bank customers toward expressing the level of disagreement or agreement

with regard to the quality of their banks service. Such statement was provided simply by indicating the number that best describes their related perception on the service quality dimension. More importantly, all the related twenty-five (25) items of which comprises of compliance, assurance, responsiveness, tangibility, empathy, and reliability were evaluated with aide of the seven-point Likert which ranges between 1= Entirely Disagree, 2= Mostly Disagree, 3= Somewhat Disagree, 4= Neutral, 5= Somewhat Agree, 6= Mostly Agree, 7= Entirely Agree. With regard to their level of response, it was further analyzed and described by the utilization of means as provided in Table 2.

Table 2. Level of Service Quality.

Variables	Mean	Standard deviation
Reliability dimension	5.3525	0.1321
Responsiveness dimension	5.5575	0.1287
Assurance dimension	5.6075	0.0963
Empathy dimension	5.6100	0.1058
Tangibility dimension	5.4000	0.0801
Compliance dimension	5.4660	0.0806
Total	32.9935	0.02271

Table 2 reveals high level of service quality exists in Malaysian Islamic banks. For instance, the findings portray dimensions with the highest (very high) level of service quality; empathy, assurance, responsiveness, compliance, tangibility and reliability at (mean= 5.61, 5.60, 5.56, 5.47, 5.40 and 5.35 respectively); and all these are equivalent to Strongly Agree.

b. Confirmatory factor analysis

Table 3 indicates the factor loadings and cross loadings from the related constructs, and composite reliability for different constructs. The variables in concern weighted down more strongly on their own individual constructs in the model. This is on the basis that, if the result indicates values greater than 0.40 then the items are considered adequate. Despite investigating the correlation between items, the factors indicated higher loadings as compared to other items in the related constructs (Chin, 2010; Fornell & Larcker, 1981; Gefen, Straub & Boudreau, 2000), this suggest that all related items under such evaluation have qualified for discriminant validity. Furthermore, the composite reliability indicate values greater than 0.7, which suggest that indicate that all the related measurement scale utilized with regard to this study possessed high internal consistency (Hair *et al*., 2014). Therefore, based on the result it can be concluded that the instrument that was been utilized for the purpose of this study has these results confirm that the instrument used in this study has attained the achieved the suitable standards of both validity and reliability analyses.

Table 3. Factor loadings and cross loading for the construct and composite cross validity

Variables	No of items	Factor loadings	Average variance	Composite reliability
Assurance	4	0.475-0.963	0.738	0.914
Compliance	5	0.791- 0.976	0.865	0.969
Delivery	3	0.824- 0.928	0.781	0.914
Empathy	4	0.546- 0.938	0.692	0.897
Product innovation	3	0.786- 0.955	0.809	0.927
Price	3	0.718- 0.907	0.717	0.883
Quality	4	0.862- 0.886	0.771	0.931
Reliability	4	0.489- 0.924	0.637	0.870
Responsiveness	4	0.650- 0.927	0.684	0.895
Tangibility	3	0.517- 0.977	0.569	0.788
Time to market	3	0.794- 0.930	0.776	0.912

Table 4 indicates the findings of convergent and discriminant validity analyses. All constructs met required the values of average variance extracted (AVE) which is expected to be greater than 0.5. This indicates that indicate that the construct have meet the required standard of convergent validity (Fornell & Larcker, 1981; Henseler, Ringle & Sinkovics, 2009). Furthermore, beside the significance of the results with standard of convergent validity, the related constructs possessed values of AVE square root in diagonal greater than the squared correlation with other constructs in off diagonal. This further indicate that all constructs have met with the acceptable standard regarding discriminant validity (Henseler *et al*., 2009).

Table 4. Fornell-Larcker discriminant validity

	ASS	COM	DEL	EMP	PINN	PRI	QUA	REL	RES	TAN	TIM
ASS	**0.859**										
COM	0.771	**0.930**									
DEL	0.810	0.875	**0.884**								
EMP	0.512	0.752	0.761	**0.832**							
PINN	0.694	0.846	0.776	0.713	**0.900**						
PRI	0.665	0.778	0.766	0.711	0.747	**0.847**					
QUA	0.413	0.601	0.524	0.616	0.657	0.486	**0.878**				
REL	0.585	0.765	0.725	0.765	0.760	0.655	0.713	**0.798**			
RES	0.524	0.715	0.616	0.660	0.663	0.577	0.809	0.691	**0.827**		
TAN	0.195	0.284	0.316	0.345	0.304	0.391	0.098	0.203	0.142	**0.754**	
TIM	0.422	0.613	0.576	0.603	0.615	0.580	0.585	0.731	0.582	0.232	**0.881**

The construction of Table 5 indicates that the service quality dimensions which comprises of tangible, reliability, responsiveness, assurance, empathy and compliance which are included on the analysis accounted for 86 percent of the variance in competitive advantage. In relation to the explanatory power of this model, it provides a substantial support for the overall model (Hair *et al*. 2014). Furthermore, the results of the study hypotheses exhibited six vital findings: first, Assurance was significantly correlated with competitive advantage (B=0.161; t=2.661), therefore H1a is supported. Second, compliance was significantly correlated with competitive advantage (B=0.286; t=3.019), therefore H1b was supported. Third, empathy was significantly correlated with competitive advantage (B=0.137; t=2.462), therefore, H1c was supported. Fourth, reliability was significantly correlated with competitive advantage (B=0.279; t=3.826), therefore H4 was supported. Fifth, responsiveness was significantly correlated with competitive advantage (B=0.179; t=3.443), therefore H5 was supported. Finally, tangible was significantly correlated with competitive advantage (B=0.091; t=3.272), therefore H5 was supported. Therefore, this result indicate that the Islamic service quality dimensions are important predicators and to achieving competitive advantage.

Table 5. Total Effects (Mean, STDEV, T-V) of Exogenous Variables* = 0.01 Significance.

Variables	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
ASS -> CA	0.161	0.154	0.061	2.661	0.861
COM -> CA	0.286	0.303	0.095	3.019	
EMP -> CA	0.137	0.132	0.056	2.462	
REL -> CA	0.279	0.271	0.073	3.826	
RES -> CA	0.179	0.180	0.052	3.443	
TAN -> CA	0.091	0.087	0.028	3.272	

Furthermore, an investigation was conducted on the basses of analyzing the relative importance of the service quality dimensions on competitive advantage. This investigation takes into account the performance of each exogenous variables. The essence of such investigation, is to provide priorities to the related field of management with the aim of improving their business activities by focusing on their endogenous latent variables.

Table 6 indicates the impact and performance of each exogenous variable towards competitive advantage i.e. the endogenous variable. According to the respondents, they are of the opinion that the most impactful variable is assurance (with 88.7% performance) and the least is compliance (with 54.9% performance).

Table 6. Impact performance map

CA	Effect	Performance
Assurance	0.127	88.683
Compliance	0.285	54.845
Empathy	0.149	58.269
Reliability	0.299	59.061
Responsiveness	0.198	60.276
Tangibility	0.066	57.991

In Figure 1, it is depicted that "reliability" possess the highest importance score i.e. 0.299; if Malaysia Islamic banks increases its reliability performance by one-unit point; its' overall competitive advantage will increase by 0.626 (ceteris paribus). On the other hand, our findings further suggest that the Malaysia Islamic banks possess low performance in terms of the in relation to Islamic compliance which is represented by 54.485. These indicate that there is a great room for substantial improvement with regard to the compliance dimensions.

Figure 1. Importance Performance Map

5. Discussions

Based on the related findings to this study, the provision of service quality those act as a vital predictor toward achieving a competitive edge. In line to this study, bank management have taken proactive measures to design, maintain, and monitor their services to customers based on the Islamic guideline and board policies of which are monitored by their stakeholders. Based on Table 2, the respondents largely viewed that the levels of service quality (i.e., tangible, reliability, responsiveness, assurance, empathy and compliance) are considerable high. This accurately proses that a service firms which capability of implementing tangible, reliability, responsiveness, assurance, empathy and compliance in their day to day activities may result to superior customer satisfaction and customer loyalty to the organizations. Furthermore, t-test results for all variables show that significance values of all items are less than 0.050, which indicates that they are statistically significant.

The table shows that compliance has a positive effect on competitive advantage in Islamic banking (H1). The value of the t-test is 3.019 and is significant (0.000). Therefore, the results with respect to the theoretical contribution, the results of this study displayed two vital conclusions: first, Islamic quality dimensions does act as an important predictor of competitive advantage. This outcome has also strengthened and widened studies conducted by (Mahmood, Khalil & Al-Hattami, 2013; Dahari, Abduh & Fam, 2015). The findings support the previous studies of Kotler *et al*. (1999) in which they proposed that marketers believe that religion has an impact on the decision and behavior when ask for a service or purchasing a product. In addition, the outcomes support the suggestion of Owen & Othman (2001) for Islamic banks to adopt a service quality philosophy. They recognised that Muslims believe in the practice of Islamic banks as part their worship where all products and services are based on religion. Assurance has a positive effect on competitive advantage in Islamic banking (H2). The value of the t-test is 2.661 and is significant (0.000). The findings indicate a positive relationship between assurance and competitive advantage when dealing with Islamic banks, and such commensurate with the findings of Owen and Othman (2001) which indicated that the most dimensions affecting customer satisfaction and providing a competitive edge in Kuwaiti Islamic banks are responsiveness, compliance and assurance. The third hypothesis, reliability, has a positive effect on customer satisfaction in Islamic banking (H3) is also well proved, as the value of t-test is 3.826 and is significant (0.000). This displays a strong relationship between reliability and competitive advantage, which commensurate the findings of Armstrong & Seng (2000) who stated that transactional speed is the most essential item that influences customer satisfaction. Such indicate that when, Islamic bank's services are reliable, and customers can enjoy efficient services that lead to a good level of customer satisfaction. Tangibility has a positive effect on customer satisfaction in Islamic banking (H4). With t-test value of 3.272 with a significant value (0.000). The result is in line with the findings of Al Shemmery (2010) who indicated that the availability of indoor aspects of a branch such as speed of the service, privacy, opening hours and the availability of ATM are affecting overall competitive offering of the banking sector. On the other hand, empathy is found to have a positive effect on competitive advantage in Islamic banking (H5). The value of t-test is 2.462 and is significant (0.000). This result is similar with an earlier study by Al Shemmery

(2010) who stressed the significance of staff helpfulness in achieving a competitive advantage. To end with, responsiveness has a positive effect on competitive advantage in Islamic banking (H6). The value of t-test is 3.443 and is significant (0.000), indicating that responsiveness is accepted and statistically significant. This is in line with the study conducted by Al Shemmery (2010) that remote satisfaction such as responsiveness and efficiency in dealing with remote enquiries determine the competitive edge in the banking. All the results of different study dimensions demonstrate positive impacts of customer service quality on competitive advantage in Islamic banking in Malaysia and go in line with Dali & Ridzwan (2014), who provides evidence that customer service quality directly affects satisfaction and/or dissatisfaction.

With regard to the research methodology, credibility is highly maintained by ensuring that the survey questionnaire utilized in this study satisfactorily met the satisfactory standards of validity and reliability analyses. Adhering to such standards will to producing accurate and reliable findings. Additionally, in relation to its practical contribution, the results of this study can be utilized as a vital procedure for management which guide them towards improving and implementing a quality service delivery in Malaysian Islamic banks.

6. Conclusion

The essence of conducting this research is to examine the conceptual framework developed which is based on the existing research literature of both service quality and competitive advantage. The measurement scale used in this investigation where satisfactory and acceptable which were based on the validity and reliability analyses standard: regarding the first objective, which was to examine the level of service quality in Malaysian Islamic banks for which it was hypothesized that service quality at Malaysian Islamic bank was low. According to the findings of the study, the null hypothesis is rejected leading to a conclusion that service quality is high in Malaysian Islamic banks. The results of SmartPLS path model analysis established that service quality was significantly correlated with competitive advantage, therefore all hypothesis were supported. This outcome clarifies that the ability of service providers to appropriately implement the service quality dimensions, i.e. tangible, reliability, responsiveness, assurance, empathy and compliance may provide a competitive edge in relation to this business environment. The outcome relating to this study, has supported and enriched service quality studies which is mostly published in developed countries. Therefore, current study and practice within service providers such as banks needs to adopt quality models such as tangible, reliability, responsiveness, assurance, empathy and compliance as their key service dimension for dominating their market force. Furthermore, the study also proposes that the ability of the service providers to plan and apply the service quality dimensions that is CARTER model in its day to day activities, such will strongly influence a positive customer outcome (e.g., behavioral intentions and trust). Such positive behavior could result to maintaining and enhancing the organizational performance in an era of global economy and borderless world.

The study conducted possess some certain limitations which are based on the methodological and conceptual framework. First, a cross-sectional research design used in this study may not detect the underlying connections among the variables of interest. Second, the sample for this research was only taken from respective bank customers who receive financial related service at Malaysian Islamic banks. Finally, the management of the service providers under this study must identify that the attainment of competitive advantage does not guarantee dominance in all the elements, but rather to focus on one or more of their quality elements, due to the nature of the competition arising in the business environment.

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The Implication of Islamic Financial Services Act 2013 (IFSA 2013) on Family Takaful Nomination

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1. Introduction

Family takaful is an alternative to conventional life insurance scheme in accordance to shariah that provides similar coverage to its conventional counterpart. It is a long term savings and investments contract, with a fixed maturity period that provides assistance to its participants due to untimely death and other mishaps resulting from injury or disablement. The scheme is important in the sense that it provides takaful benefit in the form of compensation to the dependents (heirs) of the participant in the case of untimely death or calamity happening in the future. Therefore, before the scheme be enforced, the participant is required to nominate a person to receive the takaful benefit. Payment of family takaful benefits by takaful operators in Malaysia is usually in two instances, namely: when the takaful policy has reached its maturity or upon the death or disablement of the participants.

Prior to the implementation of Islamic Financial Services Act 2013 (IFSA), the nominee status in family takaful is still unresolved due to the lack of details on the payment of takaful benefits in the Takaful Act 1984. Takaful Act 1984 does not expressly provide any rules regarding the recipient of the takaful benefits. According to the act, takaful benefits need to be paid to the 'proper claimant'. Proper claimant means 'a person who claims to be entitled to the sum in question as executor of the deceased or who claims to be entitled to that sum under the relevant law'. Upon the death of the takaful participant, the operator will distribute the takaful benefits to the nominee and the takaful operator is free from any liability. However, after the distribution is completely handed over to the nominee, the problem still arises regarding the status of the nominees. This is likely to happen due to the absence of rules regarding the nominated property in Malaysia (Nurdianawati, A and Nazliatul A, 2010).

The standard practice of distributing takaful benefit in Malaysia is that when a participant of a takaful dies, the participant's legal heirs inherit the money paid by the takaful operator. In other words, the payment of the money by the takaful operator to the nominee appointed by the deceased participant is subsequently distributed among the participant's legal heirs in accordance to the fara'id law. This arrangement takes place even though there is no Islamic legal ruling or fatwa issued by any fatwa council in Malaysia, either at national or state level regarding the position of the money payable as compensation by the takaful operator on the occurrences of the death of a participant (Azman, M.N et.al, 2008). However, according to Mohd Kamil and Joni Tamkin, (2017) the division is seen as contrary to the original goals of takaful, which is to create fund for the deceased's dependents. This is because, the takaful benefit received upon the untimely death of the participant sometimes may not reach the most affected dependents due to their status as non-beneficiary or not one of the deceased's legal heir.

To assess the realization of IFSA 2013, in the context of family takaful benefit distribution, this paper will examine practice of nomination among the operators in Malaysia prior to and after the implementation of IFSA 2013. It will also seek the awareness among the current takaful participants regarding the nomination alternatives provided by IFSA 2013 and whether the participants exercise the options available to them.

2. Literature Review

Financial benefits provided by family takaful are considered to ease the financial burden faced by beneficiaries of takaful participants who may be affected by the source of income as a result of the death of the participant. Under the family takaful scheme, contributions (premiums) paid by participants will be divided into two accounts, Participant's Account (PA) and Participant's Special Account (PSA). The amounts included in these two accounts are based on the ratio agreed upon by the takaful operator and participants. The PA is dedicated to savings purposes, while PSA is solely for donation purposes based on tabarru '. If a participant dies before the policy is mature, his / her beneficiary will receive takaful benefits based on the balance from the PA before the date of death. The beneficiaries also have the right to receive unpaid donations from the date of death to the maturity date of PSA. The provisions of the Takaful Act 1984 do not specify details of the payment of takaful benefits. Consequently, there is a difference in the aspect of payment of takaful benefits between a takaful operator and another takaful operator.

There are two methods commonly practiced by takaful operators in the distribution of family takaful benefits, namely through the appointment of 'wasi' as a trustee and to provide the takaful benefits to nominee as absolute beneficiary. A study by Abdullah, N. A and Abdul Aziz, N. (2010) found that in 2010, there were four takaful operators who did not provide a nomination option for takaful benefits as absolute beneficiary (conditional hibah). The four takaful operators are Hong Leong Tokio Marine Takaful, CIMB Aviva Takaful, Etiqa Takaful Berhad and Prudential BSN Takaful Berhad. In such situations, all nominees are considered as executor or trustee. Apart from that, the distribution of family takaful benefits also differs between Muslim participants and non-Muslim participants. A nominee acts only as "executor" or trustee for a Muslim policy, in which the takaful benefits distribution is based on Islamic law of inheritance (fara'id). Whereas for non-Muslim policyholders, nominee is an absolute beneficiary and the benefit distribution is based on the Distribution Act 1959.

Prior to the implementation of the Islamic Financial Services Act 2013 the nominee status remains an issue in the distribution of family takaful benefits due to the absence of regulations on the matter. Because of this, it usually leads to conflict between competing claims parties (Ismail, 2009). Problems may still arise after the distribution is fully submitted to the nominee. The Takaful Act 1984 only states that takaful benefits are payable to "reasonable claimants". The Bank Negara Syariah Advisory Council stipulates that the takaful nomination form provided by takaful operators must be standardized and must clearly identify the nominee's status, either as absolute beneficiary or mere trustee. Unlike takaful, the distribution of the Employees Provident Fund (EPF) is clearly and uniformly stated. For Islamic contributors, the nominee only acts as an administrator (wasi), which after the death of the member has an obligation to divide the property of the deceased according to faraid law. For non-Muslim contributors, the nominee will have all the benefits, provided that he or she has reached 18 years of age. The nominee's status must be settled in a takaful contract as it may avoid an unfair distribution to other heirs.

Another issue in the distribution of family takaful benefits is in terms of the heritability of the takaful benefits. Scholars and Islamic practitioners agree on the inherent takaful of the Participant's Account (PA), as it is considered part of the deceased's estate. The money is considered as an estate because it is the right (ownership) of the participant during his life. However, monies paid by takaful operators taken from the Participant's Special Account (PSA) are still questionable. The portion from the PSA cannot be regarded as part of the estate of the deceased because it is not the rights of takaful participants during his life (Mohd Noor, A & Abdullah, MA, 2015). The money was handed over by the participants for donation purposes to takaful fund funds, which provided compensation money to other participants. As previously mentioned, takaful operators do not necessarily provide options for takaful participants in respect of the takaful benefits payment method before IFSA 2013.

In practice, takaful operators will hand over takaful benefits to named nominees. The nominee is deemed to be a trustee and is responsible for distributing the benefit money to eligible heirs based on Islamic inheritance law for Muslim participants. Whereas for non-Muslim participants, the distribution of takaful benefits must be based on the

Distribution Act 1959. However, if a takaful participant wishes to give the benefit to a particular party in absolute terms, the participant must fill out the takaful benefits submission form and name the party who receives a conditional hibah (Mohd Faiz M. Yusof. et al, 2016). Implementation of IFSA 2013, not only standardized the practice of payment of takaful benefits among takaful operators in Malaysia, but also provides options in distributing the takaful benefits. However, only the of payments for family takaful and personal accident takaful benefits are detailed in IFSA 2013. There was no mention of the payment for general takaful contracts.

According to a study by Mohd Faiz M. Yusof. et al (2016), it is because there is no major problem in general takaful benefit claims and usually problems can be solved out of court between participants and takaful operators. In addition to this, factors such as higher compensation amount (as there are elements of protection, savings and investment) and longer maturity periods may contribute to the more attention given to the payment of family takaful benefits. Paragraph 2 schedule 10 IFSA 2013 describes the party authorized to make a nomination.

In summary, takaful participants attaining the age of 16 years and above have the power to make nominations either by appointing individuals or certain parties as trustees or as absolute beneficiary. Participants may make nominations in writing or by filling out the nomination forms to be attached together with the takaful application form. Takaful nomination forms provide three choices to participants to appoint individual either as trustee or as beneficiary or both, depending on the percentage required by the participant (MAA Takaful Berhad, 2013).
A person, who has been appointed to receive takaful benefits, whether as trustee or absolute beneficiary shall receive the payment of such takaful benefits. Absolute beneficiary shall receive the full amount of the takaful benefits. The benefits received are not part of the deceased's estate and cannot be deducted for debt repayment (IFSA, 2013). Whereas a person appointed as trustee shall distribute the money under faraid law. After IFSA 2013 was implemented, all eleven takaful operators in Malaysia have provided options to takaful participants in distributing the benefits. This situation differs from the situation before IFSA 2013 is implemented, where there were four takaful operators who do not provide the grant option. Table 1 shows the distribution practices among takaful operators in Malaysia after the implementation of IFSA 2013.

3. Research Methodology

This study employs both qualitative and quantitative approach to achieve the objectives set. Besides the content analysis of the relevant literature, this study will be using the document review method to examine the status of nomination applied in the Malaysian takaful industry. Documents from eight takaful operators were reviewed for this purpose. Two documents will be review, namely the nomination form and hibah form, which provide sufficient details of the practice of nomination and hibah practices for family takaful scheme.
This research will also employ descriptive analysis, via the use of semi structured questionnaire to determine the awareness level among current family takaful scheme participants regarding the nomination alternatives provided by IFSA 2013. Over 80 self administered questionnaires were distributed, only 50 were used, due to incomplete information. Further inquiries will be gauged with the selected respondents as to whether they exercise the option of hibah which is made available to them since IFSA2013.

4. Findings

Based on the reviews on hibah and nomination documents from the eight takaful operators, it can be concluded that after the implementation ofIFSA2013, all of the operators have provided options to their participants in distributing the benefits, either through absolute beneficiary (hibah) or wasi or trustee. This paper's finding supports the result of a research conducted by Mohd Faiz M.Y, et al. (2016), which arrived at the same conclusion. Table 1, shows the distribution practices among the takaful operators in Malaysia after the implementation of IFSA2013.

Table 1: Review of Family Takaful Distribution Practices by Malaysian Operators

Takaful Operators	Nomination	Absolute Beneficiary (Hibah)
Syarikat Takaful Malaysia Berhad	√	√
Takaful Ikhlas Sdn Bhd	√	√
Hong Leong Tokio Marine Takaful	√	√
CIMB Aviva Takaful	√	√
Etiqa Takaful Berhad	√	√
Prudential BSN Takaful Berhad	√	√
MAA Takaful Berhad	√	√
HSBC Amanah Takaful (M'sia) Berhad	√	√

A descriptive analysis was conducted to determine the awareness level among current family takaful scheme participants regarding the nomination alternatives provided by IFSA 2013. 35 or 70 percent of the respondents were aware of the option given to them in distributing the benefits. However, interestingly, only 15 respondents chose to distribute their money using 'hibah' or the absolute beneficiary option. Further inquiries will be gauged with the selected respondents as to whether they exercise the option of hibah which is made available to them since IFSA2013.

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Stock Market Reaction To Sukuk Announcements In Mena And Southeast Asia Countries

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Abstract

This study investigates the stock market return reaction toward sukuk announcements in two regions: MENA and Southeast Asia. The sample of this study includes 189 sukuk issuances announcements, 152 issuances announcements from the Southeast Asia region, and 37 sukuk issuances announcements from the MENA region. These issuances announcements cover the period Q1/2001 to Q3/2016. Event study methodology is used to analyse the data obtained from seven security markets. The average abnormal return (AAR) and cumulative average abnormal return (CAAR) were used to investigate six event windows (0,0), (-1,1), (-2,2), (-1,2), (-2,1), (-5,4). The result obtained shows three event windows with negative abnormal return reactions and two events windows with positive abnormal return reactions within the Southeast Asia region and for the MENA region, only one event window with a positive abnormal return reaction. These event windows are tested with multiple linear regression for four potential factors: tenor, coupon rate, amount of issuance, and time-lapse. The finding of estimation finds three significant impacts from three factors for the Southeast Asia region, only.

Keywords: Sukuk, Stock market reaction, MENA, Southeast Asia

1. Introduction

The previous body of literature on the short-run market reactions to debt change announcements has motivated many researchers to develop theories about how these stock return movements can be explained. These explanation of movements is crucial for market stability and exchange of information within the market, and it can be guided by investor behaviour (Daadaa, 2016). In this regard, taking decisions by investors toward investment relies on market information, and the failure of this information to explain the market condition may lead to instability of stock movement, which can spread over the entire market (Ammann, Blickle, & Ehmann, 2017). Asymmetric information

within the market, when either the seller or the buyer holds more information, which is considered the main assumption of asymmetric information theory, treating with this issue based on understanding the nature of both parties' behaviour within the stock market (Gao & Zhu, 2015).

Along with the concern of scholars toward investigating conventional bond impacts on the stock market, few scholars have paid attention to investigating sukuk announcement impacts on the stock market. This is due to the proportion of sukuk issuances in the total global debt in addition to the short experience of sukuk in the stock market (Smaoui & Khawaja, 2017). In this context, most of the previous empirical studies on this topic focused on the Malaysian stock market as it is the largest market for sukuk, globally (Archer, Davies, & Karim, 2017; Naifar & Hammoudeh, 2016). Meanwhile, low concern has been given to other sukuk issuer countries, such Saudi Arabia, the United Arab Emirates, Qatar, Turkey, Pakistan, Bahrain, and Yemen, which may be due to the small size of sukuk issuances and the low issuance frequency, as well. Currently, the sukuk market occupies an important portion in some emerging markets such as Malaysia (Nazar, 2015). This has encouraged scholars to study sukuk announcement impacts regionally, such as the study by Elian and Young Taft (2014) on the Gulf Cooperation Council (GCC) stock market, or studying sukuk announcement impacts on a cluster basis, such as the study of Alam, Hassan, and Haque (2013) that documented results from seven stock markets (Malaysia, Indonesia, Singapore, Pakistan, UAE, Bahrain, and Qatar). This study is different from previous studies that investigated the stock market reaction toward sukuk announcements as it focuses on the two regions of MENA and Southeast Asia. Both of these two regions are considered as the main markets of sukuk as most of these two regions' countries are Islamic.

According to Nikkinen, Omran, Sahlström, and Äijö (2006), stock market reaction varies across economic regions. This is due to the differences in economic structure, market size, ownership structure, trade regulations, trade dependency, and industrial structure. The different capital structure of these two regions motivated this study to investigate whether there is a substantial difference between these two regions. The capital market structure of the MENA region is heavily skewed toward bank assets, which form about 58.8% of the total capital market structure, while the equity part forms around 34%, and debt securities around 7.2%, as of 2014 (Azzam, 2016). Meanwhile, for the Southeast Asia capital market (i.e., Malaysia and Indonesia, in this study), around 38.21% was for bank assets, 38.07% for equities, and 23.72% for debt securities (Regan, 2017). Besides the different capital market structures between MENA and Southeast Asia, there are different regulations and supervision of the sukuk issuance process (e.g., Saudi Arabia). Saudi Arabia is the largest sukuk issuer within the MENA capital market, but there is a lack of differentiation between sukuk and conventional bonds by their authority body (Alshamrani, 2014). Despite the similarity of sukuk structure among MENA and Southeast Asia countries, the absence of any Sharia committee to approve the sukuk issuance and regulated forms is the main drawback. Therefore, investigating the impact of sukuk announcements on the stock market within two different emerging markets is that with different regulations and institutional and market structures, stock market effects associated with sukuk announcements in the MENA stock market could be different from those of Southeast Asia countries. Moreover, there is the implication that investors, especially religiously oriented investors, would prefer to go for compliant instruments that have been approved by sharia committees.

The remainder of this paper is structured into five sections. The second section provides an overview of previously published related literature. The third section explains the methodology adopted for the investigation, while the fourth section presents the results obtained, and the conclusions and recommendations are provided in the fifth section.

2. Literature

Predicting the stock market reaction towards debt announcement is initially based on two primary theoretical perspectives: trade-off theory and pecking order theory. In the light of trade-off theory, the capital structure of a firm is determined based on the balance between the cost and benefit of the external finance while taking into consideration that the firm management is able to decide the extent to which it can rely on debt financing. Hence, profitable firms expect more cash flow, moving towards more debt financing to benefit from the tax shield, which is interpreted by the public positively. In contrast to the trade-off theory, the pecking order theory interprets decisions about the capital structure based on three ascending levels of finance, and each financing level decision is

interpreted by the public differently. Basically, firms use their retained profit to finance their capital structure as this is considered the first source of financing, but it relies on debt financing at the second level since it reflects a less profitable firm position. This action by the firm with asymmetric information leads to a negative public reaction as the cost of capital financing by debt increases with asymmetric information.

These two theories have always been used to predict the stock market reaction towards debt issuance announcement. Despite the neglect of the asymmetric information role by the trade-off theory, the pecking order theory cannot be an alternative to the trade-off theory as it also ignores the issue of accumulated financial information among firm mangers (Liesz, 2005). Closing the resulting gap from the role of the asymmetric information can be explained by highlighting the role of time-lapse for interpreting information about financing decisions.

Irrespective of the limitations of studies that investigate the impact of sukuk announcement on stock market reaction, the most relevant issue is represented by the conflicting findings of previous studies in terms of identifying a unified reaction towards the sukuk announcements. Based on the reviewed literature, stock market reaction towards the announcement of sukuk is still debated. For instance, Ashhari (2009) and Ibrahim and Minai (2009) found a significant and positive reaction from the stock market towards sukuk announcements, while Godlewski, Turk-Ariss, and Weill (2013) revealed a significant and negative reaction from the stock market towards sukuk announcements. Meanwhile, the study of Modirzadehbami and Mansourfar (2011) revealed a non-significant influence on the stock market reaction. The more recent study of Mohamed, Yahya, and Ishak (2017) investigated the stock market reaction to 115 sukuk announcements in Malaysia. Three sample time frames were tested: prior to, during, and after the global financial crisis from 2002 to 2013. The finding showed a significant and negative stock market reaction on the day before the issuance and also on the day of sukuk issuance, while there was a significant and positive reaction from the stock market 30 days after the day of issuance. This result indicates that it took a long time for the investors to assess their decisions toward the announcement event as well as clarifying the role of the time factor in designing market participants' decisions.

This conflict is due to the different periods tested in earlier studies. As the period involves more stable growth, the average impact tends to be affected positively, while extending the tested period to include an unstable situation would have a negative or slightly positive impact. Therefore, filling this gap by extending the tested event regionally instead of periodically would provide better explanation about the behaviour of the stock market reaction toward the announcement of sukuk. It is also expected to show the influential factors from a regional view. Additionally, it helps portfolio managers in designing the potential risks of debt instruments regionally. For investors, it would help in predicting the stock market trends across different regions and how far regionally investment can be guided by the sukuk announcements.

3. Methodology

The event study methodology is used to examine the stock return behaviour around a financial, accounting, political, social, or economic event. This methodology was introduced by Fama, Fisher, Jensen and Roll (1969) and is still used widely. This methodology explains what stands behind the scenes of specific events. This methodology is employed in this study to investigate the stock return reaction toward sukuk issuance announcements. The announcement dates are sourced from the Thomson Reuters Eikon 4.0, from Q1/2001 to Q3/2016, which provides wide understanding about the stock market reaction, as this period spans from the beginning of sukuk emergence. The announcement dates are obtained from the same sources. Multivariate regression is used to provide better explanation about the anticipated of each factor within the construct. This additional interpretation clarifies that most factors contribute to the abnormal return.

For estimating the market beta, the estimation period for the market model is 171 days, starting at day 180 until day 10 before the announcement date (-180, -10). The estimation period for the market model is 171 days, starting at day 180 until day ten before the announcement date (-180, -10), taking into consideration the off-trading days that probably equal to a minimum of 48 days over six months. The estimation period of between 150 to 30 days prior to the announcement day gives similar results (Godlewski et al., 2013). The test period is assigned from five days

before the announcement until 15 days after the announcement date (-5, +15), five certain event windows have been assigned over this period. Following Godlewski, Turk-Ariss, and Weill (2013) and Maskara and Mullineaux (2011), three symmetric event windows (0,0), (-1,1), (-2,2) and two asymmetric event windows (-1,2), (-2,1) have been assigned. As more time is needed by the investors to be more familiar with the issuance of security (Anderson, 2017), six more event windows have been added to cover two weeks later from the date of issuance, which are (-5,+15), (-1,+14), (0,3), (-1,+5), (0,+12), (0,+7).

In determining the assigned event windows of sukuk announcement, previous studies have been divided into two categories. The first category of studies prefers to investigate the stock market reaction on the short-term horizon, which extends from 0 to 7 days around the announcement date. These studies (i.e., Ahmad & Rusgianto, 2013; Alam et al., 2013; Ashhari, 2009; Godlewski et al., 2013; Modirzadehbami & Mansourfar, 2011) attribute that to avoiding other announcements' effects on stock market reaction, such as dividends, CEO turnover, equity issuance, conventional bond announcement, and so on (Godlewski et al., 2013). Meanwhile, second category studies prefer to investigate the stock market reaction on the long-term horizon, which extends from 0 to 60 days around the announcement date. These studies (i.e., Ahmad & Rahim, 2014; Ibrahim & Minai, 2009; Mohamed et al., 2017) attribute that to capturing the information leakage by investors.

The market reaction model as defined below is used to find the expected return of each issue:

$$R_{it} = a_i + \beta_i R_{mt} + e_{it} \quad (1)$$

Where:
R_{it} = Stock return (i) at period (t)
R_{mt} = Return of the market
a_i = Alpha or the intercept of the security (i)
β_i = Beta or the slope of the security (i)
e_{it} = The error term of security (i) in period (t)

Unlike the CAPM model assumptions that assume free interest rates among investor transactions, this equation (1) assumes borrowing and lending among investors at the adjusted return by the stock risk. For the market index benchmark, eight market index benchmarks have been used to measure the abnormal return from each country's security market. Hence, the Financial Times Stock Exchange Bursa Malaysia Kula Lumpur Composite Index (FBMKLCI) - Malaysia is used as an indicator of the market return, the Jakarta Security Exchange (JKSE) index is used for the Indonesian security market, Borsa Istanbul (BIST100) index for the Turkey security market, Tadawal Securiy Index (TASI) for the Saudi security market, Doha Security Market (DSM) Index for the Qatar security market, Karachi Stock Exchange (KSE100) index for the Pakistan security market, and the Abu Dhabi Security Market Index (ADSMI) for the United Arab Emirates security market. Calculating the abnormal return is straight forward. Initially, the return on a security is regressed against the market index to get the beta as well as the alpha. For computing the actual return of firm stock, the natural log of stock closing and opening price is computed as defined below:

$$\ln \frac{P_t - P_{t-1}}{P_{t-1}} \quad (2)$$

Where:
P_t = The daily closing stock price at time t
P_{t-1} = The daily opening stock price at time t-1

Then, to find the abnormal or excess return, the difference between the actual return on the security (as computed with the natural log of stock closing and opening price) and expected return from the market model is computed as defined below:

$$AR_{it} = R_{it} - (a_i + \beta_i R_{mt}) \quad (3)$$

Where:
AR_{it} = Average return for firm (i) at period (t)

R_{it} = Actual returns for firm (i) at time period (t)
a_i = The constant average returns of stock (i)
R_{mt} = Return of the market
β_i = Estimated beta value for security (i)
The average abnormal return is computed by dividing the abnormal return by the number of announcements as follows:

$$AAR_t = \frac{\sum_{i=1}^{n} AR_{i,t}}{n} \quad (4)$$

The AARt is an estimated average deviation percentage of stock return samples of the normal relationship to the market. The standard deviation of the AAR of the estimated window is calculated as well to test and analyse to determine whether the Average Abnormal Returns (AAR) are statistically different from zero according to the equation given below:

$$t - statistic = \frac{AAR_t}{\alpha(AAR)} \quad (5)$$

Where:
AAR = The average abnormal return across securities in the sample
$\alpha(AAR)$ = The standard deviation for average abnormal return for all securities in the sample calculated during the estimation period

The t-statistic for cumulative average abnormal return (CAR) is slightly different from the above. It is calculated by dividing CAR over the square root of the number of days in the event window multiplied by the estimated standard deviation. To observe the cumulative effects, the cumulative abnormal returns (CAAR) are computed by summing up the AARt over various time periods of interest for the event period as follows:

$$CAAR_{t1,t2} = \sum_{t2}^{t1} AAR \quad (6)$$

$CAAR_t$ is a more precise representative of the longer-term effect on share prices from bond offering announcements. The t-value for the $CAAR_t$ is given as:

$$t - statistic = \frac{CAAR}{\alpha(CAAR)_t} \quad (7)$$

The standard deviation of CAAR is defined as in the given equation, where N is the number of days in the CAAR statistic:

$$\alpha(CAAR)_t = \alpha(AAR)\sqrt{N} \quad (8)$$

For the purpose of predicting the leading of the stock reaction trends, linear regression is performed as in the model defined below:

$$CAAR_{it} = a + B_1 lapse_{it} + B_2 Tenor_{it} + B_3 Am_{it} + B_4 Cp_{it} + e \quad (9)$$

Where *a* model intercept, lapse the interval time between announcement and actual date of issuance, Tenor accrual issuance period, Am amount of issuance, Cp coupon rate. As stated in the discussion above, the time factor played a major part in determining the stock market reaction as the longer the duration of time is from the announcement date, the more significantly the stock market reacts. In this context, Rahim and Ahmad (2015) found a significant and positive reaction from the stock market in a sample of 45 selected announcements over the period 2009–2011 in Malaysia. From 13 event windows over the time frame (-90,+60), six event windows (-5,+2), (-15,+5), (-5,+30), (-30,+60), (-60,+30), (-90,+15) revealed significant and positive stock market reactions, which confirmed that with longer time durations from the announcement date, investors take time to evaluate the gained information about the issuer and make decisions. Amount of issuance is expected to play a crucial role in influencing investor behavior. Issuance amount can be interpreted as proportional to the capital structure of the firm, where a larger proportion of issuance amount to the capital structure may indicate higher credit risk, which results from the lack of managing leverage effectively. Coupon rate is also considered as a determinant of the stock market

(Conard & Frankena, 1969) in that anticipating a higher rate of coupon interest of a bond issue reflects a higher danger of a refunding call. Tenor of issuance, either short or long term, is linked to investor preference. Longer tenor bears a higher liquidity risk, especially within a stock market that lacks a secondary market for sukuk trading.

4. Results and discussion

Table 1 shows the active retrieved sukuk issuances for both regions. The Southeast Asian sukuk market is represented by Malaysia and Indonesia as other Southeast Asian countries do not have a sukuk market, except the Singapore market, which has limited issuances of sukuk but doesn't match the sample criteria in terms of issuances that belong to listed firms in the security market. The MENA sukuk market is represented by six countries: Saudi Arabia, the United Arab Emirates, Qatar, Turkey, and Pakistan. As noted from Table 1, Malaysia dominates the higher potion of the sukuk issuances sample with a total of 120, followed by the Saudi stock market with 33 issuances; hence, it can be considered that Malaysia's stock market guides the Southeast Asia region, while the Saudi stock market represents the trends of reaction toward sukuk issuance within the MENA region.

Table 9: Active Sukuk Issuances Breakdown by Country

Region	Country	Amount of issuance in USD*	Number of issuances
Southeast Asia	Malaysia	6,434,147,448	120
	Indonesia	537,314,000	32
MENA	Saudi Arabia	18,298,556,250	33
	Pakistan	246,067,500	3
	United Arab Emirates	81,678,000	2
	Turkey	26,199,000	1
	Qatar	54,930,000	1
Total accumulated as of 30/09/2016		**25,678,892,198**	**192**

*USD rate as of 23/12/2016 - Thomson Reuters

Table 2 shows the descriptive statistics for both markets in terms of maximum, minimum, mean, and standard deviation for the issuance amounts, time lapse (time between the date of announcement and actual date), tenor, and coupon rate. As shown in Table 2, the average time lapse of the MENA market is 2.78, which is less than the obtained mean for the Southeast Asia market of 6.7. It must also be noted that most of the announcements of the MENA market (78.4%) have zero time lapse, as the announcements were made during the same day as the actual issuance. In terms of amount of issuance, the average amount of MENA issuance is USD467.07 million, while the amount for Southeast Asia is USD43.57 million. This difference may be explained by the fact that the MENA market has fewer issuances with higher amounts, unlike the Southeast Asia market, which has many issuances with lower amounts. The average tenor for MENA is 7.89 years, which is close to Southeast Asia's, which is 6.8 years. It can also be seen that the coupon rate for MENA sukuk issuances is on average less than Southeast Asia's (2.14%), which resulted from the Saudi market following the Fed policy as it is the larger issuer within MENA.

Table 10: Descriptive Statistics of Issuances

MENA **(N=37)**

Criteria	No of issuances	Minimum	Maximum	Mean	Std. Deviation	Unit of measurements
Time-lapse	37	.00	29.00	2.78	7.01	Days
Amount	37	0.026	1,866.27	467.07	1.04	US dollar
Tenor	37	.00	40.00	7.89	6.58	Years
Coupon rate	37	.00	13.95	3.78	2.49	Ratio

SOUTHEAST ASIA **(N=152)**

Criteria	N	Minimum	Maximum	Mean	Std. Deviation	Unit of measurements
Time-lapse	152	0	40	6.70	8.94	Days
Amount	152	2.23	491.51	43.57	1.56	US dollar
Tenor	152	0	20	6.80	3.23	Years
Coupon	152	3.71	13.75	5.92	2.25	Ratio

Note: MENA consists of Saudi Arabia, Pakistan, the United Arab Emirates, Turkey, Qatar; Southeast Asia consists of Malaysia and Indonesia

The CAAR is tested for six windows, as shown in Table 3. The results of CAAR are presented for the three categories of Southeast Asia, MENA, and Saudi Arabia. For a broad understanding of the MENA stock market reaction, the CAAR of the Saudi stock reaction is separated into the last two columns as it dominates with 82.5% of the total announcements of the MENA sample. The first column from the left shows the assigned event windows, while the others six columns are specified as two columns for each category with the first column of each category providing the CAAR results within the event windows, and the second column providing the t-test results of CAAR. It is found that, for the Southeast Asia market, three event windows (0,0), (-2,2), and (-5,4) showed a significant and negative stock market reaction, while two event windows (-1,2) and (-2,1) showed a significant and positive stock market reaction. For the MENA market there is a significant and positive stock market reaction over the event windows (-5,4), while the Saudi stock market showed a significant and negative stock market reaction over the event window (-2,2) and a significant and positive stock market reaction over the event window (-5,4).

Table 11: Cumulative Average Abnormal Returns

Event windows	CAAR % Southeast Asia	t- test	CAAR % for MENA	t-test	CAAR % for Saudi Arabia	t-test
(0,0)	0.625	(3.09)***	-0.16	(0.97)	-0.305%	-1.76
(-1,1)	0.646	0.17	0.057	0.91	-0.269%	-1.15
(-2,2)	0.369	(2.15)**	-0.177	(0.78)	-0.466%	(2.18)**
(-1,2)	-0.83	2.87**	-0.115	(0.50)	-0.197%	-0.76
(-2,1)	-0.25	5.33***	0.063	0.25	-0.269%	-1.16
(-5,4)	-0.46	(3.06)***	0.475*	2.38**	0.450%	2.42**

**** is significant at the 5% level, and *** is significant at the 1% level.**

The regression test is used to examine four determinants of the CAAR. These four determinants are amount of issuance, coupon rate, issuance tenor, and time-lapse. For testing the model stability, the CUSUM test is used to examine the sequence randomness of both markets separately, Figure 1 shows that the samples for both markets are stable and have non-randomness, which confirms the consistency of the data (Horváth, Pouliot, & Wang, 2017).

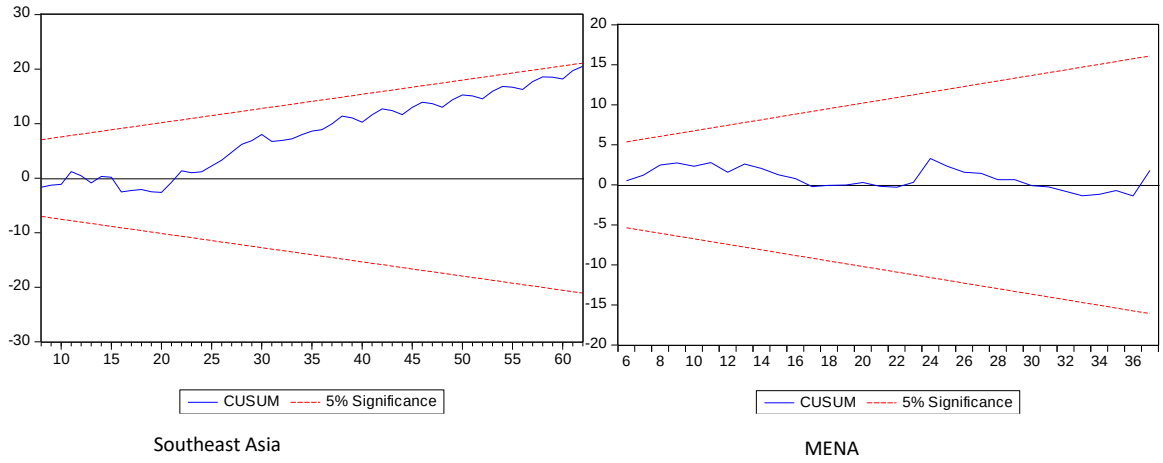


Figure 1: Stability test of Southeast Asia a

Table 4 clarifies the regression result for Southeast Asia data, while Table 5 is to clarify the regression test of MENA data. For Southeast Asia, two determinants have revealed significant and positive coefficients for coupon rate and time-lapse. The coupon rate coefficient is 0.058 and significant at the 5% level, which means that a higher coupon rate as well as the higher CAAR is expected as the higher coupon rate compensates for an additional potential risk tied to the issuance (Ashhari, 2009). As evidence of the time factor determining an abnormal return from the announcement, the time-lapse coefficient is 0.034 and significant at the 5% level. The longer time-lapse between the announcement and actual date of issuance as well as the positive CAAR is expected. This time allows investors to get more relevant information on the issuance, and this information provides a basis for making decisions on investments. The tenor factor has a coefficient that -0.016 and is significant at the 5% level. It interprets an aversion of investors to the sukuk that has longer tenor as the stream income from sukuk is related to the generated profit from the asset. This involves the impairment loss risk of the asset, besides the relevant potential risk for longer debt obligations.

Table 12: Regression Test – Southeast Asia

Variables	Coefficient	Std. Error	t-Statistic	Prob.
CONSTANT	-1.858	0.498	-3.725	0.000
AMOUNT	0.000	0.021	0.036	0.971
COUPON	0.058	0.024	2.382	0.020
TENOR	-0.016	0.006	-2.388	0.020
TIME	0.034	0.008	3.943	0.000
R-squared	0.400	Adjusted R-squared		0.334
F-statistic	6.120	Durbin-Watson statistic		1.893

Dependent Variable: CAAR – Southeast Asia
Sample: 62

Table 5 shows the empirical result from the MENA market. The result obtained revealed a non-significant control from four variables: amount (AMOUNT), coupon rate (COUP), tenor (TENOR), and time-lapse (TIME). In terms of time-lapse of the MENA market, it is notable that 78.4% of the sukuk announcements have zero time-lapse as they were issued at the same time of the actual issuance. This led to mitigating the control effect of time on the market. Furthermore, most of the MENA sukuk hold to maturity as these issuances are underwritten by institutional parties with the lack of a secondary market that allows the market reaction to arise. Also, most of the sukuk issuances in MENA belong to the Saudi market (82.5%), which suffers from the lack of a special committee organization for sukuk (Mahomed, Mohamad, & Ariff, 2018), unlike Southeast Asia countries (Malaysia and Indonesia), which have special legislation for Islamic and conventional debt securities. This legislation committee works to regulate the sukuk issuances process, taking into consideration the specific criteria of sukuk compared to conventional bonds.

Table 13: Regression Test – MENA

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CONSTANT	0.396	0.336	1.177	0.247
AMOUNT	-0.015	0.015	-0.983	0.333
COUP	0.005	0.005	1.003	0.323
TENOR	-0.001	0.002	-0.649	0.520
TIME	0.002	0.001	1.038	0.306
R-squared	0.150	Adjusted R-squared		0.044
F-statistic	1.421	Durbin-Watson stat		2.122

Dependent Variable: CAAR – MENA
Sample: 37

5. Conclusion

This study focuses on the period from Q1/2001 to Q3/2016 to generate empirical evidence about the market reaction within these two regions. Event study methodology is employed to test the stock market reaction around the announcement events of sukuk issuance. The finding revealed a significant cumulative abnormal return from the stock market in the both regions. The case of negative reaction was found in three event windows, (0,0), (-2,2), (-5,4), for the Southeast Asia market and two positive reactions at two event windows, (-1,2) and (-2,1). Meanwhile, in the case of MENA, a positive reaction was found at the event window (-5,4). It can be concluded that investors in the MENA market take longer to digest sukuk announcements and take action, unlike the Southeast Asia market investors who needed less time, which is due to information availability and level of maturity. Also, it this may be attributed to the late adoption of a corporate governance code by the MENA security markets compared to the Southeast Asia market, which makes the investor decision process longer. The regression analysis showed a significant impact of coupon rate, tenor, and time-lapse for the Southeast Asia market, while no significant factors were found for the case of MENA, which may be related to the differences in characteristics of the two regions. The Saudi market is considered as the largest issuer of sukuk within MENA and relies more on equity-based sukuk, unlike the Southeast Asia market, which relies more on debt-based sukuk (Mahomed et al., 2018). Also, the lack of a secondary sukuk market in MENA has led investors to adopt a buy-hold strategy to maturity, and there is no special committee for Shariah compliance in the Saudi market, which contrasts with Southeast Asia. Based on the results of this study, it is recommended to investigate further determinants of cumulative abnormal return within the MENA market such as liquidity, yield to maturity, and sukuk structure.

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Intention to Pursue Professional Accounting Qualification: An Application of the Theory of Planned Behaviour

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Abstract

The transformation of accounting profession in Malaysia requires more accountants to be trained in this country. However, the number of accountants with professional qualifications is still lacking compared to the targeted number of 60,000 in 2020. Therefore, it is important to examine the factors that can motivate the accounting undergraduates to pursue professional accounting qualifications after completing their degree. The aim of this study is to examine whether or not the Theory of Planned Behaviour can explain the intention to pursue professional accounting qualifications. An online survey was conducted among Bumiputra accounting undergraduates in a public university in Malaysia. The findings suggest that attitude and subjective norms (influence by significant others) have positive significant influence on the respondents' intention to pursue professional accounting qualifications after completing their degree. The findings provide some insights to the universities and relevant authorities to increase the number of accountants with professional accounting qualifications.

Keywords: Professional Accounting Qualification; Theory of Planned Behaviour; Survey; Accounting Undergraduate.

1. Introduction

Globalisation in today's business environment has resulted in a more open market, greater opportunities and challenges to the accounting practices including Malaysia. For instance, the Governments of Member Countries of the Association of South East Asian Nations (ASEAN) have signed the ASEAN Mutual Recognition Arrangement

on Accountancy (MRA) in 2016 which allows among others, mobility of accountancy services across ASEAN member states (Malaysian Institute of Accountants, 2018). Accountants as people who are trusted by the stakeholders are always in demand and because of this it is vital to ensure they are competent. There are currently around 33,000 Chartered Accountants (CAs) in Malaysia of which only 8.42 percent are Bumiputras (The Malaysian Reserve, 2017). The number is alarming since the government aims to have 60,000 CAs in 2020 and increase the percentage of Bumiputras CAs to 30 percent.

The accounting education and profession in Malaysia are currently regulated under the Accountants Act 1967 and at the moment its governance is enforced by the Malaysian Institute of Accountants (MIA). Section 23 of the Accountants Act 1967 exclusively restricts any person from using the title "accountant" unless that person is a registered member of the MIA. The Committee to Strengthen the Accountancy Profession in Malaysia (CSAP) suggests that to ensure accountants have the required competency, graduates of accounting should be encouraged to obtain professional accounting qualifications from professional accounting bodies. Currently, a few agencies were set up such as Yayasan Peneraju and Malaysian Professional Accounting Centre (MyPAC) to increase the number of professional accountants in Malaysia as well as Bumiputra by offering sponsorships and assistance to the candidates.

Throughout the years, studies in accounting education have recorded unfavourable findings on the number of students who have the intention to obtain professional accounting qualifications in their career or becoming a CA. For instance, a study by Said et al. (2004) indicate only 30.3 percent first semester and 25.8 percent final semester accounting students in Malaysian universities registered with the Ministry of Higher Education (then Ministry of Education) are interested to become CA. Yusoff et al. (2011) reported that 68 percent respondents have the intention to pursue professional accounting qualifications and in contrast, a study by Mustapha et al. (2012) indicates that 70 percent of respondents in their study would like to work immediately after graduating and only 28 percent are interested to pursue professional accounting qualifications in their career.

There are many reasons why accounting students do not have favourable perceptions towards professional accounting qualifications. Among those reasons are the long time spent to obtain professional accounting qualifications, it is challenging to pass the professional examinations (Mustapha et al., 2012) and it is costly (Ghani et al., 2008). The new developments in the economy with the MRA and changes in the landscape of accounting profession require better understanding on the factors which motivate accounting students as future accountants, to pursue professional accounting qualifications as an added value to their degree qualifications. It is important and worthwhile to study the motivation for obtaining professional accounting qualifications to assist in developing the right strategies by the relevant parties. Thus, the objective of this paper is to identify factors which could motivate accounting undergraduates to pursue professional accounting qualifications by applying the Theory of Planned Behaviour. To fulfil this objective, the paper aims to answer the following question.

"Do the elements in the Theory of Planned Behaviour have influence on undergraduates to pursue professional accounting qualifications?"

This paper is structured as follows. This section presents an introduction to the study as well as the research objective and research question. Next is the Literature Review and hypotheses development and followed by the Methodology section which explains the method used in the study. The Results section is the fourth section explaining the findings of the study and lastly, the Conclusion.

2. Literature Review and Hypotheses Development

2.1 Theory of Planned Behaviour

The theory of Planned Behaviour (TPB) developed by Ajzen (1991) is an extended theory developed to overcome the limitations of the Theory of Reasoned Action (TRA) by Ajzen and Fishbein (1980). The TPB is a social psychology theory that has been widely used to explain human social behavior (Armitage and Conner, 2001). In the TPB, it is assumed that the behaviour of a person is determined by intention to perform the behaviour, attitude towards behaviour, subjective norms and perceived behavioural control.

The intention is considered as the subjective probability that motivates and captures the determination that one has to perform the behaviour. Therefore, the stronger the intention towards the behaviour, the more likely the behaviour will be performed. Ajzen (1991) also suggests that the intention to perform behaviour is in return influenced by the attitude towards behaviour, subjective norms and perceived behavourial control. Behavioural intention also functions as proxy to actual behaviour in situations when it is difficult to measure the actual behaviour (Ajzen, 1991). Since it is challenging to measure the actual behaviour of whether or not accounting undergraduates pursue professional accounting qualifications later in their career, behavioural intention in this study is also a proxy to actual behaviour. Similar approach has been adopted in previous accounting studies such as Buchan (2005), Saad (2011) and Abdul Hamid (2014).

2.2 Attitude

Attitude towards behaviour refers to whether an individual perceives the consequences of a particular behaviour as favourable or unfavourable. An attitude towards behaviour is considered as favourable if the person perceives a positive outcome from performing the behaviour. On the other hand, the attitude towards behavior is deemed to be unfavourable if the person perceives negative outcome.

Previous studies in accounting education indicates that attitude is an important factor in motivating accounting students to become a CA. In a questionnaire survey by Felton et al. (1995) in Canada on 897 graduating business students, the study found that attitude influences students' decision to choose CA as a career. The importance of attitude is also supported in a study by Law (2010) in Hong Kong. The study indicates that attitude is important in motivating accounting students' choice to become a CPA. In another study on attitude, Ghani and Said (2009) found that Malay undergraduate accounting students have different attitude compared to non-Malay undergraduate accounting students in their preferred choice of career. The study indicates that Malay undergraduate accounting students prefer to hold a management position rather than becoming Chartered Public Accountants (CPA). In contrast, non-Malay accounting undergraduate students prefer to become CPAs rather than holding a management position. Bagley et al. (2012) also reported that attitude is important in influencing accounting students whether or not to pursue career with Big Four accounting firms. Based on the discussion it is hypothesized that,

H_1: Attitude has significant positive influence on intention to pursue professional accounting qualifications among accounting undergraduates.

2.2 Subjective norms

Subjective norms are the general social pressure of either performing a respective behaviour or not. Ajzen (1991) argues that a person forms his or her beliefs from people important to them, whether or not these people approve or disapprove the behaviour and whether or not these people themselves perform the behaviour. If the people who are important to a person perform or approve of a particular behaviour, there is a possibility for that person to perform the similar behaviour.

Past studies found that social pressure from important others (subjective norms) such as families, friends and lecturers are also found to be important in the decision of accounting students to become a professional accountant. Felton et al. (1995) and Bagley et al. (2012) indicate that subjective norms are important in influencing students' decision to pursue a career as a CA or a career with the Big Four accounting firms. Ghani and Said (2009) also reported that family, society and lecturers influenced students to study accounting. Parental influence is found to be an important factor in determining students' choices of becoming a CPA in Hong Kong as evidenced in a study by Law (2010). The influence of lecturers in motivating students to pursue professional accounting qualifications is also evidenced in a study by Mustapha et al. (2012) which stated that 47 percent of the respondents became aware of the professional programmes from their lecturers. In a study by Jaafar et al. (2015) indicates that those accounting graduates with family members working as a CA, have higher preference to become a CA himself. A more recent study by Harnovinsah (2017) also suggests that family influences students in Indonesia to become public accountants. Similar findings are documented by Abdul Hamid (2017) that family and lecturers are among the motivating factors in pursuing professional accounting qualifications among undergraduates. Interestingly, the

influence of family and peers are not important in choosing a career as CA in New Zealand as evidenced in a study by Ahmed et al. (1997). Due to this, the following hypothesis is stated.

H_2: Subjective norm has significant positive influence on intention to pursue professional accounting qualifications among accounting undergraduates.

2.3 Perceived Behavioural Control

Ajzen (1991) argues that a particular behaviour may not likely to occur if that person does not have control over performing the behaviour, even in the existence of positive attitude and positive influence from important others towards the behaviour. According to Fishbein and Ajzen (2010), perceived behavioural control includes environmental factors such as availability of information and possessing the right skills. In the context of accounting career, having the appropriate knowledge and skills are important to become a CPA. A study done by Yusoff et al. (2011) suggests that there is a significant different between students who have knowledge about professional accounting qualifications and those who do not have the knowledge in choosing CPA as their career choice. The number of students choosing CPA as a career is higher among those who have knowledge about professional accounting qualifications compared to those who do not have the knowledge. Due to this the following hypothesis is presented.

H_3: Perceived behavioural control has significant positive influence on intention to pursue professional accounting qualifications among accounting undergraduates.

3.0 Research Method

In this study, third year Bumiputra accounting students from a public university in Malaysia were asked in an online questionnaire survey about their intention to pursue professional accounting qualifications later in their career. Third year accounting undergraduates were chosen for this study since basically they have completed around 60 percent of the total syllabus of accounting degree program and to a certain extent have been exposed previously with information about professional accounting qualifications from talks and student activities in and out campus. The questionnaire survey consists of Section A on the elements of TPB and pursuing professional accounting qualifications, measured using a five-point likert scale. Section 2 consists of questions on the background information of the respondents. Data were coded and pre-analysed using SPSS and later using Smart PLS 2.0 to examine the influence of TPB elements on the intention to pursue professional accounting qualifications.

4.0 Findings and Discussion

4.1 Descriptive statistics

Table 1 below presents the gender information on the respondents of the study. A common scenario in many higher learning institutions in Malaysia that offer accounting degree, female accounting undergraduates surpass the number of male accounting undergraduates. In this study, 37 males and 91 females accounting undergraduates participated in the survey.

Table 1. Gender of survey respondents

Gender	Frequency	Percentage
Male	37	28.9
Female	91	71.1

The descriptive results for the measures used in the study are stated in the following Table 2. To interpret the results, the lower the means value of the TPB items indicate higher disagreement in pursuing professional accounting qualifications.

Table 2. Descriptive statistics on measures of Theory of Planned Behaviour

Measures	N	Min	Max	Mean	Std. Dev.
Attitude					
ATT1	128	1	5	4.27	0.778
ATT2	128	1	5	4.18	0.747
ATT3	128	1	5	4.20	0.807
ATT4	128	1	5	3.85	0.914
ATT5	128	1	5	3.21	0.969
ATT6	128	1	5	2.62	0.981
Subjective norms					
SN1	128	1	5	3.58	0.969
SN2	128	1	5	3.59	0.999
SN3	128	1	5	3.84	0.951
SN4	128	1	5	3.77	0.926
SN5	128	1	5	2.94	1.092
Perceived Behavioural Control					
PBC1	128	1	5	3.477	0.887
PBC2	128	1	5	3.688	.9619
PBC3	128	1	5	4.047	0.987
PBC4	128	1	5	3.767	0.926
Intention					
INT1	128	1	5	3.789	0.953
INT2	128	1	5	3.625	1.003
INT3	128	1	5	3.320	1.019
INT4	128	1	5	3.679	1.072
INT5	128	1	5	3.867	1.053

4.2 Measurement Model

Indicators' or measures' reliability in PLS is determined by observing the value of loadings, *t*-values and level of significance of each measure in the study. While there is no absolute threshold for factor loading in PLS, the common acceptable loading is 0.70 and a factor loading of 0.50 is also still acceptable (Hair et al., 2014). In this study, except for ATT5, ATT6 and PBC1 which do not meet the requirement of 0.70 threshold, the remaining measures exceed the threshold of 0.70 and thus, only three measures were dropped from the original model as indicated in Table 3. As for the internal consistency, the study examined the composite reliability of the constructs. It is suggested that a threshold of 0.70 is required for a construct to be included in the model (Fornell and Larcker, 1981). However, a value of 0.60 is still acceptable if there are new measures developed in the study (Hair et al., 2014) such as this study. The test for composite reliability in this study found that all constructs have met the requirement of a threshold of 0.70 and thus are retained as stated in Table 4.

Validity of the constructs are determined by examining the convergent validity (AVE) values of all the constructs whether or not the set of measures represent the same concept. In this study, all the AVEs met the threshold of 0.50 as suggested by Hair et al. (2014) and therefore, all constructs are retained. Another test for validity is the discriminant validity, whether or not items are different among constructs. This can be examined by observing the item cross-loadings and Fornell-Larcker (1981) criterion. The test of item cross-loadings indicate that all items loaded higher in their own measures compared to all their cross-loadings as presented in Table 3. The results of the tests for the measurement model are depicted in Tables 3 and 4 below.

Table 3. Items Cross Loadings

Measures	Attitude	Intention	Perceived Behavioural Control	Subjective norm
ATT1	**0.8507**	0.5122	0.4361	0.3777
ATT2	**0.8989**	0.4641	0.4268	0.3539
ATT3	**0.8995**	0.3809	0.3873	0.3034
ATT4	**0.8725**	0.4349	0.3825	0.3487
INT1	0.4294	**0.8773**	0.5805	0.6191
INT2	0.4383	**0.9110**	0.53699	0.5997
INT3	0.4134	**0.8316**	0.4723	0.4968
INT4	0.4708	**0.8695**	0.6447	0.6214
INT5	0.5484	**0.8604**	0.5367	0.5467
PBC2	0.5037	0.6222	**0.8824**	0.7300
PBC3	0.2736	0.4109	**0.7859**	0.6672
PBC4	0.4086	0.5696	**0.8843**	0.8509
SN1	0.3027	0.5917	0.6209	**0.8281**
SN2	0.3299	0.5281	0.7037	**0.8298**
SN3	0.3358	0.5580	0.7821	**0.8750**
SN4	0.4087	0.5696	0.8843	**0.8509**

Table 4. PLS Quality Criteria for Measurement Model

	AVE	Composite Reliability	R Square	Cronbachs Alpha
Attitude	0.738	0.918		0.881
Subjective norms	0.716	0.910		0.868
Perceived Behavioural Control	0.726	0.888		0.814
Intention	0.756	0.940	0.524	0.920

As for the structural model, R-squares are considered as the primary analysis to test the structural model which indicates the degree of co-efficient determination. There is no threshold to the value of R-squares, but the higher is the better. The R-square for this study is 0.524 which suggests that it can explain around 52 percent of variance in the intention to pursue professional accounting qualifications among the samples. The following is the structural model of the study after successfully evaluating the measurement model.

Table 5. Structural Model

Relationship	Path coefficient	t-values	Significant level
Attitude – Intention	0.298	3.557	0.001
Subjective norms – Intention	0.476	3.055	0.001
Perceived behavioural control – Intention	0.076	0.500	Not significant

Path coefficient is used to examine the relationship between constructs and the value should be at least 0.10 (Urbach and Ahlemann, 2010). The strength of the relationships in PLS is determined using the bootstrapping method to generate the t-values. The findings suggest that attitude and subjective norms have positive significant influence on intention to pursue professional accounting qualifications among the accounting undergraduate participated in the study. Therefore, hypotheses 1 and 2 are supported. On the other hand, hypothesis 3 which suggests that Perceived behavioural control has positive significant influence on intention is rejected.

5.0 Conclusion

This study examined the intention of accounting undergraduates to pursue professional accounting qualifications. In generally the findings support previous studies in the same field discussed in the literature review section. The findings indicate that similar with previous studies in motivations to become professional accountants, factors such as attitude and subjective norms such as friends and lecturers, have significant positive influence on accounting undergraduates to pursue with professional qualifications.

There are several implications which need to be considered from findings of this study especially in shaping positive attitude among the students. First, universities should expose students with more knowledge on career as professionally qualified accountant to provide students with better understanding on the job scope, responsibilities and career path. Secondly, interest in accounting should always be instilled among the students which could encourage them to pursue professional accounting qualifications. This perhaps can be done through strategic collaborations with professional bodies and relevant government agencies such as inviting professional accountants to share their experience in applying accounting concepts in the learning process and industrial talk on accounting as a profession. Apart from that, relevant government agencies and professional bodies should be more active in introducing accounting as a profession at schools to create awareness and develop the interests of potential students from the early years as well as family, since subjective norms influence is also significant in motivating students to pursue professional accounting qualifications.

It is also recommended that the students be exposed with the professional accounting qualifications measurement methods from the early years of their studies at the universities to familiarize them with the way performance measurement is assessed in obtaining professional qualifications. This could be done throughout the tutorial classes or lectures when similar questions with professional accounting examinations could be used as exercises. This is to reduce the scepticism that professional accounting examinations are challenging and hard to pass. In addition to that, it is also hoped by implementing this method in learning it could instil students' interest in accounting.

While generalization from the findings in this study needs to be addressed with caution since the samples were obtained from only a public university in Malaysia which cater only Bumiputera students, the findings of this study are beneficial to the universities, Ministry of Higher Education, relevant government authorities and professional accounting bodies to plan appropriate and efficient strategies in increasing the number of accountants with professional accounting qualifications particularly among the Bumiputera. Findings from this study could also be used to develop a more comprehensive model in understanding factors that could influence accounting undergraduates to pursue professional accounting qualifications. Future studies perhaps should also involve other public and private universities in Malaysia to gather larger samples and better understanding on the motivations to pursue professional accounting qualifications among accounting undergraduates in Malaysia.

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A Study on Malay Language Annual Report in Malaysia

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Abstract

The Malay language was the local language in Malaysia. However, the number of the annual report in the Malay language was keep decreasing. This study conducted for a purpose to review the practice usage of Malay language in annual report among the listed companies in Bursa Malaysia. This study also conducted in order to review the trend of company listed in 2015. A quantitative approach was used in this study by using a checklist as the research instrument. Findings from this study showed that the number of companies presenting an annual report in Malay languages mostly declined. Discussions and recommendations were proposed in this study.

Keywords: Bahasa Melayu; Bursa Malaysia; annual report; financial reporting standard; public listed companies

1.0 Introduction

The annual report is purposely to communicate the information to the corporate shareholder and other stakeholders (Anderson, 1998). The management should provide financial statements that containing relevant information that enable a user in decision making. Annual report and financial statements should be prepared well with an aspect of easily read to gain understanding among the user (Barth, 2008). The annual report is a believable database which must have three aspects which are, complying the regulatory specifics needs and requirements, reflects the management integrity in a way communicating objectively and comprehensively and has been done with audit process (Courtis, 1995). Other than that, Malaysian Accounting Standard Board (MASB) also has required each enterprise or of any company to comply with the guidelines for the minimum requirements of the structure and content of financial statements (MASB, 2012). Besides that, they also encouraged enterprise to disclose more information to help a user of the financial information (Ali Khan and Zakaria, 2016).

The previous study found that the use of Malay language in an annual report the number of companies that revealed their annual report in the Malay language is reduced (Ali Khan and Mohd Zaini, 2012; Ali Khan and Zakaria, 2016). Therefore, this study would like to investigate the current practice on the presentation of the financial statements, the use of the language in the annual report and trend of complementary of using terms that have been established in the MFRS Glossary in Malay translation by the listed companies who are prepared an annual report in Malay. However, the study on the MFRS Glossary terms in Malay translation has not been discovered yet by any researcher.

Based on the previous study, most of the annual report prepared by companies in Malaysia are presented by using English as the main language. This because English was the main language used in accounting and business around the world (Parker, 1994). Besides that, from the previous study by Ali Khan and Mohd Zaini (2012), the trend of using the Malay language in the annual report show a decline from 2001 to 2010. Based on the previous study, the most factor that cause of less use Malay language in the annual report is because of the standardization of English in business and corporate world (Ali Khan and Zakaria, 2016).

In Malaysia, the presentation of the financial report, companies need to follow the MFRS 101 *Presentation of Financial Statement* that is adapted from the international standard IFRS101 (MASB, 2012). This needed because most of the investors relied on the annual report when they want to make decisions on investment followed by visits to the companies (Anderson, 1998).This also will ensure its compliance with MASB requirements.

The practice of application MFRS Glossary that has been translated in Malay never being study before. This problem statement is to see how far the implementation in the financial statements and what are the most common terms are popular and been used in the financial statements. Based on Kettunen (2011), the accounting terms that translated into another language could give problematic on the accuracy and the appropriateness of the translation.

The findings from this study important to help and provide a valuable and latest input in the fields of study of accounting practices in Malaysia and educational institutions related to the presentation and disclosure of financial statements and the annual report. This study also is very useful to know the practices of the accounting terminology and trends of terms used by referring to the MFRS glossary translation in Malay among public listed companies in Malaysia to know the preference of the Malaysian companies. It is important in accordance with the purpose to enhance the use of Malay language and other languages among Malaysian companies. The main objective of this paper is to do a survey on the current practice and disclosure of company's presentation of financial statements and also to review the practice of using MFRS in Malay terms by referring to MFRS glossary in Malay issued by MASB.

2.0 Literature Review

Communication between the company corporate management and various interested stakeholders were occurred continuously through the annual report. Based on Wessel (2002), the corporate annual report was starting in 1903 that practiced by U.S. Steel Corp and others were start to followed which contained pages of narratives, figures, and pictures. Usually, annual report contains several parts which are narratives, number, graphs and photography parts (Courtis, 1995: Balata, 2005;). This shown that annual report of a company is a traditional approach that been used a long time ago for the delivering of information and medium for the company to communicate with their interested user. Based on Zoysa and Rudkin (2010), most of the annual report are reveal the transaction process of the company and it was hardly available in a public as a general. They also find that Sri Lanka users are more depending on annual report compared to other sources of information. An annual report could give a full view of the company current situation and performance. It is useful for many users who want to know the financial performance and the activities of companies since it is a comprehensive report for the preceding year. Annual reports must be relevant, understandable, reliable, complete, objective, timely, and comparable. These were the characteristics or guidelines to be followed in preparing the annual reports (Shahwan, 2008).

Company annual report is one of the most importance ways to convey the potential investors for the company. However, most of them do not read it effectively and they have lack of skepticism in reading the annual report even though purposed of annual report is prepared clearly without any intent to show dishonesty of the business (Gad, 2014). This shown that annual report is one of the medium to convey potential investors regarding on the company performance especially on the financial activities of the company.

Usually, the financial reports are being audited first before being published while the narratives section are prepared without any standards or guidelines that might expose to manipulation in their contents. The study has found that the differences between accounting data and narrative are in moderate level and it was usually were aligned and harmonized in accompanying the financial statements of the company (Balata, 2005). Financial reporting are a formal record showing the performance of the company for several years. Most of the preparers are very focus and read more on the income statements while the users were preferred with statements of the cash flows. (Stainbank and Peebles, 2006) The quality in this report is important to deliver the true information. The quality is defined with adequate auditing system as the indicator. Misstatement or errors can easily happen if this factor does not give a full attention. (Tang *et. al,* 2016).

In Malaysia, there is an annual award that is given to the organizations that have an excellent in reporting their corporate annual report. The name of the award was National Annual Corporate Report Award (NACRA). This has

been organized by the professional body in Malaysia which are the Malaysian Institute of Accountants (MIA), The Malaysian Institute of Certified Public Accountants (MICPA) and Bursa Malaysia Berhad. These awards have been introduced since 1990 with aims to promote the excellent annual corporate reporting among companies in Malaysia (MIA, 2016). Based on the previous study, the ownership structure was the only variables that seem to be significant factors that influencing the level of disclosure by firms in Malaysia (Katmon, 2004). This initiative could show that an effort to motivates the companies to voluntarily in disclosing their annual reports to the public besides gave them motivations in providing excellent annual reports.

Language plays an important role in annual report presentation especially the presentation of the financial statement. The financial statements should be understandable for the user to make them conveying with the annual report of the organizations. High level of understanding and readability shown that it was a good annual report (Ali Khan and Zakaria, 2016). Therefore, languages were one of the factors for the annual reports to be accepted and understood by the users (Ali Khan and Zakaria, 2016). There is two importance of language has been depending which are the population size of the countries in which it is the main language and the number of countries in which it is the main language (Jeanjean *et al.*, 2010). There is also none research have been identified as the reasons for the choice of a specific language for the financial reporting. Besides that, based on the research done also resulted 50 percent of the sample size were issued annual report in English language (Jeanjean *et al.*, 2010). In Malaysia, MASB had stated in the Preface of Approved Accounting Standards, Paragraph 37, "*the acceptable languages in approved accounting standards or any documents or related text must be in English*". English is a second global language in the world after Mandarin. English are most common languages that have been used for business purposed. English has reached the stages of global language. Global language is defined when the languages have a special role to develop and recognized in every country (Crystal, 2003).

Based the previous study, most of the Malaysian companies are using English in their financial statements rather than presenting it in Malay languages (Ali Khan and Zakaria, 2016). It is supported by Jeanjean *et al.*, (2010), by stated multinational country were studied annual report based on English languages because it is difficult for them to learn in many languages. The cost of using English as reporting languages might be generated whether directly or indirectly (Feely and Harzing, 2003). The main costs that might be incurred are related to the language barrier. In Malaysia, Malay and English languages can be used to present the annual reports and the financial statements. Some of the companies are taking an opportunity to deliver the presentation in both languages to ensure understanding are delivered well to their users (Abdul Rahman *et al*., 2006). English annual report will decrease with the size of the firms, internationalization sales and cross-listing. Some of the country who are not well in English speaking proficiency and English was not their country practice, this also might lead the information are not delivered well and users hard to understands. Therefore, the distance between the local language and English languages might give difficulties to the preparers of the annual report (Jeanjean *et al*., 2010).

In December 2012, the MASB has issued the MFRS Glossary translation in Malay languages pursuant to the call by the Deputy Prime Minister to uphold this language as national language. Based in Request View on MFRS Glossary translation in March 2014, the translation of this MFRS will serve as a reference and encourage the consistency of terminologies among the financial statements in Malaysia.

One of the most importance of glossary to be translated are as a guidance for the academia (MASB, 2014). This terminology can be used in academic textbooks and teaching consistently. The board has used two primary sources from the Dewan Bahasa dan Pustaka (DBP) dictionary which are Daftar Istilah Industri Perkhidmatan Kewangan (Daftar Istilah) and Pusat Rujukan Persuratan Melayu (PRPM). However, some translated terms were not direct entries in both the primary sources but get translated from other relevant entries and text in two dictionaries (MASB, 2014). Besides that, the glossary compromises about 1897 of International Financial Reporting Standards (IFRS) terms extracted from Glossary of Terms. MFRS glossary was using approach similar word or word to word translation Malay languages purposely to encourage the consistency in using the terminology in the financial report and for other learning sources.

However, there is several issues have been raised in the matter of the translation of IFRS Standards into local languages. Based on Kettunen (2011), there are three problems in the translation of IFRS into the local languages have been determined. The first one is because the translation is far from straightforward issued. Second, sometimes there is a trade-off between formal fidelity to the original standards and readability among the users. Third, knowledge in accounting is an essential factor for implementing the IFRS translation for the country. Other than that, the information also can lead to misunderstanding when the meaning of the terms are not fully understood and appreciated by the recipient. The problems also may arise because of factors of culture, perception and thinking and

different of legal or accounting traditions clash (Evans, 2004). However, there is necessary for the culture and the linguistic to be utilized by using a proper instrument in measuring the various concept (McGorry, 2000).

3.0 Methodology

The population of this research is through the listed companies in Bursa Malaysia. It is relating to the objective of this research which is to observe the company's annual report for ten years duration, from 2006 until the year 2015. The population of this research is focus more on company annual report that is full adopted Malay language from the Bursa Malaysia. There are 808 companies listed on Bursa Malaysia in 2015. However, there are only 122 companies from 2006 until 2015 have presented their annual report in Malay and English. Based on Barlett (2011), the sample size is about 76 to 173 for the population of 800 to 1000. The data have been collected by using secondary data which is from the company's annual report. For this research, two checklists have been used in order to collect the information. The researcher needs to check the information from the annual report to be recorded in this checklist before the data is transferred and analyzed.

The research instrument that been used for this research is by using two types of the checklist. The first checklist is purposely for the collection data on the practice of the company's financial statement in the annual report. This checklist adopted with certain modification to suit with the scope of the study from Ali Khan and Abdul Rahim (2005) entitled a study on optimum criteria in a financial statement according to Malaysian Accounting Standards Board (MASB). The second checklist is fully adopted from MFRS Glossary in Malay translation from MASB. Data are being analyzed using the quantitative analysis approach. The data of annual report were obtained from the website of the company for 10 years record which is from 2006 until 2015. This study using descriptive analysis. However, only frequency analysis being used. This because it is suitable to measure the number of time each value occurs in variable (Heller and Greene, 2012). The data were analyzed and presented in the frequency table form.

4.0 Finding

Table 4.1 shows the results of the language usage of the public listed companies in their annual report in 2015. The source of the information was from public listed companies in Bursa Malaysia. The table shows that there are 807 public companies in a total have been listed on the Bursa Malaysia. From the survey taken, most of the companies are presenting their annual report just in the English language which is about 99%. Meanwhile, about 1% of the public listed companies which is 7 companies are presenting their annual report fully adopted in English and Malay language. This result was gained through each of the company's website.

Table 4.1. Table of language usage in annual report by public listed companies 2015 in Bursa Malaysia

No.	Language	Total	Percentage %)
1	English	800	99.0
2	English and Malay	7	1.0
	Total	807	100

Table 4.2 shows the result of total public listed companies in Malaysia has presented their annual report in the Malay language. This result shows that there is an increasing number of companies in presenting their Malay annual report from 1.6 % in 2007 to 2.3% in 2008. However, the number of companies presenting Malay annual report become lower then. In 2010, the number of companies presenting annual report drop from 1.9% to 1.0% in 2011.

Table 4.2. Table of Malay Language usage in annual report by public listed companies in Bursa Malaysia

Malay language	2006		2007		2008		2009		2010	
	f	%	*f*	%	*f*	%	*f*	%	*f*	%
Yes	16	100	14	100	20	100	18	100	16	100
No	-	-	-	-	-	-	-	-	-	-
Total	16	100	14	100	20	100	18	100	16	100
Total of listed companies	899	1.8	863	1.6	855	2.3	844	2.1	844	1.9

Malay language	2011		2012		2013		2014		2015	
	f	%	*f*	%	*f*	%	*f*	%	*f*	%
Yes	8	100	7	100	7	100	9	100	7	100
No	-	-	-	-	-	-	-	-	-	-
Total	8	100	7	100	7	100	9	100	7	100
Total of listed companies	822	1.0	802	0.9	809	0.9	799	1.1	794	0.9

This paper was conducted in order to see the trend of companies that are presenting their annual report in Malay language using the terminology from MFRS glossary Malay translation. This study was referring to two important financial statements which are the statement of comprehensive income and statement of financial position for the year 2015. In 2015, there are 7 of companies that are presenting their annual report in Malay. Based on MFRS glossary provided by MASB, there is 1897 terms have been translated. However, from this study, there is only 106 terminology have been used in the statement of comprehensive income and statement of financial position. From the review, it shows that most of the company do not follow the exact terms that been provided by MASB into their Malay annual report. This can lead to a problem when the translation gives a different meaning to the users of the financial statements.

Table 4.3 show the results of the review from 2015 companies that provide Malay annual report. The terms that are commonly used in the statement of comprehensive income and similarly with the glossary are the title of the statements which is the statement of comprehensive income with the percentage of 100% for the 7 companies. Then, it followed by equity holders and other comprehensive income with the percentage of 71.4% of 5 companies respectively. While for statement financial position, the common terminology used are deferred share liability, share capital and non-controlling interest which is 100%. All of the companies used these terms in the statement of financial position. Then it followed by cash, property revaluation, intangible asset and statement of financial position which is 86.7% of 6 companies respectively. The results also shown that, there is some common terminology for both financial statements still do not get a 100%. This because some of the terms are being used with other terminology that give the same meaning. A simple example is the title of the financial statements. The title for statement of financial position just only 6 of 85.7%. This is because other company were using Profit or Loss statement as the title for that statements. Besides that, the most commonly used in the statements of comprehensive income is depreciation, but the results shown only one company were presenting in their statements while others are disclosed it in the notes to the financial statements.

Table 4.3. Table of consistency of using MFRS glossary translation in Malay in financial statements

No.	English Terminology	Malay Terminology	SCI		SFP	
			(f)	%	(f)	%
1	'Cost of sales' method	Kaedah kos jualan	1	14.3		
2	Accumulated profit or loss	Untung atau rugi terkumpul			1	14.3
3	Active market	Pasaran aktif			1	14.3
4	Administrative expenses	Belanja pentadbiran	1	14.3		
5	Advance	Pendahuluan			3	42.9
6	Amortisation	Pelunasan	2	28.6		
7	Asset	Aset			1	14.3
8	Available-for-sale financial	Aset kewangan sedia dijual	1	14.3		
9	Balance Sheet	Kunci kira-kira			3	42.9
10	Bank	Bank			1	14.3
11	Basic earnings per share	Perolehan asas sesaham	3	42.9		
12	Bills and acceptance	Bil dan penerimaan boleh			1	14.3
13	Biological asset	Aset biologi			1	14.3
14	Borrower	Peminjam			1	14.3
15	Capital	Modal			2	28.6
16	Cash	Tunai			6	85.7
17	Cash equivalents	Kesetaraan tunai			1	14.3
18	Cash flow	Aliran tunai	1	14.3		
19	Cash flow hedge	Lindung nilai aliran tunai	3	42.9		
20	Classification	Pengelasan	1	14.3		
21	Commitment	Komitmen			2	28.6
22	Components of equity	Komponen ekuiti			1	14.3
23	Consolidated Financial	Penyata Kewangan Disatukan			1	14.3
24	Construction contract	Kontrak pembinaan	1	14.3		
25	Contingency	Luar jangkaan			1	14.3
26	Continuing operations	Kendalian berterusan	1	14.3		
27	Contract liability	Liabiliti kontrak			1	14.3
28	Cost of an Investment in a child	Kos Pelaburan dalam Anak			3	42.9
29	Creditors	Pemiutang			1	14.3
30	Cumulative Translation	Perbezaan Terjemahan			1	14.3

31	Current asset	Aset semasa			5	71.4
32	Current liabilities	Liabiliti semasa			5	71.4
33	Current tax	Cukai semasa			1	14.3
34	Debtors – Trade	Penghutang – Perdagangan			1	14.3
35	Deferred income	Pendapatan tertunda			2	28.6
36	Deferred tax assets	Aset cukai tertunda			5	71.4
37	Deferred tax liabilities	Liabiliti cukai tertunda			7	100
38	Deficit or surplus	Defisit atau lebihan			1	14.3
39	Defined benefit plan	Pelan manfaat ditentukan	2	28.6		
40	Depreciation	Susut nilai	1	14.3		
41	Depreciation expense	Belanja susut nilai	1	14.3		
42	Derivative	Derivatif			1	14.3
43	Derivative assets	Aset derivatif			1	14.3
44	Derivative financial instrument	Instrumen kewangan derivatif			4	57.1
41	Derivative liabilities	Liabiliti derivatif			1	14.3
45	Development costs	Kos pembangunan	1	14.3		
46	Diluted earnings per share	Perolehan sesaham cair	1	14.3		
47	Employee benefits	Manfaat pekerja	1	14.3		
48	Equity	Ekuiti			5	71.4
49	Equity holders	Pemegang ekuiti	5	71.4	1	14.3
50	Expenditure	Perbelanjaan	1	14.3		
51	Fair value gains and losses	Laba dan rugi nilai saksama	1	14.3		
52	Financial asset	Aset kewangan			3	42.9
53	Financial asset or financial	Aset kewangan atau liabiliti			2	28.6
54	Financial institution	Institusi kewangan			2	28.6
55	Funding	Pendanaan			1	14.3
56	Goodwill	Muhibah			1	14.3
57	Gross profit	Untung kasar	1	14.3		
58	Hedges of a Net Investmentin a Foreign Operation	Lindung Nilai Pelaburan Bersih dalam Kendalian Asing	1	14.3		
59	Hedging	Perlindungan nilai	1	14.3		
60	Held for sale	Dipegang untuk jualan			1	14.3
61	Income	Pendapatan	1	14.3		
62	Income statement	Penyata pendapatan	1	14.3		

63	Income tax	Cukai pendapatan	2	28.6	1	14.3
64	Income tax expense	Perbelanjaan cukai	1	14.3		
65	Insurance assets	Aset insurans			2	28.6
66	Intangible asset	Aset tak ketara			6	85.7
67	Inventories	Inventori			4	57.1
68	Investment	Pelaburan			2	
69	Investments in Associates	Pelaburan dalam Syarikat Bersekutu			3	42.9
70	Investments in Associates	Pelaburan dalam Syarikat			4	57.1
71	Liability	Liabiliti			4	57.1
72	Loan	Pinjaman			5	71.4
73	Losses	Kerugian			1	14.3
74	Net assets	Aset bersih	3	42.9		
75	Net loss	Rugi bersih				
76	Net profit	Untung bersih	1	14.3	3	42.9
77	Non-controlling interest	Kepentingan tak mengawal	1	14.3	7	100
78	Non-current assets	Aset bukan semasa	3	42.9	1	14.3
79	Non-current Assets Held for Sale and Discontinued Operations	Aset Bukan Semasa Dipegang untuk Jualan dan Penamatan Kendalian			4	57.1
80	Other comprehensive income	Pendapatan komprehensif lain	5	71.4	4	57.1
81	Payables	Belum bayar			1	14.3
82	Profit before tax	Untung sebelum cukai	3	42.9		
83	Profit or loss	Untung atau rugi	1	14.3	1	14.3
84	Property revaluation	Penilaian semula harta tanah	1	14.3	6	85.7
85	Property, Plant and	Harta Tanah, Loji dan			1	14.3
86	Provision	Peruntukan Belum terima			4	57.1
87	Remeasurement	Pengukuran semula	2	28.6		
88	Reserve	Rizab			5	71.4
89	Retained earnings	Perolehan tertahan			3	42.9
90	Revaluation reserve	Rizab penilaian semula	1	14.3		
91	Revenue	Hasil	3	42.9		
92	Securities	Sekuriti	1	14.3	1	14.3
93	Share capital	Modal saham			7	100
94	Share premium	Premium saham			6	85.7

95	State (employee benefit) plan	Pelan (manfaat pekerja)	1	14.3		
96	Statement of income = Income statement	Penyata pendapatan	1	14.3		
97	Statement(s) of profit or loss	Penyata untung atau rugi dan	2	28.6		
98	Subsidiary	Anak syarikat			1	14.3
99	Statement of Financial Position	Penyata Kedudukan Kewangan			6	85.7
100	Statement of Comprehensive Income	Penyata Pendapatan Komprehensif	7	100		
101	Tax	Cukai	1	14.3	1	14.3
102	Tax effects	Kesan cukai	1	14.3		
103	Tax liability	Liabiliti cukai			1	14.3
104	Trade receivable	Perdagangan belum terima			2	28.6
105	Translation of foreign currency	Terjemahan mata wang asing	4	57.1		
106	Treasury shares	Saham perbendaharaan			1	14.3

5.0 Conclusion

The objective of this study has been highlighted before that are to review the practices of Malay language in the annual report, the practices of presentation in company's financial statement from Malay annual report and also to review the MFRS Glossary terms Malay translation used in the annual report.

The study found that the common language used in presenting the annual report by the companies listed on Bursa Malaysia was in English. The percentage for company presenting the annual report in 2015 was 99% and only 1% were presenting the annual report in English and Malay language. This is because English is an international and a global language nowadays. A language will be a global status when it is been recognized in every country with a special role (Crystal, 2003). The trend for 10 years duration of companies to disclose their annual report in the Malay language also shows declined.

This study also concludes that the presentation of the financial statement showed a better performance where the companies that provide annual report in the Malay language have an effort to ensure a complete set of the financial statement are been published. This is important for the user to make a comparison with the previous annual report and easier for decision making to be made. The requirement for the presentation of the financial statement of the companies in Malaysia is based on the standard provided by MASB which is MFRS 101. However, there is still inconsistency for the term used by the company to present these financial statements.

Besides that, this study also found the inconsistency of the usage of MFRS Glossary Malay translation among the companies that provide the annual report in Malay languages. Based on the review of the research conducted, most of the words are not very far from the exact meaning. However, the terms need to be consistent for easier the user in making an understanding and also comparison for the purpose decision making. This concludes that the usage of Malay terms for accounting purpose in Malaysia still not been fully adopted (Abdul Rahman *et al.*, 2006).

This study is important and gives advantages in accounting practice field. This study would enhance the effort for the improvement in presenting a more annual report in the Malay language. Besides that, enforcement on the standardization of terminology in the annual report can be developed in order to give benefit to the user of the financial statement in gaining understanding and readability of the annual report.

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Factors Affecting the Quality of Environmental Disclosure of Environmental Sensitive Industries in Malaysia

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Abstract

Issues on environmental disasters such as climate change, deforestation, disposal of waste, and coral destruction have withdrawn attention of many parties. People are now concerns on how companies do their business operations particularly those environmental sensitive industries. Thus, environmental disclosure has become an important aspect of business strategy to the corporate communities to ensure its sustainability in the current competitive business environment. This study examines the relationships between audit committee characteristics, namely audit committee financial expertise, female audit committee members and Shariah-compliant company, and environmental disclosure quality by environmental sensitive public-listed companies in Malaysia. Two hundred and two companies were selected and their annual reports for 2015 were used to extract the data. Hierarchical multiple regression analysis was used to examine the relationships. The findings indicate that the audit committee financial expertise and female audit committee are significantly associated with the quality of environmental information disclosure, while Shariah-compliant company revealed in contrary. This study contributes to the current literature on environmental disclosure and audit committee characteristics from Malaysian context. The findings also useful to various organizations and regulatory bodies to consider the importance of having sound audit committee members that may enhance environmental disclosure quality by companies in Malaysia.

Keywords: environmental disclosure, audit committee, environmetnal sensistive industry, Malaysia

1. Introduction

Nowadays, environmental issues become more serious compare to past year. According to the Department of Statistics Malaysia (2016), it was reported that environmental protection expenditure in 2014 was increased by 0.3% compared to 2013 which pollution prevention expenses is the highest. The highest contributor was manufacturing sector. Information about this should be shared with wider stakeholders through disclosure in annual reports or stand-alone reports. Environmental disclosure is a part of Corporate Social Responsibility (CSR), sustainability reporting or integrated repoting. In Malaysia, Bursa Malaysia announced that sustainability reporting is mandatory for public listed companies (Teh, 2016). To be specific, public listed companies with market capitalization more than RM2 billion, they are required to disclose sustainability statement in their annual reports.

Environmental disclosure should not only focus on quantity of environmental disclosure but also the quality of the environmental disclosure. According to Ioannou and Serafeirm (2014), the level of CSR disclosure did not increase although after Bursa Malaysia set requirements for the public listed companies which is to report their CSR initiatives. In addition, Nik Ahmad and Ahmed Haraf (2013) reported the quality of the environmental disclosure provided by property development companies in Malaysia were very poor. Hence, this study focuses on four sensitive industries which are construction, consumer products, industrial products and plantation.

Nevertheless, the quality of environmental disclosure can be improved by having good composition of audit committee. Audit committee is formed to ensure the integrity and transparency of disclosure. Madi, Ishak and Abdul Manaf (2014) asserted audit committee financial expertise able to manage the management problems and increase the quality of environmental disclosure. In addition, female audit committee will affect the quality of disclosure. According to Global Disclosure Initiative (GRI) (2009), female composition can perform better disclosure. Further, Yusoff and Darus (2014) stated that Islamic Financial Institutions (IFIs) are anticipated to support environmental initiative and the quality of environmental disclosure should be better.

Accordingly, this study aims to examine the relationships between audit committee financial expertise, female composition of audit committee and Shariah-compliant companies, and quality of environmental disclosure in environmental sensitive industries. This study provides several contributions which include information on the current state of environmental reporting of environmentally sensitive industries in Malaysia, assisting the statutory bodies such as Bursa Malaysia and Securities Commission Malaysia on the enforcement of environmental reporting, and signalling the environmental sensitive companies to be aware of the importance of having good composition of audit committee members to ensure information credibility and transparency.

2. Factors Influence Environmental Disclosure

2.1. Financial Expertise

Audit committee financial expertise defines as individual with the understanding of Generally Accepted Accounting Principle (GAAP) and financial statements. They should have knowledge in accounting, auditing, financial statement analysis, company's internal controls and audit committee roles (Rahim, Johan & Takril, 2015). Financial expertise can be classified into three types which are accounting financial expert, supervisory financial expert and others. Accounting financial expert such as audit partners and Chief Financial Officers, are those who are having experiences in preparing or auditing financial statements. Supervisory financial expert are those who are having experience in supervising the financial reporting process and accounting financial experts. Others include those who are having experiences in assessing, overseeing and analysing the performance of companies (Bruynseels, Krishnamoorthy & Wright, 2015). If the audit committee is a financial expertise, he should be able to solve the management problems and increase the quality of reporting (Madi *et al.*, 2014; Kusnadi, Kwong, Suwardy & Wang, 2015). Therefore, the disclosure will become more transparent and reliable.

According to Iyer, Bamber and Griffin (2013), financial expertise is important as the board of director believes that he or she contribute to better internal controls and less earnings management. Furthermore, combination of experience and expertise on financial aspects have positive relationship with the company performance (Aldamen, Duncan, Kelly, McNamara & Nagel, 2012). However, a long tenure audit committee may have negative impact on

accounting performance as they will be less independent. Nevertheless, audit committee with financial expertise and industry experiences provided better quality of disclosure (Fang, Xiangjin & Yang, 2012; Abdul Hamid, Othman & Abdul Rahim, 2015). Apart from education and practical experience, gender of the members was also claimed as important.

2.2. Female Audit Committee

Malaysian Cabinet had approved that corporate sector must have at least thirty percent of female involved in the decision making process in 2016 (Securities Commission of Malaysia, 2011; Nik Salleh & Che Haat, 2013). Larger gender diversity may improve the management due to character of female who keen to ask questions than male (Nik Salleh & Che Haat, 2013). Chaluvadi (2015) asserted that female and male have different leadership styles, and female leadership styles are more effective. Female can be better androgynous leaders. They can produce outcomes accepted by the public. Moreover, female has a better communication skills and can increase the creativity and innovation in the team. Female applies transformational and transactional leadership, while male apply threatening leadership styles. Moreover, the presence of at least one female director on the audit committee board will likely lead to better quality of disclosure as female director is more competence, stable, independent, friendly and emotionally rationale compared to male (Thiruvadi, 2012). Scott (2008) believed that to have female in audit committee can safeguard the company and help the firm operate effectively if the firm in a complex environment (Terjesen, Couto & Francisco, 2015). According to GRI (2009), as gender composition increase in top management level and board, it will affect the public accountability, social justice, participation and international conventions or statute law. If an organization with gender diversity on board, the company tends to perform better financially and increase reputation of the organization. While Rupley, Brown and Marshall (2012) found gender composition of audit committee has positive effect on product stewardship, Susanto (2016) discovered female audit committee negatively affect the quality of social and environmental reporting and earning management.

2.3. Shariah-compliant Companies

Shariah means an Islamic law. It is based on the teachings of the Quran and the traditions of the Prophet which is Hadith and Sunnah. The objectives of Shariah are to form justice, educate individuals, preserve morality, avoid adversity and avoid oppression (Islamic Supreme Council of America, n.d.). According to Sallehuddin (2013), Shariah-compliant companies emphasize on the awareness of social responsibility in which they extend their CSR activities such as education, health, and environment issues in their CSR report. Moreover, Islamic principles highlight social welfare and transparency of disclosure. Thus, it is expected that the Shariah-compliant companies will have high quality of disclosure to fulfil the aspects of transparency and reliability in Islam (Alsaadi, Jaffar & Ebrahim, 2013). For instance, Yussof, Darus, Fauzi and Purwanto (2013) found Islamic banks in Indonesia disclose more environmental information in their annual report compared to Islamic bank in Malaysia. However, both countries banks are showing their accountability in protecting environments through their business operations.

Nevertheless, a number of studies revealed no relationship between religion and the improvement of information reporting. The disclosure is mainly affected by the regulatory bodies (Yusoff, Darus, Fauzi & Purwanto, 2013; Mohammed, Alwi & Muhammad Jamil, 2010). Furthermore, Yusoff and Darus (2014) found that environmental disclosure practices among 37 Islamic Financial Institutions (IFIs) in Malaysia in 2012 were minimal, general and qualitative in nature. According to the Islamic principles and Islamic status of IFIs' establishment, IFIs are anticipated to be frontier in supporting environmental initiative.

2.4. Research Framework

This study examines the influence of audit committee financial expertise, female member of audit committee and Shariah-compliant on quality of environmental disclosure as reflected in the research framework below.

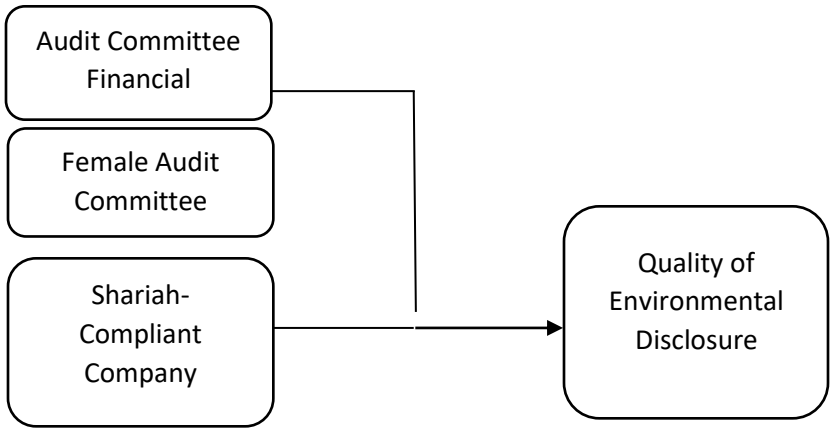


Fig.1. conceptual framework

2.5. Hypotheses Development

According to Madi *et al.* (2014) and Kwong, Wang, Suwardy and Kusnadi (2015), the audit committee financial expertise and industry experience (Fang *et al.,* 2012) can increase the quality of the disclosure as well as the management. According to accountability theory, financial expertise audit committee has the responsibility to solve the management problems and increase the quality of the disclosure (Madi *et al.,* 2014; Kwong *et al.,* 2015). Further, if financial expertise on audit committee board increase, it can improve companies' competitive advantage and quality of the disclosure (Kusnadi *et al.,* 2015). Hence, this study hypothesizes that:

H1: Audit committee financial expertise will affect the quality of environmental disclosure

Susanto (2016) stated that female audit committee is negatively affecting the quality of social and environmental disclosure. Moreover, the presence of at least one female director on the audit committee board will likely lead to better quality of disclosure (Thiruvadi, 2012). According to Thiruvadi (2012), female is more competence, stable, independent, friendly and emotionally rationale compared to male. It can become the competitive advantage of the company and increase the quality of disclosure (Chaluvadi, 2015). Thus, the following hypothesis is addressed:

H2: Female audit committee will affect the quality of environmental disclosure

Yussof *et al.* (2013) and Mohammed *et al.* (2010) found that there are no relationship between the religion and the improvement of the disclosure quality because disclosure is affected by the regulations. Nevertheless, some studies found that Shariah-compliant companies more ethical and provide high quality reporting (Alsaadi *et al.,* 2013; Othman & Md Thani, 2010). This implies the accountability in Islam as organizations are accountable to shareholders as well as wider stakeholders. Hence, this study hypothesized that:

H3: Shariah-compliant companies will affect the quality of environmental disclosure

3. Research Method

Four environmental sensitive industries (i.e. construction, consumer product, industrial product and plantation) have been identified as sampling frame of the study. Out of 427 companies listed on Bursa Malaysia as at December 2016, two hundred and two companies were sampled based on sample size calculator (48% of total population). Thus, there are 22 companies in construction, 58 companies in consumer product, 102 companies in industrial product and 20 companies in plantation industry were selected as sample companies.

The data was collected from companies' annual reports year 2015 obtained from Bursa Malaysia website. Content analysis was used to collect the relevant information from the annual reports. Content analysis is readily applied and widely utilized in prior studies to measure the CSR quantity as well as quality (Sulaiman, Abdullah &

Fatima, 2014). The environmental information was collected based on the list of social information items in Clarkson, Li, Richardson and Vasvari (2008). There were 45 indicators which are divided into two parts, hard disclosure items (29 indicators) and soft disclosure items (16 indicators). Then, the quality of environmental information was measured by points depending on the information disclosed. In order to make the measurement simple and easy to understand, the indices have been weighted at 100%.

The score for a company is computed by the following formula:

$$\boldsymbol{EDI} = \frac{\boldsymbol{Aggregate\ of\ scores\ (All\ soft\ and\ hard\ indicators)}}{\mathbf{95}\ (\boldsymbol{Maximum\ scores})} \times \mathbf{100\%} \qquad (1)$$

The audit committee financial expertise is categorised into either high or low (Badolato, Donelson & Ege, 2014). If the percentage of audit committee financial expertise is more than 50%, it categorised as high level of financial expertise, and vice versa. In addition, the companies in the sample were differentiated between female audit committee and non-female audit committee based on the presence of a female director on the audit committee (Hua, Yun, Fornaro, & Elshahat, 2011; Susanto, 2016). Hence, it showed clearly which companies have female audit committee and which companies do not have female audit committee. The companies in the sample were differentiated between Shariah-compliant companies and non-Shariah-compliant companies based on the list of Shariah-compliant Securities by Security Commission's Shariah Advisory Council as at 21st November 2016. Then, using hierarchical multiple regression, the relationships of audit committee financial expertise, female audit committee and Shariah-complaint company, and quality of environment disclosure of environmental sensitive industries in Malaysia were examined. The data was analysed using the Microsoft Excel Windows version 2010 and Statistical Packages for Social Science (SPSS) Window version 22. The regression model was developed as below:

$$\boldsymbol{QED} = \boldsymbol{\beta_0} + \boldsymbol{\beta_1 ACFE} + \boldsymbol{\beta_2 ACF} + \boldsymbol{\beta_3 SC} + \boldsymbol{\beta_4 AOC} + \boldsymbol{\beta_5 CS} + \varepsilon \qquad (2)$$

Table 1. Variables, Operationalization, and Data Sources

Variable Name	Type of Variable	Short Form	Operationalization	Data Source
Quality of environmental disclosure	Dependent	QED	Environmental Disclosure Index (Clarkson *et al.*, 2008)	Annual Reports
Audit committee financial expertise	Independent	ACFE	Percentage of audit committees has financial background. (Badolato *et al.*, 2014; Bruynseels *et al.*, 2015)	Annual Reports
Female composition of the audit committee	Independent	ACF	The presence of a *female* director on the *audit committee*. (Hua *et al.*, 2011; Susanto, 2016)	Annual Reports
Shariah-compliant	Independent	SC	Shariah-compliant companies determine by using list of Shariah-compliant Securities by Security Commission's Shariah Advisory Council. (Ibrahim, Marshall & Rahman, 2013)	Annual Reports
Age of Company	Control	AOC	The length of the time that a company has existed	Annual Reports
Company Size	Control	CS	Total Assets	Annual Reports
Error term	NA	E	NA	NA

4. Analysis of Findings

4.1 Environmental Performance

Table 2. Environmental Performance According to Environmental Disclosure Index

Code	Environmental Disclosure Index (EDI)	Score	Ratio of Score Against Number of Companies (%)
	Hard Disclosure Items		
A1	Governance structure and management systems	182	15.02
A2	Credibility	454	22.48
A3	Environmental performance indicators (EPI)	504	4.16
A4	Environmental spending	16	2.64
	Soft Disclosure Items		
A5	Vision and strategy claims	297	24.50
A6	Environmental profile	209	25.87
A7	Environmental initiatives	139	11.47
	Total	**1801**	**9.39**

According to Table 2, neither item reaches average rating of 50%. The highest environmental disclosure item is environmental profile (A6) with value of 25.87% (209 points) from soft disclosure item. Then, it followed by vision and strategy claims (A6) with value of 24.50% (297 points) from soft disclosure item and credibility (A2) with value of 22.48% (454 points) from hard disclosure items. Moreover, governance structure and management systems (A1) with value of 15.02% (182 points) from hard disclosure items and environmental initiatives (A7) with value of 11.47% (139 points) from soft disclosure items are fourth and fifth highest environmental disclosure items. Then, the second lowest is environmental performance indicators (A3) with value of 4.16% (504 points) from hard disclosure. Lastly, the lowest item is from hard disclosure which is environmental spending (A4) with value of 2.64% (16 points). These results of environmental performance were then used as environmental disclosure quality.

4.2 Statistical Results

Table 3. Coefficients

	Model	Standardized Coefficients Beta	Sig.
1	(Constant)		0.146
	Age of Company	0.244	0.000
	Company Size	0.388	0.000
2	(Constant)		0.009
	Age of Company	0.265	0.000
	Company Size	0.342	0.000
	Level of Financial Expertise	-0.128	0.038
	Female Audit Committee	-0.150	0.019
	Shariah-complaint Company	0.066	0.279

The above extracted Coefficients Table explain the relationships between variables. There are only four variables reveal statistical significant relationships (p-value < 0.05) with quality of environmental disclosure, which are the age of company, company size, level of financial expertise and female audit committee. Level of financial expertise and female audit committee have negative beta with values of -0.128 and -0.150. However, Shariah-complaint company has no effect on quality of environmental disclosure.

5. Discussion and Conclusion

5.1 Environmental Disclosure Quality

Generally, the quality of environment disclosure is very poor. In this study, the top three items that disclosed the most by the companies are environmental profile, vision and strategy claims, and credibility. Nowadays, environmental issues are serious and the stakeholders worry about this matter. This may be the reason that companies tend to emphasize on environmental profile and vision and strategy claims. It may help the companies to develop a good environmental image. Additionally, most of the company focuses on the credibility of information disclosed such as obtained independent verification on the information, products and program by independent agency and third parties. This is similar to findings in Nik Ahmad and Ahmed Haraf (2013), the top three categories that disclosed the most by property development companies in Malaysia are credibility, vision and strategy, and environmental profile. Studies in United Stated also revealed similar results (Clarkson *et al.,* 2008). Besides that, Gao and Connors (2011) found that vision and strategy claims on environmental, credibility and environmental spending are the top three environmental disclosure items that disclosed the most by the companies in electric utility industry. Later, Connors and Johnston (2013) discovered that chemical and electric utility industry' companies in United Stated emphasizes more on vision and strategy claims, environmental initiatives and environmental spending.

5.2 Relationships between Variables

The results of regression analysis show there is a relationship between audit committee financial expertise and quality of environmental disclosure but an inverse relationship. This is in contrary with Fang *et al.* (2012) which stated that financial expertise provides better quality of disclosure. This may due to the financial expertise is more concern on financial matters rather than non-financial matters such as issues on environment. Mohd Said, Sulaiman and Nik Ahmad (2013), found that environmental information does not influence the decisions' made by respondents as managers in Malaysia may not be prepared or trained in incorporating environmental information in their decision-making process.

Moreover, this study also reveals that female audit committee affects the quality of environmental disclosure but also an inverse relationship. This is consistent with the findings of Susanto (2016) which found that female audit committee negatively affects the quality of social and environmental disclosure and earning management. A possible explanation is that female audit committee is merely sleeping board member and they just follow the male audit committee instructions. Furthermore, female audit committee seldom voice out their opinions during the meetings. It shows that the female audit committee is less independent.

However, there is no relationship between Shariah-compliant companies and environmental disclosure quality was found in this study. Similar findings were also discovered by Yussof *et al.* (2013) and Mohammed *et al.* (2010). Nevertheless, it cannot be denied that Shariah-compliant companies can somehow contribute to the environmental disclosure but it is just insignificant in this case. It can be seen from the findings of Alsaadi *et al.* (2013) and Othman and Md Thani (2010) which stated that Shariah-compliant companies provide high quality disclosure. The findings in this study reveals in contrary may due to the sample size which is small and use one-year data only.

5.3 Implications of the Study

This study contributes in a number of ways. It adds to the current literature in the area of environmental disclosure quality and audit committee characteristics. The results further strengthen the needs for organizations to scrutinize the compositions and characteristics of audit committee members in order to enhance quality environmental disclosure. This is necessary in order to be competitive in the present business environment. The findings are also alarming the regulators to further strengthen the guidelines concerning social and environmental

disclosure to ensure information disclosed by companies is of high quality. The results of the study, however, need to be interpreted with caution. The data was collected mainly from companies' annual reports. However, there are other medium of disclosure by companies such as corporate websites, stand-alone report, press release, published advertisement or articles. Incorporating information from other sources may improve the findings of this study.

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The Influence of Internal Control Practices and Facilities Management on Mosque Performances in Malaysia

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Abstract

Mosque is a place of huge significance as concluded by Ahmad et al. (2016) especially to the Muslim community that make up nearly ¼ of world population. It is where prayers are done especially congregational prayers. With the utmost important role of prayers in Muslims life, mosque also serves a centre of spiritual, educational, social development and cultural centre throughout the globe including Malaysia's villages and urban areas. There are 6312 mosques in Malaysia as at August 2018. With aforementioned characteristics, mosques have abundance of financial and physical resources. Taking into account the importance and its function in providing services, it is essential to utilize mosque resources efficiently and effectively. Past studies on religious institutions highlighted issues of accountability and lack of internal control, mismanagement and no standardization besides factor of lack regulations. Prior studies on mosque have either mainly focused on mosque management and financial aspect, or on the other hand, mosque architectural designs. There are comparatively fewer studies that highlight the usage of physical and tangible resources, apart from monetary donations, in contributing to mosque financial aspect. The present study attempts to empirically test factors which would influence mosque performance from selected mosques in Malaysia. Factors to be tested include internal control practices (control environment, risk assessment, control activities, information & communication, and monitoring activities) and facilities management. A questionnaire survey will be used to collect data in mosque institutions. Statistical analyses will then be used to analyse variables and presenting evidences which influence factors toward mosque performances. This study thus aims to close existing gaps and results from such analyses is hoped to enhance understanding of mosque as religious institution. It will also help to identify important factors. Therefore, regulating bodies are able to perform better assessment on mosques and consequently take immediate necessary action.

Keywords: mosque; internal control practices; facilities management; mosque performances; Malaysia

1. Introduction

Mosques stand more than its aesthetical values, they are symbol of Islam and catalyst to the development of surrounding area as proven with the establishment of Prophet Muhammad's mosque and the rapid development in Makkah and Madinah (Hamid et al., 2012; Baharudin and Ismail, 2014). Mosque is also known as *masjid.* Previous

literatures provide the definition of *masjid* that explains the origin of the word. It originated from Arabic language, from the root word *sajada (sujud)* which means to prostate. It refers to the act of devotion and supreme submission by bowing of heads in prostration as one of the steps in performing *solat* (prayer) (Kassim et al. 2014, Mohamed et al. 2014). It is thus important to understand that the daily five prayers are obligatory for Muslims. As the main place where prayers are performed, especially congregational prayers, mosques are prominent building where Muslims gather and further use mosques for other functions including as center for knowledge, education and as community development center. With the practice of performing congregational prayers, it is among the institutions that promotes unity in community. Besides the benefits to an individual's state of mind, emotional and spiritual level, the members also meet and interact with one another, therefore strengthening the bond of community.

There are a total of 6,312 mosques registered with Malaysian Islamic Development Department (also known as JAKIM) as in August 2018. As a nation with large number of mosques, ideally the teachings of Islam should be embodied and practiced. However, nowadays the mosque functions are neglected by Muslims in Malaysia. A research done highlighted the issue of congregational attendance that revealed a mosque with capacity for 3,000 people are only filled with small number of *saf* (prayer rows). The minimal number of attendance is dismaying as this possibly reflects mosque performance and Muslim communities' negligence toward prospering mosques as the utmost important institution in Islam (Ashaari, 2017).

Proper internal control system (ICS) helps in providing assurance that NPOs attain their objectives, for instance professionally provide services to the community and at the same time efficiently utilizing resources and reducing risk of mismanagement and fraud (Morehead, 2007). Taking into account the importance and function of mosque in providing services, it is essential to utilize the available resources efficiently and effectively. Besides receiving donations and financial contributions, mosques also function as building that provide facilities other than a place of prayer. To enhance mosque institution, suitable management practice is required as challenges include are mainly related to financial management (Hamdan et al., 2013; Sapri et al., 2014).

Accounting practices in Islamic religious organizations are less developed, where producing annual financial statements is neither considered as important process nor important documents (Mohamed et al., 2014). According to Rokiah et al. (2008) as cited by Hamdan et al. (2013), the requirement of periodic reports submission is not strictly enforced. Therefore, as suggested by Ashaari (2017), the adherence and abiding to the rules and regulations by State Islamic Religious Councils (SIRC) need to be enhanced and require further enlightening.

Religious institutions do not have appropriate control system in safeguarding available resources and at the same time updating members on institutions' financial condition (Afifudin and Siti-Nabiha, 2012). Past studies have highlighted the issue of lack regulations and proper code of conduct on churches (Booth, 1993), and mismanagement of church funds (Sulaiman et al., 2008). The findings of Sulaiman et al. (2008) addressed fund embezzlement from religious organizations including mosques are prone due to the low level of accountability and weak commitment to accounting. Challenges related to mosque include mosque accountability and financial reporting (Hamdan et al., 2013; Sulaiman et al., 2008; Mohamed et al., 2014).

Previous studies on Malaysian mosque architectural design highlighted the measure and design that will contribute to cost savings in mosque maintenance (Ismail, 2008; Baharudin and Ismail, 2014; Ahmad et al., 2016). Study on mosque management in Malaysia that incorporate discussion on mosque designs from architectural perspectives are yet to widely discuss. The present study focuses on mosque performance. It is felt that by analyzing resources and factors from a wider view, bridging both perspectives will contribute to an interesting and meaningful interpretation of mosque.

Further understanding of the issues and possible impact of internal control practices and facilities management on mosque performances should be gathered and empirically tested. This will help to increase understanding on mosque resources management and mosque performance as religious institution. For that reason, this study search for empirical evidence on the influence of internal control practices and facilities management on mosque performance in Malaysia. It is hoped that the findings would provide useful guides for Malaysian mosque institutions.

2. Literature Review

2.1 Religious Institutions

United Nation's Handbook on Non-Profit Institutions in the System of National Accounts (2003) listed types of organizations under the Non-Profit Organizations which include art and cultural associations, sports and recreation clubs, private schools, research institutes, hospitals, charities, religious congregations and faith-based organizations,

humanitarian assistance and relief organizations, advocacy groups and foundations and charitable trusts. Religious worship organizations including churches, synagogues, mosques and others are included in Group 10 (Religion) according to the Handbook.

Concerning Malaysian mosques, the current law governing the establishment and mosques administration are under the purview and vested in the State Islamic Religious Council (SIRC). With the virtue of the Federal Constitution, the management and administration of mosque in Malaysia are to be govern by the states and SIRC is the sole trustees of all mosques in each respective states (Miskam and Jamaluddin, 2014; Sulaiman et al., 2008). As a result, there are differences in practice as each state has its own regulation.

2.2 Accountability and Internal Control

The study of Palmer and Randall (2002) suggest accountability is still of paramount importance in the Non-Profit Organizations (NPOs). As suggested by internal control principle, organization may establish ICS as the primary accountability and governance tool (ACFE, 2004).

Developing accountability mechanism emerged as challenge for NPOs with particular characteristics that separate them from business organizations. Religious organizations are urged after a number of scandals and lawsuit cases of church fund embezzlement and mismanagement as a result of lack basic control and written financial procedures (Keating et al., 2005; Siino, 2004; Mohamed et al., 2014). Comparing the conventional view, accountability in Islam covers the accountability to God and accountability to the *ummah* (community) as prime importance to a Muslim faith. Islamic law covers every aspect of life encompassing set of duties and practices as a Muslim individual to continue worshipping Allah, as well as relationship with others in terms of manners, morals, commercial transactions and business practices bounded by *Sharia*. As a prominent building in Islam, the prospering activities and management of mosque should not be neglected.

2.3 Internal Control Issues among Mosques in Malaysia

Internal control act as management tool used to provide reasonable assurance that management's objectives are being achieved. The issue with internal control of NPO is in ensuring activities' efficiency and effectiveness, information reliability, compliance with applicable laws, and financial reports' timeliness (Jokipii, 2010).

Good internal control enhances mosque's transparency and as a result will increase donors' confidence to contribute more to mosque fund. (Mohamed et al., 2014). The findings of Said et al. (2013) study of mosque support that internal control system has positive relationship with financial performance. However, issues associated with mosques include the lack of internal control (Sulaiman et al. 2008, Mohamed et al. 2014). Hamdan et al. (2013) summarize the challenge of mosque include lack of compliance to reporting requirements where reports are poorly prepared and not submitted to SIRC on frequent basis highlighted in many discussions.

A recent incident reported in January 2018 where Islamic Religious Department of Perak detected idle amount of mosque fund amounting to RM 7.8 million in Perak state, Malaysia (Sinar Harian, 2018). Datuk Zainal Derus, the Director of Perak Malaysian Anti-Corruption Commission (MACC) mentioned several reports on mismanagement and misappropriation of mosque funds were also received. In May 2017, MACC detained two top Malacca state mosque officials for alleged bribery. The allegation of personal gains for bribery and disposal of land placed under their authority as the mosque's senior officials. These events challenge the credibility of mosques.

In the 2014 study of mosques in Malaysia central region, Mohamed et al. (2014) found that different types of donation boxes were used by *Jameq* mosques. Donation boxes used include from the one locked and sealed with steel bar, to the usage of mere plastic containers to collect funds. There are several CCTV footage of mosque donation box robberies available online including blogs and YouTube. These events raise questions regarding the controls implemented in mosques to overcome these existing issues.

3. Development of Research Framework

3.1 Mosque Performance

Financial and non-financial measures are the two measurement procedures to determine a company's performance according to accounting perspective (Hilton 1999; Mohamed, 2010).

Being a unique building, mosque requires high attention from all parties (Sapri et al., 2014). Attention needed varies from the management and operation, to the maintenance of building as a physical structure and construction.

As mosque belonged in the category of non-profit organization (Said et al., 2013), measuring performance is essential (Sapri et al., 2014). Mosque performance can be measured with the outputs from congregational prayers, religious events, religious education and knowledge, charity and community services (Rahman et al. 2015). Non-financial measures focus on current activities as drivers to future financial performance (Mohamed, 2010).

The study of Said et al. (2013) suggest that three variables 1) financial management practice 2) internal control practices 3) fund raising activities, influence financial performance. It also posits that financial performance impact the quality of program outcomes. The study imply mosque with strong financial position have stronger tendency to conduct more quality programs. These include mosque prospering activities such as organizing events and motivation programs. Sanusi et al. (2015) highlighted that fund usage and internal control practices have significant relationship with financial management practices. Hence, internal control system (ICS) plays major role in providing guarantee of financial management practices effectiveness (Sanusi et al., 2015).

NPOs are able to attract more contributions to the organizations with transparent and proper issuance financial reports (Hamdan et al., 2013). Generally, although the NPOs in Malaysia acquired public trust, they are less strict on regulations (Arshad et al., 2015). Sources of mosque financial include the allocation received from government, monetary donations from corporate and public as well as individuals (Masrek et al., 2014; Mohamed et al., 2014). As one of main financial resources, funds are able to be raised based on trust (Said et al., 2013). However, prior studies on NPOs highlighted issues on fund management and embezzlement resulted from lack of internal control practices (Booth, 1999; Sulaiman et al., 2008; Mohamed et al., 2014). The large population of Muslim communities in Malaysia are among the contributors to mosque funds. There are comparatively fewer studies that highlight the usage of physical and tangible resources, apart from monetary financial resources. With regards to financial contributions received and availability of facilities, mosque are expected to be well managed and have better performance. Therefore, it is logical to pay extensive care covering multidimensional aspects regarding mosque. By efficiently utilizing mosque resources with proper internal control practices and facilities management.

3.2 Mosque Design and Functionality

In Islam, the simplicity and space functionality are the major focus and original concept of mosque to perform prayers (Ahmad et al. 2016). Apart from literatures discussing mosque management, mosque design and aesthetical values are discussed from architectural view offering wider perspectives, allowing further understanding of mosque management. Literatures from architectural view include studies on mosque design and functionality on sustainability development for community (Baharudin and Ismail, 2014), discussed sustainability where the implications of stereotype mosque architecture on sustainability and mosque planning are highlighted (Ahmad et al. 2016, Abdullah et al. 2013).

Mosques have been long established in Malaysia. Mohamad et al. (2012) seek the role of Malaysia religious community in recycling (including the role of mosque contribution in this movement). Whereas Sapri et al. (2014) suggest the potential of facilities management in uplifting mosque management functions. However, some elements of architectural designs and features that could influence mosque financial status has not been widely discussed in literatures that focus on mosque management.

3.3 COSO's Internal Control – Integrated Framework Principles

Internal control helps organization to achieve key objectives relating to operations, reporting and compliance, also in sustain, and improve performance (COSO, 2013). It is vital for mosque to have controls to help meet its goals besides avoiding misuse of funds (Warraich and Feroze, 2007). Prior studies of NPOs especially mosques have highlighted issues of internal control (Sulaiman et al., 2008; Said et al., 2013; Mohamed et al., 2014). Past literatures discussion of internal control practices have mainly focused on managing mosque financial resources with regards to issues of fund management and embezzlement. This can be identified as control activities, the third component of internal control according to COSO's framework. The discussions were limited only to the management and control of mosque funds, without including further discussion of the other components of internal control (control environment, risk assessment, information & communication and monitoring activities). As such, there are need to rearrange the attributes suitable with Malaysia setting and to test the direct relationship of the proposed variables influence on mosque performance.

3.4 Research Framework

In order to identify specific constructs for development of research framework, thorough literature review are required. The study reviewed the literature related to internal control and facilities management in understanding its influence on mosque performance. COSO's Internal Control – Integrated Framework provides three categories of objectives, 1) operations objectives 2) reporting objectives 3) compliance objectives, which allow organizations to focus on differing aspects of internal control (COSO, 2013). The five components (1. control environment 2. risk assessment 3. control activities 4. information & communication 5. monitoring activities) of internal control will be adapted in developing research framework.

With the gaps found in prior study, advancement need to be made in the current study by adapting COSO's Internal Control – Integrated Framework Principles (2013) and taking into account the variable of facilities management, to develop the following research framework. These attributes are expected to influence mosque performances among religion institutions. The direct relationship between attributes and mosque performances can be shown on Figure 3.1

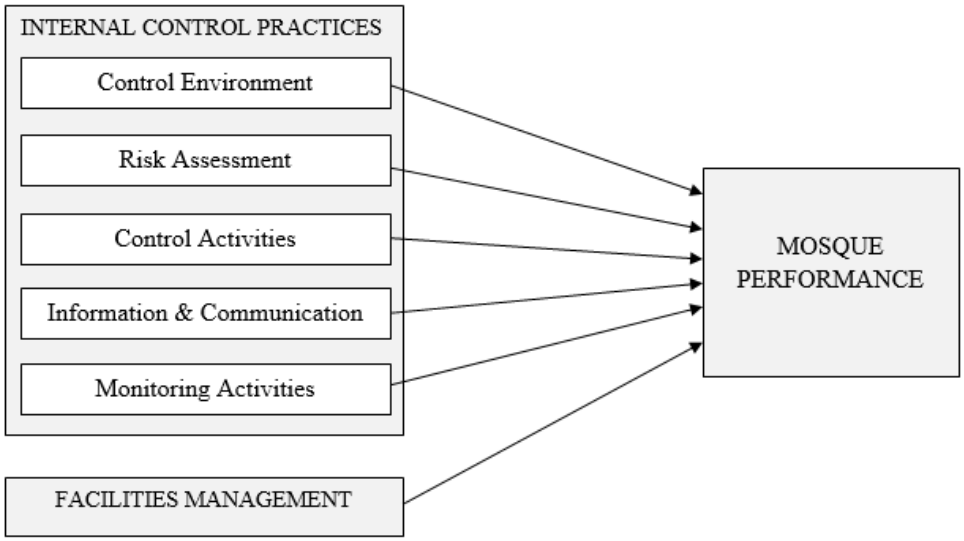


Fig. 3.1 Research framework of The Influence of Internal Control Practices and Facilities Management on Mosque Performance.

3.4 The Five Components of Internal Control Practices

In order to fully grasp internal control practices, this study aims to look closely at all five components of internal control:

- Control environment: refers to set of standards, processes and structures as basis for carrying out internal control across mosque institution (COSO, 2013; Warraich and Feroze, 2007; Sulaiman et al., 2008; Hamdan et al. 2013).
- Risk assessment: refers to dynamic and iterative process in identifying and assessing risk to achieve objectives (COSO, 2013; Warraich and Feroze, 2007).
- Control activities: refers to the way mosque manage contributions in the form of financial donations received from public and government (COSO, 2013; Mohamed et al., 2014; Said et al., 2013; Hamdan et al., 2013; Sulaiman et al., 2008)
- Information and communication: refers to generation of relevant and quality information from internal and external sources including voluntary information of financial, performance and governance (COSO, 2013; Warraich and Feroze, 2007; Lee and Joseph, 2013; Saxton and Guo, 2011).
- Monitoring activities: refers to either ongoing or separate or combination of both types of evaluation to ascertain present and functioning of five components of internal control (COSO, 2013; Sulaiman et al., 2008; Hamdan et al., 2013)

3.5 Facilities Management

The relationships with mosques should not be limited only with human, but the relationship of mosque with nature and environment should also be considered. As suggested by Sapri et al. (2014), facilities management has the potential in uplifting mosque management by prioritizing good facilities for long-term benefits. However, little study has been done that specifically test facilities management in as factors that influence mosque performance. Facilities management (FM) may be identified as source of income and revenue generation for mosque. The present study thus aims to conduct direct empirical evidence on proposed relationship between FM and mosque performance, based on aspects of maintenance, safety and comfort.

With proper FM and prospering activities that promotes environmental friendly concept, this will be beneficial to all parties including mosque, society at large including congregational members and Muslim communities, without neglecting the impact on the environment.

4. Concluding Remarks

NPOs credibility and financial viability are directly influenced by lack of internal control (Saat et al., 2013). With the long establishment of mosque in Malaysia, this study is hoped to create awareness on the importance of achieving good mosque performance. The abundance of mosque financial and physical resources should be utilize effectively and efficiently. By summarizing prior literatures including issues of mosques in Malaysia, this study intend to seek empirical evidence of the influence of internal control practices and facilities management on Malaysia's mosque performance. Besides including facilities management as proposed variable, this study look closely on all five components of internal control practices.

The outcome of the study is expected to narrow down the knowledge gaps by introducing a comprehensive framework for mosque performance. Hence, by promoting internal control practices and facilities management implementation in mosque, measures to improve mosque accountability can be execute by all parties and monitored by regulated bodies in order to maintain mosque integrity and credibility.

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مناخ الإستثمار في السودان ودوره في جذب الإستثمارات السياحية

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مستخلص الدراسة

انحصرت مشكلة الدراسة في دراسة مناخ الاستثمار في السودان باعتباره المدخل الحقيقي لجذب الاستثمارات السياحية وذلك من خلال فتح تمويل المشاريع الإستثمارية السياحية أو فتح باب الإستثمار أمام المستثمرين في هذا الجانب ، الأمر الذي يتيح من فرص لزيادة الإنتاجية ورفع معدل القيمة المضافة وامتصاص البطالة وزيادة في الدخل ومحاربة الفقر مع الأخذ في الاعتبار أن تحقيق تلك الأهداف مرتبطة بتوافر محددات أو مقومات معينة حتى يستطيع البلد المعني دخول التنافسية الدولية من أجل جذب الاستثمارات السياحية، الأمر الذي يتطلب تحديد أهم المحددات المتمثلة في توفر الاستقرار الأمني، والسياسي، والاقتصادي، والبنية الأساسية، من طرق وخدمات وكهرباء ومياه، ووضوح الجانب التشريعي بما يتضمن من مزايا وحوافز وتسهيلات، فضلاً عن الموارد البشرية (المؤهلة) والمالية، والخدمية، والتكنولوجية. علي ضوء ذلك أثارت الورقة جملة من التساؤلات:

1/ ما هي المحددات الأساسية التي يجب توفرها لتهيئة مناخ الاستثمار في السودان؟

2/ ما هي العلاقة السببية بين مناخ الاستثمار والقدرة التنافسية للسودان بهدف جذب الاستثمارات السياحية؟

علي ضوء ذلك تمثلت فرضيات الدراسة في الآتي:

1/ هنالك محددات أساسية تؤثر ايجاباً في تهيئة المناخ الإستثماري بالسودان.

2/ توجد علاقة سببية بين مناخ الإستثمار والقدرة علي جذب الإستثمارات السياحية .

اعتمدت الدراسة على منهج التحليل الاقتصادي الوصفي، والتحليل الكمي في تحديد مفاهيم الاستثمار ومحددات مناخ الاستثمار بالسودان.

أهم النتائج التي توصلت لها الدراسة:

1- أثبتت نتائج الدراسة من الناحية النظرية أن هناك علاقة سببية بين توفر محددات مناخ الاستثمار التي سبقت الإشارة إليها وغيرها، وكمية تدفق رؤوس الأموال للاستثمار الأجنبي المباشر في السودان.

أهم التوصيات التي أوصت بها الدراسة:

1- توفر الموارد الطبيعية مع استقرار ووضوح السياسات الاقتصادية والمالية والنقدية في ظل الانفتاح الاقتصادي والقدرة التنافسية للمؤسسات الإنتاجية والخدمية المحلية يساعد في تهيئة المناخ الإستثماري في السودان.

Abstract

Confined to the study problem in the study of the investment climate in Sudan as a true gateway to attract investment and tourism through open financing investment projects of tourism or open door investment for investors in this aspect, which allows opportunities to increase productivity and raise the rate of value-added and absorb unemployment and an increase in income and the fight against poverty, taking into account the fact that the achievement of these objectives linked to the availability of the determinants or components of certain so that the country entering the international competitiveness in order to attract tourism investments, which require the identification of the most important determinants of the availability of security and stability, and political, economic, and infrastructure, from roads and services electricity and water, and the clarity of the legislative side of the advantages of including incentives and facilities, as well as human resources (qualified), financial, and service, and technology. In light of this paper raised a number of questions:

1 / what are the primary determinants that must be met to create the investment climate in Sudan?
2 / what are the causal relationship between the investment climate and competitiveness of the Sudan in order to attract tourism investments?

In light of this study consisted in the following hypotheses:
1 / There are key determinants in creating positively affect the investment climate in Sudan.
2 / there is a causal relationship between the investment climate and the ability to attract tourism investments.

The study relied on descriptive approach to economic analysis, and quantitative analysis to identify the determinants of the concepts of investment and the investment climate in Sudan.

The most important findings of the study:
1- Results of the study demonstrated theoretically that there is a causal relationship between the availability of the determinants of the investment climate already mentioned and others, and the amount of capital inflow of foreign direct investment in Sudan.

The most important recommendations recommended by the study:
1- Availability of natural resources with the stability and clarity of economic and financial policies and monetary under economic openness and competitiveness of the productive and service enterprises local help in creating the investment climate in Sudan.

مقدمة الدراسة :

يتمتع السودان بالعديد من المناطق السياحية الجاذبة للباحثين عن الجمال والمعرفة فالتباين المناخي الذى يتمتع به السودان خلق طبيعة رائعة وخلابة وجاذبة ،وتوفر المقومات الطبيعية للسياحة العلاجية في السودان وغيرها من دوافع السياحة والتى تتكامل فيما بينها فالموقع الجغرافي وكثرة الجواذب السياحية ووفرة العيون المعدنية الكبريتية والشمس المشرقة كلها تعمل على الجذب السياحي .

كما يمتاز بموقع جغرافي متميز في قلب القارة الافريقية ، ويجاور سبع دول ،وتبلغ مساحة السودان 1,886,068 كم^2 مما يجعل منه معبراً ومركزاً للتسويق يمد اسواق البلدان المجاورة بالسلع والخدمات .

تتوفر بالسودان امكانيات وموارد طبيعية ضخمة من اراضي شاسعة صالحة للزراعة تقدر بحوالي (200) مليون فدان ، وموارد مياه وفيرة من الامطار والانهار والمياه السطحية والجوفية ، وتنوع في المناخ بطول البلاد من الشمال الى الجنوب يشمل مناخ السافنا الغنية والفقيرة والمناخ المداري الاستوائي ومناخ البحر الابيض المتوسط ، هذا الى جانب ثروة حيوانية تقدر بحوالي (103) مليون رأس من الابقار والضأن والماعز والابل ، تعتمد على مراعي طبيعية وغابات تقدر بحوالي نحو 250 مليون فدان ، كما توجدبالسودان ثروة معدنية هائلة لم تستغل بعد

، تشمل معدن الذهب والفضة والكروم والاسبتوس والمانجنيز والجبص والمايكا والتلك والرصاص واليورانيوم وغيرها الى جانب البترول والغاز الطبيعي .

يقع السودان في المنطقة المدارية فلذلك تنوعت الأقاليم المناخية السودانية من المناخ الصحراوي إلى المناخ الاستوائي. فنجد توزيعها كالآتي المناخ الصحراوي الحار في شمال السودان. مناخ مشابه لمناخ البحر الأبيض المتوسط على ساحل البحر الأحمر، المناخ شبه الصحراوي في شمال أواسط السودان، مناخ السافانا الفقيرة في جنوب أواسط وغرب السودان ثم مناخ السافانا الغنية في جنوب السودان. (السياحة في السودان، ويكيبيديا، 2014) .

أن توفر هذه الموارد الطبيعية وتعدد الأقاليم المناخية في السودان ولعب دوراً كبيراً في تشجيع الإستثمار في النشاط السياحي لذلك تسعي الدولة جاهدة الي تشجيع المشاريع الإستثمارية لما لها عائد كبير علي الخزينة الإتحادية للدولة.

مشكلة الدراسة:

انحصرت مشكلة الدراسة في دراسة مناخ الاستثمار في السودان باعتباره المدخل الحقيقي لجذب الاستثمارات السياحية وذلك من خلال فتح تمويل المشاريع الإستثمارية السياحية أو فتح باب الإستثمار أمام المستثمرين في هذا الجانب ، الأمر الذي يتيح من فرص لزيادة الإنتاجية ورفع معدل القيمة المضافة وامتصاص البطالة وزيادة في الدخل ومحاربة الفقر مع الأخذ في الاعتبار أن تحقيق تلك الأهداف مرتبطة بتوافر محددات أو مقومات معينة حتى يستطيع البلد المعني دخول التنافسية الدولية من أجل جذب الاستثمارات السياحية، الأمر الذي يتطلب تحديد أهم المحددات المتمثلة في توفر الاستقرار الأمني، والسياسي، والاقتصادي، والبنية الأساسية، من طرق وخدمات وكهرباء ومياه، ووضوح الجانب التشريعي بما يتضمن من مزايا وحوافز وتسهيلات، فضلاً عن الموارد البشرية (المؤهلة) والمالية، والخدمية، والتكنولوجية. علي ضوء ذلك أثارت الورقة جملة من التساؤلات:

1- ما هي المحددات الأساسية التي يجب توفرها لتهيئة مناخ الاستثمار في السودان؟
2- ما هي العلاقة السببية بين مناخ الإستثمار والقدرة علي جذب الاستثمارات الأجنبية السياحية؟

أهمية الدراسة:

تمثلت أهمية الدراسة في تناول موضوع مناخ الاستثمار في السودان وهو من الموضوعات المهمة المرتبطة بالقدرة التنافسية في جذب الاستثمارات السياحية المباشرة كمصدر أساسي لتمويل الاستثمارات في القطاعات الاقتصادية الإنتاجية والخدمية في ظل ندرة الموارد المحلية وبالتبعية تأثيرها المباشر في امتصاص البطالة وتقليص نسبة الفقر في المجتمع ورفع مستوى المعيشة للمواطن وزيادة الإنتاج المحلي ومن ثم تحقيق زيادة في معدل النمو الاقتصادي.

أهداف الدراسة:

استهدفت الدراسة كما هو واضح من عنوانها معرفة مناخ الإستثمار في السودان وأثره في جذب الإستثمارات السياحية أي أن الدراسة في ظل فروضها العلمية تسعى إلى التعرف على:

1- أهم محددات مناخ الاستثمار في السودان في ظل العولمة الاقتصادية باعتبار أن هذه المحددات صادرة عن مراكز أبحاث ومعاهد علمية متخصصة وتطبق على كل بلدان العالم.
2- التعرف على العلاقة السببية بين القدرة التنافسية للدولة وحجم تدفقات الاستثمارات الأجنبية السياحية في الفترة موضع الدراسة.

فروض الدراسة:

تحاول الدراسة اختبار صحة الفرضيات التالية:

1- هنالك محددات أساسية يجب توفرها لتهيئة مناخ الاستثمار في السودان.
2- توجد علاقة سببية بين القدرة التنافسية وحجم تدفقات الاستثمارات الأجنبية السياحية بالسودان.

منهج الدراسة:

تستخدم الدراسة المنهج الإستنباطي لتحديد أبعاد المشكلة والمنهج الوصفي التحليلي لإختبار فرضيات الدراسة.

هيكل الدراسة:

لخدمة أهداف الدراسة فقد تم تقسيمها الى :

1- الاطار العام للدراسة
2- الاطار النظرى للدراسة.
3- الدراسة التحليلية.
4- الخاتمة (النتائج والتوصيات).

ثانياً: الإطار النظري للدراسة:

توطنة حول مناخ الاستثمار:

هنالك حد أدنى من الشروط الواجب توفرها لدخول الاستثمارات إلى أي بلد أي أن اتخاذ القرارات الاقتصادية مرهونة بضمان سلامة المشروع وحمايته وتعظيم الربح في ظل الفرص البديلة، ويتوقف هذا الأمر على العديد من المقومات التي يجب توافرها في البلد المضيف ولعل أهمها يتمثل في الموارد الطبيعية والاستقرار السياسي والأمني، والقانوني، والاقتصادي، والنقدي، والمالي المتزامن مع توافر البيانات المالية السليمة والمنتظمة وتوفر البنية الأساسية المادية والموارد البشرية المؤهلة فضلاً عن سعة السوق الداخلية المقرونة بالقوة الشرائية للمواطن. **(أحمد ماهر، عبد السلام أبوقحف، 1999) .**

وفي ضوء ما سبق فإن الكثير من العلوم الاجتماعية تمثل بنية متكاملة تتأثر وتؤثر بعلاقات ارتباط على بعضها البعض مع الأخذ في الاعتبار أن العلاقة السببية فيما بينها تخضع لمفهوم النسبية لكن علم الاقتصاد أكثر تحسس وارتباط بكل العلوم الاجتماعية، والطبيعية بشكل عام ولعله يمثل القاسم المشترك بين مختلف العلوم. **(أبوحجر، آمنة ابراهيم، 2002) .**

ان القدرة التنافسية لأي بلد في جذب الاستثمارات الأجنبية المباشرة تعتمد على المقومات المطلوبة والتي تشكل في مجموعها قوة جاذبة للاستثمارات وبموجبها تصنف مختلف بلدان العالم وفقاً لمعايير محددة وعلى أساسها يتم ترتيب قدرة كل بلد في المنافسة رقمياً مقارنة بغيره من البلدان حيث تجدر الإشارة الي أن هناك علاقة ارتباط مباشرة بين ترتيب التنافسية وحجم تدفقات الاستثمار.

مفاهيم الاستثمار وأنواعه:

لقد تعددت التعاريف والمفاهيم المتعلقة بالاستثمار عند الكثير من الكتاب والخبراء الاقتصاديين إلا أن هذه التعاريف تتضمن الكثير من التشابه.

فالاستثمار يقوم على التضحية بإشباع رغبة استهلاكية خاصة وليس مجرد تأجيلها فقط كما هو الحال بالنسبة للإدخار، وذلك أملاً في الحصول على إشباع أكبر في المستقبل. **(الجلاد، أحمد، 1990) .**

يتكون الاستثمار من وجهة نظر الاقتصاد الكلي من السلع المادية الجديدة المخصصة للاستخدام في تحقيق مزيد من الإنتاج وهذا التعريف يشتمل المعدات والآلات الجديدة والإنشاءات الجديدة، والتغير في المخزون Inventories .

وعموماً يمكن تعريف الاستثمار على أنه ذلك الجزء المقتطع من الدخل القومي، والمسمى بالادخار والموجه إلى تكوين الطاقات الإنتاجية القائمة، وتجديدها بهدف مواجهة تزايد الطلب، وطالما أن المستثمر مستعد لقبول مبدأ التضحية برغبته الاستهلاكية الحاضرة يكون مستعداً أيضاً لتحمل درجة معينة من المخاطر. **(حميد الطائي، 2001) .**

أهمية الاستثمار:

يعتبر الاستثمار العامل الرئيسي الذي يتحكم في معدل النمو الاقتصادي من ناحية، وفي كميته، وكيفية هذا النمو من ناحية أخرى.

أي أن معدل النمو المطلوب، يتوقف على القدرة في جذب التدفقات النقدية المطلوبة، وهذا يتوقف على القدرة في توفير الحوافز والمزايا والتسهيلات التي يكون لها تأثير نسبي على أصحاب رؤوس الأموال في اتخاذ القرارات بالاستثمار في أي بلد وبالتبعية التأثير في حجم الاستثمارات المطلوبة من المصادر الداخلية والخارجية.

وفي هذا السياق يتبين لنا أن هناك حلقات متواصلة توصلنا إلى نتيجة مفادها أن النمو الاقتصادي ظاهرة ديناميكية تتمثل في تغير كمي لمجموعة من المتغيرات الاقتصادية الأساسية من فترة إلى أخرى. **(الروبي ، 1987) .**

أنواع الاستثمار:

هناك أنواع متعددة للاستثمار طبقاً للهدف والغرض والوسائل، والعائد، والمخاطر ومن أنواعها: (**Charles, 1978**):

أ- **استثمار حسب جنسية المستثمر (وطني- أهلي):**

- **الاستثمار الوطني:** وينتمي إلى البلد الذي يقام فيه المشروع الاستثماري، ويتم تمويله من مصادر داخلية ويصنف إلى:
  - **استثمار عام:** يكون القائم عليه القطاع العام، أو الحكومة أو أحد المؤسسات أو الهيئات العامة بهدف دوافع عامة، مثل زيادة الرفاهية العامة، تخفيف حدة البطالة والاستقرار الاقتصادي، وزيادة معدل النمو.
  - **استثمار خاص:** ويقوم به الأفراد والمشروعات الخاصة ويحكمه دوافع تعظيم الربح وتقوية المركز التنافسي للمشروع.

ب- **استثمارات أجنبية مباشرة:** وهي عبارة عن تحويلات مالية ترد من الخارج في صورة نقدية بهدف إقامة مشروع إنتاجي، تسويقي، إداري في الأجل الطويل:

- ويشمل الاستثمار الأجنبي المباشر:
  - استثمار ثابت (مصانع، الآلات).
  - استثمار في المخزون (مواد خام- منتجات نهائية).
  - استثمارات عقارية.
- استثمارات أجنبية غير مباشرة (الاستثمار في الأوراق المالية) وهي في شكل قروض (أجنبية) أو شراء سندات حكومية خاصة أو شراء أسهم، وهذا النوع من الاستثمار يبحث عن عائد لرؤوس الأموال.

ج- **من حيث الشكل (عيني- نقدي).**

- الاستثمار العيني: هو استخدام السلع والخدمات في تكوين طاقة إنتاجية جديدة أو المحافظة على الطاقة الإنتاجية الموجودة أو تجديدها.
- الاستثمار النقدي: هو المقابل النقدي للاستثمار العيني معبراً عنه بالعملة المحلية أو الأجنبية.

د- **من حيث طول المدة وعمر الاستثمار (قصير الأجل- طويل الأجل).**

ه- **حسب سرعة ظهور العائد (ذو العائد السريع- ذو العائد البطيء).**

و- **حسب طبيعة الاستثمار (مالي- بشري).**

ز- **الاستثمار التلقائي- الاستثمار المحفز.**

- **الاستثمار التلقائي:** هو الاستثمار الذي تقوم به الدولة دون اعتبار لما يدره من عائد مثل الاستثمارات الحكومية في البنية الأساسية، والصناعات الحربية.

الاستثمار المحفز: هو الاستثمار الذي يقوم به الأفراد بدافع توقع عائد مجزي عنه.

مفهوم السياحة:

السياحة في اللغة : تعني الذهاب في الأرض للعبادة والترهب (وأمور أخرى) كذلك تم تعريفها بأنها: " التنقل من بلد). وفي المفردات: " ساح فلان في الأرض مرالسائح، قال تعالى: (فَسيحُوا في 1الى بلد طلبا للتنزه أو الاستطلاع والكشف "( ). **(لقريني، أحمد محمد، 2000)** .2الأرْضِ أَربَعَةَ أَشْهُرٍ) سورة التوبة (الأية

كذلك تم تعريف السياحة في الاقتصاد بأنها انتاج سلعة جديدة تساهم في بناء الاقتصاد القومي ...وهي سلع خدمية أحيانا ومادية أحيانا أخرى لذا سميت (بالصناعة السياحية) وتساهم في الكثير من البلدان التي تتوفر فيها بنى تحتية للآثار **(محمد الشيراوي، 2002)** . والتاريخ والطبيعة بنصيب كبير في الناتج المحلي الاجمالي والناتج القومي الاجمالي.

كما تعد السياحة من منظور اجتماعي وحضاري، بأنهاحركة ديناميكية ترتبط بالجوانب الثقافية والحضارية للانسان ؛ بمعنى أنها رسالة حضارية وجسر للتواصل بين الثقافات والمعارف الانسانية للأمم والشعوب، ومحصلة طبيعية لتطور المجتمعات السياحية وارتفاع مستوى معيشة الفرد. الجدير بالذكر أنه على الصعيد البيئي تعتبر السياحة عاملاً جاذباً للسياح واشباع رغباتهم من حيث زيارة الأماكن الطبيعية المختلفة والتعرف على تضاريسها وعلى نباتاتها والحياة الفطرية، بالاضافة الى زيارة المجتمعات المحلية للتعرف على عاداتها وتقاليدها. **(الروبي ، 1987)**.

أنواع السياحة وأهدافها:

يوجد انواع عديدة من السياحة التي تهدف بحسب كل نوع من أنواعها. وفيما يلي أهم هذه الأنواع: **(كافي مصطفي يوسف، 2006) :**

1/ السياحة البيئية:

ويتوفر هذا عند وجود بيئة ذات جمال وهي السفر بهدف زيارة المحميات البيئية الطبيعية مثل المحميات الطبيعية. طبيعي وتضاريس مثيرة للاهتمام، وحياة نباتية برية وافرة وهواء نقي وماء نظيف، مما يساعد على اجتذاب السياح.

2/ **السياحة العلاجية والاستشفائية** :

وهي السفر بهدف العلاج والاستجمام في المنتجعات الصحية في مختلف بقاع العالم، وتشمل نوعين: **(مروان السكر،1999) .**

أ- السياحة العلاجية:

تعتمد على استخدام المراكز والمستشفيات الحديثة بما فيها من تجهيزات طبية وكوادر بشرية ذات كفاءة عالية تساهم في علاج الأفراد الذين يلجؤون الى هذه المراكز.

ب- السياحة الاستشفائية:

تعتمد السياحة الاستشفائية على العناصر الطبيعية في علاج المرضى وشفائهم مثل الينابيع المعدنية والكبريتية والرمال والشمس بغرض الاستشفاء من بعض الأمراض الجلدية والروماتيزية، وتطلق السياحة العلاجية على كلا النوعين. كما في شمال السودان (حمامات عكاشة علي النيل) وفي الأردن (البحر الميت وشلالات ماعين) على سبيل المثال.

3/ السياحة الدينية:

وهي نوع من السياحة يهتم بالجانب الروحي للانسان كونها مزيجا من التأمل الديني والثقافي، وقد تكون السياحة من أجل زيارة الأماكن المقدسة والاستمتاع بمشاهدتها بدافع الفطرة والايمان والاهتمام بالتاريخ وحفظ معالمه وآثاره، وقد يكون الدافع من وراء هذا النوع من السياحة هو الدعوة أو القيام بعمل خيري، ويمكن اطلاق السياحة الدينية علي زيارة بيت الله الحرام، والمسجد النبوي الشريف بالمملكة العربية السعودية.

4/ السياحة الترفيهية:

وتكون السياحة الترفيهية بغرض الاستمتاع والترفيه عن النفس وهي من أقدم أنواع السياحة التي عرفها الانسان، وتمتاز دول البحر الابيض المتوسط بإمكانية استقطاب السائحين لهذا النوع من السياحة.

5/ سياحة المؤتمرات:

وهي الأنشطة السياحية المصاحبة لحضور المؤتمرات العالمية وهي تكون بالعواصم المختلفة حول العالم. ولقد ارتبط هذا النوع بالتطورات الكبيرة في العلاقات الاقتصادية والسياسية والثقافية والاجتماعية بين معظم دول العالم ونجدها ترتبط ارتباطا وثيقا بسياحة المعارض.

6/ سياحة السباقات والمهرجانات:

وتنطبق على سباقات السيارات والدراجات والمهرجانات السينمائية. بالاضافة الى سباقات الهجن حيث تعتبر رياضة بدوية خالصة تشهد اقبالا هائلا من المشاركين والسياح كما ترتبط بها كرنفالات واسعة للأزياء والفنون الشعبية مثال : السباق العالمي للهجن في شمال سيناء بمصر وجنوبها خاصة في فصل الربيع. **(كافي مصطفي يوسف، 2006)**

التنمية السياحية:

اكتسبت التنمية السياحية اهتماما متزايدا للدور المهم الذي تلعبه في نمو اقتصاديات معظم دول العالم ، لكونها أحد الروافد المهمة للموارد المالية التي تساعد على تحسين ميزان المدفوعات باعتبارها إحدى الصادرات المهمة غير المنظورة ، بالإضافة إلى دورها في خلق فرص عمل جديدة ، علاوة على دورها في تطوير المناطق والمدن التي تتمتع بإمكانيات سياحية وذلك من خلال تطوير دعائم البنى التحتية للحياة الإقتصادية والإجتماعية في هذه الدول . وقد خلصت إحدى الدراسات المختصة بموضوع أهمية السياحة في دول الشرق الأوسط إلى أن السياحة ستكون نفط العالم العربي في المستقبل ، وقدرت الإنفاق على ملايين فرصة عمل خلال 3 مليار دولار وربما يخلق 180 ليبلغ 2012السياحة في الشرق الأوسط سيتضاعف حتى عام الفترة المذكورة . **(ايمانويل، إدي كادي، 1976)** .

تاريخ السياحة في السودان:

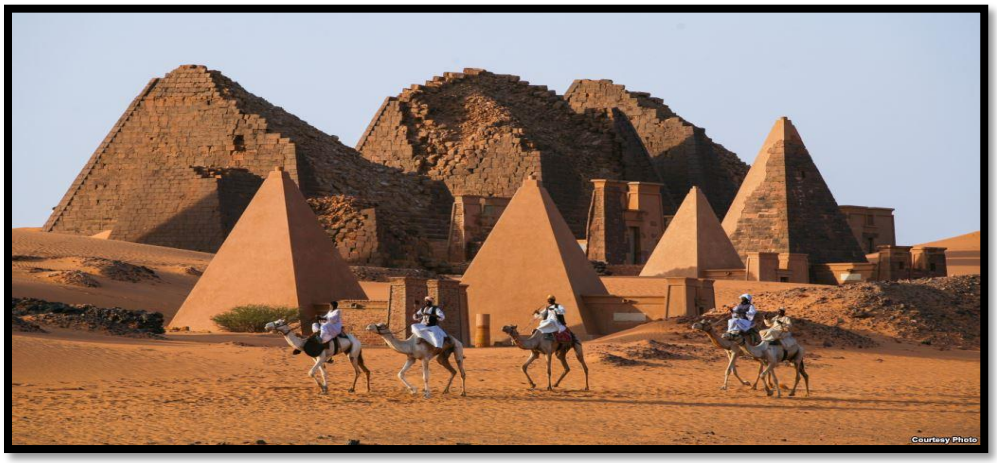
يعتبر السودان من الأقطار الشاسعة والغنية بالموارد الطبيعية ممثلة في الأراضي الزراعية، الثروة الحيوانية والمعدنية، الغابات والثروة السمكية، حيث يقع السودان في المنطقة المدارية فلذلك تنوعت الأقاليم المناخية السودانية من المناخ الصحراوي إلى المناخ الاستوائي. فنجد توزيعها كالآتي المناخ الصحراوي الحار في شمال السودان. مناخ مشابه لمناخ البحر الأبيض المتوسط على ساحل البحر الأحمر، المناخ شبه الصحراوي في شمال أواسط السودان، مناخ السافانا الفقيرة في جنوب أواسط وغرب السودان ثم مناخ السافانا الغنية في جنوب السودان والمناخ الاستوائي أقصى الجنوب. **(السياحة في السودان، ويكيبيديا، 2014م).**

أهم المناطق السياحية في السودان:

1/ أهرامات مروي:

أو "بجراوية" هو الاسم القديم للمدينة التي تحوي الأهرامات النوبية في محافظة شندي في ولاية (Meroe) مروي، نهر النيل السودانية تبعد حوالي 200 كم عن الخرطوم وكانت عاصمة المملكة الكوشية وتحوي أهرامات النوبة. الأهرامات التي أقامها الحكام الكوشيون في (السودان) عام 300 ق.م. واشتهرت النوبة بكثرة بناء الإهرامات حيث كان النوبيون يعتقدون أن ملوكهم آلهة أحياء ولما يموتون هم وملكاتهم لابد من دفنهم في مدافن عظيمة. وكان أكبر البنايات الأهرامات كملوك قدماء المصريين. لهذا يوجد بها أهرامات عديدة أكثر مما موجود حاليا بمصر.وأكبر الأهرامات النوبية مرواه ونوري والكوري بالسودان.

شكل رقم (1) : صورة من اهرامات مروي



اعداد: الباحث ، 2019م.

2/ جبل مرة:

جبل مرة أميز جاذب سياحي في إقليم دارفور ويبلغ ارتفاعه 10 آلاف قدم فوق سطح البحر ويسود فيه مناخ البحر الأبيض المتوسط وبه تنوع نباتي كبير وتوجد بالإقليم منطقة قلول ذات الغابات الكثيفة والشلالات الدائمة إلى جانب منطقة مرتجلو وبها أيضا شلال جذاب وتكثر فيه أنواع من القرود والحيوانات البرية الأخرى ومنطقة سوني المرتفعة التي توجد بها استراحة عريقة إضافة إلى منطقة ضريبة وهي تمثل الفوهة البركانية للجبل وتوجد بها بحيرتان وبالإقليم حظيرة الردوم القومية وتتميز بوفرة الحيوانات البرية والطيور فيها، إذ إن الحركة السياحية لم تطرقها بصورة مكثفة، كما توجد بالإقليم بحيرة كندى التي تمثل واحداً من أكبر تجمعات تكاثر الطيور المتوطنة والمهاجرة بالسودان ويوجد بها بشكل كثيف الإوز والبط والحبارى وكثير من أنواع اللقالق وهنالك محمية وادي هور التي تزخر بأنواع كثيرة من الحيوانات البرية بجانب الآثار القديمة وبها المياه الكبريتية في عين فرح وكذلك مناطق وادي أزوم التي تصلح لهواة التصوير وهواة المغامرات والطبيعة الوعرة.

تتمثل فرص الاستثمار في زيادة الطاقة الإيوائية وتأهيل وتحديث القرى السياحية بجبل مرة وإقامة معسكر سياحي دائم بالردوم وإنشاء مركز رياضي بجبل مرة لممارسة رياضة تسلق الجبال إضافة إلى إقامة فنادق علاجية في مناطق المياه الكبريتية وكذلك إقامة مركز سياحي على بحيرة كندى لهواة صيد الطيور ليكون في الوقت نفسه مركزا لدارسي ومتابعي حركة الطيور المهاجرة إضافة إلى إنشاء وتأهيل حدائق للحيوان ومتنزهات هامة ومشاريع ترفيهية .

) : صورة من جبل مرة2شكل رقم (



اعداد: الباحث ، 2019م.

3/ شلال السبلوقة:

شلال السبلوقة (ولاية نهر النيل) يعتبر مقصداً للسياح العرب والأجانب وغيرهم وذلك لطبيعة المنطقة الجبلية وضيق المجرى والتدفق المائي فهي توفر بذلك سياحة التزلج والسباحة والرحلات النيلية. إلى جانب ذلك ان الولاية تضم العديد من تبعد حوالي 80 كلم من العاصمة الخرطوم. اجناس الحياة البرية كالطيور والحيوانات المختلفة ويقصدها السياح والزوار. حيث

) : صورة من شلالات السبلوقة3شكل رقم (




اعداد: الباحث ، 2019م.

4/ محمية الدندر:

أقيمت محمية الدندر عام 1935 وتبعد حوالي 680 كلم من الخرطوم ومساحتها 10 آلاف كلم مربع ويعتبرها خبراء الحفاظ على البيئة إحدى أجمل محميات السودان البالغ عددها ثماني عشرة محمية وهي المناطق التي أنشئت من أجل حماية الحيوانات حماية كاملة ولا يسمح فيها بأي أنشطة إنسانية سوى للأغراض السياحية والترفيهية والتعليمية، ففي مساحة الدندر الكبيرة وموقعها الذي يصل حتى الهضبة الإثيوبية تتعدد البيئات مما أكسبها تنوعا بيولوجيا خصبا ويجري نهرا الرهد والدندر ـ الذي سميت به المحمية ـ وهما موسميان في الفترة من شهر يوليو (تموز) وحتى نوفمبر (تشرين الثاني) وخلال عبورهما للحظيرة يصبان في بعض البرك مما يشكل مشهدا رائعاوتعتبر الفترة من يناير (كانون الثاني) حتى أبريل (نيسان) من أفضل الفترات لزيارة المحمية ذات الموقع الفريد حيث تغطيها السهول ذات الحشائش والنباتات والادغال والبحيرات ويمكن للسائح الوصول إليها براً بالسيارات التي توفرها الشركة والتي تنطلق من الخرطوم وتستغرق الرحلة ثماني ساعات حتى محطة القويسي، ومن ثم مواصلة الرحلة للمحمية لفترة لا تزيد على الاربع ساعاتأما الحيوانات التي تستطيع أن تشاهدها هناك فتحيا على طبيعتها دون أسوار حديدية «إلا ما يحيط بالسائح نفسه!»فمن الثدييات الكبيرة تجد الأسود والجاموس البري والضباع والذئاب والغزلان والزراف وغزال الآيل والغزال الملون ووحيد القرن والقرود الصغيرة «النسانيس» والقنافذ والخنازير البرية، كما بها أكثر من 90 نوعاً من الطيور التي تنتشر على تجمعات المياه وهي الحبار والبجبار والرهو وهي الأسماء المحلية لطيور تأتي في موسم الشتاء هاربة من صقيع السويد وأوروبا لتتدفأ بالشمس الأفريقية.

شكل رقم (4) : صورة من محمية الدندر





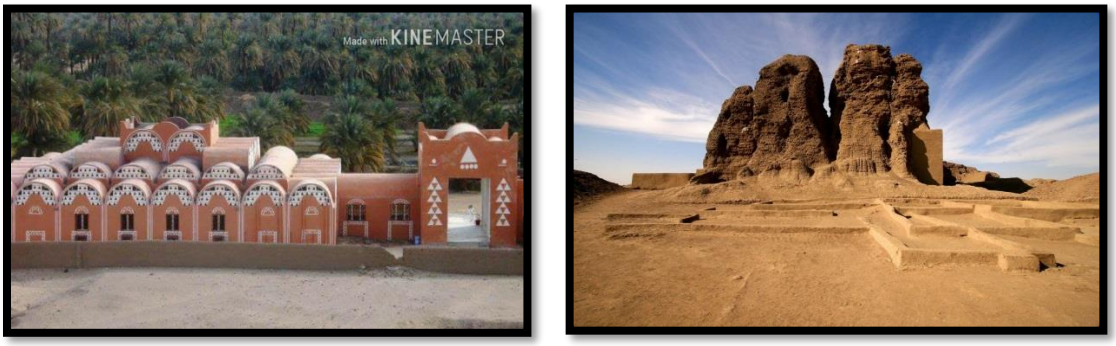
اعداد: الباحث ، 2019م.

5/ حضارة كرمة:

تعتبر الجذور الحقيقية التي شكلت هوية الأمة السودانية، إذ كانت حضارة سودانية أفريقية ضاربة الجذور واسعة السلطان تمكن ملوكها من الحفاظ على سلطتهم قرابة الألف عام وامتدت حدودها جنوبا حتى الشلال الرابع وشمالا إلى منطقة

وادي حلفا ،كما اشتهرت حضارة مملكة كرمة باستخدام كافة الفنون العسكرية إلى جانب شهرتها في مجال الصناعة خاصة صناعة الفخار إضافة لازدهار صناعة البرونز والحديد،كما عرفت كرمة صناعة الطوب الأحمر، وهم أول من استخدم العنقريب، وبقى من آثار هذه الحضارة موقعا الدفوفة الغربية والشرقية بمدينة كرمة الحالية.

شكل رقم (5) : صورة من حضارة كرمة



اعداد: الباحث ، 2019م.

6/ حمامات عكاشة:

يقع جنوب وادي حلفا على الضفة الغربية للنيل وهي عبارة عن نبع يضخ مياها دافئة مالحة كبريتية طبيعية جوفية وتنحدر نحو النيل من المرتفعات الغربية وتسهم في علاج أمراض الرطوبة ،الروماتيزم والأمراض الجلدية ،وهو مقصد الراغبين في العلاج من أمراض مختلفة أهمها الروماتيزم الذي كان يعالج بطرق بدائية منها إحاطة جسم المريض برمال الصحراء الساخنة. وقد أجريت بحوث عديدة بمعرفة الخبراء والمؤسسات العالمية أثبتت صلاحية أجواء حمام عكاشة او حمام كولب اذ يقع اصلاً فى كولب في علاج الأمراض المزمنة لما تتميز به من نسب عالية من المادة الكبريتية والأشعة فوق البنفسجية وانخفاض نسبة الرطوبة حيث تصل الى ادنى شدرجة خلال الفترة من ديسمبر إلى مارس، بينما تبلغ النسبة 75% إلى 100%في إنجلترا خلال المدة ذاتها ما بين .. **(وزارة السياحة والأثار والحياة البرية، 2014/8/18م)** .

شكل رقم (6) : صورة من حمامات عكاشة



اعداد: الباحث ، 2019م.

ثالثاً: الدراسة التحليلية:

اعتمد الباحث في دراسته على المنهج التحليلي الوصفي، في تحديد مفاهيم الاستثمار ومحددات مناخ الاستثمار التي أقرتهما وزارتى السياحة والآثار والحياة البرية والإستثمار بالسودان، وكذلك المعاهد والمؤتمرات والمؤسسات الدولية

واستخدمت الدراسة من أدوات التحليل الكمي المعايير المعتمدة لقياس ترتيب الدول في التنافسية على جذب الاستثمارات وتحديد العلاقات بين ترتيب البلدان في درجة التنافسية وحجم تدفقات الاستثمارات الأجنبية المباشرة لكل بلد علي النحو التالي:

أولاً: المحددات الأساسية التي يجب توفرها لتهيئة مناخ الإستثمار في السودان:

هنالك محددات رئيسية يجب توافرها لتهيئة مناخ الإستثمار في السودان ، وفيما يلي يستعرض الباحث أهم هذه المحددات:

1/ الاستقرار السياسي :

ان التنمية القومية لا تتوفر لها عوامل النجاح الا في جو من الاستقرار السياسي الذييوفر الطمأنينة والسلامة وفي هذا الاطار فقد تحقق الاتي :

أ. تطبيع العلاقات الخارجية مع دول الجوار وتوثيق الصلات مع الدول الشقيقة والصديقة والسعي لاحتلال السودان لموقعه الطبيعي في المجتمع الدولي .
ب. السعي لتحقيق الوفاق الوطني والوصول لاستقرار من اجل العمل لتحقيق التنمية والرفاهية.
ج. بذل الجهود لاحلال السلام وايقاف الحرب الاهلية .
د. استكمال البناء السياسي والمؤسسي للدولة .

2/ السياسة الاقتصادية :

جرت اعادة هيكلة الاقتصاد السوداني من خلال برنامج شامل للاصلاح الاقتصادي اشتمل على ما يلي :

أ. تقليص دور الدولة في العمل الاقتصادي والنشاط الانتاجي باتباع سياسة الاستخصاص وافساح الفرصة للقطاع الخاص .
ب. تحرير التجارة الخارجية وتشجيع الصادرات
ج. تحرير الاسعار ووقف دعم السلع والخدمات
د. تحقيق وحدة الموازنة وتخفيض العجز والتحكم في حجم النقود وتخفيض معدلات التضخم وتحقيق قدر معقول من التوازن في ميزان المدفوعات .
ه. اصلاح النظام الضريبي وخفض وابقاء بعض الضرائب المباشرة وغير المباشرة وتطبيق نظام ضريبة القيمة المضافة . ومراجعة فئات التعريفة الجمركية باعفاء وتخفيض الرسوم الجمركية .
و. زيادة الصادرات وتنويع اسواقها وتوسيع قاعدتها بدخول سلع اهمها البترول والذهب وبعض المنتجات الصناعية .
ز. استيعاب مستويات عالية من الاستثمار الاجنبي المباشر في مجال البترول والتعدين والصناعة والزراعة والنقل .

وفي اطار المتغيرات الاقليمية والدولية فقد تحقق الاتي :

أ. استعادة عضوية السودان في صندوق النقد الدولي والشروع في تطبيق علاقاته مع مؤسسات التمويل الاخرى .
ب. دخول السودان في منظمة التجارة التفضيلية للدول جنوب وشرق افريقيا (كوميسا) وتحولها الى سوق مشتركة خالية من العوائق الجمركية حيث تم اعتبارا من اكتوبر 2000 تطبيق الرسوم الجمركية الصفرية .
ج. الدخول في منظمة التجارة العربية الامر الذي يؤدي الى توسيع دائرة السوق الخارجي .
د. اما على الصعيد الدولي فقد تم الاستعداد للدخول في منظمة التجارة العالمية (TOW) بتعديل التشريعات والاجراءات الاقتصادية خاصة الضريبة الجمركية .

3/ السياسة المالية :

اعتمدت السياسة المالية في السودان على المؤشرات التالية :

سياسات التحرير الاقتصادي الشامل للاقتصاد السوداني التي تعتمد على قوى العرض والطلب والتي انعكست على مؤشر النمو الاقتصادي الكلي للناتج المحلي الاجمالي والذي يبلغ 6% سنويا في المتوسط منذ عام 1990 وحتى عام

1999 وانخفاض معدل التضخم من 164% عام 1996 الى 16% عام 1999 واستمر في الانخفاض حتى بلغ 6% في نهاية العام 2000 .

4/ السياسة النقدية :

إلغاء القيود على معاملات النقد الاجنبي وتحرير الانظمة السعرية من التحكم الاداري وتمكينها من عكس التكلفة الاقتصادية والاجتماعية وميزان العرض والطلب على رأسها سعر الصرف وانظمة تسعير المنتجات الزراعية والخدمات الحكومية .

تبني سياسات اطلاق قوى الاستثمار والانتاج ودعم سياسات التحرير الاقتصادي وقفل طريق انظمة التقييد والتحكم في المعاملات المكتوبة .

تقويم العملة الوطنية بحيث يرسي سعرها الواقعي بتاثير أليات السوق في نطاق سوق حر منظم ومرتب تحكمة حوافز الانتاج والاستهلاك وحرية المعاملات . ويلعب فيها النظام المصرفي دور المصحح لاختلالات السوق الكابح لفوضى المضاربات والمعزز بقدرات التضخم التلقائي الاني للهياكل السعرية بما فيها اسعار الصرف .

5/ سوق الاوراق المالية :

في ظل سياسة التحرير الاقتصادي فقد تم انشاء سوقاً للاوراق المالية في بداية التسعينات 1994 حيث تم انشاء السوق الاولية وهي السوق التي يتم فيها اصدار الاوراق المالية للاكتتاب العام وفي 1995 تم افتتاح السوق الثانوية وهي سوق تداول الاسهم وقد انطلق السوق ليسهم في دفع عجلة الاقتصاد لتحقيق المدخرات واتاحة الفرصة للاستثمار في مشاريع ذات جدوى اقتصادية ، وذلك في اطار من الحماية لحقوق المساهمين والمشاركين في عملية الاستثمار وبالنظر الى واقع التجربة نجد ان كثير من الشركات المساهمة يساهم فيها مستثمرون غير سودانيون يتمتعون في بعضها بعضوية او رئاسة مجلس ادارتها كل ذلك يدفعنا لدعوة الاجانب للتعرف على هذه السوق وقانونها وما ينتجه لهم من مزايا حتى يتسنى لهم استثمار اموالهم ، حيث تتميز السوق بانها الوحيدة في العالم التي تعمل البورصة فيها وفق موجهات الشريعة الاسلامية.

6/ البنية الهيكلية :

مما لا شك ان تطور البنيات الاساسية من أهم عناصر مناخ الاستثمار ، واذا نظرنا الى ربط هذا الجانب نجد ان هنالك تطوراً ملحوظا قد طرأ على الخدمات في مجال الاتصالات حيث تم ربط البلاد بشبكة اتصلات حديثة خاصة المدن داخلياً وولائياً ، هذا بالاضافة الى الاتصالات العالمية سلكية ولا سلكية ... وربط البلاد بالعالم من حولنا ، وقد بدأ الاهتمام بصورة جادة بنظم المعلومات المتطورة (شبكات الانترنت والبريد الالكتروني) كخطوة للتعايش مع المجتمع الدولي .

أما مجال الطرق فقد بدأت الانطلاقة في مجال ربط الولايات بطرق عابرة مثال طريق التحدي عطبرة الذي تم انجازه وعطبرة هيا وطريق شريان الشمال الذي يربط بين امدرمان ودنقلا وطريق السلام وطريق الانقاذ الغربي ، هذا بالاضافة الى شبكات الطرق الداخلية ، وفي مجال النقل فقد تم تاهيل السكة حديد كما ازداد الاقبال على الاستثمار في مجال النقل البري بصورة ملحوظة مما ادى الى خفض تكاليف الترحيل . كما تم توسيع الموانى البحرية والنهرية بانشاء موانى سواكن وميناء بشائر وميناء عثمان دقنة واعادة تاهيل ميناء بورتسودان .

وفي مجال الطاقة التي تعتبر بمثابة المحرك الرئيسي للقطاعات الاقتصادية الاخرى فان البلاد تزخر بموارد كثيرة من الطاقة الاولية التي يمكن ان تنتج منها الطاقة الكهربائية ، منها المائية والحرارية فضلا عن الطاقات الجديدة والمتجددة ، وقد اضاف استخراج البترول ومشتقاته موردا جديدا من مصادر الطاقة .

ومن ضمن الجهود المبذولة في مجال التوليد الكهربائي فقد اثمرت الجهود عن امكانية انشاء خزان كجبار وسد مروي الحماداب ، هذا بالاضافة الى اقامة محطات توليد كهربائي حراري مثال لذلك كهرباء بورتسودان .

7/ الاطار الاداري :

ان أكثر العوامل التي تؤدي الى عدم اقبال المستثمرين بصفة خاصة الاجانب منهم تعقيد الاجراءات الادارية الخاصة بالحصول على الترخيص وتعدد الجهات لتنفيذ العملية الاستثمارية ، وفي هذا الاطار فقد سعت الدول لتبسيط الاجراءات فظهرت فكرة الشباك الوحيد الذي تتركز فيه الموافقة على الاستثمار وكل اجراءته بجهة واحدة ، وقد اخذت في السودان شكلا مشابها تمثل في جهاز الذي تم انشائه للقيام بهذه المهام .

8/ الاطار التشريعي :

يهدف قانون تشجيع الاستثمار لعام 1999 المعدل لعام 2000(والذي يعد من أميز القوانين لتلافيه لكل السلبيات في القوانين السابقة) الى تشجيع الاستثمار في مجالات النشاط الزراعي والحيواني والصناعي والطاقة والتعدين والنقل والاتصال والسياحة والبيئة والتخزين والاسكان والمقاولات والبنيات الاساسية والخدمات الادارية والاستشارية وتقنية المعلومات وخدمات التعليم والصحة والمياه والثقافة والاعلام واي مجال أخر يحدده مجلس الوزراء ومن أهم مميزات قانون تشجيع الاستثمار لسنة 1999 المعدل لعام 2000 ما يلي :

أ. حظر التميز بين المال المستثمر بسبب كونه محليا او عربياً او اجنبياً أو بسبب كونه قطاعا عاما او خاصا او تعاونيا او مختلطا .
ب. حظر التمييز بين المشاريع المتماثلة فيما يتعلق بمنح الميزات او الضمانات .
ج. يمنح القانون مجموعة من الميزات ضمنها :

i. الاعفاء من ضريبة ارباح الاعمال لمدة لا تقل عن عشر سنوات يبدأ نفاذها من تاريخ بدء الانتاج التجاري او مزاولة النشاط، وذلك في المشروعات الاستراتيجية ، وهذه المدة قابلة للزيادة بموافقة الوزير كما يمنح المشروع الغير استراتيجي اعفاءا من هذه الضريبة لمدة لا تزيد عن خمسة سنوات للمشروع كما يجوز منح مدة مماثلة لا تزيد عن خمسة سنوات بموافقة الوزير .
ii. يتمتع المشروع الاستثماري استراتيجيا كان ام غير استراتيجي بالاعفاءات الجمركية الكاملة على كل احتياجات المشروع من تجهيزات رأسمالية ومدخلات وانتاج وسائل نقل .
iii. يمنح المشروع الاستراتيجي الارض اللازمة مجانا وبالسعر التشجيعي للمشروع الغير استراتيجي .
iv. لتبسيط الاجراءات تتم معاملات جميع المشروعات الاجنبية اتحاديا وبجهة واحدة (جهاز الاستثمار)
v. حظر القانون فرض أي ضرائب او رسوم ولائية على المشروعات الاتحادية وذلك خلال فترة الاعفاء الضريبي الممنوح للمشروع . **(قانون تشجيع الإستثمار، 1996) .**

9/ ضمانات الاستثمار :

يتمتع المشروع بالضمانات الاتية :

أ. عدم التاميم والمصادرة او نزع الملكية للعقارات كليا او جزئيا للمنفعة العامة الا بقانون ومقابل تعويض عادل .
ب. عدم الحجز على اموال المشروع او مصادرتها او تجميدها او التحفظ عليها إلا بأمر قضائي .
ج. ضمان تحويل المال المستثمر في حالة عدم تنفيذ المشروع او تصفيته او التصرف فيه بأي وجه من اوجه التصرف كليا او جزئيا بالعملة التي استورد بها شريطة الوفاء باي التزامات مستحقة قانونا ، كما يجوز اعادة تصدير الالات والمعدات والاجهزة ووسائل النقل والمستلزمات الاخرى .
د. ضمان تحويل الارباح وتكلفة التمويل الناتجة عن رأس المال بالعملة التي استورد بها راس المال او القرض في تاريخ الاستحقاق .
ه. يسمح للمشروع باستيراد المواد الخام التي يحتاج بعد قيد المشروع في سجل المصدرين والمستوردين تلقائيا .
و. لضمان وحماية الامتيازات الممنوحة للمشروع حظر القانون على اي جهة ادارية الامتناع عن تنفيذ الميزات الممنوحة بموجب احكام هذا القانون .

10/ استيراد احتياجات المشروع :

يتقدم المشروع بكشف احتياجات مشروعه كاملة وتتم دراستها واجازتها بصورة للجمارك ويمكن للمستثمر استيرادها مجتمعة او على دفعات وفق برنامج محدد .

11/ تسجيل رأس المال الاجنبي :

أ. يتم تسجيل راس المال الاجنبي لدى بنك السودان بعد تقديم المستندات اللازمة والواردة تفصيلا باللائحة التنفيذية للقانون .

ب. يمكن للمشروع فتح حساب لدى احدى المصارف التجارية المعتمدة لدى بنك السودان يسمى حساب الاستثمار المفتوح .

ثانياً: العلاقة السببية بين مناخ الإستثمار والقدرة علي جذب الإستثمارات السياحية:

تتنوع مؤشرات الاستثمار العالمي طبقاً للجهات المصدرة له والمستوردة وتستخدم تلك المؤشرات معايير مختلفة تصنف من خلال الدول وترتيبها طبقاً لتنافسيتها ودرجة جذبها للاستثمار الأجنبي المباشر، وهناك العديد من المؤسسات والمعاهد والمنتديات المتخصصة في دراسة تلك المؤشرات والتي تتشابه في أغلب مكوناتها ومن أهمها: (مؤشر الإستثمار الأجنبي، 2010-2011) .

1/مؤشرات المخاطر القطرية:

من خلال تقاريرها عن مختلف الدول، وتقوم بترتيبها بحسب درجة Political Risk Servicesويصدر عن مؤسسة المخاطر والتي تقاس من خلال إعطاء قيم عددية لعدد من المخاطر القطرية، التي تندرج تحت ثلاث مجموعات هي: (المخاطر السياسية، الاقتصادية، والتمويلية) وتمثل مجموعة نقاط تلك المخاطر الفرعية مؤشراً للمخاطر الإجمالية للدولة.

وبالتالي يستطيع المستثمر الاعتماد على هذه المؤشرات قبل اتخاذ قراره باستثماره بحيث يختار أقل الدول مخاطرة إذا ما تساوت العوامل الأخرى.

2/ مؤشرات (كوف) للعولمة 2006م:

) السويسري المتخصص بالدراسات الاقتصادية مؤشرات تعنى بقياس العولمة من خلال ثلاثة أبعاد KOFصدر عن معهد (رئيسية اقتصادية، اجتماعية، سياسية.

ونود التنويه إلى أن التنمية أصبحت في المنظور الأممي تشتمل على الجوانب الاقتصادية والاجتماعية، والسياسية ويستدل بها كمؤشرات لقدرات البلدان على الاندماج والتكيف مع العولمة.

ومن أهم المؤشرات التي حددها (كوف) ما يلي:

أ- **المناخ الاجتماعي والثقافي:**

يعتبر هذا العامل من عوامل المناخ الاستثماري في كل ما يؤثر على قوة العمل سواءً من حيث الكم أو الكفاءة ومن ثم فإنه يتكون من النقاط الآتية :

- دور النقابات العمالية ومدى فعاليتها.
- السياسة التعليمية ومدى ملائمة مخرجاتها مع احتياجات سوق العمل.
- معدل نمو السكان ونسبة القوة العاملة إلى إجمالي عدد السكان.
- التركيب الاجتماعي وما يحتويه من وفاق أو تنافر.
- الوعي الصحي والبيئي.
- مدى تفاعل الرأي العام وترحيبه باستضافة الاستثمارات الأجنبية.

ب- **المناخ القانوني والتنظيمي:**

يقصد بمفهوم المناخ القانوني سن القوانين المحفزة أو الطاردة للاستثمار الأجنبي المباشر تلك القوانين التي يجب أن تتمتع بالاستقرار وعدم التضارب فيما بينها حتى تجذب الاستثمار، فضلاً عن ضرورة وجود القضاء العادل ونظام التحكيم الذي يتكفل بحسم المنازعات والذي يعتبر من العناصر الهامة في تهيئة المناخ الاستثماري، كما أن للمؤسسات القائمة على تنفيذ القوانين دور كبير في جذب الاستثمار الأجنبي المباشر من خلال التسهيلات وتيسير الإجراءات أو طرده من خلال التعقيدات والبيروقراطية وطول الإجراءات.

ج- **المناخ السياسي:**

يؤثر المناخ السياسي للدول المضيفة في تشكيل المناخ الاستثماري بها حيث يؤدي ضعف الاستقرار السياسي إلى تدني معدل الادخار، وتزايد معدلات هروب رؤوس الأموال المحلية...الخ.

ويتأثر المناخ السياسي للدولة بعدة عوامل من أهمها ما يلي:

- النظام السياسي ومدى الالتزام بتطبيق الديمقراطية.
- تواجد منظمات المجتمع المدني ومدى تمتعها بالديمقراطية.
- تطور وعي الأحزاب السياسية ودرجة الحرية التي تتمتع بها.
- التداول السلمي للسلطة، ودرجة الاستقرار السياسي وفترة بقاء الحاكم في السلطة.

د- المناخ الاقتصادي:

يتفاعل هذا العنصر مع العناصر السابقة ويتمخض عنها المناخ الاستثماري في الدولة المضيفة ويتشكل المناخ الاقتصادي من العناصر الآتية:

- توفر الموارد الطبيعية.
- صلاحية البنية الأساسية.
- اتساع السوق الداخلية للدولة مقترنة بالقوة الشرائية التي تتوقف على الناتج المحلي وعدد السكان وعدالة توزيع الثروة بين أبناء المجتمع.
- كفاءة السياسات الاقتصادية (مالية، نقدية، تجارية) ومدى مرونتها واستغلالها.
- درجة الحماية التي تقدمها الدولة لمنتجاتها المحلية.
- توفر العمالة الماهرة ومستوى الأجور السائدة في الدولة.
- قدرة المؤسسات الإنتاجية المحلية ودرجة المنافسة بينها.

تطور سوق المال على الصعيد التشريعي والتنظيمي.

3/ مؤشرات التنافسية العالمية *Global Competitiveness* :

يتولى المنتدى الاقتصادي الدولي في دافوس بسويسرا بالتعاون مع 109 مؤسسة عالمية قياس قدرة الدولة على النمو والمنافسة ولقد ظهر هذا المؤشر عام 1979م ويتكون من مؤشرين فرعيين وهما: **(أنماط السياحة في العالم، 2014)** .

أ- **مؤشر النمو للتنافسية Global Competitiveness:**

ويعكس قدرة الدولة على النمو الاقتصادي لفترة تتراوح بين 5-8 سنوات وينقسم بدوره إلى ثلاثة مقاييس:

- **المقياس الأول:** يختص بقياس الأهمية النسبية لقطاع التكنولوجيا، الربط بشبكة الإنترنت، عدد أجهزة الحاسوب المستخدمة، كثافة استخدام خطوط الهاتف النقال، عدد الهواتف الثابتة لكل ألف شخص ويمنح وزن 50% من المؤشرات.
- **المقياس الثاني:** ويقيس أداء المؤسسات العامة من خلال دراسة البيئة التشريعية ومدى سيادة القانون والنظام ودرجة الفساد والبيروقراطية ويمنح 25% من المؤشرات.
- **المقياس الثالث:** ويقيس أداء الاقتصاد الكلي ويتكون من عدة متغيرات هي معدل النمو الحقيقي، نسبة الاستثمار من الناتج المحلي الإجمالي استقرار أسعار الصرف، نسبة الموازنة إلى الناتج المحلي الإجمالي، معدل التضخم نسبة الميزان الجاري إلى الناتج المحلي الإجمالي ويمنح وزن 25% من المؤشرات.

ب- **مؤشر الأعمال التنافسية Microeconomic competitiveness:**

يرتكز هذا المؤشر على قياس محفز النمو الاقتصادي وينقسم إلى مقياسين: **(مؤشر الإستثمار الأجنبي، 2010-2011)**

- درجة تطور قطاع الأعمال.
- المناخ الاستثماري.

ويستند هذا المؤشر على (8) عوامل يمنح لكل منها وزن متساوي ثم تقاس قدرة الدولة وفق نموذج إحصائي يتم تطويره باستمرار وتتكون العوامل الثمانية على النحو الآتي:

- درجة الانفتاح الاقتصادي.
- أداء القطاع المالي.
- البنية الأساسية.
- الإطار المؤسسي.
- البيئة المعلوماتية.
- مدى تدخل الحكومة في النشاط الاقتصادي.
- مؤشرات الموارد البشرية (العمال).
- تطور نظم الإدارة.

الخاتمة

هدفت هذه الورقة الى التعرف علي مناخ الإستثمار في السودان وأثره في جذب الإستثمارات السياحية، ومن خلال عرض وتحليل بيانات الورقة تم التوصل إلى النتائج والتوصيات الآتية:

أولاً: النتائج:

1- يعتبر الإنسان سياحي بالفطرة كونه تواق إلى تغيير مكان معيشته على الاستمرار.
2- وجود المعالم والآثار التاريخية للحضارات القديمة التي قامت في السودان كالحضارة النوبية وجبل مرة والإهرامات والتي تضاهي معالم وآثار الحضارة المصرية الفرعونية أكبر دليل علي عراقة السياحة في السودان.
3- الاستقرار الاجتماعي والسياسي له تأثير واضح علي جذب الإستثمارات السياحية في السودان.
4- تسهيل إجراءات تأسيس وتسجيل المشاريع الاستثمارية واختصار الخطوات البيروقراطية لكل ما يتعلق بالنشاط الاقتصادي.
5- تقليص بؤر الفساد وتوفر قواعد المسائلة في ظل الشفافية الواضحة.
6- أثبتت نتائج الدراسة من الناحية النظرية أن هناك علاقة سببية بين توفر محددات مناخ الاستثمار التي سبقت الإشارة إليها وغيرها، وكمية تدفق رؤوس الأموال للاستثمار الأجنبي المباشر في السودان.
7- تبين من النتائج أن هناك علاقات سببية مباشرة بين توفر محددات مناخ الاستثمار والقدرة التنافسية لأي بلد لجذب الاستثمارات الأجنبية المباشرة.

ثانياً: التوصيات:

1- أن تعمل الحكومة على تحسين البنية الأساسية وإنشاء المناطق الصناعية باعتبارها من أهم الأساليب لجذب الاستثمارات المحلية والأجنبية .
2- ضرورة إشراك القطاع الخاص في إنشاء بعض البنية الأساسية، وهذا الأسلوب قد يساعد على جذب الاستثمارات الأجنبية.
3- الاهتمام والعمل الدءوب حول تعزيز الاستقرار السياسي والاقتصادي كونهما من أهم المحددات لجذب الاستثمارات المحلية والأجنبية .
4- ضرورة الإهتمام بتحسين دخل المواطنين لما له من آثار إيجابية على السياحة المحلية .
5- تطوير البنى التحتية وتوفير التسهيلات الترفيهية للسياح في مناطق الجذب السياحي.
6- الإهتمام برضى السياح وإشباع فضولهم المتعدد.
7- الإستفادة من الثروة المعلوماتية من خلال إنشاء مراكز للمعلومات السياحية ترتبط بقاعدة بيانات مركزية.
8- خلق وعي وإدراك لدى أفراد المجتمع بأهمية السياحة كقطاع مولد للدخل.
9- تشجيع خصخة المنشآت السياحية وتشجيع رأس المال الأجنبي على الإستثمار المباشر في صناعة السياحة السودانية باعتبارها وسيلة فعالة لتحقيق التطور وكفاءة الأداء.
10- توفر الموارد الطبيعية مع استقرار ووضوح السياسات الاقتصادية والمالية والنقدية في ظل الانفتاح الاقتصادي والقدرة التنافسية للمؤسسات الإنتاجية والخدمية المحلية يساعد في تهيئة المناخ الإستثماري في السودان.

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Current Practices And The Effects Of Audit Quality On The Compliant Of Goodwill Impairment Disclosure: Malaysian Case

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Abstract

Goodwill and the standards that regulate its measurement and reporting are commonly regarded as some of the most controversial aspects of financial reporting. It requires more rigorous techniques, disclosure of goodwill impairment testing and significantly expanded disclosure requirements. In addition, MFRS 136 calls for the disclosure of a range of factors, which organizations may view as sensitive, including projected growth rates and the provision of a segmented perspective on company risk characteristics. Previous empirical evidence on Malaysian listed companies' reveal that the rate of compliance with the provisions of MFRS 136 has been very poor and in some specific instances, extremely unusual patterns were evident in company-level data disclosures. This in turn gives rise to questions about how Malaysian companies have fared during the full convergence to a complex IFRS reporting framework and in consequence to the quality and consistency of reports produced pursuant to the IFRS framework. Thus, this research focuses specifically on compliance levels and the effect of audit quality in influencing the disclosure that relate to the highly detailed requirements set out in MFRS 136. The index was established based on the requirement of disclosure of MFRS 136. Our sample consists of 204 listed firms from 2006 to 2013. This generated a total of 1632 firm-year observations that were collected manually from the sampled firms' annual reports. The findings revealed that although the level of goodwill disclosure has improved steadily, there is more room to improve. The findings of multiple regressions showed that audit firm size, auditor's tenure, and audit fees have positive impacts on goodwill disclosure. Hopefully, these findings shed lights to policy makers and regulators in developing future strategic planning framework for the goodwill impairment disclosure.

Keywords: MFRS 136, goodwill impairment, audit quality, reporting practices

1. Introduction

Goodwill has increased in importance the world over; the asset composition of companies has changed in the last few decades, and goodwill constitutes a significant proportion of assets for numerous companies (Jensen & Ruback, 1983; Chen *et al.*, 2004). This is due to an increase in the number and value of mergers and acquisitions, which in Malaysia has doubled since 2006 (PWC-Alert, 2007). As a consequence, and because it has a greater impact on

financial statements, there has been an increasing need for a more relevant approach for addressing goodwill that reflects the value of the firm.

The introduction of the International Financial Reporting Standards (IFRS) in many countries around the world is one of the most significant regulatory changes in accounting history. The IFRS is aimed at increasing the quality and consistency of reporting standards. They are increasingly being viewed as a set of high-quality accounting standards that ideally would apply equally to financial reporting by public companies worldwide. The potential benefits from the use of one common set of accounting standards include increased comparability of financial statements and improved transparency that leads to more efficient investment decisions and restoring investor confidence in publicly traded companies (Hodgdon *et al.,* 2009).

Malaysia declared its intention to achieve full convergence with IFRS by 1 January 2012 and named as Malaysian Financial Reporting Standards (MFRS), which was fully compliant with the IFRS framework. The aim of this standard was to refine information content of statements containing goodwill and give readers or users of the annual reports information that mostly reflects the underlying economic value of goodwill (Omar *et al*., 2015; AbuGhazaleh *et al*., 2012; Lapointe-Antunes *et al*., 2013).

Goodwill impairment testing is now prescribed in Malaysia's MFRS 136 – *Impairment of Assets* (MFRS 136), and its accounting treatment represents one of the biggest challenges to Malaysian reporting entities, as it requires more rigorous techniques, disclosure of goodwill impairment testing and significantly expanded disclosure requirements.

Advocates of the IFRS-based approach to goodwill reporting point to a range of putative benefits associated with the adoption of an impairment testing-led approach to goodwill accounting and reporting, including evidence of the improved value relevance of impairment losses compared to annual amortisation charges (Li & Meeks, 2006). According to Abu Ghazaleh *et al.* (2012), the reported goodwill impairments is considered as a value relevance if perceived by investors to be reliable measures of the reduction in the value of goodwill. Thus, it should provide users with a better understanding of the expectations and changes in the assets over time, therefore improving their ability to assess future growth and future earnings (Jerman & Manzin, 2008) (Jerman & Manzin, 2008).

However, the valuation of goodwill impairment is not easy and indeed, impairment testing has been categorised as one of the five most difficult challenges arising from the transition to IFRS (Hoogendoorn, 2006). Testing goodwill for impairment is a complex process; the IFRS Standard on goodwill requires more rigorous techniques and there is a higher degree of complexity in relation to conceptualising, measuring and reporting on goodwill. In addition, MFRS 136 calls for the disclosure of a range of factors that organisations may view as sensitive, including projected growth rates and the provision of a segmented perspective on company risk characteristics.

The new accounting treatment for goodwill is filled with subjectivity and ambiguity for financial report prepares and auditors alike. In the absence of adequate audit and regulatory oversight, the complexity of the MFRS 136 framework, together with the frequency with which its application calls for the exercise of discretion and judgment, may conspire to result in the production of information of a lower quality, and this is of concern to accounting scholars. Focusing on the disclosure requirement pursuant to MFRS 136, this research specifically examines the level of compliance with a variety of the provisions under MFRS 136 and assesses factors influencing the disclosure provided in accordance with the impairment accounting standard.

Thus, this paper examines the level of systematic disclosure compliance of the goodwill reporting made by 204 Bursa Malaysia listed firms for the year ended 2006 until 2013. In order to achieve the objective of this study, the unweighted index is chosen for its ability to differentiate the quality and importance of each disclosure. Our findings help the policy makers as well as the regulators in strengthening their strategic goal to enforce the companies to comply with MFRS 136 as although it is mandatory, some of the companies have not yet achieved full compliance. Hence, this study contributes to the existing body of literature by offering alternative advice as well as useful information for a better valuation in the future.

The rest of this study is organized as follows. Section 2 briefly reviews relevant literature while section 3 outlines the research methodology being used. Section 4 discusses the results and finally, section 5 sets out the key conclusions for policy implications and suggestion for further research.

2. Literature Review

The process of convergence with IFRS represents one of the biggest challenges to Malaysian reporting entities, as it requires more rigorous techniques, disclosure of goodwill impairment testing and significantly expanded disclosure requirements. The highly prescriptive disclosure requirements pertaining to the nature of goodwill

impairment testing processes undertaken by reporting entities provides far greater transparency (Sevin *et al.*, 2007). Advocates of the IFRS-based approach to goodwill reporting point to a range of putative benefits associated with the adoption of an impairment testing-led approach to goodwill accounting and reporting, including evidence of the improved value relevance of impairment losses compared to annual amortisation charges (Li & Meeks, 2006). The impairment testing also promotes transparency, because the valuation of goodwill reflects the underlying economic or business conditions as a result of the reporting which is based on current events that affect the business (Moehrle & Reynolds-Moehrle, 2001). Thus, it should provide users with a better understanding of the expectations and changes in the assets over time, therefore improving their ability to assess future growth and future earnings (Jerman & Manzin, 2008) (Jerman & Manzin, 2008).

However, the valuation of goodwill impairment is not easy and indeed, impairment testing has been categorised as one of the five most difficult challenges arising from the transition to IFRS (Hoogendoorn, 2006). Testing goodwill for impairment is a complex process; the Standard on goodwill requires more rigorous techniques and there is a higher degree of complexity in relation to conceptualising, measuring and reporting on goodwill. In addition, MFRS 136 calls for the disclosure of a range of factors which organisations may view as sensitive, including projected growth rates and the provision of a segmented perspective on company risk characteristics.

The accounting treatment of goodwill involves applying professional judgment in terms of meeting criteria for its recognition as an intangible asset, initial measurement and impairment (Bunea-Bontas & Petre, 2009). Its complexity and reliance on many subjective judgments suggests that management may use the new impairment testing in an opportunistic way, with some companies understating their impairment and others overstating it, depending on the managerial incentives (Zang, 2008). Haman & Jubb (2008) and Jarva (2008) agree and commented that the new goodwill rule provides flexibility to managers to manage the recoverable amount of goodwill in order to minimise impairment losses. The inherent unverifiability of fair values for intangibles and management's incentives to inflate assets and earnings leaves management with this new discretion to delay impairments and this can seriously compromise the usefulness and increase the likelihood of opportunistic disclosures (Watts, 2003; Ramanna, 2008; Ramanna & Watts, 2009).

The new statement of goodwill provides significant flexibility in regard to managerial judgment and discretion and thus, the quality of earnings figures may be lowered. Dagwell *et al.* (2004) commented that the proposed treatment of goodwill impairment might be more realistic commercially but potentially could cause volatility of reported earnings. A study by Li & Sloan (2009) agreed with these findings and suggested that management exploit the discretion afforded by SFAS 142 to temporarily overstate goodwill, earnings and stock prices. The evidence indicates that the new accounting results in overstated goodwill balances, untimely impairments and increased earnings volatility. A study by Sevin & Schroeder (2005) found that US managers managed earnings downwardly after the adoption of the new goodwill rule under SFAS 142. The authors suggested that companies used the timing of the change in the goodwill rule to make big bath charges. Besides the fact that impairment testing involves many management judgments, the bases of the judgments are rarely disclosed in sufficient detail to allow analysts or investors to critically evaluate management's impairment analysis. Thus, valuation complexity and lack of information means companies have a significant opportunity for earnings management (Vance, 2008). Holthausen & Watts (2001) pointed out that if there are management incentives to manipulate earnings, then the lack of verifiability will tend to affect the reliability and the value relevance of the accounting numbers.

A number of studies have examined the difficulties associated with the convergence process with IFRS framework. The most common documented difficulty of IFRS convergence is complexity in the standards (Larson & Street, 2004). IFRS is complex and for most users this creates a financial statement that is difficult to read and understand. The most difficult issues in practice are financial instruments (IAS 32, 39), pensions and employee benefits (IAS 19), purchase accounting (IFRS 3, IAS 38), impairment testing (IAS 36) and income taxes (IAS 12) (Larson & Street, 2004; Tokar, 2005; Hoogendoorn, 2006). Street & Gray (2002) also found a significant extent of non-compliance with IFRS, while a study by Abdelsalam & Weetman (2007) observed a low degree of compliance with IFRS in most listed companies in Egypt. The low compliance with IFRS can be explained by the complex nature of the standards in terms of conceptualising, measuring and ultimately disclosure and hence, are difficult to implement in practice.

Bearing in mind the high degree of complexity inherent in the IFRS impairment testing framework (Carlin & Finch, 2010), the conceptual flaws in the configuration of the relevant standards (Lonergan, 2007; Haswell & Langfield-Smith, 2008), the detailed empirical record of problematic reporting practices in fields closely related to impairment testing (Herrmanna & Thomas, 2000; Street *et al.*, 2000; Ettredge & Smith, 2002; Bens & Monahan, 2004), and the growing empirical evidence of relatively lax auditor oversight of note form disclosures – on which

MFRS 136 relies heavily (Libby *et al.*, 2006) – this research focuses specifically on the issue of standards compliance. In particular, a review of the extant literature yields the expectation that high levels of compliance with the precepts of newly IFRS relating to goodwill should be taken as given. It is assumed that companies converging with international reporting standards relating to goodwill impairment are likely to display substantial variation in treatment and approach and in the consistency and quality of their compliance with the requirements of the standards. Arguably, this phenomenon is likely to be accentuated in jurisdictions without a history of strong rules relating to goodwill accounting and reporting, of which Malaysia represents a case in point.

The recent literature relating to this issue focuses on the incentive compatibility problems which may be associated with the implementation of impairment-based approaches to goodwill measurement and reporting (e.g. Beatty & Weber, 2006; Hayn & Hughes, 2006). The issues examined in this research area have been the subject of investigation in other jurisdictions including Australia, Singapore and Hong Kong (Carlin & Finch, 2010; Carlin *et al.*, 2010a; Carlin *et al.*, 2010b). However, Malaysia differs very substantially in many key respects from jurisdictions such as Australia. One key area of difference is the historical regulation of goodwill accounting and reporting. Australia, for more than two decades prior to the introduction of IFRS, maintained a highly prescriptive system for the regulation of goodwill accounting and reporting. This has not been the preferred approach in Malaysia. Thus, the convergence with IFRS in Malaysia represents an even more dramatic and significant step than in other jurisdictions. this research specifically examines the level of compliance with a variety of the provisions of MFRS 136 and assesses the quality of disclosures provided in accordance with the MFRS reporting framework.

MFRS 136 provide management with reporting discretion in assigning goodwill and assessing factual value. This raised a concern about the quality of audits by external auditors (Hany & Hughes, 2006). The auditors are required to exercise professional judgment when investigating the reasonableness of impairment decisions by management in each reporting period (Al-Hiyari *et al*., 2016). According to Carlin *et al.* (2009), the fundamental role of audit firms is to ensure the companies produce their financial statements with more accuracy and credibility. However, Almutairi (2009) argued that the better the quality of the audit, the easier way it is to discover the misstatements and mistakes that may happen in accounting. Pongsatitpat and Sudarat (2012) noted that the level of the audit quality is dependent on performance of the auditor. Therefore, there are several characteristics that should be available in the auditor such as competence.

In addition, auditors assure that the managers do not impair the quality of financial statement by verifying the calculations of present value and conformity of the valuation procedures to those prescribed in the standard. Therefore, the reliable information to investors and others are disclosed. In addition, the complexity that inherent in the standard led a lot of company's dependent on their auditors to; Firstly, assisting in understanding the complex standard and interpreting any ambiguity items (Mollik & Bepari, 2011). Secondly, assist them in discovering and reporting misstatement in financial statements (Ahlstrom & Brandin, 2014; Mollik & Bepari, 2011). Accordingly, the auditors sometimes engaged in the preparation of the firm's annual reports (Ahlstrom & Brandin, 2014).

Prior studies have suggested that there are factors that may impact the independence of auditors such as fee structures and turnover of engagement partners (Healy & Lys, 1986; Sabri, 1993; Chen *et al*., 2005), non-audit service and amount of audit (Yuniarti, 2011), and long auditor tenure (Zhang, 2011; Chen *et al*., 2005).

Audit quality is measured by different factors such as audit firm size (e.g. Chen *et al*., 2013; Choi *et al*., 2010; Alsaeed, 2006), audit tenure (e.g. Al-Thuneibat *et al.*, 2011; Almutairi *et al*., 2009), audit firm specialist (e.g. Boon *et al*., 2008; Dunn & Mayhew, 2004), audit fee (e.g. Ball *et al*., 2012; Choi *et al*., 2010), and non-audit services (e.g. Hajiha & Sobhani, 2012). Hence, the current study examines the role of audit quality to impact the level of goodwill disclosure among Malaysian listed companies. This study chooses three measures of audit quality: audit firm size, audit tenure, and audit fees.

3. Research Methodology

3.1. Sample of the study and Data Collection

The initial sample consisting of all companies listed on the Bursa Malaysia from 2006 to 2013. Companies were included in the final research sample if they had reported goodwill as a component of their asset base in in these years. The final research sample consisted of 204 companies from 2006 to 2013. From the total population of companies meeting the eligibility criterion, this study excluded certain companies from the analysis due to two reasons: (a) the company does not report goodwill in any year of the eight years; or (b) the company belongs to the

financial sector (banks, insurer, diversified financial service, and real estate), in line with Abu Ghazaleh *et al*.'s (2011) suggestion. As they have their own special regulations for disclosure, companies in the financial sector were therefore not considered.

To facilitate the analysis of the research areas, sample companies were divided into 7 groups based on Worldscope's General Industry Classification as shown in Table 1.

Table 1 Distribution of Sample Companies by General Industry Classification

Sector	Number of Company	%
Industrial Products	59	28.92%
Trading	57	27.94%
Consumer Products	28	13.72%
Properties	24	11.76%
Technology	13	6.38%
Plantation	12	5.89%
Construction	11	5.39%
TOTAL	**204**	

3.2. Research Design

The purpose of the disclosure index is to measure the compliance level and disclosure based on the amount of requirements disclosure provided by firms in their annual reports. The selection of items included in the index was guided by standard itself (disclosure requirement of FRS 136). The level of mandatory compliance with FRS 136 was measured by a self-constructed compliance index which is consistent with prior compliance studies (Kang and Gray 2011, Cheung et al. 2010, Khairi and Laili 2008, Naser and Nuseibah 2003, Bradbury and Hooks 2005, Hooke et al. 2002, Wallace and Naser 1995).

The initial step in constructing the index is to develop a checklist. The checklist is based on the requirement of disclosure of FRS 136. Annual reports of the firm will be reviewed and an assessment of the amount of disclosure is recorded on a 0 to 1 scale based on the importance of the disclosure. This approach presents a better measure on importance of disclosure than a simple binary (0 and 1) score.

The disclosure index has been widely employed by previous researchers to measure the extent of disclosure on requirements of accounting standards (Khairi and Laili 2008, Singhvi and Desai 1971, Buzby 1974, Robbins and Austin 1986, Chow and Wong Boren 1987, Botosan 1997, Healy and Palepu 2000, Guerreiro et al. 2008). This study also applies the disclosure index to measure the compliance level and disclosure quality of Malaysia listed firms with the requirements of goodwill impairment. The purpose of developing disclosure index is to produce a ranking among the firms on compliance level and disclosure quality of FRS 136. The underlying criterion for scoring each annual report studied is truly informative. A higher score of a firm infers that it gives more information on a particular disclosure item to the user as compared to another firm. Through this method, they rank the firms understudy according to the aggregate score. It is, therefore, easier to assess the level of disclosure compliance of the accounting standards among the firms. The procedure to measure the extent of disclosure (i.e. to create disclosure index) is summarized as follows: -

i. Developing of a disclosure-scoring sheet

The important step in developing a disclosure index is the selection of items to be included on a disclosure scoring sheet. As this study concerns with the measurement of the firms' level of compliance and disclosure quality with the goodwill impairment requirements, the disclosure scoring sheet is designed on the basis of a review of the requirements of FRS 136. We examine the accounts notes of the firms' annual reports to develop this index. Appendix B provides an example of the

disclosures required by FRS 136. There are four important paragraphs in the FRS 136 that this study is interested to explore. First, disclosure requirement under paragraph 134(a) of FRS 136, which requires entity to disclose the carrying amount of goodwill allocated to the cash generating units (CGUs) to which goodwill acquired in a business combination is allocated and test for impairment.

Second, Paragraph 80 (a) (b) of FRS 136 requires that cash-generating units (CGUs) represent the lowest level within the entity at which the goodwill is monitored for internal management purpose and that the CGU should not be larger than a primary or secondary segment defined for the purpose of segment reporting. This will tend to lessen the burden in preparing the financial reporting under the new regime. However, to avoid against inappropriate aggregation, Paragraph 80 (a) (b) of FRS 136 states that the CGU should not be larger than a primary or secondary segment defined for the purpose of segment reporting.

Third, Paragraph 134 (c), under Paragraph 134 (c) of FRS 136, an entity shall disclose the basis on which the CGUs' recoverable amount has been determined (i.e. value in use or fair value less costs to sell). Fair value less costs to sell is defined as the amount obtainable from the sale of an asset or a CGU in an arm's length transaction between knowledgeable, willing parties less the costs of disposal. That is, market value less selling costs. On the other hand, Paragraph 6 of FRS 136 defines value in use as the present value of the future cash flows expected to be derived from an asset or CGU.

Lastly, under Paragraph 134 (d) of FRS 136, states that if the unit's (group of units') recoverable amount is based on value in use, an entity shall disclose the following:-

a) *A description of each key assumption on which management has based its cash flow projections for the period covered by the most recent budgets/forecasts. Key assumptions are those to which the unit's (group of units') recoverable amount is most sensitive.* (FRS 136, Paragraph 134 d (i))
b) *a description of management's approach to determine the value(s) assigned to each key assumption, whether those value(s) reflect past experience or, if appropriate, are consistent with external sources of information, and, if not, how and why they differ from past experience or external sources of information.* (FRS 136, Paragraph 134 d (ii))
c) *the period over which management has projected cash flows based on financial budgets/forecasts approved by management and, when a period greater than five years is used for a cash-generating unit (group of units), an explanation of why that longer period is justified.* (FRS 136, Paragraph 134 d (iii))
d) *the growth rate used to extrapolate cash flow projections beyond the period covered by the most recent budgets/forecasts, and the justification for using any growth rate that exceeds the long-term average growth rate for the products, industries, or country or countries in which the entity operates, or for the market to which the unit (group of units) is dedicated.* (FRS 136, Paragraph 134 d (iv))
e) *the discount rate(s) applied to the cash flow projections.* (FRS 136, Paragraph 134 d (v))

ii. Scoring the disclosure items

This study employs the disclosure unweighted index as an effective measure of the level of compliance and disclosure quality among the top 50 listed firms in Malaysia. If a company discloses an item according to FRS 136 in its annual report it will be awarded (1) and if not it will be awarded (0). As this study concerns with the measurement of the firms' level of compliance and disclosure quality with the goodwill impairment requirements, the disclosure scoring sheet has been designed on the basis of a review of the requirements of FRS 136.

The unweighted index for particular firm was calculated by summing the disclosure item for each standard and then dividing the total by number of required disclosed through the FRS 136. For example, FRS 136 Para 134 (a) requires entity to disclose the carrying amount of goodwill allocated to the CGUs to which goodwill acquired in a business combination is allocated and tested for impairment. If

particular firm allocated the carrying amount of goodwill to the CGUs, it will be awarded (1), otherwise it will be awarded (0). The same goes to other requirements of FRS 136.

iii. Creation of disclosure index

The disclosure index is a ratio computed by dividing the total actual score for each firm by the total maximum score that particular firm is expected to earn. However, firms are not penalized for not disclosing the information as required in the standard. The design of the disclosure index was proposed by (Buzby 1975).

The disclosure index score is measured using the equation below:-

$$D = \frac{\sum_{i=1}^{m} d_i}{\sum_{i=1}^{n} d_i} \qquad \text{(Equation 2)}$$

Where:-

DI = disclosure index;
d_i = index item i, 1 if the information (item) is disclosed and 0 otherwise;
m = number of items actually presented;
n = number of total possible items that apply.

iv. Criteria for grading compliance with the requirement of FRS 136

Table 2: Range of firm distribution

Letter Grade	Percentage	Form	General Remarks
A	80% - 100%	Strongly complied	Excellent
B	60% - 79%	Semi-strongly complied	Good
C	40% - 59%	Weakly complied	Poor
D	0% - 39%	Non-compliance	Extremely poor

Source: Kantudu A. S. 2005

The decision criteria adopted in the study is contained in Table 2. This table was taken according to Kantudu (2005). The variables ordinarily ranked, will be used in our qualitative judgement of assessing the degree of compliance with the requirements of MFRS 136 in Malaysia. The range is between 0% - 100%. That is, any of the requirements disclosed by company in its annual accounts and reports attract between 0 – 100%. 50 approved companies are therefore graded on the number of items observed as per the requirements of standard. Alternatively, a company that scored zero (0) will be graded as having an extreme poor compliance with the requirements.

3.3. Hypothesis Development

Audit Firm Size

According to the agency theory, the conflicts that arise between investors and company managers regarding their interest can be decreased via an external audit (Xiao *et al*., 2004; Watts & Zimmerman, 1983). Prior research suggests that large, globally operating 'Big 4' audit firms provide audits of a higher quality level than smaller, regionally oriented auditors (De Angelo, 1981). Large audit firms produce more quality audits as compared to smaller firms as well as, large audit firms are expected to be more independent (Haniffa & Cooke, 2002). The quality of auditing among Big-4 audit firms is regarded as different from their counterpart, the non-Big-4 audit firms. This is due to large audit firms possessing higher technical expertise, higher reputation and brand equity, as well as their own endeavours to safeguard these reputations (DeAngelo, 1981). A positive association between

compliance and being audited by the Big N firms has been found in prior studies (Bepari *et al.*, 2014; Glaum *et al*., 2013; Glaum&Street 2003; Street &Gray 2001). Glaum*et al*. (2013) and Bepari*et al*. (2014) found auditquality to be a significant determinant of firms' compliance with IFRS for goodwill impairment testing. Glaum and Street (2003) and Street and Gray (2001) found that firms' compliance with IFRS is positively associated with the audit quality, with the audit quality being defined in terms of Big-N versus non-Big-N auditors. Thus,

H1: Audit firm size has a significant positive influence on the level of disclosure under MFRS 136 of goodwill impairment testing.

Audit Firm Tenure

According to the agency theory, the auditor has an important role in monitoring the doubtful action of a company's management by serving to reduce agency cost (Watts & Zimmerman, 1986) and information asymmetry (Aboody & Lev, 2000). Therefore, the manager will be forced to disclose more credible information in financial statements. Evidence reinforces and supports the notion that audit tenure is better for audit quality, compliance with accounting standards, and the quality of financial staments (e.g. Carcello & Nagy, 2004; Stanley & DeZoort, 2007; Chiang & Lin, 2012)**.** Myers *et al*. (2003), suggested a positive relation between the length of auditor–client relationship and earnings quality. Chung and Kallapur (2003) proposed that the length of auditor tenure negatively associated to abnormal accruals**.** According to Carcello and Nagy (2004), the likelihood of fraudulent reporting is higher in the initial years of audit engagement. The non-compliancy of MFRS 136 disclosure requirement may be due to the companies and their auditors lacking experience and dealing with a very high degree of complexity and inherent standard in the detailing (Laili, 2008). There is an assumption that the auditor will over time gain more knowledge and experience and thus will improve the audit quality. Thus, the following hypothesis is formulated:

H2: Audit firm tenure has a significant positive impact on the level of disclosure under MFRS 136 of goodwill impairment testing.

Audit Fees

Prior researches had been using audit fees as proxy for audit quality. This is beause audit fees reflect the magnitude of audit effort. Higher audit fees are expected to indicate more auditing work, which is expected to enhance audit quality. Prior studies have also indicated that the largest international audit firms are able to earn fee premiums (Niemi, 2005). They also have to deal with fewer lawsuits than non-Big 4 firms and have more time to audit. This implies that the Big 4 firms produces higher quality of auditing (DeAngelo, 1981; Francis & Simon, 1987; Palmrose, 1988; 1989). Prior empirical evidence reinforces and supports that the recent transition to the new IFRS has a significant link to the level of audit fees. Griffin *et al.* (2009) suggested that the increase in audit fees is associated with the adoption year and in the following IFRS adoption years in New Zealand. Ding *et al.* (2008) indicated that the transformation from IAS to IFRS is regarded as a major accounting event in the auditing arena that is supposed to affect audit fees. This is because the changes in standards and regulations have increased the difficulties in the audit process. Yaacob and Che-Ahmad (2012) revealed that there is an increase in the audit fees in the post-IFRS adoption period in Malaysia. Thus, the following hypothesis is formulated:

H3: Audit fees have a significant positive influence on the level of disclosure under MFRS 136 of goodwill impairment testing.

3.4. Independent Variables

Audit Firm Size

Audit firm size has been vastly researched by previous studies which used different measurements to determine audit firm size, such as the number of clients and the number of members of an audit firm (Vuniarti, 2011), the number of clients of the office (Choi *et al*., 2010), log of total audit firm assets (Al-Thuneibat *et al*., 2011; Andayani & Warsono, 2013), the natural logarithm of total revenues of the audit firms (Chen *et al*., 2013), and the log of sale

(Myers *et al*., 2005). Prior studies classified audit firm size into different types such as: audit firms as Big 10 (Deegan *et al.*, 1990), audit firm size as Big 6 with international and local affiliations (Makhija & Patton, 2004), Big 5 and non-Big 5 (Vuniarti, 2011; Davis *et al.*, 2002), and audit firms as large as the Big 4 and small audit firms that are non-Big 4 (Bepari *et al*., 2014; Al-Hiyari *et al*., 2014). This study follows most prior studies which adopt large audit firms belonging to the Big 4. Those considered as the Big 4 will score "1" and "0" if they do not.

Audit Firm Tenure

The concept of auditor tenure implies the number of continuous years that the auditor has been auditing the annual report of the same client (Al-Thuneibat *et al*., 2011, Almutairi *et al*., 2009). In addition, it is the relationship between the auditor and his/her client (Hajiha & Sobhani, 2012). Previous studies have classified audit firm tenure into three types. First is the short audit tenure which means that the auditor has audited his/her client's financial statement without change for two to three years (Almutairi *et al.,* 2009). Second is the medium audit tenure. The medium audit tenure takes into consideration that the auditors had audited their client's financial statement without change for four to eight years (Johnson *et al.*, 2002; Hajiha & Sobhani, 2012). Third and last is the long audit tenure. According to Johnson *et al.*(2002), the long audit tenure sees the auditors auditing their client's financial statement without change for a minimum of nine years. There are those who suggested a duration of audit service of 15 years and more to be considered as long tenure (Davis *et al.,* 2002; Dao *et al*., 2008). This study measures audit tenure as the number of years that the audit firms have performed auditing service for the same client without change as conceptualised by Al-Thuneibat*et al.* (2011), CarcelloandNagy (2004).

Audit Fees

It is said that high quality boards tend to demand more external monitoring and are thus willing to pay for higher quality audits (Carcello *et al*., 2002). Therefore, audit fees have been examined in previous studies to determine the relation between audit fees and audit quality, management earnings, and financial disclosure. Various forms of measurements for audit fees have been applied, such as; total audit fees (Ball *et al*., 2012), the natural logarithm of total audit fees (Goncharov *et al*., 2014; Habbash, 2010; Basiruddin, 2011), the difference between the natural log of the audit sum and audit-related fees (Feldmann *et al.*, 2009), the amount of the current year's external audit fee (Simunic,1980), the ratio of non-audit fees to audit fees (Raghunandan, 2003), and the ratio of audit fees to total fees (Frankel *et al*., 2002). This study follows most of prior studies that used the natural logarithm of total audit fees to measure audit firm fees.

3.5. Data Analysis

Descriptive Data

This study employs descriptive statistics in order to explore the data collected and to describe and summarise those data. Thus, this study applies the minimum and maximum, mean, median and standard deviations to describe each variable the study uses and to give a general observation regarding the data that is utilised in this study (Alsaeed, 2006; Glaum et al., 2009).

Assessment of Normality

Normality, being the fundamental assumption in data analysis, refers to the shape of the data distribution for an individual metric variable and its correspondence to the normal distribution. Hair et al. (2006) stated that normality leads to a superior assessment and data follows a relatively normal distribution for most analyses. The normality test is conducted through skewness and kurtosis tools.

Correlation Coefficients

The correlation analysis is conducted for the evaluation of the strength and importance of the variables' relationship. According to Pallant (2001), the correlation analysis is a statistical method that is utilized in explaining the strength and the direction of the linear relation of two variables. The correlation coefficients are

used to measure the correlation which is found between two variables, and the results of the correlation coefficients will give us a good indication about the correlation and what it represents (Shenoy *et al*., 2002).

Multiple Regression

The multiple regression method is used to examine the effects of audit quality – audit firm size, audit firm tenure and audit fees on the level of compliance (see Glaum *et al*., 2013). Outcomes of the multi-regression analysis consider better forecasting regarding such variables from different variables that the study used (Mangena, & Tauringana, 2007). The test provides the understanding of the way the variance in the dependent variable is presented by the independent variables when they are expected to influence the former (Sekaran, 2003). Therefore, this study follows the prior studies in using the multi-regression statistics.
The multi regression equation is formulated as follows:

DIS = a + β1 AFSIZE + β2 AFEES + β3 AFTENU+Ɛ

Where;
DIS is the disclosure level
AFSIZE: Audit firm size.
AFEES: Audit fees.
AFTENU: Auditor firm tenure.
A and B = constant
Ɛ = disturbance term

4. Findings and Discussions

This section focussed on the extent of goodwill disclosure within the annual reports of Malaysia-listed companies over the eight-year period (2006 to 2013) and presented the empirical evidence regarding the impact of audit quality (audit firm size, audit tenure and audit fees) on goodwill disclosure.

Table 3: Descriptive Statistics of the Level of Goodwill Disclosure

Year	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	Goodwill Disclosure (Overall)
Mean	18.95	39.65	46.64	49.56	56.43	62.46	65.19	64.44	50.41
Median	14.13	42.8	57.1	57.1	71.4	71.42	71.42	71.42	57.14
ST. Deviation	31.5	1.056	33.2	32.2	29.6	27.7	27.46	28.27	33.87

N=204 company Observations = 1632

Table 3 shows that the average level for goodwill disclosure (i.e. overall) in the financial statements of Malaysian listed companies was 50.41 percent for the period from 2006 to 2013. Malaysian listed companies disclose about goodwill on average 18.95% in the first year of adopting the FRS 136 *Impairment of Assets*. During 2007, the level of goodwill disclosure was increased by listed companies on average to 39.65%, and the level of goodwill disclosure had increased 20.7 percent (39.65–18.95 = 20.7), it means the Malaysian companies in the second year had achieved a significant improvement in the goodwill disclosure as compared to the first year of adoption in 2006. In 2008, the level of goodwill disclosure was increased by listed companies on average to 46.64 %. The level of disclosure had increased 6.99 percent (46.64 – 39.65 = 6.99). This indicates that the Malaysian companies in third-year adoption also had achieved an improvement in the level of goodwill disclosure.

In 2009, the level of goodwill disclosure was increased by listed companies on average to 49.56 percent. The level of disclosure had increased 2.92 percent (49.56 - 46.64 = 2.92), this indicates that the Malaysian companies in fourth-year adoption had achieved a very slight improvement in the level of goodwill disclosure. The new amendment to FRS136 in 2009 and effective for all companies listed on Bursa Malaysia from 1 January 2010. The new amendment require goodwill to be allocated based on MFRS 8 *operating segment* which stipulates that the allocated of goodwill must no longer be than an operating segment (MFRS 136, 2010).

In 2010, the level of goodwill disclosure was increased by listed companies on average to 56.43 percent. The level of disclosure had increased 6.87 percent (56.43 - 49.56 = 6.87), it shows that the Malaysian companies in fifth-year adoption with new amendment of FRS 136 had achieved a slight improvement in the level of goodwill disclosure. In 2011, the level of goodwill disclosure was increased by listed companies on average to 62.46 percent. The level of disclosure had increased 6.03 percent (62.46 - 56.43 = 6.03), this indicates, Malaysian companies in the sixth-year adoption had achieved more improvement in the level of goodwill disclosure.

The high level of goodwill disclosure had taken place in 2012 by listed companies (in this year the changes to MFRS 136 from MFRSs with effective dated no later than 1 January 2012 (MFRS 136, 2012), where Malaysian listed companies disclosed on average 65.19 percent. The level of disclosure had increased 2.73 percent (65.19 - 62.46 = 2.73), this indicates, Malaysian companies in the seventh-year adoption had achieved a very slight improvement in the level of goodwill disclosure. Whereas, during 2013, the percentage of goodwill disclosure had decreased (as compared to 2012) to 64.44 percent. The level of disclosure had slightly decreased by 0.75 percent (64.44 - 65.19 = -0.75).

There are some possible explanations for improving the level of goodwill disclosure among Malaysian listed companies over the period. Firstly, the companies over time have gain more experience in dealing with the requirements of MFRS 136. According to Mollik and Bepari (2014), the background of accounts assists the companies to comply with IFRS regarding test and disclosure of goodwill impairment. Secondly, the effect of Big-4 audit firms makes the Malaysian listed companies achieved more compliance with MFRS 136. Indeed, more than 58 percent of Malaysian listed companies of this study sample are audited by Big 4. Besides, they enforce their clients to disclose more goodwill disclosure, their financial background and professionalism help the client to understand the complexity technique in MFRS 136. According to Mollik and Bepari, (2011), the dependency of companies on their auditors has increased because the companies need to understand the complex standard of *Impairment of Assets* from their auditors, explain any ambiguity aspect, and set up accounting systems of the company. According to Ernst & Young (2011), audit firms advised their clients to provide detailed disclosures of goodwill impairment; in case, the companies' market capitalization fell below the book values of the net assets (Majid *et al*., 2015). Lastly, companies with more goodwill will be more concerned with the potential loss of market confidence on the disclosed goodwill, thus they tend to offer a more disclosure to the public (Bepari *et al*., 2014).

In addition to the above result, further analysis of the goodwill disclosure index based on sectors of the 204 Malaysian company listed. Table 4 below shows the mean of the level of goodwill disclosure for the period 2006 -2013 based on seven sectors.

Table 4: Means of the Goodwill Disclosure Based on Sectors

SECTORS	2006	2007	2008	2009	2010	2011	2012	2013	Overall
Technology	24.17	48.71	51.64	52.74	61.53	71.42	76.92	75.82	**57.87**
Trad/Serv	24.06	44.86	49.95	54.47	59.56	63.4	65.66	67.66	**53.7**
Ind-Prod	17.43	39.46	44.55	48.18	56.41	63.19	67.55	67.31	**50.51**
Consumer	23.24	40.59	49.77	53.74	54.76	58.5	61.05	55.44	**49.63**
Construction	12.98	37.66	45.45	42.85	48.05	64.93	63.63	61.76	**47.17**
Plantation	14.02	40.21	46.16	46.16	58.33	56.61	56.61	51.58	**46.21**
Properties	7.9	22.35	38.29	39.48	51.12	59.98	61.77	61.77	**42.84**

The result shows that the first sector based on its disclosure is the Technology sector. The level of goodwill disclosure achieved by Technology gradually improved from 2006 to 2012. However, in 2013 the level of disclosure declined from 76.92% to 75.82%. The second sector based on overall disclosure is the Trade/Service sector, where Trade/Service companies were disclosed on average 53.7%. The level of goodwill disclosure achieved by Trade/Service companies gradually improved from 2006 to 2013. The highest level disclosed by Trade/Service companies was 67.66% in 2013. The third sector is the Industry-Product sector. The Industry-Product companies were disclosed on average 50.51%. The level of goodwill disclosure achieved by Industrial-Product gradually improved from 2006 to 2012, but in 2013 the level of disclosure had a very slight declined from 67.55% to 67.31%.

The fourth sector is the Consumer Product sector, where Consumer Product companies were disclosed on average 49.63%. The level of goodwill disclosure achieved by Consumer Product companies gradually improved from 2006 until 2012, but in 2013 the level of disclosure had much declined from 61.05% to 55.44%. The 55.44% that disclosed in 2013 is less than the level of disclosure in 2011. The fifth sector is the Construction sector, where Construction companies were disclosed on average 47.16%. The level of goodwill disclosure achieved by Construction companies gradually improved from 2006 until 2011, but in 2012 and 2013 the level of disclosure declined from 64.93% in 2011 to 63.63% in 2012, and to 61.76% in 2013.

The sixth sector is the Plantation sector, where Plantation companies were disclosed on average 46.21%. The level of goodwill disclosure achieved by Plantation companies gradually improved from 2006 until 2010, but since 2011 the level of disclosure in Plantation companies declined gradually to 56.61% in both 2011 and 2012, and decline to 51.58% in 2013. The last sector based on its level of disclosure is Properties sector, where its companies were disclosed on average 42.84%. The level of goodwill disclosure achieved by Properties companies gradually improved from 2006 to 2013.The highest level disclosed by Properties companies was 61.77% in both 2012 and 2013. The possible explanations for such difference in the level of goodwill disclosure among firms' sectors of Malaysia. It may refer to the companies in some sectors have more amount of goodwill as compared to the companies in other sectors (Bepari *et al*., 2014). Thus, these companies are more likely having allocated goodwill to multiple numbers of CGU, thus they have more information to disclosed.

Result of Multi-Regression

Table 5: The Results of Multiple Regressions

Variables	B	Std. Error	*t-value*	Sig
AFSIZE	0.042*	0.017	2.466	0.014
ATENU	0.038**	0.004	10.198	0.001
AFEE	0.131***	0.014	9.699	0
R	0.412			
R Square	0.17			
F	33.091	Sig		0

AFSIZE: Audit firm size, AFEE: Audit fees, AFTENU: Auditor firm tenure.

The first hypothesis supposed that there is a significant positive relationship between audit firm size and the level of disclosure under MFRS 136 of goodwill impairment testing. As shown in Table 5 above, the impact of audit firm size on goodwill disclosure is positive and significant according to the t- value (β= 0. 042, t = 2.46, P < 0.05). This means that as the audit firm size increases, the degree of goodwill disclosure increases. In other words, the Malaysian companies which are contracted with Big Four firms achieved more compliance with MFRS 136 regarding goodwill disclosure as compared to companies which are contracted with non-Big Four firms. Thereby, H1 is supported.

This finding provides support for the arguments of the agency theory which states that the audit firm size serves to be a determinant of the companies' compliance degree with corporate governance provision, for instance, companies' going concern. The result consists of the study of Al-Hiyari *et al*., (2014) which suggested that Big 4 auditors play an important role in ensuring appropriate implementation of the present accounting for goodwill. The current finding supports the idea by Hodgdon *et al*. (2009), Glaum and Street (2003) and Street and Gray (2001) who suggested that companies' compliance with IFRSs is positively impacted by the Big 4 audit firms. In addition, the current finding is consistent with previous studies that suggested a positive association between audit firm size and companies' disclosure, such as studies by Schiehll *et al*. (2013), Nurunnabi and Monirul (2012), Ntim *et al*. (2012a), Naser *et al*. (2002), Raffoni (1995) and Craswell and Taylor (1992).

The second hypothesis supposed that auditor tenure has a significant positive relationship with the level of goodwill disclosure according to MFRS 136 *Assets Impairment*. As shown in Table 5 above, the impact of auditor tenure on goodwill disclosure is positive and significant according to the t- value (β= 0.038, t = 10.198, P < 0.05). This means that as the auditor's tenure increase, the degree of goodwill disclosure of Malaysian listed companies increases. In other words, the Malaysian listed companies which are audited by the same auditor for long years achieved more compliance with MFRS 136 regarding goodwill disclosure as compared to companies which are audited by the same auditor for lesser years. Thereby, H2 is supported.

This finding is in line with the arguments of the Chiang and Lin (2012) which suggested that when financial statements are audited by auditors with market knowledge, the level of information disclosure of SFAS 34 *Financial Instruments* is higher. In addition, this study finding is in line with the arguments of the previous studies in other era of accounting which suggested that longer auditor tenure has a positive association with earnings quality as well as reduced cost of capital (Ghosh & Moon, 2005; Mansi *et al*., 2004; Myers *et al*., 2003; Chung & Kallapur, 2003). Furthermore, Ghosh and Moon (2005) suggested that earnings response coefficients (ERCs) are increasing with the auditor tenure.

The third hypothesis stated that audit fees have a significant positive influence on the level of disclosure under MFRS 136 of goodwill impairment testing. As shown in Table 5 above, the impact of audit fees on goodwill disclosure is positive and significant according to the t- value (β= 0.131, t = 9.699, P < 0.05). This means that as the audit fees increase, the degree of goodwill disclosure in Malaysian companies' increases. In other words, the Malaysian companies which paid more audit fees achieved more compliance with MFRS 136 goodwill disclosure as compared to companies which incurred fewer audit fees. Thereby, H3 is supported.

This finding in line with previous studies that suggested a positive associated with audit fees and companies' disclosure, such as studies Yaacob and Che-Ahmad (2012), suggested that there is a positive relationship between audit fees and the new IFRS which demands detailed disclosure. The transformation to IFRS standards is considered as major accounting event in the field of auditing, which in turn will impact audit fees. This attributed to the fact that any change in standards or regulations will have a huge impact on the process of auditing (Ding *et al.*, 2008). Hayn and Hughes (2006), suggested that the shift to impairment review of goodwill put a new burden on the auditors. Hence, auditors are required to exercise professional judgment when investigating management assumptions and valuations (Al-Hiyari *et al*., 2016).

5. Conclusion

The requirement that MFRS 136 be adopted in Malaysia represented a substantial break from the past in which there had been no mandatory standard framework for goodwill accounting and reporting. The pressure on reporting entities and auditors to respond effectively was exacerbated in the case of Malaysia as a consequence of its inherent complexity, and the degree to which the exercise of judgment and discretion are necessary elements of the Standard's operating machinery. This research examined the disclosure practices of companies listed on the Bursa Malaysia. It focused specifically on the compliance levels of audited consolidated financial accounts and assessed the audit quality of disclosures provided in accordance with the Standard.

The results of this research therefore will be of substantial interest to participants in Malaysian equity capital markets. In particular, where goodwill represents a material component of company financial statements, the lack of transparency and consistency in relation to the treatment of goodwill and the nature of any impairment testing processes undertaken in relation to this balance raises substantial questions about the degree to which markets for the securities of these companies could be seen as appropriately informed. Thus, this research recommends that preparers of financial statements be fully educated in the requirements of the IFRS reporting regime by attending training courses, and participating in regular review forums and discussions within the accounting profession in order to share information about financial reporting requirements and developments.

With regard to the complexity of the requirements pursuant to FRS 136, more research needs to be conducted to resolve this issue. The relevant parties, who include financial reporting preparers, auditors and academics, should try to reconcile their ideas in order to find the best method for valuation and measurement of goodwill impairment testing (this includes comprehensive guidelines regarding CGU definition, a starting point in the estimation of discount rates and precise judgment in determining future growth rates). This may enhance the credibility of financial statements in particular and the accounting profession in general.

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Mitigating Shariah Non-Compliance Risk (SNCR) In Islamic Financial Institutions (IFIs): An Experimental Approach Using Islamic Finance Educational Tool

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Abstract

Islamic finance industry had grown remarkably in the past decades, primarily propelled by the strong demand for Shariah (Islamic Law) compliant banking and financing products by Muslims and non-Muslims alike. Behind the reality of such outstanding industry's development, there are remain unfamiliarity of the fundamental principles in Islamic banking among the public at large. This educational tool could assist the players to visualise the Shariah concepts applied in the contracts mentioned. Currently, there is lack of awareness among the users of Islamic banking products on Shariah-compliant product features. Islamic finance illiteracy seen as more critical when among the employees of the Islamic bank itself, are not familiar with the Shariah contract used in the banking and financing products. Unique and varieties of Shariah contract being used as the basis for banking and financing product plus unfamiliarity on some of the Arabic jargon has made the Islamic banking and financing contract even more complicated for the bank's employees to deal with. Having the game-based educational tool for Islamic finance has contributed to significant improvement on the level of understanding of Islamic banking and financing products and the principles behind it. It inculcates fun learning activities, useful not only for Islamic finance practitioners, especially front liners and marketing officers, also for Islamic banking retail product users and students in *Fiqh Muamalat* and related courses in Islamic finance as well as the public interested in Islamic finance. This game promotes ways to invest in halal investments and creates social awareness on Shariah-compliant banking products. It also integrates and encourages the balance between social contribution and personal wealth. The study examines the impact of experimental approach to the level of knowledge on Shariah contracts embedded in the game by measuring the pre and post score of selected bank's employees on the features of the contracts. 66 participants from various departments across the bank took part in the study. They answered pre-experiment questionnaire, played the game and eventually answered post-experiment questionnaire. The study found that the knowledge of the employees is significantly enhanced, after playing the game. Their knowledge and technical know-how in identifying Shariah non-compliance risk (SNCR) are improved by understanding the main features of the *muamalat* contracts, the sequence of transactions forming the contracts and distinguishing the differences among the contracts. The results also revealed that the game experience made it easy for the employees to visual the personal financial management and to familiarize themselves with the jargon used in Islamic financing such *ta'widh* and *ibra'*. It also evidenced the usefulness of using Islamic finance game-based educational tool in mitigating SNCR in the Islamic banking and financing transaction by way of understanding the whole process flow of *'aqad* involved in Islamic financing transaction.

Keywords- Shariah non-compliance risk, Islamic banking, Islamic finance, Game-based educational tool

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1. Introduction

An overwhelming effect of globalization and rapid enhancement in technology has positioned banking and finance industry becoming more dynamic, competitive and complex. Islamic financial institutions (IFIs), in particular, need to equip themselves with the up-to-date management skills and operational systems to deal with this environment. One major factor that will determine the survival and growth of the industry is how well these institutions coping and managing their risks generated in providing Islamic financial services. It is even critical for IFIs when the exposure of risks that IFIs are exposed to are more and multiple in nature as to compare with its conventional counterpart.

Generally, IFIs faces 2 types of risk; Common risks which are credit risk, market risk and operational risk and Islamic banks' specific risk which is Shariah non-compliance risk (SNCR). SNCR is new and unique to the Islamic banks as a result of their unique instruments composing special asset and liability structures. In IFIs, SNCR is a significant part of operational risk where as defined by Islamic Financial Services Board (IFSB) (2005), operational risk in IFIs can be classified into three categories; general, legal and SNCR. General risks are risk resulted from day to day operations of IFIs that are common to all financial intermediaries, arising from internal process, people, system and external events. Legal risks are risks that arises from the issue of enforceability. These general and legal risks are mostly similar to but not limited to, those faced by the conventional banks and as mentioned earlier, SNCR is a unique risk that is only exist in IFIs.

Since the exposure of risk in IFIs is understandably wider than in conventional ones, dimension of people risk has given the bigger cut among other element where IFIs personnel are required to be well-versed in both conventional and Islamic banking products and should express the right blend of knowledge of finance and understanding of Shariah principles at the same time. For instance, people risk can occur in a *Musyarakah* or *Mudarabah* financing contract when IFI is acting as capital provider for *Mudarabah* or as the partner in *Musyarakah* financing arrangement does not carry out adequate due diligence before the release of funds. Similarly, failed in assessing the soundness and reliability of the partner or entrepreneur due to lack of technical know-how and unfamiliarity of Islamic banking and financing contracts on the part of the IFI, will also have some level of implications for operational risk exposure (Izhar, 2010). If this is not managed efficiently, in no time will lead to Shariah non-compliance risk. From another perspective, people risk also can be seen as prominent in equity-based financing arrangements of IFIs. In this type of financing transactions involves a series of steps, '*aqad* process flows which manifesting the ethics-based nature of Islamic banking and financing business model could help to curb such risk which otherwise might be faced by their conventional counterpart due to unethical business conduct

and fraud. However, to have continuous efficiency in managing risk in IFIs, requires the employees of IFIs to have certain level of Islamic financial literacy where to be well-versed in Islamic financial contracts and principles behind it is very critical.

At present, the level of understanding among the IFIs employees on Shariah financial contracts are still unsatisfactory based on personal experienced as bank's customer. Some of the employees cannot differentiate between Islamic and conventional financing even they are front liner at the banking hall or act as a marketer for Islamic banking and financing products. Lack of understanding in the core principles of Islamic banking and finance will have serious impact on SNCR. Hence, the aim of this study to use Islamic finance game-based educational tool in mitigating SNCR is seen worth exploring. Experimental approach via game-based educational tool offers the employees of IFIs the opportunity to learn through experiential learning, experiencing the hands-on Islamic financing transactions, simulating the real transactions. Furthermore, today most of the employees of IFIs are among the millennial generation which are also known as generation Y. Generation Y is referring to individuals born between 1982 and 2005 (Howell et.al, 2009). There are many studies conducted and found that their learning process is fundamentally different to previous generations (Mangold, 2007; Carver & Candella, 2008; Purdue & Morgan, 2008). According to these studies, they prefer to work in groups with hands-on experiences and enjoy trial and error. Furthermore, they do not actually value reading and listening to lectures as how it was done in traditional education. They expect the learning process to be creative, interactive and fun.

2. Literature Review

In the recent economic environment, the unjustified pursuit of wealth has become the main agenda to most individuals particularly in the corporate world. This scenario has leaving the masses trapped in the unfortunate situation. Money created out of nothing has become the recipe for the capitalist in accumulating their wealth and resulted to profound distributional effects in the economy where the gap between the haves and the have-nots getting bigger and bigger overtime (Meera & Larbani, 2009). This chaos economic condition has brought the needs of having the system that could lead to a more balanced, sustainable and equitable economy which promotes justice to the society at large. And this is where Islamic finance come into the picture.

Being in services industry, it is very critical for Islamic bank to provide utmost services in terms of its quality and excellent standards in order to be at par with other financial institutions and sustain its position in the financial market. Accordingly, Patterson *et.al* (2005) agrees that creativity and innovation are among the important factors needed to move the business forward. Same goes with the commitment of the employee, positive 'psychological contract' between employer and employee are also very much essential in order to improve the company's performance. Furthermore, carrying the Islamic banking and finance label would require the bank to be more creative and innovative in order to develop a unique type of instruments where it features must be in accordance with Shariah tenets. These Shariah tenets requires ethical and transparent banking practice. The tremendous growth in Islamic banking and finance industry recently has positioned the customers to be more demanding on ethical banking products and morally sound business practices thus, more experienced bankers who are subject-matter experts in Islamic banking business model is very much in need.

To be the experts in the subject-matter of Islamic banking business model has brought the issue of Islamic banking and finance literacy to the spotlight. Holding to this fact, number of people who can run and direct Islamic banking and finance business is still at the level of scarcity. This issue has been highlighted by Aziz (2006), Edwardes (2002), Kumar (2008) and Nienhaus (2007). It is important to note that by having to comply with Shariah principles and offering such unique types of banking instruments, Islamic bank has bigger exposure of Operational risk compared to its conventional counterparts in terms of Shariah non-compliance risk. Growing issues related to Shariah non-compliance risk has become the reason for Islamic banks' personnel to be fully educated in both, conventional banking products and their status in relation to Islamic requirements are fundamental (Aziz, 2006; Ebrahim, 2007; Nienhaus, 2007). Thus, Aziz (2006) further asserts that new breed of innovators, risk managers, regulators and supervisors who possessed sufficient knowledge and understanding in Islamic finance and the Shariah tenets are highly needed. Obviously, the shortage of skilled bankers as mentioned, if not overcome will definitely lead to high exposure of people risk (Jackson-Moore, 2007).

It is important for the Islamic bank to have skilled employees because lacking in certain areas could result the product or the banking transaction become illegitimate according to Shariah or inefficient practices. For instance, issues of *gharar* (uncertainty) elements during *'aqad* process are among the most critical issues in Islamic financial contracts. *Gharar* is prohibited in Islamic sales transaction thus, it existence in process of *'aqad* would render the contract invalid. Due to the importance of mitigating the exposure of Shariah non-compliance risk, this study specifically aims to investigate how Islamic finance educational tool could help to reduce the exposure of Shariah non-compliance risk in the daily operations of Islamic banks. At the same time the study would also examine how far this educational tool could improve the literacy state of the Islamic bank's employees in understanding the Islamic banking and finance terminology and the process flows of each Islamic banking and finance products offers by the Islamic banks. This research will employ the common

components identified in Islamic financial contracts in Malaysian Islamic banks. The components of risk in the Islamic financial contracts in relation to technical know-how of the employees of the bank which closely associated with Shariah non-compliance risk were identified in Izhar (2010) with some modifications as in table below:

No	Types of Islamic contracts	Shariah non-compliance risk-People factor
1	*Murabahah*	Fail to deliver the product
2	*Salam*	Mismatch in the commodity's specification due to inability of seller to provide the exact product the exact product mentioned in the contract
3	*Istisna'*	Inability to deliver the product in time
4	*Ijarah*	Lessor needs to understand that in the event of payment delay, rental due cannot be increased as clearly exemplified by AAOIFI
5	*Musyarakah*	Lack of ethical expertise in assessing the project
6	*Mudarabah*	Inability to provide regular and transparent financial performance of the project

Source: Hylmun Izhar (2010) with some modifications

In terms of terminology and documentation requirement, this study attempt to examine the exposure of Shariah non-compliance risk in selected Islamic financial contracts such as *Murabahah*, *Tawarruq*, *Istisna*', *Al-Ijarah Thumma Al-Bai' (AITAB)*, *Al-Ijarah Muntahiya Bi Al-Tamlik (AIMAT)*, *Bai Bithaman Ajil (BBA)*. The construction of Islamic financial contracts based on the cash flow of the transactions involves in the particular contracts. It also based on the characteristic of the markets as well as the counterparties involves in the overall operations. To understand the concept used in Islamic financial contracts, it requires the users to have pre-requisite knowledge in Islamic business (*Muamalat*) which most of Islamic bank's employees are lacking. This is where Islamic Finance educational tool would play it roles in contributing to the improvement of Islamic banking and finance literacy among the employees.

This game-based educational tool is using the concept of a board game. It offers employees of the Islamic banks opportunity to learn by committing into a *Muamalat* business transaction as authentic as possible and to engage them in a real-world simulation experience. It is known that Islamic banks do provide their own internal training for the employees. However, their trainings are structured as a normal classroom training which only presenting the knowledge through powerpoint presentations. With this game-based IF educational tool, the approach used not only educative but also more entertaining and interactive compared to the usual training. A board game can be defined as a tabletop game that involves counters or pieces moved or placed on a pre-marked surface or "board", according to a set of rules (Wikipedia). The aim of each game can be varies depending whether it is based on pure strategy, chance or a mixture of the two. Games are enjoyable and interactive, and learners respond natural to this type of learning dynamic. Playing games can be useful for anybody as they acquire skills, which may not otherwise be taught. It has been accepted that in spite of the element of chance, business games polish the players' entrepreneurial skills as they learn to deal with incomplete information, predict rival's strategies and understand human psychology (Johnson, 2013).

There are many theories that can link games and learning. The first theory is motivation theory, and it is recognized that motivation guides human behaviour either internal motivation or external motivation (Erwin, 2003). Internal motivation comes from within the person or from the person for example, someone who love to write are intrinsically motivated to write - there is something about writing that they enjoy and that makes them want to do it even if there is no "reward" for it. External motivation comes from external sources to a person for example through praise, recognition, or rewards. For example, for someone who do not enjoy writing, a star sticker or praises may prompt them to write more. Basically, the educator or teacher would love to spark intrinsic motivation rather than extrinsic. This is because intrinsic can inculcate continuous learning. The number of strategies for promoting intrinsic motivation include arousing interest in the subject matter, maintaining curiosity, using a variety of interesting presentation modes and even using games. Erwin (2003) suggested games as a means to have fun in learning, thus differ from traditional method.

However, the usage of games as learning tools may not be acceptable to all. Some might consider games as not serious and informal ways in teaching students. Nonetheless, previous studies have shown the effectiveness of games as teaching tools for students (Sandford, et al., 2006; Hays, 2005; Hergeth & Jones, 2003). O'Leary (2005) found that a group of medical students that used Jeopardy group (games) reported significantly higher levels of faculty/student interaction, enjoyment of the class format and engagement in class content. These students described this method as a ''fun and rewarding'' way to conduct a review session. Others have used a commercially available board game in a marketing classroom to improve the

students' skills (Hays, 2005). In each of these different disciplines, the students enjoyed the change in class format and felt that the games enhanced their learning.

In study conducted by Kennedy et al. (2004), found that more than 70% of the students who played the interactive board game felt it helped with their learning to counsel geriatric patients. Whereas in Roche et al. (2004) and Patel (2008), the findings revealed that the students enjoyed the subject and more than 60% felt it enhanced their classroom learning.

3. Shariah Non-Compliance Risk (SNCR) in Islamic Financial Institutions (IFIs)

SNCR IFIs is a significant dimension of operational risk. The nature of business operations in IFIs that must be conducted as per Shariah rules and principles has classified operational risk to be significant if not properly managed due to the specific contractual features of IFIs mode of finance (Khan & Ahmed, 2001). According to Shariah Governance Framework (2010), SNCR is a risk exposure resulted from incidences of Shariah non-compliances whereas Basel (2003) definition of operational risk is the exposure of risk resulted from inadequate or failed internal processes, people, system and external events including legal risk but excluding strategic and reputational risk. Islamic Financial Services Board (IFSB) on the other hand, defined operational risk as losses due to inadequate or failed internal processes, human factors and external events. In addition to people risk, technology risk, and legal risk, IFIs are exposed to Shariah non-compliance risk and fiduciary risk.

The management of SNCR is subject to review and audit by Shariah audit team where their aim is to ensure all operations and business activities of IFIs must be compliant to Shariah and having a sound and effective control system as well as proper system is in place. Thus, it is critical for IFIs to have effective SNCR management for having big exposure of SNCR would result to significant losses to the bank. Furthermore, the Islamic Financial Service Act 2013 introduces many enhancements on Shariah governance one of which, is the severe penalties on Shariah non-compliance such as MYR25 million fines and 8 years of imprisonment or both (IFSA, 2013). This puts Islamic banks on guard to avoid falling into non-compliance of Shariah rules in the effort to minimize contact with regulatory and fiscal requirement of Shariah compliant financing. It is on this premise that this study seeks to explore the impact of using Islamic finance educational tool towards minimizing SNCR.

4. Islamic Finance Game-based Educational Tool

The game is an innovation that incorporates the concepts and operations for retail products offered by Islamic banks adopted for personal financial management. This game involves the participants (contracting parties) in several *Muamalat* contracts commonly practiced in Islamic banks, such as as *Ijarah, Tawarruq, Rahnu, Musharakah Mutanaqisah, Murabahah* and other supporting Shariah contracts. The players of the game interactively transact among them to acquire assets, manages cash flow, pay tithe on income and wealth and contribute to charity, applying the *Muamalat* contracts mentioned.

In the game, the players are to accumulate the highest amount of wealth in order to contribute to the community. Players are to accumulate wealth using Shariah-compliant and ethical-based investment vehicles. The game instills the spirit of giving back to the eonomy, willingness to share personal wealth built-up over the rounds of game-playing to the Sadaqah house via donation (*sadaqah*) and endowment (*waqf).* Sadaqah house serves as the communal fund that restores widened economic gap. The players too, gain technical skills of managing personal finance such as planning and recording cash inflows and outflows, budgeting personal expenses, managing debts, calculate tithe (zakat) due, and finally ascertain net wealth.

Transaction between contracting parties in the *Muamalat* transaction is manifested by having 1 player appointed as a financial manager out of 7 players. In the game, basic pillars of contract (*'Aqad)* in *Muamalat* transactions is to be observed such as contracting parties; i) Player: Buyer/customer/Lessee/ ii) Banker: Seller/Agent/Lessor. In addition, the players should observe the process of *sighah* (offer and acceptance) which must be recited loud and clear between the banker and in front of other players when they are entering a contract.

5. Methodology

5.1 Experimental Approach

This research involves two stages of experimental processes; the first is the process of assessing the game-based IF Educational tool in improving the literacy of Islamic banking and finance, among the employees of the Islamic banks. Secondly is the pre-post test to assess the viability of the educational tool's contents to ensure that the learning and actual scenario experimental process is available during playing the game. And the most importantly as the main objective of this

research is to examine how far this tool can help to reduce the exposure of Shariah non-compliance elements in the Islamic banking and finance transactions.

Developing the game requires multiple competencies; the content and the teaching padagogy and assessment. The contents of game-based IF educational tool requires in-depth understanding of *Muamalat* concepts and their operations in Islamic banks. The most important part is the product structures that require the innovator to properly and carefully develop an *'aqad* that make the tool is significant to understand the process of *Muamalat* transactions in Islamic banking products. The *'aqad* process in the game-based tool is the key element that differentiate this tool with other available board game in the market where the game makes the players (employees of the bank) not only visualize the process as in a normal (traditional) training delivery, moreover they also experience and feel the *'aqad* by reciting them. The method to develop the game-based tool is based on content analysis of several *Muamalat* and Islamic banking texts, Shariah standards and Product Disclusure Sheet (PDS) of Islamic banks.

5.2 Sample

Sample of 66 selected Islamic bank's employees was chosen to participate in the study. The employees are from various department from selected branches and head office that are ranging from officers who are handling operations up to the managers and executives which requires them to be well versed in the Islamic banking products. Through playing the board game it is expected for the participants to gain knowledge on Islamic banking products and the underlying contracts of the products. The participants were break into ten groups per sessions approximately 5-7 participants in each group consists of 1 financial manager and 6 players. This game was used throughout the experimental learning session and was used as a simulator to understand the process of *'aqad* flow in *Muamalat* transaction through an interactive way.

5.3 Questionaire

The experiment involves the participants playing the game-based Islamic finance educational tool where before they start the game, they are required to fill in the pre-experiment questionnaire. They were asked to provide their demographic information such as age, gender, highest education level, job position and length of working experience. The questions consists of statements soliciting the participants' understanding on Islamic finance Islamic financial instruments such as *Murabahah*, *Inah*, *Tawarruq*, *Ijarah*, *Ijarah Muntahiyah Bittamlik*. The participants were asked on their level of understanding about the muamalat sales contracts and Islamic financing. All items were measured through 5-points likert scale ranging from '1' strongly disagree, '2' disagree, '3' neutral, '4' agree to '5' strongly agree.

Once the questionnaires are answered, the participants will start playing the game. Engaging in this game-based Islamic finance educational tool, the level of participants' understanding in *Muamalat* transactions are expected to increase as they experienced the hands-on Islamic ways of financing. After they played the game, the player will be asked to answer the same questionnaires (post-test).

Hence, this research aimed to empirically test by employing a game-based IF educational tool on its suitability as an apparatus for learning experience for industry players. It also would investigate how far the tools could mitigate the exposure of SNCR in the financing transactions as sell as could help to improve their literacy level in Islamic financing contracts and other related Shariah contracts.

6. Findings and Discussion

6.1 Product Development

The game is innovated to solve the problem of unfamiliarity of Shariah contracts used as an underlying contract in Islamic banking and finance products of Islamic banks. This Islamic finance game-based educational tool also helps to improve the technical know-how among the bank's employees in understanding the complete process flow of *'aqad* in *Muamalat* transaction which has been the foundation in Islamic banking and financing. It also inculcates philanthropic values to the players. Business board game available in the market deals with financial management that promotes capitalist mindset which fail to engage users on their ethics of creating a balanced economy where personal wealth and public wealth are both important.

Given the uniqueness of Shariah financing contracts, it carries different type of risks and this has increased the complexity of the Islamic financing transaction.

6.2 Descriptive Analysis

This section provides results from the constructs examined in the study. First, descriptive analysis were discussed in Table 1 to evaluate the respondent background. Then, paired sample t-Test were discussed to analyze the significant differences before and after playing the game.

Table 1: Descriptive Analysis

		Percentage
Gender	Male	40.9
	Female	51.5
Race	Malay	89.4
	Chinese	1.5
	Others	1.5
Age	<30	25.8
	30-35	43.9
	36-40	4.5
	>40	16.7
Marital	Single	16.7
	Married	75.8
Education	Diploma & SPM	25.8
	Degree	40.9
	Master	1.5
	Professional	1.5
Income	<RM2,500	19.7
	RM2500-5000	63.6
	>RM5000	6.1
Job	Non-executive	25.8
	Executive	50
	Senior Executive and above	16.7
Work Experience	< 5 years	25.8
	5-10 years	45.5
	11-20 years	12.1
	>20 years	7.6

Table 1 above details the respondent background based on gender, race, age, marital status, education status, income, job status and years of experience.

6.3 Paired Sample t-Test

Table 2: Paired Sample t-Test

Product	Questions	Pre/Post	Mean	Sig. (2 tailed)
***Tawarruq* product**	**Question 1** *Tawarruq* Financing is sale and purchase contract	Pre_1	3.9123	.095
		Post_1	4.0702	
	Question 2 *Tawarruq* Financing requires customer to buy a commodity.	Pre_2	3.8772	.052
		Post_2	4.1053	
	Question 3 *Tawarruq* Financing requires customer to appoint bank to be an agent of his behalf	Pre_3	3.7719	.000*
		Post_3	4.1930	
***Murabahah* product**	**Question 4** *Murabahah* Financing requires customer to know the cost price of an asset	Pre_4	3.3333	.000*
		Post_4	3.9649	
	Question 5 *Murabahah* Financing requires bank to buy the asset first.	Pre_5	3.2143	.000*
		Post_5	3.8571	
***Istisna'* product**	**Question 6** *Istisna' Muwazi* is two *Istisna'* contracts which come after another.	Pre_6	3.0536	.000*
		Post_6	3.8929	
	Question 7 *Istisna' Muwazi* requires bank to act as developer.	Pre_7	3.0357	.000*
		Post_7	3.5893	
	Question 8 *Istisna' Muwazi* requires bank to assign another actual developer to develop the property.	Pre_8	3.1228	.000*
		Post_8	4.1404	
***AIMAT* product**	Question 9 AIMAT is a hybrid of *Ijarah* contract and *hibah* contract.	Pre_9	3.1930	.000*
		Post_9	4.0000	
	Question 10 AIMAT requires customer lease an asset from the bank for certain period	Pre_10	3.2143	.000*
		Post_10	3.9821	
***AITAB* product**	**Question 11** AITAB is a hybrid of *Ijarah* contract and sale contract	Pre_11	3.3750	.000*
		Post_11	4.0357	
***AIMAT* & *AITAB* product**	**Question 12** AIMAT and AITAB differ in the end of the product transfer	Pre_12	3.1786	.000*
		Post_12	4.0179	
Al-Rahnu	**Question 13** *Al-Rahnu* is used to obtain fast cash	Pre_13	3.7500	.000*
		Post_13	4.1964	

	Question 14 *Al-Rahnu* allows charging the safekeeping of the gold fee known as *Ujrah* fee	Pre_14	3.6964	.013*
		Post_14	4.0179	
	Question 15 *Al-Rahnu* allows customer to obtain cash via the concept of *Al-Qard*	Pre_15	3.3929	.000*
		Post_15	4.0893	
Musyarakah	**Question 16** *Musyarakah Mutanaqisah* is hybrid of *Ijarah* and sharing contract.	Pre_16	3.2321	.000*
		Post_16	4.0893	
	Question 17 *Musyarakah Mutanaqisah* requires bank to buy an asset first before leasing it to bank and customer under *Musyarakah* agreement	Pre_17	3.0526	.013*
		Post_17	3.6491	
Zakat	**Question 18** Zakat is allowed for gold	Pre_18	3.8545	.000*
		Post_18	4.4000	
	Question 19 Zakat is allowed for salary	Pre_19	3.8947	.001*
		Post_19	4.3333	
	Question 20 Zakat is calculated on 2.5% of the salary and gold	Pre_20	3.5714	.000*

Based on the Table 2 above, out of 20 questions, 18 questions are significant in terms of understanding the knowledge of *Muamalat* sales contracts and Islamic banking operations before and after playing the board games.

Question 1 to 3 highlight on *Tawarruq* product. Question 1 '*Tawarruq Financing is sale and purchase contract'* shows that the mean score increases from 3.9123 to 4.0702. However, the result shows no significant difference. Question 2 also did not give significant difference for the question '*Tawarruq Financing requires customer to buy a commodity'*. However, the last question in relation to *Tawarruq* product score the mean value of 3.7719 and 4.19303 before and after playing the board game. This shows that there is a statistically significant improvement of understanding that '*Tawarruq Financing requires customer to appoint bank to be an agent of his behalf*'. From three questions related to *Tawarruq*, only one prove there is a statistically significant improvement. The results are expected since MBSB employees are currently exposed to *Tawarruq* product as their main Islamic contract financing. The staff already understand about the concept of *Tawarruq* prior to participating in the study.

They were also asked on the concept of *Murabahah* product before playing the board game such as '*Murabahah Financing requires customer to know the cost price of an asset'.* The mean score before playing the game is 3.3333. After playing the board game the mean score increases to 3.9649 and the result is significant with the p value<0.05. This shows that there is a statistically significant improvement of understanding on *Murabahah* concept after playing the board game. The participants are also aware that '*Murabahah Financing requires bank to buy the asset first.'* based on the significant value of the mean. The participants manage to understand well in the underlying contract that in *Murabahah* financing, bank should buy the asset first.

Other questions related with *Istisna'*, *Aimat*, *Aitab*, *Ar-Rahnu* and *Musyarakah* also shows that there is an increase of mean score and all of them are statistically significant improvement.

7. Conclusion and Recommendation

The data obtained from the questionnaires indicated that the use of Islamic finance game-based educational tool is an effective way to increase the understanding the complexity of the financing contracts used in IFIs. It also has improved the familiarity level of MBSB's employees on the Arabic jargon used in the financing transactions and help the employees to fully understand the principles of Shariah governing the overall banking operations. Unfamiliarity and failed to understand the basic principles of Shariah in banking, would expose the IFIs to SNCR.

It is highly recommended the use of Islamic finance game-based educational tool in their in-house training by way of implementing an objective measure, such as seating for an examination at the end of training program on the employee's

understanding on overall processes of Islamic financing including the features of each financing contract as well as the step-by-step '*aqad* flow in the financing transaction. From the results of this study, it is proven that the used of Islamic finance educational tool has helped in reducing the exposure of SNCR.

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Determinants and Dynamics of Dividend Policy: The Case of Malaysian Public-listed Shariah-Compliant Firms

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Abstract

This study examines the dynamics and determinants of dividend payout policy of 191 public-listed Shariah-compliant firms in Malaysia during the period of 2007 to 2016. In particular, the revised screening methodology in 2013 added new screening on financial ratio benchmark make the management to find the way to maintaining listed under Shariah-compliant and sustaining firm's growth. This research extends the traditional framework proposed by Lintner (1956) and this paper use dynamic panel data to study on dividend behavior for Shariah-compliant firms in Malaysia. The purposes of this research is, (1) to investigate the determinants of dividend policy; and (2) to examine the effect between target dividend policy and sustainable growth rate of Shariah-compliant firms in Malaysia. This research used panel data analysis such as static model (pooled OLS, REM and FEM) and dynamic model estimated using Generalised Method of Moment (GMM). The results indicate that the stable earnings per share can afford the firms to pay larger dividend. In addition, the higher payout ratio and lower speed adjustment indicates that there is high smoothing and stability of dividend policy. The results also found that dividend policy is associated with sustainable growth rate of firm. This paper provides the understanding of dividend policy behaviour in Malaysia.

Keywords: Dividend policy, Panel data analysis, Public-listed Shariah-compliant firms, Malaysia

1. Introduction

In corporate finance theory, dividend policy is one of the most important topics to be debated. Many researchers have been debating the issues of dividend policy in the finance literature and still maintain prominent stories among scholars. Dividend behavior becomes the general issues in the literature regarding on the dynamics and determinants of dividend policy, but there are still few discussions, particularly in varying categories of institutions due to different markets and characteristics of a firm, for example, the Shariah-compliant firm. It has been mentioned by Farooq and Tbeur (2013) stated that Shariah-compliant firms have higher payout ratios and also pay a higher dividend than non Shariah-compliant firms because of the firm's financial characteristics. Thus, research on the dividend behavior of Shariah-compliant firms should be studied to provide information to strengthen financial planning in the future related to sustainable growth.

Securities Commission Malaysia (SC) introduced screening methodology to be listed as Shariah securities in 1997 and update the list of Shariah-compliant firm twice a year in May and November. And, in 2013, the screening methodology was revised and improved by the Securities Commission Malaysia (SC) on not only the operating activities, but also the financing and investing aspects of listed firm's business operations. Due to the revised screening methodology, the number of Shariah-compliant, making only 653 stocks (71.4 percent) out of the total 914 stocks from the total listed securities on Bursa Malaysia. The status and number of Shariah-compliant firms were affected due to (i) companies mixed activities which were previously assessed under the 5, 10, 20, and the 25 percent benchmark, but currently firm activities are assessed under the 5 and 20 percent benchmark and (ii) companies with high level of conventional debt, as previously there was no screening based on the total conventional debt of the companies (Muhammad, 2015). For the financial ratio benchmarks, the screening is based on two ratios such as cash over total assets and debt over total assets. This financial ratio must be not more than 33 percent to be listed under Shariah-compliant firm. Conventional debt or financial ratio and dividend policy are interconnected and dependent on each other. Hence, the dividend behavior of the target dividend policy of Shariah-compliant firms can make a company to manage the level of debt of the firm and sustain the firm's growth.

A research review of the literature by Suffian, Sanusi, Osman, & Azhari (2015) indicate that some of the Shariah-compliant firms have a high risk of having higher debts. In general, this requires firms to sustain their growth by strategic planning through handling the inherent limitations and constraints of policy on leverage and dividend payout (Johnson & Soenen, 2003). Previous research has shown that higher profit margin and debt to equity ratio and lower dividend payout ratio and assets to sales can increase SGR (Arellano & Higgins, 2007). In order to increase SGR, the company can reduce dividend payment to its shareholders when the actual growth is higher than SGR. The reduction of dividend payment can affect stock prices. Aligned with the signaling hypothesis, the effect of dividend policy will cause either an increase or a decrease in the stock prices. Based on the trade-off theory, growth causes firms to shift their financing from new equity to debt in order to reduce agency problems. This is also related to whether the managers borrow money under the long-term or short-term debt, or equity in addition to improving the companies' growth. Moreover, the use of debt can give impact to the company earnings. Therefore, handling financial and operating policy is very important for the management in order remaining listed under Shariah-compliant securities and sustaining growth performance of the firm.

The aims of this research is to investigate the dynamic and determinants of Malaysian Shariah-compliant. Mainly, we have focused almost exclusively on all sectors listed under Bursa Malaysia except the financial sector due to the exclusion of the financial statement. Moreover, all the firms are maintaining listed as a Shariah-compliant firm for 10 years from 2006 until 2017. In particular, the revised screening methodology in 2013 added new screening on financial ratio benchmark make the management to find the way to maintaining lists under Shariah-compliant and sustaining firm's growth. Furthermore, the contributions of this paper are quite limited to the literature on the dynamic and determinants of dividend policy. It extends the traditional framework proposed by Lintner (1956) and this paper is the to use dynamic panel data to study on dividend behavior for Shariah-compliant firms in Malaysia over the period 2007-2016. Therefore, there are three objectives of this research as follows (1) to investigate the determinants of dividend policy; and (2) to examine the effect between target dividend policy and sustainable growth rate.

This research is organized as follows; the next session covers the literature review on dividend policy based on previous research and then followed by data and methodology. Then, discussions on research findings analysis. Lastly, the overall conclusion and recommendation of the research.

2. Literature Review

Factors thought to be influencing target dividend policy have been explored in several studies. In an analysis of target dividend policy, Benavides et al. (2016) found that a target dividend payout ratio is positively related to governance indicators at the country level. For high governance countries, the speed of adjustment on dividend to changes in earning is low. Hence, a firm's dividend is smooth in countries that have higher governance score. Based on the pecking order and trade-off theories, the dividend payout is positively related to profitability and negatively significance to past indebtedness and investment opportunities. They also reported that there is no evidence associated with lifecycle theory and illiquidity effects on dividend levels.

Ahmed and Javid (2009) examined the dynamics and determinants of dividend payout policy. They analyzed the data from 320 non-financial firms listed on Karachi Stock Exchange from 2001 until 2006 and concluded that to set dividend payment depends on current earning per share and past dividend per share. The listed non-financial firms having the high speed of adjustment and low target payout ratio show the instability in smoothing their dividend payments. It has been shown that ownership concentration and market liquidity are positively related to dividend pay-out policy while the investment opportunities and leverage negatively affect dividend payout policy. Moreover, market capitalization and firm size have a negative impact on the dividend payout policy.

In another investigation into factors affecting target dividend policy, Al‐Najjar (2009) reported that the dividend policy for developing countries, such as Jordan was influenced by many factors similar to developed countries such as leverage ratio, institutional ownership, profitability, business risk, asset structure, growth rate, and firm size. Al‐Najjar finally concluded that Jordanian firms have target payout ratio and are rapidly adjusted to the target compared to other

developed countries. It has been shown that the Lintner model is appropriate for Jordanian data. Other researchers have highlighted the same results that Jordanian firms have a target dividend payout ratio with the rate of adjustment (Zurigat, 2011). In addition, they found that dividend adjustment is not only asymmetric for below and above target dividend adjustments but also asymmetric for below and above target dividend adjustment with positive and negative earnings.

To further investigate the determinants of the target dividend payout ratio, Demirgüneş (2015) carried out a series of experiments. The sample of study used listed firms operating in the non-metallic product manufacturing industry from 2002 until 2012 and analyzed by using panel autoregressive distributed lag analysis. It was found that in the long run, factors related to profitability, growth, and corporate taxation have a negative significant effect on target dividend payout ratio while risk and market expectations have positive significant effects on the target dividend payout ratio. For the short run analysis, profitability has a positive significant effect on the target dividend payout ratio.

A review regarding the dividend policy by Johnson & Soenen (2003) found that the most successful companies with a high degree of SGR are large profitable firms that have a certain degree of uniqueness in their business and an efficient working capital management. In addition to the successful companies, handling the constraints and limitation of policy on leverage and dividend policy is one of the key issues in planning towards the successful future growth of a company. In fact, SGR is the highest growth rate a firm can achieve without increasing its financial leverage (Higgins, 1977). Furthermore, Chen et al. (2013) empirical results support the mean-reverting process of the growth rate and importance of covariance between the profitability and growth rate in determining dividend payouts. The intertemporal behavior of the covariance may shed some lights on the fact of disappearing dividends by using 31,255 firm data during the period from 1969 to 2011.

Brick, Chen, Hsieh, & Lee (2016) stated that the ex-post forecast shows that the arithmetic average method (compound-sum method) yields the best (or worst) performance with respect to estimating the firm's future dividend growth rate. Firm characteristics, like size, book-to-market ratio, and systematic risk have a significant influence on the forecast errors of dividend and sales growth rate estimation.

By using years of observations between 1999 and 2009 on 794 firms, Ghosh & Sun (2014) found a significant positive relation between externally financed growth and dividend payments. The relation is stronger among real estate investment trusts (REITs) with more growth opportunities and REITs that issue new equity and debt. This is consistent with the notion that by reducing agency costs and facilitating capital increase, raising, and dividends enhance growth. The authors in this study used the simultaneous equation models (SEMs) to determine the effect of excess dividends on the externally financed growth.

There is a positive or negative relationship between the pay-out ratio and risk when the growth rate is higher or lower than the rate of return on total assets (Lee et al., 2015). Theoretically, a negative relationship between the pay-out and growth ratios means that high growth firms need to reduce the pay-out ratio and retain more earnings to build up "precautionary reserves," but low growth firms are likely to be more mature and build up their reserves for flexibility considerations.

Other previous studies by Blau & Fuller (2008), Fama & French (2001), Rozeff (1982) argued that high growth firms tend to pay out less in dividends and have higher investment opportunities. They predict that high growth firms pay higher dividends and this result is obtained when the risk factor is not explicitly considered. Moreover, cash distribution through dividend could have a positive impact on the value of companies. This is because it can reduce the problem of over-investment (Mat Nor, 2018). Table 1 shows summary of testable prediction from previous researcher.

Table 1. Summary of testable prediction

No.	Variables	Predicted relationship	Previous researcher
1.	Earnings per share (EPS)	Positive	Ahmed & Javid (2008)
2.	Market Capitalization (MV)	Positive	Belanes (2006)
3.	Liquidity (LIQ)	Positive	Ahmed & Javid (2008)
4.	Investment opportunities (INV)	negative	Ahmed & Javid (2008)
5.	Size of firm (SIZE)	negative	Belanes (2006); Ahmed & Javid (2008)
6.	Sales growth (SG)	negative	Ahmed & Javid (2008); Amidu (2006); holder (1998); Tibrewala, Biger & Gill (2010)
7.	Leverage (LEV)	negative	Belanes (2006); Ahmed & Javid (2008); Tibrewala, Biger & Gill (2010)
8.	Market value to book value (MBV)	negative	Belanes (2006); Ahmed & Javid (2008); Amidu (2006); Tibrewala, Biger & Gill (2010)

2.1 Model of analysis

This research used a partial adjustment model of Lintner (1956) to examine the existence of the target dividend payout ratio for Shariah-compliant firms by each sector. Based on Lintner stated that each firm ($_i$) has a target dividend payout ratio (r_i) and this research used the following model:

$$D_{it}^* = r_i E_{it} \ (E_{it})$$

Where D_{it}^* is the target payout ratio Lintner calculated the target dividend at time t and E_{it} as a percentage of the net earnings of the firms i at time t. In reality, the dividend payment of firms finally pays at time t (D_{it}) is different from the target dividend payout (D_{it} *). Hence, this is the reason to change the model between the real dividend at time t_{-1} rather than using real dividend at time t only. By using the change in real dividend into explanation can be more accurate and consistent with the long-run target payout ratio, we assume that the real dividend at time t (D_{it}- D_{it-1}) equal to the constant portion (α_{it}) plus the speed of adjustment to the target dividend at time t (D_{it}*- D_{it-1}). As the target dividend at time t is a proportion of the net earnings at time t, the final model is given below:

$$D_{it} - D_{it-1} = \alpha_{it} + c_i r_i E_{it} - c_i D_{it-1}$$

Where D_{it} is the actual dividend paid by the firms during period t; E_{it} is the net earnings of the firms during the period t; c_i is the adjustment factor which shows the speed of adjustment of dividend at the time t_{-1} to the optimum target payout ratio of dividends at time t and r_i is the target dividend payout. Therefore, this theoretical model can be assessed by using an econometric model as follows:

$$\Delta D_{it} = \alpha_{it} + \beta_1 E_{it} + \beta_2 D_{it-1} + \varepsilon_{it}$$

Where ΔD_{it} is the change in dividend from time t-1 for the firm i; β_1 is the c_i and β_2 represents the - ci in the theoretical model and ε_{it} is the error term.

By referring Ahmed and Javid (2008) and Naceur at al. (2006), Lintner is using dividend per share and earnings per share to test the model and we estimated the model by using the dependent variable as ΔDPS_{it} is the change in dividend per share of firm i at time t and EPS_{it} is earnings per share for firm i at time t as explanatory variables. Thus, the model becomes as follow:

$$\Delta DPS_{it} = \alpha_{it} + \beta_1 EPS_{it} + \beta_2 DPS_{it-1} + \varepsilon_{it}$$

We also assess the Lintner extended type of dividend model by testing the determinants that influence the dividend policy based on Ahmed and Javid (2008) to test the determinants of dividend policy, this research used the following model:

$$DY_{it} = \beta_0 + \beta_1 DY_{it-1} + \beta_2 EPS_{it} + \beta_3 MV_{it} + \beta_4 LIQ_{it} + \beta_5 INV_{it} + \beta_6 SIZE_{it} + \beta_7 SG_{it} + \beta_8 LEV_{it} + \beta_9 MBV_{it} + \varepsilon_{it}$$

Where DY_{it} is the dividend yield of firm i at time t calculated as dividend per share dividend by price per share; EPS_{it} represented earning per share of firm i at time t; MV_{it} is the market capitalization of firm i at time t; LIQ_{it} is the liquidity calculated as current assets to current liabilities; INV_{it} is investment opportunities calculated as accumulated retained earnings divided by total assets of the firm; $SIZE_{it}$ represents natural logarithm of total assets; SG_{it} is the sales growth of firm i at time t; LEV_{it} is the leverage calculated as total debt to total assets and MBV_{it} represents as market to book value of equity.

In the empirical literature, the dividend policy can affect the Higgins sustainable growth rate of the firm where changes in the payout ratio will have effects on sustainable growth rate. Thus, we test the relationship between dividend policy and sustainable growth of firms either positive or negative with the following model:

$$SGR_{it} = \alpha_{it} + \beta_1 DPS_{it} * + \varepsilon_{it}$$

We used the sustainable growth rate (SGR) as a dependent variable. The sustainable growth rate is calculated as the return on equity multiply with retention rate (where 1 minus dividend payout ratio). And, dividend per share as an explanatory variable. Consequently, in order to investigate either smooth or not smooth dividend payment of Malaysian Shariah-compliant firms, the factors that influencing the dividend policy and to determine whether dividend policy affect sustainable growth rate, we test the following hypothesis:

H_1: The Malaysian Shariah-compliant firms smooth or stable in paying dividends.
H_2: There is positive relationship between dividend yield and previous dividend yield.
H_3: There is positive relationship between dividend yield and earnings per share.
H_4: There is positive relationship between dividend yield and market capitalization.
H_5: There is negative relationship between dividend yield and liquidity.
H_6: There is negative relationship between dividend yield and investment opportunities.

H_7: There is negative relationship between dividend yield and size of the firms.
H_8: There is negative relationship between dividend yield and sales growth.
H_9: There is negative relationship between dividend yield and leverage.
H_{10}: There is negative relationship between dividend yield and market to book value of equity.
H_{11}: There is positive or negative relationship between sustainable growth rate and dividend policy.

3. Data and methodology

The data set used in this research was collected from Thomson Reuters Database, in which Shariah-compliant firms listed under Bursa Malaysia were used as a sample of firms on an annual basis from 2007 until 2016 (which is 10 years). The sample consisted of 191 Shariah-compliant firms from all sectors except for the financial sector of Bursa Malaysia (Refer Table 2) because of its exclusive features in financial statements and business activities (Ali, Ibrahim, Mohammad, Zain, & Alwi, 2009). From the total of 1087 Shariah-compliant firms from 2007 to 2016, only 200 (included financial sector) Shariah-compliant firms maintained lists from 2007 to 2016. Therefore, after the arrangement, only 191 firms were included as the study required full data and have completed data (Refer to Table 2).

Table 2. Structure of the panel data

No.	Sector	No. of records on Shariah-compliant firms maintain for the 10 years from 2007 until 2016	No. of observation
1.	Consumer Products	34	340
2.	Industrial Products	58	580
3.	Construction	19	190
4.	Trading Services	35	350
5.	Properties	17	170
6.	Plantation	18	180
7.	Technology	7	70
8.	Infrastructure	3	30
	Total	191	1910

The descriptive statistics such as mean, standard deviation, variance, minimum and maximum are summarized in Table 3. The results of the statistics presented in this section divided into two sections, first section (panel A) is the descriptive statistics by each type such as overall data, before revising the screening methodology and, after revising screening methodology. Second sections (panel B) are statistics by sectors, eight sectors signify to Consumer Products, Industrial Products, Construction, Trading Services, Properties, Plantation, Technology, and Infrastructure. From the data in panel A, it can be seen that the average for dividend per share of overall data is 6.95 percent. The average dividend per share for before the revised screening methodology is 6.60 percent, and after revising is 7.79 percent. This indicates that the dividend payment after revised is higher than before revising screening methodology. Same with dividend yield found that 3.02 percent for overall where after revised is higher than before revised (3.60 percent for after and 2.76% for before revised).

In addition, as these figured may be influenced by the firm's profitability, liquidity, leverage, the firm's sales growth, investment opportunity, and the size of the firm. We find out that earnings per share, market capitalization, liquidity, investment opportunity, size, and market value to book value for after revised is lower than before revised. Then, Sales growth for overall is 14.06 percent, while before revised is 12.78 percent, and after revising is 17.04 percent. It indicated that the firm's sales growth after the Security Commission Malaysia revised the screening methodology is higher than before the screen. And, leverage for after revised is higher than revised where the debt is the combination of Islamic debt and conventional debt. Further statistical tests in Panel B show that the highest average (mean) of dividend per share is 14.16 percent (sector: infrastructure) and the lowest is 2.17 percent (sector: properties). Moreover, consumer product has the highest average dividend yield (3.68 percent) compared to the other sectors. The results also indicated that the plantation has the highest average on earnings per share, liquidity, and investment opportunity. Finally, panel B shows a higher average market capitalization, the firm's size, sales growth, leverage and market value to book value are under infrastructure compared to the other sectors.

Table 3. Descriptive statistics of dynamics and determinants of dividend policy.

Panel A. Descriptive statistics by overall, before revised and after revised of screening criteria of Malaysian Shariah-complaint firms

Types	Overall		Before Revised		After Revised	
	Mean	Standard	Mean	Standard	Mean	Standard
DPS	0.0695	0.1759	0.0660	0.1592	0.0779	0.2095
DY	0.0302	0.0298	0.0276	0.0268	0.0360	0.0350
EPS	0.1515	0.3216	0.1516	0.3280	0.1510	0.3066
MV	2.3476	1.0582	2.6302	0.7492	1.6883	1.3434
LIQ	2.6537	3.4735	2.6971	3.8046	2.5526	2.5383
INV	0.2132	0.2836	0.2252	0.2802	0.1854	0.2894
SIZE	8.7864	0.8041	8.8201	0.8261	8.7078	0.7450
SG	0.14061	0.5961	0.1278	0.5255	0.1704	0.7346
LEV	0.3979	0.1917	0.3930	0.1897	0.4095	0.1959
MBV	1.3929	5.0920	1.5287	6.0063	1.0757	1.4588

Panel B. Descriptive statistics by sectors

Sectors	Consumer Product		Industrial Product		Construction		Trading & Services	
	Mean	Standard	Mean	Standard	Mean	Standard	Mean	Standard
DPS	0.1154	0.3654	0.0508	0.0931	0.0326	0.0393	0.0764	0.1220
DY	0.0368	0.0300	0.0304	0.0312	0.0275	0.0289	0.0297	0.0290
EPS	0.17908	0.3836	0.1163	0.1777	0.0817	0.1449	0.1483	0.2391
MV	2.1213	0.9529	2.2197	0.9752	2.2866	1.0288	2.5964	1.2160
LIQ	3.322	3.4176	2.5192	2.4355	1.9392	1.0459	2.2061	1.7042
INV	0.2658	0.1779	0.2350	0.2858	0.1473	0.2713	0.1992	0.2769
SIZE	8.4553	0.7901	8.6521	0.8552	8.8702	0.5343	9.0827	0.8971
SG	0.1364	0.4500	0.1597	0.7660	0.139	0.5626	0.1214	0.6060
LEV	0.3348	0.1787	0.3647	0.1704	0.5317	0.2034	0.4454	0.1910
MBV	1.5954	3.1687	0.9200	1.0013	0.9367	0.9168	1.17906	0.9954
Sectors	Properties		Plantation		Technology		Infrastructure	
	Mean	Standard	Mean	Standard	Mean	Standard	Mean	Standard
DPS	0.0217	0.0283	0.1238	0.1986	0.0561	0.0840	0.1416	0.0903
DY	0.0266	0.0305	0.0228	0.0174	0.0309	0.0403	0.035	0.0290
EPS	0.0770	0.1033	0.3738	0.7385	0.0881	0.2241	0.2792	0.2464
MV	2.2288	0.1080	2.7895	1.0582	2.1774	0.8672	3.2873	1.4392
LIQ	2.6071	2.2106	3.899	8.4573	1.9976	1.1086	1.7503	1.1802
INV	0.1282	0.3386	0.2768	0.2294	0.2257	0.2150	-0.1507	0.7142
SIZE	8.8425	0.7748	9.1	0.4340	8.571	0.4466	9.4537	0.1665
SG	0.1351	0.4606	0.1271	0.3533	0.1371	0.5395	0.1737	0.3457
LEV	0.4055	0.1607	0.3633	0.1872	0.3707	0.1428	0.5813	0.2900
MBV	0.6575	0.4614	1.3156	0.7412	1.3003	0.9391	18.4887	35.1115

Notes: The following tables give the descriptive statistics of the research on dynamic and determinants of dividend policy for Malaysian Shariah-compliant firms. Panel A documents descriptive statistics for each types such as overall (years: 2007 to 2016), before revised screening methodology (years: 2007 to 2013), and after revised screening methodology (years: 2004 to 2016). While, panel B documents statistics by each sectors, respectively. DPS is the dividend per share. DY is the ratio of dividend per share to price per share. EPS is earning per share. MV is natural log market capitalization. LIQ is current assets to current liabilities. INV is investment opportunity. SIZE is natural log of total assets. SG is firm's sales growth by calculating current sales minus previous sales divided by previous sales. LEV is total debt to total assets. MBV is market value to book value.

4. Analysis of results

This section reports and presents the results of estimations into two parts, firstly, the analysis shows the dividend stability of Malaysian Shariah-compliant firms. And, secondly, to examine the determinants of dividend policy of Shariah-compliant firms in Malaysia.

4.1 Dividend policy stability for Malaysian Shariah-compliant firms

As shown in Table 4, the Breusch and Pagan Lagrangian test indicated that the pooled OLS model is more appropriate than the random effect model (REM). However, Hausman test also should be tested to know either fixed effect model (FEM) or REM is more appropriate to use. Then, Modified Wald test is used to detect heteroscedasticity in the residuals of a fixed effects regression model. The Sargan' test confirms that GMM estimations for the sample of Malaysian Shariah-

compliant firms are valid. The estimation of the results for Breusch and Pagan Lagrangian, Hausman test, Modified Wald test, and Sargan's test are reported in Table 4.

The results indicated that the coefficient on lagged dividends (α) in the GMM estimation of 0.849 is almost close to pooled OLS levels (0.878). Then, the speed of adjustment (1-α) around 33.3 percent to 12.2 percent. This suggests that there are some techniques of estimation result may be not accurate due to the concern of biases on unobserved of firm-specific effect on dividend behavior. The coefficients on dividends reveal that pooled OLS estimation decrease from 0.878 to 0.667 in the fixed effects estimation suggests that the extensive suggest on firm-specific effect in dividend behavior for Malaysian Shariah-compliant firms. In addition, the Hausman test confirms that the fixed effect model is accurate in focusing on a specific set of firms because the p-value is less than 5 percent. Moreover, the dividend payment also depends on previous earnings.

A further robust alternative estimation is the target payout ratio (β/1-α) is shown in Table 3 indicate that the percentage of a firm's earnings, which the firms want to pay a dividend to shareholders as dividends over the long-term. The results of the target payout ratio of GMM estimations are 21.99 percent and pooled OLS estimation is 25.66 percent where the different only 3.67 percent. The observed payout ratio is 2.58 percent lower than target payout ratio expresses that Malaysian Shariah-compliant firms are estimated on long-term target dividend payout to fix their dividend policy. To sum all, the estimation of the Lintner model used to test the stable or smooth in paying a dividend for Malaysian Shariah-compliant firms are accepting the hypothesis since the dividend decisions are based on long-term target payout ratios. High payout ratio and low adjustment factors indicate that the Malaysian Shariah-compliant firms not frequently change their dividend, even though the change in earnings and dividend is stable and smoothing.

Table 4. Dividend Stability Models (overall sample)

Variables	Pooled	REM	FEM	GMM
DPS_{it-1}	0.878*** (0.0069)	0.878*** (0.0069)	0.667*** (0.0188)	0.849*** (0.0258)
EPS_{it}	0.0313*** (0.0039)	0.0313*** (0.0039)	0.0353*** (0.0045)	0.0332***(0.0058)
Constant	0.00166 (0.0011)	0.00166 (0.0011)	0.0159*** (0.0017)	0.00345 (0.0021)
Adjusted R^2	0.946			
BP test (*p-value*)	1.000			
Hausman Test (*p-value*)		0.0000		
Modified Wald Test (*p-value*)			0.0000	
Sargan's test (*p-value*)				0.0000
The speed of adjustment (1-α)	12.2%	12.2%	33.3%	15.1%
The target payout ratio (β/(1-α)	25.66%	25.66%	10.60%	21.99%
Number of company	191	191	191	191
Observations	1,719	1,719	1,719	1,528

Notes: This table reports the results of extended dividend stability model of Litner (1956) by applying GMM, pooled time series cross section data with common effect model (POOL), fixed effect model (FEM) and random effect model (REM). Standard errors in parentheses except for Breusch and Pagan Lagrangian (BP) and Hausman tests, which are p-values. Then, ***, **, and * denote significant at 1%, 5% and 10% levels, respectively.

4.2 The determinants of dividend policy for Malaysian Shariah-compliant firms

The results from table 5 indicate the results for dividend policy determinants of Malaysian Shariah-compliant firms. The Hausman test confirms the existence of firm-specific effect on the estimation of the statistics. Based on Pooled OLS and REM results found that the coefficients associated with the lagged dividend yield, market capitalization, investment opportunity, and sales growth are significant. And, fixed effect results showed that lagged dividend yield, earnings per share, liquidity, size and market value to book value are associated with dividend yield. But, GMM estimations revealed that lagged dividend yield, size of the firm, sales growth, leverage, and market value to book value has a significant impact on dividend policy on Malaysian Shariah-compliant firms. The results between pooled OLS, REM, FEM and GMM have

different results due to the existence of biases on firm-specific effect, and therefore, there is an inconsistency estimation to use the pooled OLS, REM and FEM. Thus, in this research, we analyze the results of the determinants of a dividend policy by focusing on GMM estimations which GMM estimations pass their Sargan's test (p-value is less than 5 percent).

In table 5, the results found that the lagged dividend yield affects dividend payment. This provides evidence that the dividend payment of previous year affected the current payment. The positive relation indicates that high paying dividend last year will pay a high dividend in the current year. Furthermore, the results reveal that the size of the firm has a positive effect on dividend yield. It's indicated that larger firms tend to pay a higher dividend and this finding is consistent with the pecking order theory. The payment of the dividend will depend on the firm's size where large firms pay higher payout while small firms will pay lower dividend payout. This result in line with Ahmed and Javid (2009) found that firm size has a negative impact on dividend payout policy.

Also, we find that sales growth has a negative impact on the dividend policy. This result confirms that Malaysian Shariah-compliant firms will concern on the previous sales growth, which means that growing firm tend to pay low payout and vice versa. This result confirms by Amidu (2006) stated growing firms required more funds in order to finance their growth and at the same time retain a greater proportion of earnings by paying a low dividend. Then. Leverage has negatively affected on dividend policy. Typically, higher leverage is likely to result in lower dividend payment. Leverage may affect the firm's capability to pay a dividend because firms that finance their activities based on borrowing have the commitment to pay the principal amount of borrowed money and interest. Failure to pay the debt can cause the firm to bankruptcy and risk of liquidation (Abo Hussain and Al-Ajmi, 2011). Finally, the results indicate that market value to book value is negatively correlated with dividend payment. In fact, amidu (2006) reveal firms with higher market value to book value tend to have good investment opportunity and therefore firm will keep more funds and facilitated to have lower dividend payment.

Table 5. The determinants of dividend policy (overall sample)

Variables	Pooled	REM	FEM	GMM
DY_{it-1}	0.620*** (0.0202)	0.620*** (0.0202)	0.210*** (0.0273)	0.157*** (0.0473)
EPS	0.00192 (0.0019)	0.00192 (0.0019)	0.00745*** (0.0024)	0.00408 (0.0028)
MV	0.00145** (0.0006)	0.00145** (0.0006)	-0.000699 (0.0006)	0.000778 (0.0006)
LIQ	0.000216 (0.0002)	0.000216 (0.0002)	0.000462* (0.0002)	-0.000166 (0.0004)
INV	0.0104*** (0.0024)	0.0104*** (0.0024)	0.00360 (0.0039)	0.00504 (0.0057)
SIZE	0.00101 (0.0008)	0.00101 (0.0008)	0.00303*** (0.0010)	0.00394*** (0.0012)
SG	-0.00313*** (0.0010)	-0.00313*** (0.0010)	-0.00365*** (0.0009)	-0.00458*** (0.0010)
LEV	-0.00607 (0.0037)	-0.00607 (0.0037)	-0.00665 (0.0062)	-0.0180* (0.0098)
MBV	-2.76e-05 (0.0001)	-2.76e-05 (0.0001)	-0.000268* (0.0001)	-0.000358* (0.0002)
Constant	-2.32e-05 (0.0064)	-2.32e-05 (0.0064)	8.79e-05 (0.0081)	-0.00310 (0.0097)
Adjusted R^2	0.4187			
BP test (*p-value*)	1.0000			
Hausman Test (*p-value*)		0.0000		
Modified Wald Test (*p-value*)			0.0000	
Sargan's test (*p-value*)				0.0043
Number of company	191	191	191	191
Observations	1,719	1,719	1,719	1,528

Notes: This table reports the results of determinants of dividend policy by applying GMM, pooled time series cross section data with common effect model (POOL), fixed effect model (FEM) and random effect model (REM). Standard errors in parentheses except for Breusch and Pagan Lagrangian (BP) and Hausman tests, which are p-values. Then, ***, **, and * denote significant at 1%, 5% and 10% levels, respectively.

4.3 Robustness Checks

The robustness checks used to examine whether our results are affected by the revised screening methodology and then, we re-estimated our models to before revised and after revising screening methodology. And, we also estimated by each sector that is a consumer product, industrial product, construction, trading & services, properties, plantation, technology, and infrastructure.

Table 6 and 7 report the regression estimation on the dynamics and determinants of dividend policy for the before revised screening methodology (years 2007-2013). The results confirm that dividend payments depend on the previous earnings. But, the target payout ratio becomes lower and the speed of adjustment becomes higher approving the existence of the dividend stable in Malaysia Shariah-compliant firms. As concern to the determinants of dividend policy, lagged dividend yield, size of the firm and sales growth same with the all sample presented in table 5. In addition, earnings per share has a positive influence on dividend payment. This indicates that higher earnings tend to pay a higher dividend and vice versa. The results also found that market capitalization has a negative effect on the dividend yield.

Another robustness test presented in Table 8 and 9 consists of after revising screening methodology (years 2014 – 2016) for dynamic and determinants of dividend policy for Malaysian Shariah-compliant firms. The results indicate that earnings per share have a positive significant impact on the dividend payment. The target payout ratio for after revising screening is higher than the before revised and all samples. But, the speed of adjustment for after revising screening is lower than before revising screening methodology. This reveals that the firms of after revising screening are smoothing slightly their dividends. As regards to its determinants, the results are slightly same with the previous analysis where market capitalization, investment opportunities, size of the firm, and market value to book value are the significant effect to the dividend yield. However, lagged dividend payment is not associated with the dividend yield.

Table 6. Dividend Stability Models (before revised (years 2007 to 2013))

Variables	Pooled	REM	FEM	GMM
DPS_{it-1}	0.851*** (0.0089)	0.851*** (0.0089)	0.528*** (0.0276)	0.730*** (0.0376)
EPS_{it}	0.0302*** (0.0044)	0.0302*** (0.0044)	0.0322*** (0.0052)	0.0274*** (0.0062)
Constant	0.00326** (0.0014)	0.00326** (0.0014)	0.0246*** (0.0023)	0.0118*** (0.0029)
Adjusted R^2	0.927			
VIF	1.45			
BP test (*p-value*)	1.0000			
Hausman Test (*p-value*)		0.0000		
Modified Wald Test (*p-value*)			0.0000	
Sargan's test (*p-value*)				0.0000
The speed of adjustment (1-α)	14.9%	14.9%	47.2%	27%
The target payout ratio (β/(1-α)	20.3%	20.3%	6.82%	10.15%
Number of company	191	191	191	191
Observations	1,146	1,146	1,146	955

Notes: This table reports the results of extended dividend stability model of Litner (1956) by applying GMM, pooled time series cross section data with common effect model (POOL), fixed effect model (FEM) and random effect model (REM). Standard errors in parentheses except for Breusch and Pagan Lagrangian (BP) and Hausman tests, which are p-values. Then, ***, **, and * denote significant at 1%, 5% and 10% levels, respectively.

Table 7. The determinants of dividend policy (before revised (years 2007 to 2013))

Variables	Pooled	REM	FEM	GMM
DY_{it-1}	0.700*** (0.0247)	0.700*** (0.0247)	0.164*** (0.0359)	0.266*** (0.0827)
EPS	0.00299 (0.0025)	0.00299 (0.0025)	0.0243*** (0.0052)	0.0213*** (0.0066)
MV	-0.00117 (0.0011)	-0.00117 (0.0011)	-0.0208*** (0.0045)	-0.0205*** (0.0059)
LIQ	7.95e-05 (0.0002)	7.95e-05 (0.0002)	0.000131 (0.0003)	-0.000368 (0.00041)
INV	0.00958*** (0.0026)	0.00958*** (0.0026)	0.00792 (0.0051)	0.00972 (0.0070)
SIZE	0.00114 (0.0009)	0.00114 (0.0009)	0.00211** (0.0010)	0.00330*** (0.0012)
SG	-0.00248** (0.0011)	-0.00248** (0.0011)	-0.00593*** (0.0011)	-0.00635*** (0.0013)
LEV	-0.00363 (0.0039)	-0.00363 (0.0039)	-0.00722 (0.0071)	-0.0163 (0.0104)
MBV	5.42e-05 (0.0001)	5.42e-05 (0.0001)	-0.000404*** (0.0002)	-0.000258 (0.0002)
Constant	0.00111 (0.0066)	0.00111 (0.0066)	0.0583*** (0.0142)	0.0489*** (0.0182)
Adjusted R^2	0.475			
BP test (*p-value*)	1.0000			
Hausman Test (*p-value*)		0.0000		
Modified Wald Test (*p-value*)			0.0000	
Sargan's test (*p-value*)				0.0000
Number of company	1,146	1,146	1,146	955
Observations	191	191	191	191

Notes: This table reports the results of determinants of dividend policy by applying GMM, pooled time series cross section data with common effect model (POOL), fixed effect model (FEM) and random effect model (REM). Standard errors in parentheses except for Breusch and Pagan Lagrangian (BP) and Hausman tests, which are p-values. Then, ***, **, and * denote significant at 1%, 5% and 10% levels, respectively.

Furthermore, our findings demonstrated dividend stability models and determinants of a dividend policy by each sector in Malaysian Shariah-compliant firms. In table 10 and 11 shows the results of dynamic and determinants of dividend policy for the consumer products sector. The analysis of divided stability found that the dividend during the previous year and earnings per share are statistically significant affect dividend per share at 5 percent level of significance. The value of the adjusted R square is 98.99 percent and Hausman test indicated that fixed effect can be used over panel data models. However, since Sargan's test is passed then the analysis will be based on the GMM model estimations. The target payout ratio of consumer products firms is higher (97.01%) than the target payout ratio of 50% suggested by Lintner. This payout ratio is higher than the speed of adjustment shows that the existence of dividend smoothing and dividend signaling for consumer products firms.

Table 8. Dividend Stability Models (after revised (years 2014 to 2016))

Variables	Pooled	REM	FEM	GMM
DPS_{it-1}	0.878*** (0.0146)	0.854*** (0.0169)	0.142** (0.0667)	0.871*** (0.0389)
EPS_{it}	0.0480*** (0.0108)	0.0636*** (0.0121)	0.105*** (0.0189)	0.0528** (0.0214)
Constant	0.000604 (0.0021)	0.000173 (0.0026)	0.0497*** (0.0057)	0.000450 (0.0021)
Adjusted R^2	0.969			
BP test (*p-value*)	0.0109			
Hausman Test (*p-value*)		0.0000		
Modified Wald Test (*p-value*)			0.0000	
Sargan's test (*p-value*)				0.0000
The speed of adjustment (1-α)	12.2%	14.6%	85.8%	12.9%
The target payout ratio (β/(1-α)	39.34%	43.56%	12.24%	40.93%
Number of company	191	191	191	191
Observations	382	382	382	382

Notes: This table reports the results of extended dividend stability model of Litner (1956) by applying GMM, pooled time series cross section data with common effect model (POOL), fixed effect model (FEM) and random effect model (REM). Standard errors in parentheses except for Breusch and Pagan Lagrangian (BP) and Hausman tests, which are p-values. Then, ***, **, and * denote significant at 1%, 5% and 10% levels, respectively.

Table 9. The determinants of dividend policy (after revised (years 2014 to 2016))

Variables	Pooled	REM	FEM	GMM
DY_{it-1}	0.413*** (0.0480)	0.401*** (0.0483)	-0.703*** (0.0644)	0.340 (0.369)
EPS	0.00565 (0.0084)	0.00597 (0.0085)	0.0272* (0.0162)	0.00758 (0.0108)
MV	0.00430*** (0.0014)	0.00427*** (0.0014)	0.000452 (0.0012)	0.00410*** (0.0012)
LIQ	0.000875 (0.0008)	0.000897 (0.0008)	0.00180 (0.0013)	0.00100 (0.0008)
INV	0.0162** (0.0068)	0.0165** (0.0069)	0.0388* (0.0229)	0.0183* (0.0103)
SIZE	0.00386* (0.0023)	0.00386* (0.0023)	0.00553* (0.0030)	0.00387*** (0.0003)
SG	-0.00255 (0.0033)	-0.00250 (0.0033)	-0.00165 (0.0033)	-0.00226 (0.0027)
LEV	-0.0116 (0.0112)	-0.0115 (0.0113)	0.00524 (0.0345)	-0.0114 (0.0117)
MBV	-0.00102 (0.0013)	-0.00104 (0.0013)	1.76e-06 (0.0021)	-0.00114** (0.0006)
Constant	-0.0174 (0.0181)	-0.0170 (0.0182)	-0.00235 (0.0223)	-0.0154 (0.0146)
Adjusted R^2	0.2756			
BP test (*p-value*)	1.52			
Hausman Test (*p-value*)	0.0006			
Modified Wald Test (*p-value*)		0.0000		
Sargan's test (*p-value*)			0.0000	
				0.0000
Number of company				
Observations	382	382	382	382
DY_{it-1}	191	191	191	191

Notes: This table reports the results of determinants of dividend policy by applying GMM, pooled time series cross section data with common effect model (POOL), fixed effect model (FEM) and random effect model (REM). Standard errors in parentheses except for Breusch and Pagan Lagrangian (BP) and Hausman tests, which are p-values. Then, ***, **, and * denote significant at 1%, 5% and 10% levels, respectively.

Moreover, the analysis of the determinants of dividend policy is refers to the GMM model estimation shows the Hausman's test is passed which is less than 5 percent. The results found that only lagged dividend payout and market value to book value are significantly affected by the dividend payments. It indicated that positive effect between lagged dividend and dividend per share. The payment of the dividend will depend on the previous dividend payment.

In addition, table 12 and 13 found that there is a significantly affect between earnings per share and dividend per share in the industrial products sector. The target payout ratio indicates lower than the speed of adjustment that industrial product firms frequently change their dividend payment, which change in earnings and dividend smoothing is the low order. The results are consistent with determinants of a dividend policy that earning per share is positively significant with dividend per share. This indicated that higher earnings per share make the firms pay a higher dividend and vice versa. In addition, the firm's size is significant at the 5 percent level significant implies that larger firms tend to pay a higher dividend while small firms will pay lower payment. The market value to book value is a negative significant effect on the dividend payment. Basically, higher market value to book value indicated that the firms will keep their fund and assist to pay a lower dividend.

Table 14 and 15 shown the dividend stability and determinants of dividend policy in construction sector. The target payout ratio is less than the speed of adjustment. This results indicated that the absence of dividend smoothing and dividend not stable for consumer products firms. As regards to its determinants, the results stated that size of firm, sales growth, and market value to book value significant effect to dividend yield.

In addition, table 16 and 17 also presented the results of dynamic and determinants of dividend policy in trading and services. The results shows that the target payout ratio is less than the speed of adjustment indicated that the firms always change their dividend payment and also have instable dividend payment. Earnings per share is positive significant effect to the dividend yield. It's indicated that higher earnings will have higher pay out. Size of firm is positively effect to the

dividend yield. This is consistent with pecking order theory where larger firm tend to pay higher dividend and vice versa. Moreover, the results show negative effect between sales growth and dividend yield. And, market value to book value also have negative impact to the dividend yield.

In addition, table 18 and 19 found that there is a significantly affect between earnings per share and dividend per share in the properties sectors. The target payout ratio indicates lower than the speed of adjustment that industrial product firms frequently change their dividend payment, which change in earnings and dividend smoothing is the low order. The results are consistent with determinants of a dividend policy that earning per share is positively significant with dividend per share.

Table 20 and 21 shown the dividend stability and determinants of dividend policy in plantation sector. The target payout ratio is less than the speed of adjustment. This results indicated that the absence of dividend smoothing and dividend not stable for consumer products firms. As regards to its determinants, the results stated that size of firm and sales growth have significant effect to dividend yield.

. In table 22 and 23 shows the results of dynamic and determinants of dividend policy for the techonology sector. The analysis of divided stability found that the dividend during the previous year and earnings per share are statistically significant affect dividend per share at 5 percent level of significance. The value of the adjusted R square is 82.08 percent and Hausman test indicated that fixed effect can be used over panel data models. However, since Sargan's test is passed then the analysis will be based on the GMM model estimations. The target payout ratio of consumer products firms is higher (97.01%) than the target payout ratio of 50% suggested by Lintner. This payout ratio is higher than the speed of adjustment shows that the existence of dividend smoothing and dividend signaling for consumer products firms.

Lastly, Table 22 and 23 presented the results of dividend stability and determinants of dividend policy in techonolgy sector. The target payout ratio also is less than the speed of adjustment. This results indicated that the absence of dividend smoothing and dividend not stable for consumer products firms. As regards to its determinants, the results stated that only market capitalization and market to book value are negative significantly effect to dividend yield.

Table 10. Dividend Stability Models (Consumer Product)

Variables	Pooled	REM	FEM	GMM
DPS_{it-1}	0.835*** (0.0189)	0.835*** (0.0189)	0.737*** (0.0368)	0.732*** (0.0390)
EPS_{it}	0.0991*** (0.0192)	0.0991*** (0.0192)	0.186*** (0.0259)	0.260*** (0.0298)
Constant	-0.00425* (0.0024)	-0.00425* (0.0024)	-0.00769** (0.0035)	-0.0201*** (0.0036)
Adjusted R^2	0.9899			
BP test (*p-value*)	1.0000			
Hausman Test (*p-value*)		0.0000		
Modified Wald Test (*p-value*)			0.0000	
Sargan's test (*p-value*)				0.0000
The speed of adjustment (1-α)	16.5%	16.5%	26.3%	26.8%
The target payout ratio (β/(1-α)	60.06%	60.06%	70.72%	97.01%
Number of company	306	306	306	272
Observations	34	34	34	34

Notes: This table reports the results of extended dividend stability model of Litner (1956) by applying GMM, pooled time series cross section data with common effect model (POOL), fixed effect model (FEM) and random effect model (REM). Standard errors in parentheses except for Breusch and Pagan Lagrangian (BP) and Hausman tests, which are p-values. Then, ***, **, and * denote significant at 1%, 5% and 10% levels, respectively.

Table 11. The determinants of dividend policy (Consumer Products)

Variables	Pooled	REM	FEM	GMM
DY_{it-1}	0.638*** (0.0471)	0.638*** (0.0471)	0.240*** (0.0626)	0.251*** (0.0967)
EPS	0.00569 (0.0093)	0.00569 (0.0093)	0.0486*** (0.0171)	0.0273 (0.0238)
MV	-8.55e-05 (0.0014)	-8.55e-05 (0.0014)	-0.00352** (0.0015)	-0.00136 (0.0016)
LIQ	0.000617 (0.0005)	0.000617 (0.0005)	-0.000224 (0.0011)	-0.000185 (0.0012)
INV	0.0136 (0.0089)	0.0136 (0.0089)	0.00382 (0.0126)	0.000362 (0.0232)
SIZE	0.00205 (0.0019)	0.00205 (0.0019)	0.00161 (0.0021)	0.000675 (0.0027)
SG	-0.00361 (0.0026)	-0.00361 (0.0026)	-0.00473* (0.0026)	-0.00458 (0.0031)
LEV	-0.0207* (0.0106)	-0.0207* (0.0106)	-0.0214 (0.0212)	-0.0130 (0.0352)
MBV	-0.000194 (0.0011)	-0.000194 (0.0011)	-0.00612*** (0.0020)	-0.00730*** (0.0027)
Constant	-0.000833 (0.0133)	-0.000833 (0.0133)	0.0321** (0.0149)	0.0384** (0.0181)
Adjusted R^2	0.5515			
BP test (*p-value*)	0.0000			
Hausman Test (*p-value*)		0.0000		
Modified Wald Test (*p-value*)			0.0000	
Sargan's test (*p-value*)				0.0043
Number of company	306	306	306	272
Observations	34	34	34	34

Notes: This table reports the results of determinants of dividend policy by applying GMM, pooled time series cross section data with common effect model (POOL), fixed effect model (FEM) and random effect model (REM). Standard errors in parentheses except for Breusch and Pagan Lagrangian (BP) and Hausman tests, which are p-values. Then, ***, **, and * denote significant at 1%, 5% and 10% levels, respectively.

Table 12. Dividend Stability Models (Industrial Product)

Variables	Pooled	REM	FEM	GMM
DPS_{it-1}	0.824*** (0.0192)	0.824*** (0.0192)	0.412*** (0.0350)	0.578*** (0.0669)
EPS_{it}	0.0638*** (0.0103)	0.0638*** (0.0103)	0.0642*** (0.0103)	0.0805*** (0.0150)
Constant	-3.83e-05 (0.0016)	-3.83e-05 (0.0016)	0.0215*** (0.0023)	0.0109*** (0.0038)
Adjusted R^2	0.8914			
BP test (*p-value*)	1.0000			
Hausman Test (*p-value*)		0.0000		
Modified Wald Test (*p-value*)			0.0000	
Sargan's test (*p-value*)				0.0000
The speed of adjustment (1-α)	17.6%	17.6%	58.8%	42.2%
The target payout ratio (β/(1-α)	36.25%	36.25%	10.92%	19.08%
Number of company	522	522	522	464
Observations	58	58	58	58

Notes: This table reports the results of extended dividend stability model of Litner (1956) by applying GMM, pooled time series cross section data with common effect model (POOL), fixed effect model (FEM) and random effect model (REM). Standard errors in parentheses except for Breusch and Pagan Lagrangian (BP) and Hausman tests, which are p-values. Then, ***, **, and * denote significant at 1%, 5% and 10% levels, respectively.

Table 13. The determinants of dividend policy (Industrial Product)

Variables	Pooled	REM	FEM	GMM
DY_{it-1}	0.551*** (0.0375)	0.551*** (0.0375)	0.167*** (0.0462)	0.0936 (0.0693)
EPS	0.0266*** (0.0079)	0.0266*** (0.0079)	0.0250** (0.0099)	0.0250** (0.0122)
MV	0.000321 (0.0012)	0.000321 (0.0012)	-0.000796 (0.0013)	0.000351 (0.0014)
LIQ	0.000576 (0.0006)	0.000576 (0.0006)	0.000686 (0.0007)	1.79e-05 (0.0009)
INV	0.00767 (0.0047)	0.00767 (0.0047)	-0.000406 (0.0106)	-0.00936 (0.0153)
SIZE	0.00199 (0.0015)	0.00199 (0.0015)	0.00504*** (0.0018)	0.00800*** (0.0023)
SG	-0.00102 (0.0015)	-0.00102 (0.0015)	-0.000258 (0.0014)	-0.00147 (0.0016)
LEV	0.00280 (0.0085)	0.00280 (0.0085)	-0.000376 (0.0147)	-0.0246 (0.0236)
MBV	-0.00335*** (0.0012)	-0.00335*** (0.0012)	-0.00487*** (0.0015)	-0.00414** (0.0019)
Constant	-0.00810 (0.0117)	-0.00810 (0.0117)	-0.0161 (0.0123)	-0.0298** (0.0147)
Adjusted R^2	0.3686			
BP test (*p-value*)	1.0000			
Hausman Test (*p-value*)		0.0000		
Modified Wald Test (*p-value*)			0.0000	
Sargan's test (*p-value*)				0.0000
Number of company	522	522	522	464
Observations		58	58	58

Notes: This table reports the results of determinants of dividend policy by applying GMM, pooled time series cross section data with common effect model (POOL), fixed effect model (FEM) and random effect model (REM). Standard errors in parentheses except for Breusch and Pagan Lagrangian (BP) and Hausman tests, which are p-values. Then, ***, **, and * denote significant at 1%, 5% and 10% levels, respectively.

Table 14. Dividend Stability Models (Construction)

Variables	Pooled	REM	FEM	GMM
DPS_{it-1}	0.774*** (0.0459)	0.774*** (0.0459)	0.434*** (0.0749)	0.426*** (0.0901)
EPS_{it}	0.0243** (0.0122)	0.0243** (0.0122)	0.0248* (0.0132)	0.0353* (0.0194)
Constant	0.00454** (0.0020)	0.00454** (0.0020)	0.0157*** (0.0028)	0.0151*** (0.0033)
Adjusted R^2	0.7220			
BP test (*p-value*)	1.0000			
Hausman Test (*p-value*)		0.0000		
Modified Wald Test (*p-value*)			0.0000	
Sargan's test (*p-value*)				0.0000
The speed of adjustment (1-α)	22.6%	22.6%	56.6%	57.4%
The target payout ratio (β/(1-α)	10.75%	10.75%	4.38%	6.14%
Number of company	171	171	171	152
Observations	19	19	19	19

Notes: This table reports the results of extended dividend stability model of Litner (1956) by applying GMM, pooled time series cross section data with common effect model (POOL), fixed effect model (FEM) and random effect model (REM). Standard errors in parentheses except for Breusch and Pagan Lagrangian (BP) and Hausman tests, which are p-values. Then, ***, **, and * denote significant at 1%, 5% and 10% levels, respectively.

Table 15. The determinants of dividend policy (Construction)

Variables	Pooled	REM	FEM	GMM
DY_{it-1}	0.584*** (0.0632)	0.584*** (0.0632)	0.0435 (0.0833)	0.0626 (0.0983)
EPS	0.00410 (0.0150)	0.00410 (0.0150)	0.00965 (0.0147)	0.0115 (0.0211)
MV	0.00442** (0.0022)	0.00442** (0.0022)	0.00244 (0.0021)	0.00347 (0.0023)
LIQ	-0.00150 (0.0023)	-0.00150 (0.0023)	0.000448 (0.0027)	-0.00189 (0.0035)
INV	0.0133 (0.0104)	0.0133 (0.0104)	0.0157 (0.0242)	0.0153 (0.0329)
SIZE	-0.00108 (0.0052)	-0.00108 (0.0052)	-0.0267* (0.0154)	-0.0321* (0.0191)
SG	-0.00235 (0.0033)	-0.00235 (0.0033)	-0.00631** (0.0030)	-0.00615* (0.0033)
LEV	-0.0148 (0.0166)	-0.0148 (0.0166)	-0.0148 (0.0313)	-0.0311 (0.0404)
MBV	-0.00467** (0.0022)	-0.00467** (0.0022)	-0.00384* (0.0022)	-0.00469* (0.0027)
Constant	0.0245 (0.0384)	0.0245 (0.0384)	0.266** (0.121)	0.325** (0.151)
Adjusted R^2	0.4312			
BP test (*p-value*)	1.0000			
Hausman Test (*p-value*)		0.0000		
Modified Wald Test (*p-value*)			0.0000	
Sargan's test (*p-value*)				0.0000
Number of company	171	171	171	152
Observations		19	19	19

Notes: This table reports the results of determinants of dividend policy by applying GMM, pooled time series cross section data with common effect model (POOL), fixed effect model (FEM) and random effect model (REM). Standard errors in parentheses except for Breusch and Pagan Lagrangian (BP) and Hausman tests, which are p-values. Then, ***, **, and * denote significant at 1%, 5% and 10% levels, respectively.

Table 16. Dividend Stability Models (Trading & Services)

Variables	Pooled	REM	FEM	GMM
DPS_{it-1}	0.829*** (0.0300)	0.829*** (0.0300)	0.526*** (0.0556)	0.501*** (0.0562)
EPS_{it}	0.0554*** (0.0153)	0.0554*** (0.0153)	0.0899*** (0.0194)	0.0849*** (0.0225)
Constant	0.00442 (0.00312)	0.00442 (0.00312)	0.0221*** (0.00486)	0.0248*** (0.00499)
Adjusted R^2	0.8550			
BP test (*p-value*)	1.0000			
Hausman Test (*p-value*)		0.0000		
Modified Wald Test (*p-value*)			0.0000	
Sargan's test (*p-value*)				0.0000
The speed of adjustment (1-α)	17.1%	17.1%	47.4%	49.9%
The target payout ratio (β/(1-α)	32.40%	32.40%	18.97%	17.01%
Number of company	315	315	315	280
Observations		35	35	35

Notes: This table reports the results of extended dividend stability model of Litner (1956) by applying GMM, pooled time series cross section data with common effect model (POOL), fixed effect model (FEM) and random effect model (REM). Standard errors in parentheses except for Breusch and Pagan Lagrangian (BP) and Hausman tests, which are p-values. Then, ***, **, and * denote significant at 1%, 5% and 10% levels, respectively.

Table 17. The determinants of dividend policy (Trading & Services)

Variables	Pooled	REM	FEM	GMM
DY_{it-1}	0.629*** (0.0458)	0.629*** (0.0458)	0.221*** (0.0663)	0.00157 (0.114)
EPS	0.00287 (0.0069)	0.00287 (0.00693)	0.0198** (0.0096)	0.0292*** (0.0113)
MV	0.00408*** (0.0012)	0.00408*** (0.0012)	0.000634 (0.0013)	-0.000893 (0.0014)
LIQ	0.00129 (0.00081)	0.00129 (0.0008)	0.00340*** (0.0010)	-0.0007 60(0.0014)
INV	0.00962 (0.0063)	0.00962 (0.0063)	0.00397 (0.0108)	0.00649 (0.0131)
SIZE	0.00115 (0.0020)	0.00115 (0.0020)	0.00397 (0.0025)	0.00567** (0.0027)
SG	-0.00185 (0.0021)	-0.00185 (0.0021)	-0.00268 (0.0020)	-0.00459** (0.0021)
LEV	-0.00183 (0.0085)	-0.00183 (0.0085)	0.00602 (0.0119)	-0.0175 (0.0161)
MBV	-0.00175 (0.0014)	-0.00175 (0.0014)	-0.00682*** (0.0019)	-0.00692*** (0.0025)
Constant	-0.0113 (0.0150)	-0.0113 (0.0150)	-0.0197 (0.0214)	-0.00668 (0.0222)
Adjusted R^2	0.4664			
BP test (*p-value*)	1.0000			
Hausman Test (*p-value*)		0.0000		
Modified Wald Test (*p-value*)			0.0000	
Sargan's test (*p-value*)				0.0000
Number of company	315	315	315	280
Observations		35	35	35

Notes: This table reports the results of determinants of dividend policy by applying GMM, pooled time series cross section data with common effect model (POOL), fixed effect model (FEM) and random effect model (REM). Standard errors in parentheses except for Breusch and Pagan Lagrangian (BP) and Hausman tests, which are p-values. Then, ***, **, and * denote significant at 1%, 5% and 10% levels, respectively.

Table 18. Dividend Stability Models (Properties)

Variables	Pooled	REM	FEM	GMM
DPS_{it-1}	0.531*** (0.0516)	0.531*** (0.0516)	0.226*** (0.0646)	0.174* (0.0915)
EPS_{it}	0.114*** (0.0141)	0.114*** (0.0141)	0.148*** (0.0163)	0.160*** (0.0200)
Constant	0.00145 (0.0016)	0.00145 (0.0016)	0.00579*** (0.0019)	0.00607*** (0.0020)
Adjusted R^2	0.7386			
BP test (*p-value*)	1.0000			
Hausman Test (*p-value*)		0.0000		
Modified Wald Test (*p-value*)			0.0000	
Sargan's test (*p-value*)				0.2726
The speed of adjustment (1-α)	46.9%	46.9%	77.4%	82.6%
The target payout ratio (β/(1-α)	24.31%	24.31%	19.12%	19.37%
Number of company	153	153	153	136
Observations		17	17	17

Notes: This table reports the results of extended dividend stability model of Litner (1956) by applying GMM, pooled time series cross section data with common effect model (POOL), fixed effect model (FEM) and random effect model (REM). Standard errors in parentheses except for Breusch and Pagan Lagrangian (BP) and Hausman tests, which are p-values. Then, ***, **, and * denote significant at 1%, 5% and 10% levels, respectively.

Table 19. The determinants of dividend policy (Properties)

Variables	Pooled	REM	FEM	GMM
DY_{it-1}	0.335*** (0.0880)	0.335*** (0.0880)	0.0217 (0.106)	-0.206 (0.133)
EPS	0.0834*** (0.0243)	0.0834*** (0.0243)	0.108*** (0.0280)	0.155*** (0.0299)
MV	0.000910 (0.0026)	0.000910 (0.0026)	-0.000487 (0.0026)	-0.00151 (0.0024)
LIQ	0.00308*** (0.0011)	0.00308*** (0.0011)	0.00527** (0.0021)	0.00576** (0.0025)
INV	0.00158 (0.0081)	0.00158 (0.0081)	-0.00105 (0.0094)	-0.00402 (0.0132)
SIZE	0.000112 (0.0031)	0.000112 (0.0031)	-0.00164 (0.0032)	-0.000373 (0.0032)
SG	-1.61e-05 (0.0049)	-1.61e-05 (0.0049)	0.000875 (0.0049)	-0.000556 (0.0044)
LEV	-0.00248 (0.0187)	-0.00248 (0.0187)	-0.0100 (0.0323)	-0.00295 (0.0384)
MBV	-0.00258 (0.0057)	-0.00258 (0.0057)	-0.00702 (0.0102)	-0.0144 (0.0112)
Constant	0.00360 (0.0247)	0.00360 (0.0247)	0.0288 (0.0286)	0.0236 (0.0280)
Adjusted R^2	0.2792			
BP test (*p-value*)	1.0000			
Hausman Test (*p-value*)		0.0001		
Modified Wald Test (*p-value*)			0.0000	
Sargan's test (*p-value*)				0.0000
Number of company	153	153	153	136
Observations	17	17	17	17

Notes: This table reports the results of determinants of dividend policy by applying GMM, pooled time series cross section data with common effect model (POOL), fixed effect model (FEM) and random effect model (REM). Standard errors in parentheses except for Breusch and Pagan Lagrangian (BP) and Ha=

Table 20. Dividend Stability Models (Plantation)

Variables	Pooled	REM	FEM	GMM
DPS_{it-1}	0.899*** (0.0302)	0.899*** (0.0302)	0.237*** (0.0805)	0.241*** (0.0827)
EPS_{it}	0.0207** (0.0080)	0.0207*** (0.0080)	0.0161** (0.0076)	0.0159* (0.0087)
Constant	0.00538 (0.0064)	0.00538 (0.0064)	0.0892*** (0.0112)	0.0888*** (0.0117)
Adjusted R^2	0.8864			
BP test (*p-value*)	1.0000			
Hausman Test (*p-value*)		0.0000		
Modified Wald Test (*p-value*)			0.0000	
Sargan's test (*p-value*)				0.0000
The speed of adjustment (1-α)	10.1%	10.1%	76.3%	75.9%
The target payout ratio (β/(1-α)	20.5%	20.5%	2.11%	2.10%
Number of company	162	162	162	144
Observations		18	18	18

Notes: This table reports the results of extended dividend stability model of Litner (1956) by applying GMM, pooled time series cross section data with common effect model (POOL), fixed effect model (FEM) and random effect model (REM). Standard errors in parentheses except for Breusch and Pagan Lagrangian (BP) and Hausman tests, which are p-values. Then, ***, **, and * denote significant at 1%, 5% and 10% levels, respectively.

Table 21. The determinants of dividend policy (Plantation)

Variables	Pooled	REM	FEM	GMM
DY_{it-1}	0.606*** (0.0650)	0.606*** (0.0650)	0.110 (0.0895)	-0.0130 (0.117)
EPS	0.00230 (0.0016)	0.00230 (0.0016)	0.00249 (0.0015)	0.00155 (0.0017)
MV	0.00297** (0.0013)	0.00297** (0.0013)	0.00177 (0.0014)	0.00232 (0.0015)
LIQ	-0.000149 (0.0001)	-0.000149 (0.0001)	0.000172 (0.0002)	-7.65e-05 (0.0003)
INV	0.00560 (0.0068)	0.00560 (0.0068)	-0.00675 (0.0160)	-0.0150 (0.0220)
SIZE	-0.00645* (0.0037)	-0.00645* (0.0037)	-0.0311*** (0.0068)	-0.0337*** (0.0084)
SG	-0.0100*** (0.0036)	-0.0100*** (0.0036)	-0.00789** (0.0034)	-0.00800** (0.0036)
LEV	-0.00136 (0.0078)	-0.00136 (0.0078)	0.00367 (0.0134)	-0.00441 (0.0184)
MBV	0.00141 (0.0019)	0.00141 (0.0019)	-0.000967 (0.0029)	0.00181 (0.0037)
Constant	0.0580* (0.0302)	0.0580* (0.0302)	0.300*** (0.0609)	0.327*** (0.0734)
Adjusted R^2	0.4426			
BP test (*p-value*)	1.0000			
Hausman Test (*p-value*)		0.0000		
Modified Wald Test (*p-value*)			0.0000	
Sargan's test (*p-value*)				0.0005
Number of company	162	162	162	144
Observations	18	18	18	18

Notes: This table reports the results of determinants of dividend policy by applying GMM, pooled time series cross section data with common effect model (POOL), fixed effect model (FEM) and random effect model (REM). Standard errors in parentheses except for Breusch and Pagan Lagrangian (BP) and Hausman tests, which are p-values. Then, ***, **, and * denote significant at 1%, 5% and 10% levels, respectively.

Table 22. Dividend Stability Models (Technology)

Variables	Pooled	REM	FEM	GMM
DPS_{it-1}	0.784*** (0.0772)	0.784*** (0.0772)	0.396*** (0.107)	0.140* (0.0786)
EPS_{it}	0.0970*** (0.0286)	0.0970*** (0.0286)	0.139*** (0.0269)	0.150*** (0.0149)
Constant	0.00673 (0.0054)	0.00673 (0.0054)	0.0244*** (0.0063)	0.0374*** (0.0044)
Adjusted R^2	0.8208			
BP test (*p-value*)	1.0000			
Hausman Test (*p-value*)		0.0024		
Modified Wald Test (*p-value*)			0.0000	
Sargan's test (*p-value*)				0.0000
The speed of adjustment (1-α)	21.6%	21.6%	60.4%	86%
The target payout ratio (β/(1-α)	44.91%	44.91%	23.01%	17.44%
Number of company	63	63	63	56
Observations		7	7	7

Notes: This table reports the results of extended dividend stability model of Litner (1956) by applying GMM, pooled time series cross section data with common effect model (POOL), fixed effect model (FEM) and random effect model (REM). Standard errors in parentheses except for Breusch and Pagan Lagrangian (BP) and Hausman tests, which are p-values. Then, ***, **, and * denote significant at 1%, 5% and 10% levels, respectively.

Table 23. The determinants of dividend policy (Technology)

Variables	Pooled	REM	FEM	GMM
DY_{it-1}	0.733*** (0.156)	0.733*** (0.156)	0.290 (0.189)	-0.0383 (0.210)
EPS	-0.00619 (0.0227)	-0.00619 (0.0227)	0.0298 (0.0258)	0.0275 (0.0237)
MV	-0.00866* (0.0045)	-0.00866* (0.0045)	-0.0125*** (0.0043)	-0.0127*** (0.0040)
LIQ	0.00813 (0.0075)	0.00813 (0.0075)	0.00520 (0.0076)	-0.000113 (0.0077)
INV	0.0204 (0.0313)	0.0204 (0.0313)	-0.0114 (0.0433)	0.00437 (0.0427)
SIZE	0.0138 (0.0187)	0.0138 (0.0187)	0.0489 (0.0415)	0.0458 (0.0416)
SG	-0.00468 (0.0073)	-0.00468 (0.0073)	0.00128 (0.0072)	0.000673 (0.0070)
LEV	0.00718 (0.0379)	0.00718 (0.0379)	0.0175 (0.0539)	0.0391 (0.0632)
MBV	-0.00263 (0.0049)	-0.00263 (0.0049)	-0.0137** (0.0061)	-0.0120* (0.0063)
Constant	-0.105 (0.161)	-0.105 (0.161)	-0.366 (0.336)	-0.334 (0.337)
Adjusted R^2	0.5687			
BP test (*p-value*)	1.0000			
Hausman Test (*p-value*)		0.0637		
Modified Wald Test (*p-value*)			0.0000	
Sargan's test (*p-value*)				0.0163
Number of company	63	63	63	56
Observations		7	7	7

Notes: This table reports the results of determinants of dividend policy by applying GMM, pooled time series cross section data with common effect model (POOL), fixed effect model (FEM) and random effect model (REM). Standard errors in parentheses except for Breusch and Pagan Lagrangian (BP) and Hausman tests, which are p-values. Then, ***, **, and * denote significant at 1%, 5% and 10% levels, respectively.

Table 24. Dividend Stability Models (Infrastructure)

Variables	Pooled	REM	FEM	GMM
DPS_{it-1}	0.880*** (0.107)	0.880*** (0.107)	0.513** (0.225)	0.493** (0.194)
EPS_{it}	-0.0269 (0.0368)	-0.0269 (0.0368)	0.0215 (0.0452)	0.00582 (0.0396)
Constant	0.0198 (0.0206)	0.0198 (0.0206)	0.0593* (0.0290)	0.0665*** (0.0253)
Adjusted R^2	0.7170			
BP test (*p-value*)	1.0000			
Hausman Test (*p-value*)		0.1887		
Modified Wald Test (*p-value*)			0.2894	
Sargan's test (*p-value*)				0.2204
The speed of adjustment (1-α)	12%	12%	48.7%	50.7%
The target payout ratio (β/(1-α)	-22.42%	-22.42%	4.41%	1.15%
Number of company	27	27	27	24
Observations		3	3	3

Notes: This table reports the results of extended dividend stability model of Litner (1956) by applying GMM, pooled time series cross section data with common effect model (POOL), fixed effect model (FEM) and random effect model (REM). Standard errors in parentheses except for Breusch and Pagan Lagrangian (BP) and Hausman tests, which are p-values. Then, ***, **, and * denote significant at 1%, 5% and 10% levels, respectively.

Table 25. The determinants of dividend policy (Infrastructure)

Variables	Pooled	REM	FEM	GMM
DY_{it-1}	0.444** (0.165)	0.444*** (0.165)	0.428* (0.233)	0.428* (0.249)
EPS	0.00968 (0.0255)	0.00968 (0.0255)	-0.00835 (0.0285)	-0.00835 (0.0305)
MV	0.00297 (0.0037)	0.00297 (0.00373)	0.00346 (0.00385)	0.00346 (0.00412)
LIQ	0.0196*** (0.0059)	0.0196*** (0.0059)	0.0217*** (0.0063)	0.0217*** (0.0067)
INV	-0.0171 (0.0123)	-0.0171 (0.0123)	0.00191 (0.0184)	0.00191 (0.0197)
SIZE	0.144** (0.0633)	0.144** (0.0633)	0.00275 (0.119)	0.00275 (0.128)
SG	0.00602 (0.0109)	0.00602 (0.0109)	0.00387 (0.0125)	0.00387 (0.0133)
LEV	0.0402 (0.0266)	0.0402 (0.0266)	0.0527 (0.0520)	0.0527 (0.0557)
MBV	-0.000165 (0.0001)	-0.000165 (0.0001)	-0.000236 (0.0002)	-0.000236 (0.0002)
Constant	-1.413** (0.608)	-1.413** (0.608)	-0.0798 (1.124)	-0.0798 (1.204)
Adjusted R^2	0.6821			
BP test (*p-value*)	1.0000			
Hausman Test (*p-value*)		0.9784		
Modified Wald Test (*p-value*)			0.0000	
Sargan's test (*p-value*)				0.5965
Number of company	27	27	27	24
Observations	3	3	3	3

Notes: This table reports the results of determinants of dividend policy by applying GMM, pooled time series cross section data with common effect model (POOL), fixed effect model (FEM) and random effect model (REM). Standard errors in parentheses except for Breusch and Pagan Lagrangian (BP) and Hausman tests, which are p-values. Then, ***, **, and * denote significant at 1%, 5% and 10% levels, respectively.

Dividend Policy and Sustainable Growth Rate

Table 25 shows the results of the relationship between dividend policy and sustainable growth of Malaysian Shariah-compliant firms. The results indicate that dividend per share have positive significantly effect to sustainable growth rate. Moreover, past sustainable growth give negative impact to the current sustainable growth rate. The results confirm that the higher payment of dividend tend to have higher sustainable growth.

Table 25. Relation between Dividend policy and sustainable growth

Variables	Pooled	REM	FEM	GMM
SGR_{it-1}	-0.0675*** (0.0241)	-0.0675*** (0.0241)	-0.160*** (0.0256)	-0.352*** (0.0260)
DPS	0.00682 (0.0427)	0.00682 (0.0427)	0.0113 (0.142)	0.662*** (0.237)
Constant	0.0489*** (0.0079)	0.0489*** (0.0079)	0.0524*** (0.0123)	0.0158 (0.0177)
Adjusted R^2	0.0034			
BP test (*p-value*)	1.0000			
Hausman Test (*p-value*)		0.0000		
Modified Wald Test (*p-value*)			0.0000	
Sargan's test (*p-value*)				0.0000
Observations	1,719	1,719	1,719	1,528
Number of company		191	191	191

Notes: This table reports the results on the relationship between sustainable growth rate and dividend policy by applying GMM, pooled time series cross section data with common effect model (POOL), fixed effect model (FEM) and random effect model (REM). Standard errors in parentheses except for Breusch and Pagan Lagrangian (BP) and Hausman tests, which are p-values. Then, ***, **, and * denote significant at 1%, 5% and 10% levels, respectively.

6. Conclusion and discussion

The objective of this research is to investigate the dynamic and determinants of Malaysian Shariah-compliant. Mainly, we have focused almost exclusively on all sectors listed under Bursa Malaysia except the financial sector due to the exclusion of the financial statement. Moreover, all the firms are maintaining listed as a Shariah-compliant firm for 10 years from 2006 until 2017. It extends the traditional framework proposed by Lintner (1956) and this paper use dynamic panel data to study on dividend behavior for Shariah-compliant firms in Malaysia over the period 2007-2016. Therefore, there are three objectives of this research as follows (1) to investigate the determinants of dividend policy; and (2) to examine the effect between target dividend policy and sustainable growth rate. The results indicate that the stable earnings per share can afford the firms to pay larger dividend. In addition, the higher payout ratio and lower speed adjustment indicates that there is high smoothing and stability of dividend policy. The results also found that dividend policy is associated with sustainable growth rate of firm. This paper provides the understanding of dividend policy behaviour in Malaysia.

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Islamic Vs. Conventional Bank Efficiency: A Dynamic Network Data Envelopment Analysis Approach

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1. Introduction

Malaysian Financial sector has experienced successful introduction of dual-financial systems, conventional and Islamic Banking systems during three-phase restructuring 2001 to 2010 took place just after the Asian Financial crisis 1997-1998. While, the establishment of foreign banks has its long history in Malaysia, now the local and foreign-owned Islamic and conventional banks operates side by side to spur the economic growth of Malaysia. In 2016, there are 16 Islamic banks of which 10 are local and 6 are foreign-owned, whereas out of 27 conventional banks only 8 are local. To make direct comparison on the efficiency of both operating in a dual-system, Data Envelopment Analysis (DEA) tools and techniques are employed in this study. All related banking operation activities and all the relevant input and output variables are utilized in one single network DEA model. Network DEA models put forth the concept of 'black-box' in measuring the relative efficiency of Decision Making Units (DMUs). The black box unveils the internal processes comprising of the core banking functions: production (banks are defined as producers of transactions), intermediation (bank produce earning assets and become loans) or profitability (banks are profit seeking organization). Previous researchers, however, applied these traditional approaches separately to measure bank efficiency. This study fills the gap in DEA empirical literature by combining the input and output variables from the traditional approaches and CAMELS ratings [capital adequacy (C), asset quality (A), management expertise (M), earnings strength (E), liquidity (L), and sensitivity to market risk (S] as variables representing the overall condition of a bank. To tap the difference in technology of both local and foreign-owned banks, our DEA model adapts meta-frontier with double bootstrap regression in the second stage for a time series bank data (2009 – 2015). For a more meaningful and unbiased results, slack-based type of network DEA model is proposed because changes in the input and output variables are not proportionate. For our analysis, we gauge the efficiency of 43 commercial banks in Malaysia comprising of 16 Islamic banks of which 10 are local and 6 are foreign-owned, and, out of 27 conventional banks only 8 are local. The input and output variables of our model are yearly basis data from 2009 to 2015.

2. Materials And Methods

Figure 1 exhibits the proposed conceptual presentation of *n*-stage dynamic network DEA model where *n* denotes the year of assessment are made. In Figure 1, three different sub-processes; production, intermediation and profitability forms the 'black box' (sub-processes are also known as nodes). Inputs to the sub processes are Equity, Deposits, Interest expenses and Loans. Four output variables are Non-earning assets, Liquid assets, Net income and Loan loss provisions. Two intermediate variables are Earning assets and Loans are output of a prior sub-process and then become an input to the succeeding sub-process. The three sub-processes are (1) production (2) intermediation (3) profitability. In the final stage from the loans, bank creates profit and as by-product, bank incurs bad loans (Loan loss provision). In our model, Loan loss

provisions is the undesirable outputs (Kordrostami and Amirteimoori, 2005) which found to be limited in NDEA for banking efficiency measurement (Lozano 2016; Cook, Hababou, and Tuenter 2000; Kao 2014). The proposed network DEA measures the overall efficiency and divisional efficiency for each sub-process which took place in sequence. Hence, the bank efficiency measurement of this study is no longer static, but a dynamic approach. This research employs the network slack-based DEA (NSBM-DEA) model, similar to the one proposed by Tone and Tsutsui (2009) .

The production possibility is $\{(X^k, Y^k, Z^{(k,h)})\}$ [1]

Subject to;

$$
\begin{aligned}
&X^k \geq \textstyle\sum_{j=1}^{n} X_j^k \lambda_j^k && (k = 1, \dots\dots, K),\\
&Y^k \geq \textstyle\sum_{j=1}^{n} Y_j^k \lambda_j^k && (k = 1, \dots\dots, K),\\
&Z^{(k,h)} \geq \textstyle\sum_{i=1}^{n} Z_i^{(k,h)} \lambda_j^k && (\forall (k,h) = outputs\ from\ k),\\
&Z^{(k,h)} \geq \textstyle\sum_{j=1}^{n} Z_j^{(k,h)} \lambda_j^k && (\forall (k,h) = inputs\ to\ h),\\
&\textstyle\sum_{j=1}^{n} \lambda_j^k = 1 (\forall k)\ , && \lambda_j^k \geq 0\ (\forall j,k)
\end{aligned}
$$

Equation 1 presents K number of divisions i.e., nodes in the proposed network DEA model $(k = 1, \dots\dots, K)$ by upgrading the earlier production set in Equation 1. Here, the number of DMUs is n (j=1,……, n) where m_k *and* r_k are the numbers of inputs and outputs for any node k respectively. The link between node k to node h is presented as (k,h) and L represents the set of links. So, the data set for the input set in node k is $\{X_j^k \in R_+^{m_k}\}(j = 1, \dots\dots, n; k = 1, \dots\dots, K)$, output set from node k is $\{Y_j^k \in R_+^{r_k}\}(j = 1, \dots\dots, n; k = 1, \dots\dots, K)$, and the intermediate set for a link between node k and node h is $\left\{Z_j^k \in R_+^{t_{(k,h)}}\right\}(j = 1, \dots\dots, n; (k,h) \in L)$ where $t_{(k,h)}$ is the number of items in the link. Finally, $\lambda^k \in R_+^{m_k}$ is the intensity vector which corresponds to node k $(k = 1, \dots\dots, K)$. This is a variable return to scale model (VRS) which is the appropriate model for banking activities. The last constraint $\sum_{j=1}^{n} \lambda_j^k = 1(\forall k)$ is a VRS application. Now, slack vectors $S^{K-}(S^{k+})$ for input (output) within the DMUs can be presented by

$$
\begin{aligned}
x_0^k &= \mathrm{X^k}\lambda^{\mathrm{k}} + S^{K-} && (k = 1, \dots\dots, K),\\
y_0^k &= \mathrm{Y^k}\lambda^{\mathrm{k}} - S^{K+} && (k = 1, \dots\dots, K),\\
\lambda^{\mathrm{k}} &= 1 && (k = 1, \dots\dots, K),\\
\lambda^{\mathrm{k}} &\geq 0,\ S^{K-} \geq 0,\ S^{K+} \geq 0,\ (\forall k),
\end{aligned}
\qquad [2]
$$

where,

$$X^k = (X_1^k, \dots\dots, X_n^k) \in R^{m_k \times n}, \qquad Y^k = (Y_1^k, \dots\dots, Y_n^k) \in R^{r_k \times n}$$

The output-oriented efficiency is denoted with τ_0^*, and the linear equation is

$$1/\tau_0^* = \max_{\lambda^{\mathrm{k}},\ S^{K+}} \textstyle\sum_{\mathrm{k}=1}^{\mathrm{K}} \mathrm{W^k} \left[1 + \frac{1}{\mathrm{r_k}} \left(\sum_{\mathrm{r}=1}^{\mathrm{r_k}} \frac{S_r^+}{Y_{r0}^k}\right)\right]$$

subject to

$$
\begin{aligned}
x_0^k &= \mathrm{X^k}\lambda^{\mathrm{k}} + S^{K-} && (k = 1, \dots\dots, K),\\
y_0^k &= \mathrm{Y^k}\lambda^{\mathrm{k}} - S^{K+} && (k = 1, \dots\dots, K),\\
\lambda^{\mathrm{k}} &= 1 && (k = 1, \dots\dots, K),\\
\lambda^{\mathrm{k}} &\geq 0,\ S^{K-} \geq 0,\ S^{K+} \geq 0,\ (\forall k),
\end{aligned}
\qquad [3]
$$

$$Z^{(k,h)}\lambda^{\mathrm{h}} = Z^{(k,h)}\lambda^{\mathrm{k}}, \big(\forall(\mathrm{k},\mathrm{h})\big) \text{ if link between nodes are free, OR}$$

$$\mathrm{Z_0^{(k,h)}} = Z^{(k,h)}\lambda^{\mathrm{h}}, \big(\forall(\mathrm{k},\mathrm{h})\big) \text{ if link between nodes are fixed,}$$

where

$$\sum_{k=1}^{K} W^k = 1, W^k \geq 0\ (\forall k)$$

and W^k is the relative weight of node k determined corresponding to its importance. The overall efficiency score for an output oriented production set (i.e. banking sector) is the weighted harmonic mean of an individual node's efficiency scores.

$$1/\tau^* = \rangle \frac{\nu\nu_k}{-} \qquad [4]$$

For an optimal solution of Equation 4, the projection onto the frontier as follows:

$$
\begin{aligned}
X_0^{k*} &\leftarrow X_0^k - S^{K-*}\ (k = 1, \dots\dots, K),\\
Y_0^{k*} &\leftarrow Y_0^k + S^{K+*}\ (k = 1, \dots\dots, K)
\end{aligned}
\qquad [5]
$$

For a free type link between the nodes, the projection is as follows:

$$Z_0^{(k,h)*} \leftarrow Z^{(k,h)}\lambda^{h*}\ \big(\forall(k,h)\big) \qquad [6]$$

To define a reference set of any node k for the DMUs as follows:

$$R_0^k = \{\mathrm{j} | \lambda_{\mathrm{i}}^{\mathrm{k}*} > 0\}(\mathrm{j} \in \{1, \dots\dots, \mathrm{n}\}) \qquad [7]$$

Figure 1 illustrates the model to measure efficiency on yearly basis (i.e., i =1), to the next year (i.e., i =2) until year n. To compare bank efficiency in consecutive n periods, Malmquist DEA index (MI) is employed. Our dynamic DEA also applies the concept of meta-frontier considering two different types of banking systems i.e. conventional and Islamic banks; and further categorised into local and foreign ownership, presumably enjoying different set of production factors. For studies of developing economy particularly, Malaysia (Sufian, Kamarudin, and Noor, 2014), the applications of meta-frontier on bank efficiency are really scarce.

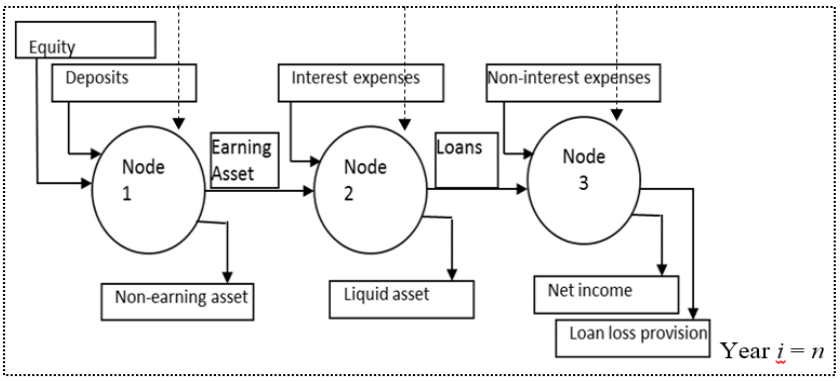


Figure 1

3. Results And Discussion

For our analysis, despite no pattern identified in the overall efficiency scores of both Islamic and conventional bank for the period of 2009 to 2015, declines in efficiency scores for most banks in 2014 and 2015 are apparent. This general observation could be due to economic slowdown in Malaysia and partially, fall in the exchange rate (Sufian, Kamarudin, and Nassir 2016; Jadah 2016). Notably, however, either one of local (Hong Leong Islamic: 2010, 2011, 2014 & 2015; and CIMB Islamic: 2013) or foreign Islamic (Standard Chartered Saadiq Bhd: 2009; and OCBC Al Amin Bank Bhd: 2012) banks show highest overall efficiency for a particular year. Whereas most foreign conventional banks appears to score more than 50% of overall efficiency for any particular year under study.

On the efficiency of each sub-process, or termed as a Node in Figure 1, all 6 foreign Islamic banks score an annual average efficiency of greater than 71%. OCBC Al-Amin Bank Berhad recorded the highest with 99.6% and Standard Chartered Saadiq Berhad hits 96.3%. At least two foreign Islamic banks consistently score unit efficient in each year. This clearly indicates that Islamic foreign banks are more efficient than foreign conventional banks in the Malaysian context. Productivity efficiency explains bank's capacity to convert its liabilities and owners' equity into earning assets. Under the period of analysis, the Malaysian banking industry has a few banks which perform at their optimal level and score in the top tier for unit efficiency. Among the local banks, 3 conventional and 4 Islamic were found with high efficiency scores and none achieve unit efficient. Among foreign conventional banks, only Royal Bank of Scotland Berhad achieve optimal level of converting its total source of funds into total earning assets. Node-2 measures the efficiency scores assuming banks create loans out of their earning assets (intermediate input) from Node-1. Thus, examining Node-2 explains a fundamental job of a bank: how efficiently a bank can create loans from its earning assets with special attachment of interest expenses for financing the liability. At Node 2, among foreign Islamic banks, only Asian Finance Bank Berhad was found to be unit efficient throughout the years. Surprisingly, OCBC Al-Amin Bank Berhad is the least efficient bank (11%). Over all, average efficiency of foreign Islamic banks is lower than that of foreign conventional banks signifying these banks are inefficient in converting earning assets into loans compared to the unit efficient bank. However, the foreign conventional, Bank of China (Malaysia) Bhd and Mizuho Bank (Malaysia) Bhd, were rated unit efficient. Scoring more than 90% efficiency were Bank of America Malaysia Berhad, National Bank of Abu Dhabi Malaysia Berhad, and the Royal Bank of Scotland Berhad. Finally, at Node-3 which measures bank loans to create profits, only one bank is found to be unit efficient i.e. Public Bank Berhad. Although majority had efficiency score levels between 40% and 80%, the least efficient performers are Affin Islamic Bank Berhad - 26.5%, and Bank Muamalat Malaysia Berhad - 32.2%. These suggest only a few banks are performing well in converting loans into profits as well as minimizing loan loss provisions.

4. Conclusion

This paper proposes a dynamic network slack-based DEA. This model stands out not only because it can explain the overall efficiency of the types of banks in a single model, but also, it enables specific efficiency measurement of the core banking functions. From the findings, we can derive direct policy implications. First, despite the significant improvements

of financial markets in Malaysia with extensive deregulation processes and participation of both, local and foreign banks and intermediaries, we still observe large inefficiencies in the banking industry. This implies that a less efficient financial system hurts the economic development of the entire country by preventing economic agents from an expedited use of credit, for example. Regulation aimed to facilitate bank-level development that efficiency enhancement is clearly needed. Lower levels of efficiency in financial intermediation, potentially, means higher prices for financial services. A question to ask is, would this caused the firms and households to reject profitable investment projects because of greater financial costs, which would further burden their future economic growth. Resources, capabilities, and managerial know-how are bank specific variables, henceforth, banks are called to adapt resources, structures, and processes to increase their efficiency.

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Financing Behaviour And Financial Performance Of Sukuk Issuing Companies

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1. Introduction

Study on corporate financing decision (CFD) is continuously attracting researchers from various perspectives including the effect of the decision on firms' financial performance. CFD refers to capital structure of the firm. Capital structure defines as how a firm finances its overall growth and operations by using different sources of funds. It can be also defined as the permanent mix of long term financing (i.e. long-term notes payable or bond issues), short term debt (i.e. working capital), common equity and preferred equity. A firm can go for different levels of mixtures of equity, debt and/or other financial facilities that emphasize maximizing the firm value. This is important because it may affect investor return and assessments of the firm's efficiency in dealing with a competitive environment (Simerly and Li, 2000). There is no standardized capital structure for all firms; the financial decisions can differ by which risk and cost can be minimized to achieve higher profits, and consequently enhance value for shareholders.

2. Literature Review

The development of Islamic finance creating more financing options to the players in the market. More combinations of capital structure may be created. Apart of only using the conventional instruments thru the issuance of bond, they can opt for shari'ah compliance product such as sukuk.

Malaysia leads the *sukuk* development and the market share. At end of September 2012 Malaysia has dominated the *sukuk* market with a total issue of government and private Islamic bonds amounting USD259.056 billion over the last 2 decades accounting for almost 65% of the global market share. The first *sukuk* was issued by Shell MDS in 1990 with a value of USD30 million. However, the global market is only active after 2001 with several issuance by Majlis Ugama Islam Singapura (MUIS) and the Government of Bahrain (ISRA, 2011). The market of *sukuk* expanded substantially from, USD1.172 billion in 2001 to USD48.929 billion in 2007. Islamic financial system does not totally immune during the global financial crisis 2007-2009. Similar to the conventional, the industry was also affected causing the *sukuk* issuance dropped nearly 62% in 2008 reaching USD18.753 billion. Fortunately, due to the good reputation and investors' trust, the market was recovering a year later and kept increasing reaching USD91.403 billion in 2011. Within the first 9 month of 2012 itself, the volume rose to USD107.31 billion.

While it is an option for a non Shariah compliant company to act socially responsible (above those required by law), for a Shariah compliant company, it is part of the religious obligation on top of Shariah prohibition to involve in riba', maysir, gharar and other prohibited activities. Following conventional finance theory, conventional company are encouraged to employ high leverage to enhance the firm value. This contradicts to Islamic finance theory which discourage the use of debt to finance their operation. This reflects in the revised Malaysian Shariah screening methodology where it screens out companies with debt ratio higher than 33%. But it is worth noted that the Malaysian Shariah screening methodology only considers conventional debt in the calculation of debt ratio, excluding Islamic debts. This is because Shariah promotes profit sharing activities (refers to equity financing) rather than borrowing. If a company wants to be listed in the Shariah index, then the Shariah screening might encourages companies to employ more Islamic debts compared to conventional debts. This is because there is an advantage to financing with Islamic debt, ie Islamic debts is not counted in the debt ratio calculation allowing them to be listed in the Shariah index, tax benefits advantage and its association to high firm value or/ performance.

This provides motivation for this research to be undertaken to investigate on how sukuk issuers determine firm's overall financing structure. Apart of reviewing the concept financing/borrowing from Shariah point of view, the research aims to investigate towards what extents are sukuk issuing companies use financing/borrowing in running the business. This study is distinctive and varies from previous studies since it focuses on the effect of sukuk issuance on financial performance. Numerous studies have been carried out investigating the effect of overall debt usage on financial performance without focusing on Islamic debt/sukuk. On the other hand, most studies on sukuk performance are investigating the effect of sukuk announcement on wealth effect (the effect on the share price.

3. Objectives Of The Study

- To critically review the Shariah concept of financing/borrowing in general, and specifically from institutional perspective.
- To investigate the extent of financing/borrowing (capital structure) of the sukuk issuers
- To assess the financial performance before and after sukuk issuance of sukuk issuing companies
-

4. Methodology

The research will be conducted in three main phases. The first phases will be the critical review on debt concept in Islamic point of view to achieve RO1. The second phase is to achieve RO2 by empirically investigate the level of financing/borrowing of sukuk issuers. Finally, to achieve RO3, evaluation on the implication of sukuk issuance will be done by comparing the financial performance of the companies before and after the issuance, controlling for other variables. Clear explanation on model of the study (the relationship between the independent variables, dependent variables and control variables) can be referred from the ***Figure 2***.

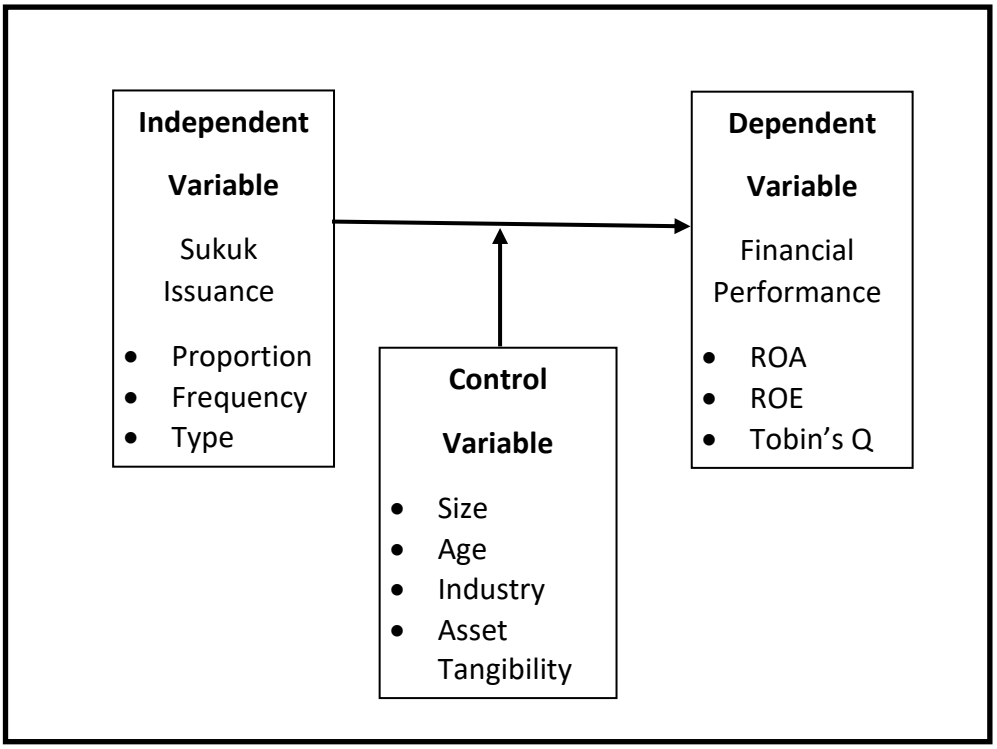


Figure 2. Model of the Study

The population of this study encompasses all non-financial Shariah compliance companies listed in Kuala Lumpur Stock Exchange that issuing sukuk between 2007 to 2016. Data will be gathered from Data Stream. It is proposed that the hypothesis will be estimated using panel data analysis.

5. Importance Of The Study

- To establish the knowledge and experience on the subject matter: Islamic debt/sukuk which is an important pillars of Islamic finance.
- To provide evidence as to whether the nature of Islamic debt is different compared to debts incurred in other cultures
- Existing literature on Islamic debt has focused on the legal aspect of Islamic law, and very few studies investigate Islamic debt in the context of corporate finance. Therefore, this study contributes to the literature by broadening the body of research on this scarcely investigated area.
- Findings of this study itself, which proves the worthiness of this instrument

6. Acknowledgment

We would like to express the appreciation to Yayasan Tun Ismail (YTI) for the financial support of the study and Universiti Sains Islam for the facilities used for the study.

Rectification of SNC Events in the Malaysian Islamic Banking Industry: An Analysis

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Mohamad Akram Laldin

Ahcene Lahsasna

Abstract

The implications of Shariah non-compliant (SNC) events on Malaysian Islamic banking institutions are diverse. Different SNC events may have different implications. The effects of SNC events could be in the form of spiritual, financial, legal and reputational. The ways to rectify these SNC events by Islamic banks should be distinctive based on the nature of SNC events. The new BNM's guideline entitled "Financial Reporting for Islamic Banking Institutions" (2016b) obliges Islamic banking institutions to disclose the recognition and accounting policies on incomes derived from SNC events and additional information regarding the nature of Shariah non-compliant activities. Additionally, the banks must report the amount of Shariah non-compliant incomes, the number of SNC events that occurred during the year and rectification processes and control measures to avoid recurrence of such Shariah non-compliant activities. This study aims to explore the practices of SNC event rectification by the Malaysian Islamic banking industry. The researcher has interviewed twelve (12) Shariah-related officers from various banking institutions offering Islamic banking services and conducted a focus group discussion on the preliminary results of the interview. This study found that the two main stages of SNC events management are detection and rectification. Detection of SNC events is the first stage of ex-post Shariah compliance function. However, the rectification stage is the most significant stage in the management of SNC events. Comprehensive rectification of SNC events could help the IBIs to control and mitigate the negative implications of SNC events. The rectification stage of SNC event consists of: (i) regulatory reporting, (ii) Shariah deliberation and decision, (iii) corrective action, (iv) preventive and control measures as well as (v) punitive action, if deemed necessary. These five components of rectification represent a comprehensive framework for dealing with SNC event.

Keywords: Shariah compliance, SNC event, SNC rectification

1. Introduction

The implications of Shariah non-compliant (SNC) events on Malaysian Islamic banking institutions are diverse. Different SNC events may have different implications. The effects of SNC events could be in the form of spiritual, financial, legal and reputational. The ways to rectify these SNC events by Islamic banks should be distinctive based on the nature of SNC events. The new BNM's guideline entitled "Financial Reporting for Islamic Banking Institutions" (2016b) obliges Islamic banking institutions to disclose the recognition and accounting policies on incomes derived from SNC events and additional information regarding the nature of Shariah non-compliant activities. Additionally, the banks must report the amount of Shariah non-compliant incomes, the number of SNC events that occurred during the year and rectification processes and control measures to avoid recurrence of such Shariah non-compliant activities. This study aims to explore the practices of SNC event rectification by the Malaysian Islamic banking industry.

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2. Background

SNC risk is probably the least understood and inadequately modeled form of risk faced by Islamic banks. The academic literature in this field did not provide adequate definition of Shariah risk (Hassan (January 3, 2017), 2016 - Shariah Risk and Governance Framework for Islamic Financial Institutions). The earliest definition of Shariah non-compliance risk was provided by the IFSB in its "Guiding Principles of Risk Management" for IFIs in December 2005. IFSB (2005) defines SNC risk as "*the risk that arises from IIFSs' failure to comply with the Shariah rules and principles determined by the Shariah Board of the IIFS or the relevant body in the jurisdiction in which the IIFS operate*." IFSB (2005) classified SNC risk as a component of Islamic bank's operational risk. Archer and Haron (2007) define Shariah compliance risk as ''*the risk of non-compliance resulting from a failure of an Islamic bank's internal systems and personnel*''. Balz (2008) uses the term Shariah risk and defines it as ''*the chance that an Islamic financing transaction is challenged on grounds that it does not comply with Islamic law*''. Ginena (2014) defines Shariah risk as "*the risk of financial losses that an IFI may experience as a result of non-compliance with Shariah precepts in activities, as ascertained by the SSB or the pertinent authority in the relevant jurisdiction*". He clearly considers SNC risk as a form of operational risk, and only confines SNC risk to events that results in financial losses. Non-financial or non-material losses are not included in his definition as the concern is on quantifying the monetary losses. Nevertheless, Muslims believe that losses on the spiritual front will diminish the blessings of Allah, having further impact on the financial position of the IFIs (Muhamad, 2011 - Market Segmentation and The Shari'ah Compliancy Process in Islamic Banking Institutions). However, it is very difficult, if not impossible, to quantify these losses (Ginena, 2014 - Sharī'ah risk and corporate governance of Islamic banks).

The definition of "Shariah non-compliance" as stipulated in IFSA 2013 encompasses three levels of SNC: (i) First level: Non-compliance to the Shariah, (ii) Second level: Non-compliance to the advice of Shariah committee of the bank, and (iii) Third level: Non-compliance to the advice or ruling of the Shariah Advisory Council (of BNM). SNC risk is a risk that emerges from the Islamic bank's failure to abide by the Shariah rules and principles determined by the relevant Shariah regulatory bodies. In the case of Malaysia, the relevant Shariah regulatory bodies are SAC of BNM and Shariah Committee of the bank (A. A. Othman et al., 2013 - Shariah Governance for Islamic Financial Institutions in Malaysia on the Independency of Shariah Committee and Efficiency of Its Shariah Decisions). SNC risk is deemed to be of higher priority risk for Islamic banks compared to other identified risks (M Mahbubi Ali & Rosman, - Is There a Need for Capital Charge on Shariah Non-Compliance Risk; IFSB, 2005 - Guiding Principles of Risk Managment for Institutions (other than Insurance Institutions) Offering Only Islamic Financial Services).

According to Laldin (2013), IFIs are additionally exposed to certain risks that are unique to the nature of their business. This is due to the following three facts: (1) Islamic financial instruments are structured on specific models and certain Islamic structures that distinguish them from their conventional counterparts, (2) IFIs have a unique balance sheet compared to their conventional counterparts; and (3) IFIs have their own specific regulations, governance framework, and liquidity management infrastructure.

BNM (2016) requires the Board of financial institutions that offer Islamic products and services to consider the unique operational risks that may arise due to Shariah noncompliance. This includes the financial and non-financial implications when the established Shariah requirements and rulings are not effectively communicated, translated into internal policies or observed by the financial institution across different business and functional lines. Shariah non-compliance risk is a subset of operational risk in view of the common risk drivers or factors i.e. inadequate or failed internal processes, failure of people, systems and characteristics or changes in the external environment that are beyond the Islamic bank's control. SNC risk could be found in three areas: (i) non-compliant processes, (ii) non-compliant products and (iii) defects in documentation (Laldin, 2013 - Risk Management in Islamic Finance). Although Shariah non-compliance can arise from various sources, SNC risk is commonly associated with the failure of an Islamic bank's products and their underlying procedures to comply with Shariah requirements in the contract (Oz, Khokher, Ali, & Rosman, 2016 - Shariah Non-Compliance Risk in the Banking Sector: Impact on Capital Adequacy Framework of Islamic Banks).

Shariah risk poses a credible threat to Islamic banks and it is considered as one of the unique operational risks facing Islamic banks by the IFSB. Shariah non-compliance risk may or may not lead to or result in a SNC event, but this type of risk must be minimized (Aida Othman (18-19 July), 2012 - Auditing Islamic Finance: How Different?). Ginena (2014) has identified some possible causes and events that could lead to the occurrence of SNC events.

Table 14: Some Possible Causes and Events Of Shariah Non-Compliance

Internal Causes			**External Causes**
People	**Process**	**Systems**	**External Events**
*Fatwa risk *Falsification *Guideline violations *Unapproved product, transaction or legal documentation *Insufficient resources *Inadequate training *Negligence *Miscommunication *Un-segregated duties *Loss of key player *Disorganization	*Unclear processes, policies, procedures, or responsibilities. *Inadequate internal Shariah governance arrangement or tools *Insufficient disclosure and transparency *Use of charity account, profit distribution, and segregation of funds.	*Process and system accounting mismatch *Inadequate product models *Poor reporting *Unapproved software *Inexperienced vendor *Non-timely friendly system *System error	*Fatwa risk *Inexperienced Shariah advisory firm *Conflict of interest between auditing, consulting and legalizing duties. *Inadequate/ lack of Shariah governance regulations *Unclear laws and regulations

Source: Ginena (2014)

The challenges of risk management are more sophisticated for Islamic banks since the financial activities and the features of the financial contracts are substantially different (Izhar & Hassan, 2013 - Applying Core Principles of Risk Management in Islamic Banks' Operational Risk Analysis). Therefore, operational risks are likely to be more significant for Islamic banks due to their specific contractual features (Akkizidis & Khandelwal, 2008 - Financial Risk Management for Islamic Banking and Finance; DeLorenzo, 2007 - Shariah Compliance Risk; Fiennes, 2007 - Supervisory Implications Of Islamic Banking: A Supervisor's Perspective; Iqbal & Greuning, 2008 - Risk Analysis for Islamic Banks; Iqbal & Mirakhor, 2007 - An Introduction to Islamic Finance: Theory and Practice; Marliana Abdullah, Shahida Shahimi, & Abdul Ghafar Ismail, 2011 - Operational risk in Islamic banks: examination of issues; Radzi & Lonik, 2016 - Islamic Banks' Risks: It's Rating Methodology and Shariah Assessment Solutions)

In case of Islamic banks, reputational risk is very much related to SNC risk as the nature of its business is defined by Shariah principles. Any significant issues with regard to the operations of Islamic banks either in terms of SNC financial products or customer complaints may damage the reputation of Islamic banks (Azrak, Saiti, & Ali, 2016 - An Analysis of Reputational Risks in Islamic Banks in Malaysia with a Proposed Conceptual Framework). Islamic banks are exposed to Shariah-related reputational risk such as negative publicity arising out of the Shariah non-compliant of products and services (be it true or not), and could impact on their market position, profitability and liquidity (State Bank of Pakistan, 2008 - Risk Management Guidelines for Islamic Banking Institutions). In Malaysia, the Bayʿ Bithaman Ājil (BBA) cases and disputes have to a certain extent negatively impacted the image and credibility of IFIs (Hasan & Asutay, 2011 - An Analysis of the Courts' Decisions on Islamic Finance Disputes).

Hamidi (2006) found that a failure in discharging fiduciary responsibilities will result in the deterioration of the reputation of Islamic banks. Therefore, to maintain its' reputation, Islamic banks need to ensure their financial products are Shariah compliant and they must effectively discharge their fiduciary roles. Askari, Iqbal, and Mirakhor (2008) emphasize on the importance of reputation as a special valuable asset for the Islamic financial industry due to the specialized nature of its undertakings that carry additional burden of responsibilities as defined by the Shariah.

Banking reputation is the collection of the bank's image in the minds of customers or stakeholders (Hidayat (June 15, 2012), 2012 - Managing Reputational Risk in Islamic Banking). An Islamic bank must always uphold the Shariah-compliant image so that the differentiation between Islamic banking from conventional practices can be seen and felt. Consequences of poor Shariah-compliant image could be devastating and would at least undermine the reputation of the said Islamic financial institution (Izhar, 2010 - Identifying Operational Risk Exposures in Islamic Banking). Lahsasna (2014) has dealt with the topic of Shariah non-compliance risk management in great detail using empirical data samples of legal documentation from Maybank Islamic. This study is perhaps the most specific effort and detailed study in this area.

3. SNC Event at the Islamic Banking Institutions

Ullah (2014) evaluated the Shariah compliance status of the Islamic banks in Bangladesh and found that Shariah compliance status of Islamic banks in Bangladesh is in a vulnerable condition and it varies between Islamic banks. He also concluded that the Shariah non-compliance is high in investment activities due to (i) lack of knowledge, (ii) lack of sincerity, (iii) poor attention in Shariah audit and Shariah research, and (iv) lack of strong Shariah supervisory board comprising full-time skillful members. Oz et al. (2016) also made a comparable finding to Ullah (2014) on the cause of SNC event. They stated that (i) poor governance, (ii) lack of Shariah-qualified officers and (iii) inadequate control mechanisms as the main factors that trigger SNC events. They also provide some examples of SNC events/ incidents related to products of Malaysian Islamic banks based on their underlying Shariah contracts. See the table below.

Table 15: Examples of SNC Events Related to Products of Islamic Banks in Malaysia

Shariah Contract	**Description of Event**
BBA	• Commitment fees have been charged to customers for the unutilised cash line-i facility • The contract does not follow the correct sequence – i.e. the time for sale contract is prior to purchase contract. • The imposition of *taʿwīḍ* does not reflect actual cost.
Tawarruq	• The asset is sold to the customer before the bank purchased the asset from the broker/platform. • The facility is disbursed before the contract is executed. • There is no *wakālah* arrangement involved in the commodity *murābaḥah* transaction. • The price is mistakenly disclosed to the customer. • The legal document involves a provision that restricts the customer, as the purchaser, from taking delivery of the commodity. • The financing facility is used for Shariah non-compliant purposes. • There is no evidence of commodity trading.
Bayʿ al-ʿĪnah	• The two contracts involve an inter-conditionality clause to repurchase the asset. • The underlying sale contract has not been executed. (The facility has been disbursed without any sale contract being executed.) • The sequences of contracts for a cash line facility were not properly observed. • Financing is used for Shariah non-compliant purposes. • Both the APA (Asset Purchase Agreement) and the ASA (Asset Sale Agreement) were executed without subject matter.
Istiṣnāʿ	• In some legal documentation, it is found that the bank as the seller has required the customer to accept the constructed project/property under an *istiṣnāʿ* contract on an "as is, where is" basis.
AITAB (Al-*Ijārah Thumma al-Bayʾ*	• There is an error in the imposition of compensation (*taʿwīḍ*) due to late payment which does not reflect the actual cost. • Some Islamic banks still use conventional insurer as their panel for a car financing facility under Hire Purchase-I (HP-i).
Muḍārabah	• The documents contain a clause providing a capital guarantee to the capital provider. • The profit is distributed based on an indicative rate, not on the actual performance of the venture or the actual profit realised. • Client activities are proven to be Shariah non-compliant.

Source: Oz et al. (2016)

Mohammad Mahbubi Ali and Hassan (2016) and Mohammad Mahbubi Ali (2017) conducted a study on SNC events related to *tawarruq*-based products in Malaysia. They found that the key factors for SNC events are (i) lack of understanding and knowledge, (ii) inadequate control mechanism and reporting, (iii) ineffective functional structure, (iv) incompatibility of system to the execution of Islamic products, (v) incorrect document execution and sequence, and (vi) inadequate internal policies and governing rules.

ʿAbd al-Razzāq al-Ṭabtabāʾī[32] (2010), a member of the Kuwait Finance House's Shariah Committee, stated that the levels of Shariah non-compliance according to KFH's practice are divided into three categories. The first category refers to the Shariah non-compliance that nullifies or invalidates the contracts in the IFIs' dealings. This level is the most severe level of Shariah non-compliance. The second category of Shariah non-compliance refers to the elements that cause the contracts to become defective but do not nullify or invalidate them. Corrective measures can be taken and the deals can be rectified. The third category of Shariah non-compliance refers to the Shariah non-compliant elements that do not directly relate to the contracts such as the employees' apparels or dress code.

4. SNC Event Reporting

Reporting of SNC event is made mandatory in Section 28 (3) of Islamic Financial Services Act 2013. It states:
"Where an institution becomes aware that it is carrying on any of its business, affair or activity in a manner which is not in compliance with Shariah or the advice of its Shariah Committee or the advice or ruling of the Shariah Advisory Council, the institution shall:
(a) Immediately notify the Bank and its Shariah Committee of the fact;
(b) Immediately cease from carrying on such business, affair or activity and from taking on any other similar business, affair or activity; and
(c) Within thirty days of becoming aware of such non-compliance or such further period as may be specified by the Bank, submit to the Bank a plan on the rectification of the non-compliance."

Any person who contravenes this section commits an offence and shall, on conviction, be liable to imprisonment for a term not exceeding eight years or to fine not exceeding 25 million ringgit or both. The above mentioned are some of key points in IFSA 2013 which shows the importance of the Shariah compliance, Shariah certainty, responsibility, and accountability (Lahsasna, 2014 - Moving the financial industry to the next level of Shariah compliance).

Actual SNC event reporting is a serious matter from the regulatory perspective. Islamic banks shall submit the report on the SNC event immediately as and when necessary. SNC event must be tabled on the nearest date of the Shariah committee meeting or Islamic banks should ensure that it must not be later than 14 working days, whichever is earlier. Islamic banks may have to conduct special Shariah Committee meeting to abide by this requirement. The rectification plan of SNC event which has been approved by the Shariah Committee must then be approved by the BOD in its meeting (Chik, 2013 - Shariah Governance Framework- Shariah Compliance Risk Management).

5. Methodology

In the present study, interviews are considered as the main method of data collection. The interview method is applied to obtain deep insight into the subject of the study. Interview is a valuable method for collecting data in qualitative research (Mohd Tobi, 2016 - Qualitative Research, Interview Analysis & NVIVO 11 Exploration). A one-on-one interview method allows the researcher to interact with the interviewees and have an in-depth discussion with them. The researcher adopted a semi-structured interview approach to collect the data for this study. The researcher carried out qualitative semi-structured interviews with selected Shariah officers at selected Islamic banking institutions within the Malaysian Islamic banking industry. The interviewees consist of twelve (12) Shariah-related officers in the Malaysian Islamic banking industry ranging from Heads of Shariah, Shariah Review officers, Shariah Supervisory officers, Shariah Research officers, Shariah Audit officers and Shariah Risk officers [Labelled as R1 to R12]. Additionally, the focus group method is used in this study to add richness to the information obtained through the interviews. The focus group discussion was conducted on 4th April 2017 at Concorde Hotel, Kuala Lumpur. There were six (6) participants involved in the focus group discussion. All of them are Shariah officers at

[32] This is excerpted from his speech at DKF1.1, Faculty of Economics and Muamalat, Universiti Sains Islam Malaysia (USIM) in 2010. The author of this study was the translator for his speech – from Arabic to English.

the Malaysian Islamic banking institutions and one of them is a trainer for the industry [Labelled as PM1, PM2, PM3, PM4, PF1 and PF2]. The order between interviews and focus group method was sequential. This means that the researcher carried out the focus group discussion after completing the interviews.

The combination of at least two or more theoretical perspectives, methodological approaches, data sources, investigators, or data analysis methods is known as triangulation. It could increase the ability to interpret the findings of a study by decreasing or negating or counterbalancing the deficiency of a single approach (Thurmond, 2001 - The Point of Triangulation; Yeasmin & Rahman (September 2012), 2012 - 'Triangulation' Research Method as the Tool of Social Science Research). According to Piaw (2016), the triangulation method could assist a researcher to gain more in-depth understanding of the event under investigation. Some researchers view triangulation as a mechanism to ensure the interpretation of the subject matter is "rich, robust, comprehensive and well-developed" (Thurmond, 2001 - The Point of Triangulation).

5.1 Rectification of SNC Event: An Analysis of Interview and Focus Group Data

This section analyzes the rectification of the SNC event based on the interview data and focus group discussion obtained from Shariah-related officers at selected Malaysian Islamic banking institutions.

5.2 Interview

The rectification plan will only take place once the SNC event is categorized as an actual SNC event [R6]. If the SNC event is categorized as a potential event, there is a need for further research or clarification [R6]. The potential SNC event, if it is decided later as a non-actual SNC event, it may be classified as a "near miss" or non-Shariah related issue [R10].

The owner of the SNC event is the party responsible to perform the rectification and not the detector [R1; R4; R11]. In some cases, the owner of the event could also be the detector [R1]. Usually, the detector of the SNC event is not the owner of the SNC event [R4]. Every single party who was involved in the SNC event will be responsible to rectify it [R4]. Accordingly, the Shariah department is the party responsible to rectify the SNC event with the cooperation of other departments [R9]. A specific team consisting of several officers from several departments may be established to handle the rectification of the SNC event as it may involve several issues [R9]. The best rectification plan usually involves the entire bank's organization with the lead taken by Shariah Compliance Review [R12].

The rectification plan is prepared by the owner of SNC event [R1, R4, R7, R12], with the help of Shariah Review [R11; R12] or the Shariah Review unit itself [R2]. Shariah Advisory may also provide advice for the rectification [R7]. The rectification plan is divided into two types: interim solution and permanent solution [R4]. The rectification plan must be approved by the Shariah Committee and BOD [R9]. The owner of the SNC event shall obtain Shariah advice from Shariah Review prior to the implementation of the approved plan [R9].

The party which is responsible to monitor the rectification process of the SNC event until it is closed is the Shariah Risk or Operational Risk Committee [R1, R3] or Shariah Review [R2; R4; R12] or the detector of the SNC event: it could be mainly Shariah Review or Shariah Audit [R5, R6] or Shariah Advisory [R7]. However, Shariah Risk is the one who is responsible to report the rectification plan to BNM [R6; R8; R9; R12].

The rectification process must be approved by Shariah Committee and BOD [R11; R12] and it usually involves: income purification or cleansing [R1-R12], penalty [R5], channeling to charity [R8; R9], re-execution of contract [R9; R10; R11], returning of certain amount to the customer [R9; R10], notification to the customer [R11] and improvement to the system [R1; R10]. In summary, the rectification plan consists of preventive action, corrective action, income purification and punishment [R12].

"Upon confirmation by the BSC (Bank's Shariah Committee) on the (Shariah) non-compliance, business unit (owner of SNC event) shall prepare the rectification plan and submit to SCRU (Shariah Compliance Review Unit).

The rectification plan shall consist of the following:

(a) Preventive action e.g. revise policies & procedures,
(b) Corrective action e.g.re-execute the aqad,
(c) Purification of SNC income i.e. channel to charity, and

(d) Action taken against staff (who caused the SNC event) e.g. warning letter by GHR (Group's Human Resource)." [R12]

If the SNC event occurred for the first time, the Shariah Committee may deem it as a mistake or operational issue [R11]. However, if the SNC event is a repeated case whereby the Shariah Committee has made a prior resolution for a similar event, the rectification could be carried out without new approval by the Shariah Committee [R9].

"When there is a recurring SNC event where the rectification plan was approved by Shariah Committee and BOD, the (earlier) rectification plan becomes the precedent, and may be adopted for implementation (of the rectification) without fresh approval by (Shariah Committee and BOD)."[R9].

5.3 Focus Group

The two main components of SNC event rectification are corrective and preventive actions [PM1]. Purification of income is a part of corrective action and preventive action is meant to avoid recurrence in the future [R1]. These two rectification actions must be informed to BNM through ORION as part of the rectification plan [PM2]. SNC event could be reversible or non-reversible. Reversible or rectifiable SNC event which effects could be fully reversed and rectified may not be considered as SNC event [PM2]. Based on another perspective, a reversible SNC event should be considered as SNC event since rectification is needed for the event in the first place [PM1].

6. Findings

Rectification of SNC event refers to measures adopted by the Islamic banking institutions to rectify/ correct the SNC event after it is detected and identified. This is the most important stage in managing the SNC event. Based on the previous discussion, the researcher concludes that rectification of SNC event involves five (5) main elements:

i. Regulatory Reporting
ii. Shariah Deliberation and Decision
iii. Corrective Action
iv. Preventive and Control Measures
v. Punitive Action

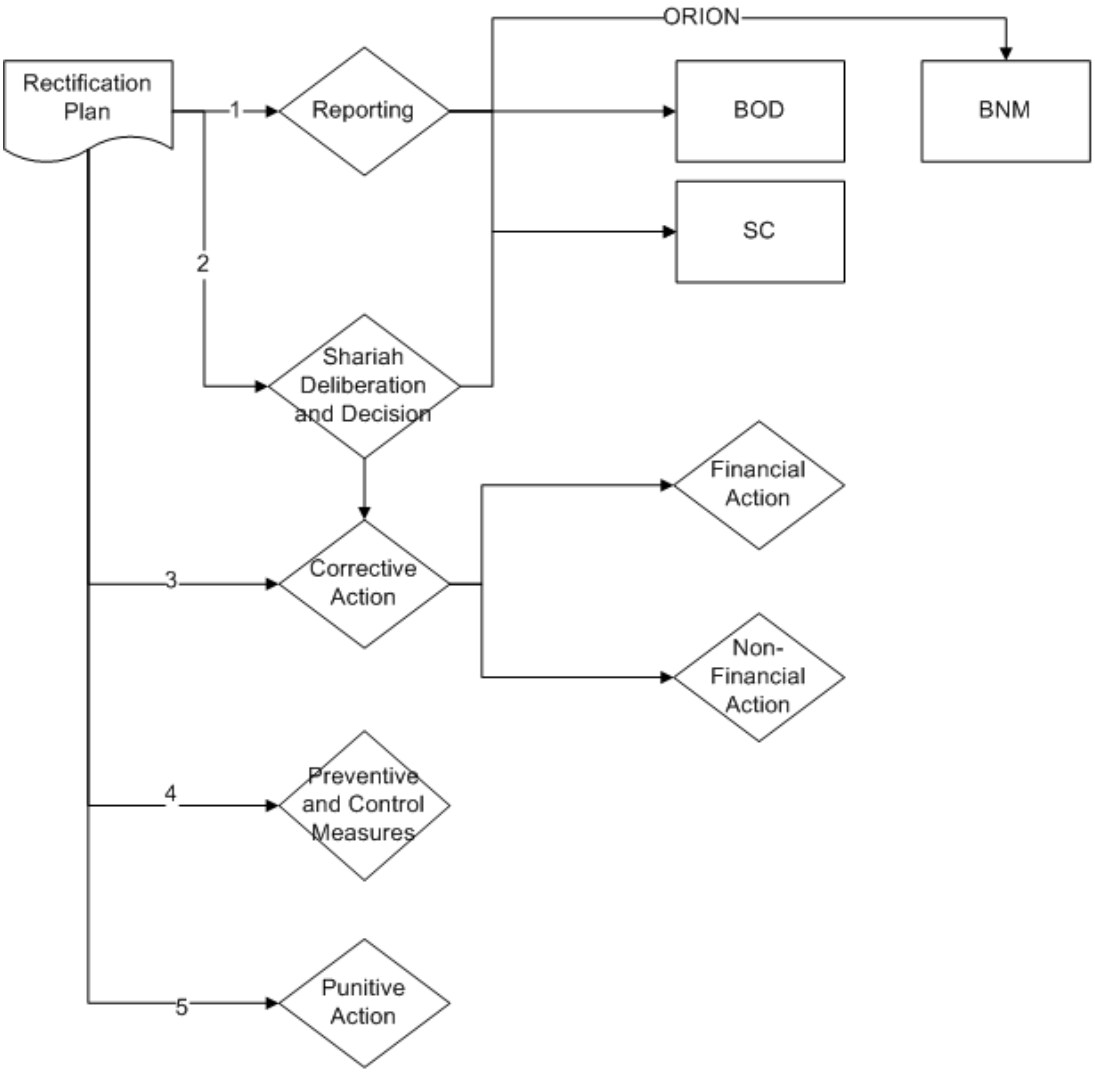
An IBI must report the SNC event internally to the bank's Board and Shariah Committee. The regulatory reporting to BNM through ORION must be carried out within specific time frame. BNM (2016b) requires the bank to disclose additional information regarding: (i) nature of SNC activities, (ii) amount of SNC income, (iii) number of SNC events occurring during the year, and (iv) rectification process and control measures to avoid recurrence of such SNC event or activities.

Shariah Committee must deliberate the case and make Shariah decision on the event. The event could also be a repeated case where Shariah decision has been made. The SNC event could be decided as "actual SNC event" or "potential SNC event". The "potential SNC event" will be closed as actual or near miss or not related with the Shariah. BNM's ORION also requires the bank to disclose the main underlying contract and the supportive contract involved in the SNC event. From the Shariah perspective, the contracts status should also be determined whether they are invalid (bāṭil), corruptive (fāsid) or suspended (mawqūf).

Then, the corrective action has to be determined. The corrective action may involve financial action and/or non-financial action. The financial corrective action relates to the recognition of SNC income and its purification. The ineligible income may be refunded to its owner or channeled to charity. The non-financial corrective action could be the re-execution of contract(s) and improvement made to the contract features.

The bank should also consider the preventive and control measures for the SNC event to mitigate the reoccurrence of the same case. The bank should identify the root-cause of the SNC event for the purpose. In some cases, the bank may consider punitive actions on the parties who cause the SNC event to take place. In most cases, Shariah Review and the SNC event owner are the two main parties responsible for the rectification of the SNC event. Shariah Risk monitors the SNC event rectification and prepares the reporting to the internal and external authorities. The following figure illustrates the rectification process of SNC event in brief.

Table 16Figure 16: Five (5) main components of SNC events rectification



Source: Author's Own

7. Conclusions

Two main stages of SNC events management are detection and rectification. Detection of SNC events is the first stage of ex-post Shariah compliance function. However, the rectification stage is the most significant stage in the management of SNC events. Comprehensive rectification of SNC events could help the IBIs to control and mitigate the negative implications of SNC events. The rectification stage of SNC event consists of: (i) regulatory reporting, (ii) Shariah deliberation and decision, (iii) corrective action, (iv) preventive and control measures as well as (v) punitive action, if deemed necessary. These five components of rectification represent a comprehensive framework for dealing with SNC event.

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Transitioning Towards Malaysian Private Entity Reporting Standard (MPERS) for SMEs in Malaysia: Challenges and Way Forward

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Abstract

Small and medium-size enterprises (SMEs) have an important position in the world wide economy. The paper aims to highlight having at basis the research papers problems connected the new private entity reporting standard introduced in Malaysia and the efforts that must be made for the bettering of financial communication of that particular companies. The usefulness of this new reporting seeks to obtain common language in reporting financial data, capable to be used by readers in the same meaning and meeting the needs for harmonization of financial and accounting information to all participants. This paper examines the possible impacts of transitioning towards new reporting standard, Malaysia Private Entity Reporting Standard (MPERS) and data were gathered using the semi structured interview studies with the audit partners and practitioners who directly involved with the MPERS implementation. The paper further discussed the opportunities and challenges faced by the Malaysian SMEs with the transition process of reporting standard. The study seeks to explore the development of MPERS in Malaysia, with emphasis on the current position and the implications of recent and future changes. The results reveal that SMEs facing few challenges such as disruption on the financial data routine, technical fair value measurement, rising compliance costs and the readiness of SMEs in implementing the MPERS. These findings indicate that the authorities need to be more aware of the impact of transitioning with the minimal adverse impacts to the SMEs business operations.

Keywords: SMEs, financial reporting standard, challenges, opportunities, Malaysia

1.0 Introduction

Small and Medium Enterprises (SMEs) in Malaysia have very significant role in the development of economy and this role has seen as the backbone of the industrial development in the country (Abd Razak et al., 2012; Abebe, 2014; Heimonen, 2012; Jamak et al., 2014). In Malaysia, SMEs represent 99.2% or 518,996 of the total establishments in three key economic sectors, namely manufacturing, services, and agriculture. In terms of location, the majority of SMEs located on the west coast of Peninsular Malaysia are concentrated in the Central Region (Federal Territory Kuala Lumpur and Selangor), which accounts for 37.1%, followed by the states of Johor (10.4%), Perak (7.3%) and Perlis (1.1%). The other 44.1% of SMEs are located in 9 other states (Zin et al., 2018).Considering the significant roles of SMEs in economic growth, the Government of Malaysia has provided numerous business support services through various agencies to support SMEs activities (National SME Development Council, 2016). Up until now, billions of Ringgits have been spent under programmes with the aim of supporting the business growth of SMEs.

1.1 Problem Statement

However, it is getting to be tough year for SMEs in Malaysia to cope with the effects of the Goods and Service Tax (GST), a slowing economy, weak Ringgit, new minimum wage and increase foreign worker levy, they now have to comply with a new financial reporting standard which called Malaysia Private Entity Reporting Standard (MPERS) as mentioned by Zainol and Soon (2017).The framework which is effective 1st January 2016, was issued by the

Malaysian Accounting Standards Board (MASB) on Feb 14, 2014, to replace the outdated Private Entity Reporting Standard (PERS), which had been in force since 1998.

Private limited companies however have a choice of complying MPERS or the full Malaysian Financial Reporting Standards (MFRS) which is the typical domain of listed companies but migration from PERS is mandatory. However, its timing could not have been worst. According to the SME Annual Report (2016/2017), these companies comprise of 98.5% or 645,136 of the total number of business establishments in the country and a significant number have reported a 30-50% drop in sales in the past year.

Industry players and experts in the financial service industry, however mentioned that MPERS is bringing about necessary change as it is a step in the right direction to improve financial reporting by private entities. This will ensure local businesses can stand shoulder to shoulder with their peers in regional and global markets in terms of comparable financial statements, which will also open up more financing opportunities outside the countries. DeZoort et al., (2017) has highlighted that the new financial reporting framework specifically designed for SMEs are in response to the cost and benefits in producing high quality of financial information to the users.

Those familiar with the industries highlighted that there are inevitable costs in compliance. For instance, Azmi et al., (2016) mentioned that for a business, the compliance costs include cost of collecting, remitting and accounting for tax on profits business and on the wages and salaries of its employees together with the costs of acquiring the knowledge to enable this work to be done including knowledge of their legal obligations and penalties is believed there will be minimal effort on smaller companies, with medium sized ones bearing most of the impact. The impact will vary depending on the size and complexity of the transactions undertaken by these private limited entities.
In relating to the financial reporting requirement do creates differential reporting to the SMEs in Malaysia. This means that the reporting requirements for private entity companies without public accountability are different to the reporting requirements for public listed companies. The objective of this study is to examine the development of MPERS in Malaysia, with emphasis on the current position and the implications of recent and future changes. Section two of this paper provides discussion on the differential reporting between PERS, MPERS and MFRS. This is followed by section three that explain on the research methodology. The findings related to the challenges in transitioning towards MPERS for SMEs in Malaysia are discussed in Section Four. Section five provides a few recommendations and conclusion to this study.

2.0 Differential reporting of PERS, MPERS and MFRS

In February 2014, the MASB issued Malaysian Private Entities Reporting Standard (MPERS) and this sets a new milestone for financial reporting of private entities in Malaysia. MPERS is based substantially on the International Financial Reporting Standard for Small and Medium-sized Entities (IFRS for SMEs) issued by the IASB in July 2009. The new reporting framework, known as the MPERS Framework, is effective for financial statements beginning on or after 1 January 2016, with early application permitted. Private entities now have a choice of continuing with the existing Private Entity Reporting Standards (PERS) Framework, or apply the Malaysian Financial Reporting Standards (MFRS) Framework (mandatory for non-private entities, except transitioning entities), or by 1 January 2016, mandatory migration to the new MPERS Framework. As the requirement for first-time adoption of MPERS is retrospective, it is important the private entities prepare in advance if they have to migrate to the MPERS Framework or the MFRS Framework in the near future. A common question that private entities would ask is how far-off or how different is the current PERS Framework when compared with the newer MPERS Framework or the MFRS Framework.
In October 2015, the MASB issued Amendments to MPERS, which are equivalent to the Amendments to IFRS for SMEs issued by the IASB in May 2015. The Amendments make some minor changes to the Standards in MPERS, provide more clarifications or guidance on the requirements and align some standards to those of the MFRSs. The Amendments are effective for financial statements beginning on or after 1 January 2017, with early application permitted.
While these differences cannot be covered comprehensively here, some of the significant areas of changes and their impact to the financial statements are illustrated in Table 1 below.

Table 1: Significant areas of changes to MPERS

	PERS	MPERS	MFRS
Property, Plant and Equipment (PPE)	Subsequent expenditure on the asset can be capitalised if it enhances the asset beyond its original performance. Any replacement parts or components should be expensed.	Replacement of significant parts or components can be capitalised so long as the old components or parts are derecognised.	Replacement of significant parts or components can be capitalised so long as the old components or parts are derecognised.
Goodwill on consolidation	Subsequent to initial recognition, Goodwill is measured at cost less impairment and amortisation (amortisation is optional).	Subsequent to initial recognition, Goodwill is measured at cost less impairment and amortisation (amortise over maximum 10 years).	Subsequent to initial recognition, Goodwill is measured at fair value and not amortised as it has indefinite life.
Investment Property (IP)	IP can be classified as PPE (measured at depreciated cost or depreciated revalued amount) or as a long-term investment (measured at cost or revalued amount).	IP is measured at fair value without undue cost or effort or if this is not possible then IP measured at depreciated cost model.	IP can be measured at fair value or depreciated cost model.
Research and Development (R&D)	R&D is capitalised upon meeting recognition criteria.	R&D and Internally generated assets are expensed off in Profit and Loss.	R&D is capitalised upon meeting recognition criteria.
Financial instruments	No equivalent standard.	There are 2 measurement models for financial assets and liabilities.	There are 4 measurement models for financial assets and liabilities.
Borrowing Costs	Can be capitalised as asset cost if related to that qualifying asset.	Expensed off in Profit and Loss.	Must be capitalised as asset cost if related to that qualifying asset.
Related Parties' Balances and Transactions	No disclosure is required.	Disclosure is required in the Notes to Financial Statements.	Disclosure is required in the Notes to Financial Statements.

This analysis reveals that there are not that many differences between the PERS currently used by private entities and the MPERS or the MFRS. MPERS uses more cost-based models for measurement of assets and liabilities, and in areas where fair value measurement is relevant, it is only required if the fair value can be measured reliably without undue cost or effort, or as an option. MPERS also provides greater flexibility on the choice of measurement models in some areas and it is less rule- based. The amended re-introduced the revaluation model for PPE accounting, has further aligned some standards in MPERS with the MFRSs and makes more extensive use of the "undue cost or effort" exemption. Thus, it will not be difficult or onerous for most private entities to make a transition to the MPERS framework.

MPERS is an adaptation of the International Financial Reporting Standard for Small and Medium- sized Entities issued by the IASB in July 2009. This IFRS caters for the financial reporting of small and medium-sized entities that typically do not have complex business transactions and instruments. The requirements and guidance in MPERS would generally be sufficient to small and medium-sized private entities in Malaysia. MPERS does not come with detailed application guidance in some complex areas. Large private entities may need to refer to the guidance in the MFRS framework for their accounting requirements. For some large private entities, entities with significant research and development activities (including IT and software development activities), entities that have capitalised borrowing costs previously and entities with significant amount of purchased goodwill, they may find adopting MPERS a disadvantage because the option of capitalising development costs or borrowing costs has been removed and purchased goodwill must be subject to annual amortisation. They may opt to migrate straight to the MFRS framework.

The last PERS Standard, MASB 32 Property Development Activities, was issued in the year 2003 (effective 1 January 2004). Since then there have been no new PERS Standards issued by the MASB. Although there have been significant changes, developments and improvements to the MFRS in the last 11 years, the PERS standards have not been updated to incorporate these changes. There is thus an 11-year gap between PERS and the newer reporting frameworks. For private entities that continue to use PERS, the gap will only become wider in the future unless new PERS Standards are issued and the existing PERS Standards are regularly updated or improved.

By early adopting MPERS, a private entity would have the benefit of a quantum leap to bring its financial reporting to be at par with the current global financial reporting, apart from other benefits such as simplified treatments and presentation, choices in accounting policies and less rule-based requirements. And if a private entity prefers cost models, these are readily provided in MPERS.
Adoption of a new reporting framework will inevitably require costs. Most of the extra costs are likely to be one-off learning cost to familiarise and understand the new requirements. For some entities and in some areas, such as financial instruments, business combinations and related party disclosures, accounting systems and processes may need to be updated. In employee benefit accounting, if an entity adopts a defined benefit plan for the first time or makes improvements to an existing plan, there is bound to be catch-up past service cost.

3.0 Research Methodology

3.1 Sample

According to Corbin and Strauss (2008), data collection using theoretical sampling can help the researcher to identify concepts and themes pertinent to the research problem. In this study, theoretical sampling was used to select the interviewees using two sequential phases. In the first phase, targeted groups of interviewees were identified (practitioners). The interviews targeted: the audit partners and practitioners who directly involved with the MPERS implementation. These targeted people are beneficial to the study as their insights in this new development and recent changes on the SMEs framework will help to evaluate the challenges faced by the SMEs as a whole.

It is, however, acknowledged that a methodological shortcoming of this empirical phase is that, the interview participants may be tempted to favourably position themselves by providing 'the right answer'. The interviewee's responses may not therefore necessarily reflect the actual situation on the ground, but merely position that the participants wish to advance. Conceding this methodological shortcoming, the analysis and the description of the interviewees' responses in this paper phase maintains the anonymity of interview participants to reduce the impact of possible participant bias. In this regard, the interview participants were not identified in which organisation they are currently attached with. The manner in which the data have been recorded and analysed is not intended to definitely quantify political connections influences in the corporate sector.

In the second phase, after the targeted groups were identified, the researcher communicated with the targeted candidates to check their availability. The researcher used telephone and email to communicate with them, and provided an offer letter explaining: (i) the objective of the study, (ii) the purpose of the interview; (iii) information about the researcher and the university; (iv) the time required for the interview and (v) how confidentiality would be ensured. These procedures aimed to increase credibility and encourage willingness from the practitioners to participate in the study (Bailey and Peck 2013).

3.2 Data collection and Analyses

Face to face semi-structured interviews were employed in the current study, following (Horton et al. 2004) in order to allow the interviewees to explain their thoughts and to highlight any areas of particular interest they might have, as well as to enable certain responses to be explored in greater depth. A semi-structured interview is preferred as it gives the researcher more control over the timing, content and sequencing of questions. In addition, having the researcher as the interviewer allowed the improvisation of suitable follow up questions and the interviewees a degree of freedom to explain their views.

3.3 Data analyses

The analysis of interview data involves a description of the interviewees and the firms, to which they are attached, follow by an analysis of the interviewees' views on relevant themes. The steps involved in the analysis of the interview data are divided into few processes such as transcription, coding and interpretation process. In the transcription process, the interview records were transcribed word for word. The description process involved a detailed rendering of information about the backgrounds of the interviewees, such as their age, education background, and current position, number of years in the position and the company, and their past experience.

Data from the interview transcripts was then classified and coded according to the initial themes and categories. This is to allow the researcher to become familiar with the data to gather a general idea of the

interviewees' perceptions of on the MPERS implementation. The initial themes or categories are related to the key issues that were investigated in relation challenges faced by the SMEs in implementing the MPERS.

After the manual coding was complete, all of the transcripts were uploaded into Nvivo (a computer software package for qualitative data analysis) and codes were applied electronically to the transcripts. The use of the qualitative software package provides advantages to the research as it reduces researcher and reporting bias (Abernethy et al. 2005) and adds validity to the research (Westermann et al. 2014). This is due to the package's ability to ensure that all data are coded and are easily retrievable, which reduces the amount of time spent and potential omissions. In addition, it also provides ease of data comparison and movement between different levels of analysis (Abernethy et al. 2005;Miles and Huberman 1994). However, the programme was not used to automatically generate the analyses. In the interpretation stage, data under each key theme is re-read carefully to extract meaningful summaries of issues. In the integration process, results from the interpretation of themes are compared with the quantitative findings to identify new insights and extensions.

3.4 Background Information of the Interviewees

A summary of seven (7) interviewees' backgrounds, including age, education, current and previous positions, and years of employment in their companies is shown in Table 2. From these tables, it can be seen that the majority of the interviewees are aged 33 years old and above, from which it can be inferred that they are relatively experienced individuals. Nearly all have a degree at bachelor's level or higher, with a few of them having professional qualifications. For this group, based on information about their previous positions, their professional experience implies their personal values, knowledge and skill base have been completely shaped by their educational background. About one third of the interviewees have been in their positions for five years or more and the majority of them have worked for the same company for more than five years. Positions held by the interviewees prior to joining their respective companies, along with the other background information just discussed, indicate that the interviewees have a significant amount of knowledge of and experience with the issues examined in this study.

	Name	Interviewee Designations	Age	Working Experience	Academic Qualifications
1	AP 1	Audit Partner	39 years old	16 years	ACCA[33],MIA[34]
2	AP 2	Audit Partner	43 years old	19 years	ACCA,CPA[35]
3	AP 3	Audit Partner	38 years old	16 years	ACCA,MIA
4	AP 4	Audit Partner	47 years old	18 years	ACCA,MIA
5	Practitioner (P1)	Firm Technical Director	30 years old	7 years	ACCA,MIA
6	Practitioner (P2)	Policy Manager	37 years old	10 years	ACCA
7	Practitioner (P3)	SME Association Member	35 years old	8 years	Masters

Table 2 : Respondents of Semi-structured Interviews

Notes: AP = Audit Partner, P= Practitioner

The following sections present the results of the interviews.

[33] ACCA is the Association of Chartered Certified Accountants and the global professional accounting body offering the Chartered Certified Accountant qualification.

[34] Malaysian Institute of Accountants (MIA) is the umbrella body for the accountancy profession in Malaysia. It was established under the Accountants Act, 1967, to regulate and develop the accountancy profession in this country.

[35] Certified Public Accountant (CPA) is the title of qualified accountants in numerous countries in the English-speaking world.

4.0 Findings: Challenges in transitioning towards MPERS

However, irrespective of reporting standard, SMEs face common problems in respect of transitioning towards the MPERS. One of the audit partner (AP1) mentioned that transactions undertaken by most micro enterprises are relatively straightforward and they do not enter into complex contractual agreements. Thus, for this business, accounting treatment for such transactions and contracts would normally be the same whether under MPERS or PERS. Compared to MFRS, AP1 believes disclosure requirements under MPERS are significantly less comprehensive, fewer accounting policy choices and disclosures. This should go down well with SMEs. Having said that, MPERS could result in a change in an SME's accounting policies, especially in areas where there are no equivalent requirements under PERS. These changes range from presentation of financial statements to affecting judgements for financial impacts arising from the transition.

4.1 Disruption on the financial data routine

According to an opinion by one of the practitioner, P2 (Policy Manager) answered that there will likely be additional costs for medium sized companies, such as training staff and potential increase in audit consultation fees.

'They may also need to incur additional valuation fees to revalue some of their assets and liabilities'.

Moreover, many private entities today rely heavily on accounting systems or enterprise resource planning (ERP) systems, which may potentially require technical changes and eventually additional cost need to be bear by the SMEs. This is especially referring to the accounting systems where the functional currency is not set in ringgit Malaysia (RM) as an example of systems that requires changes to record transactions in its functional currency under MPERS. This is because the implementation of the ERP systems meeting the accounting systems as required by the accounting legislation which consistent with study conducted by Ruivo et al., (2014) that more than 90% of SMEs firms uses ERP to handle the accounting procedures as due to the fact that Portugese SMEs have been pressured to transform their accounting principles to meet the IFRS as adopted in Europe.

However, this is contrast with PERS relatively straightforward stance, where all transactions are measured in ringgit regardless of the primary economic environment of the private entity. Functional currency means the currency of the primary economic development in which a business operates. With the implementation of MPERs, SMEs are allowed to translate only their foreign operations based on 'closing rate translation method'. Under this method, translation of foreign operations is made at the end of a period. Thus, additional costs will come not only from MPERS's implementation, but also from the domino effect on business operations. This is highlighted by another interview with AP2 that SMEs do well realise that the shift to MPERS does not only impact the disclosure portion of the financial statement, but also day to day operations and way of capturing financial data as well.

Considering the accounting for innovative activities of business enterprises, the major changes for the business normally is in the form of investment towards technology or system which can alter firm's products, operations and output. The arguments on the disruption of financial data routine is consistent with study by Lev and Zarowin (1999) mentioned that it can caused failure to the accounting transactions for instance intangible assets mainly due the mismatching of costs with revenues. This in turns will decrease the usefulness of financial information to the investors. Given these concerns with reporting deficiencies, the SMEs may potentially in resistance to incur other costs to change the existing accounting system.

4.2 Fair Value Measurement for Certain Industries

In the areas of fair value measurement another interviewed conducted with one of the accounting firm technical director (P1) mentioned,

'In areas where fair value measurement is relevant, for example in the case of investment property and biological assets, fair value is required only when such assets can be measured reliabily without undue cost or effort. The framework also introduces a hierarchy to determine and measure fair value and does not require the use of a professional valuer'.

The transitioning towards MPERS will be most affecting the property developers and plantation companies. This is due to the significant differences between PERS and MPERS, with the latter requiring non capitalization of both the borrowing and development costs, but the impact of the change will depend on the business transactions. Under MPERS, SMEs have a choice of adopting either capitalized or expensed borrowing costs. If a property developer borrows significant amounts to acquire land and fund development activities, its bottom line will be significantly affected. Borrowing cost is defined as cost directly attributable to the acquisition, construction or production of a 'qualifying asset' which concludes: interest expense, finance charges and exchange differences arising from foreign currency borrowings. It is also uncommon for companies to take loans for the construction of factories and buildings. However, the new reporting standard states that all interest costs incurred need to be expensed and cannot be capitalized as part of the costs of these assets under construction. Thus, for property players with significant investment properties, the MPERS can be an expensive compliance requirement as the SMEs will likely to have engaged the services of professional valuers to determine the fair values of their investment properties. Compared to listed companies, they have an accounting policy choice of measuring their investment properties at cost or fair value and for SMEs do not have the choice.

Plantation companies will be required to measure all their biological assets at fair value for each reporting date, with fair value changes taken to profit or loss. This is a problem as Malaysian companies are generally adverse to the idea of measuring their oil palm trees, rubber trees, fish, prawns and chickens at fair value. Ironically, the listed plantation companies applying MFRS do not have to fair value their bearer biological assets such as oil palm trees as they are required to measure such trees at cost or at valuation. The cost model option is not available to SMEs and has put SMEs at more onerous situation than listed plantation companies.

In addition to that, SMEs with significant amounts of intangible assets or goodwill will also be affected by the change, as these will normally have to be amortised over 10 years and can be a nightmare to their bottom line. Amortisation is a routine decrease in the value of an intangible asset or the process of paying off a debt through regular payments.

The issues are consistent with the arguments discussed by Pacter (2007) on the problems in facing inconsistent goals between investors for public capital markets and also the users of the financial statements of SMEs which do not have the similar needs but rather focused on shorter term cash flows, liquidity and solvency issues and thus reflecting that changes in full standards impose a burden on SME preparers. The similar issues could be raised in the case of transitioning PERS to MPERS on how to meet the user needs while balancing costs and benefits from a preparer perspective.

4.3 Rising Compliance Costs

Compliance with the MPERS creates barriers especially effective January 1,2013 SMEs with more than five employees had to pay a minimum wage of RM900 and RM800 per month in the peninsular, and Sabah and Sarawak, respectively. However, SMEs were given blanket deferment of the minimum wage implementation for foreign workers until December 31 of the same year. In early 2014, smaller companies experienced the full impact of the minimum wage. The Malaysian Employers Federation mentioned that SMEs labour costs increased by 40-60% and overall costs by as much as 10%. Following to that, higher overheads in the form of increased electricity tariffs, transportation and raw material costs as well as subsidy cuts, the SMEs had to contend with a new challenge looming over the horizon which is the Government Service Tax (GST) implementation. GST first mooted in 2009, replaced the sales and service tax (SST), was scheduled to be implemented in 2011 but was repeatedly put off until April 2015.

According to one of the respondent, the uncertain implementation timeline, confusion on the mechanics of the tax system and lack of knowledge on necessary GST processes hampered adoption among SMEs. In consequences, small companies grappled with ensuring sufficient time and resources to meet compliance costs specifically in replacing outdated technology with the right software and training employees to understand the new processes.

4.4 Readiness of SMEs

The debate on the practicality and necessity of MPERS is already history and it is a mandatory migration for private entities especially SMEs. The move to a more up to date and acceptable financial reporting framework is encouraging but recognizing implementation issues and managing them upfront will help ensure a smoother

transition. The technical issues will arise as it will be a big challenge to ensure financial statements are comparable among SMEs as there must be consistency in application and implementation of MPERS's requirements. A smooth transition is not expected owing to a lack of preparation by private entities as mentioned by one of the audit partner (AP4) during the interview conducted. The framework come to the effect early 2016, it requires companies to have retrospective prior year figures for comparison. The implication here is that they will need to convert 2015 figures in accordance to MPERS to enable this comparison for 2016's financial statement. Hence, the urgency is for private entities to prepare for MPERS early.

The issue of implementation is further complicated by the mindset of private entities, which may not be acknowledging the urgency to start the transition process and may even disregard the January 1, 2016 enforcement date as they think there is still one year to go until December 31, 2016.

5.0 Recommendations and Conclusions

The study seeks to explore the development of MPERS in Malaysia, with emphasis on the current position and the implications of recent and future changes. The results reveal that SMEs facing few challenges such as disruption on the financial data routine, technical fair value measurement, rising compliance costs and the readiness of SMEs in implementing the MPERS.

The researcher recommends that, as a means of motivation, the authorities should design specific SMEs accounting template in practice as a strategy to reduce the technicalities involved in maintaining accounting records and also make the whole process simple and reduce the cost.

The government should put in place a regulatory body to ensure that SMEs keep proper books and prepare final accounts. This will not only ensure the proper declaration of income and increase tax revenue to the government but also make available proper data for national income accounting which usually influences major government policies. To the extent that such information is required by business owners and government, the necessary legal instruments and proper monitoring must be in place to ensure compliance.

The transitioning process towards MPERS for SMEs will be a big impact in light of the rapid changes in the local and global economic environment however the change to the new reporting standard is a minimum requirement for doing business moving forward. Based on the above responses and evaluation on the MPERS implementation it can be more or less concluded that the majority of SMEs are not fully ready for MPERS in which why the SMEs association and the government has embarked on a nationwide programme to educate SMEs on MPERS. Similarly, the Malaysian Institute of Accountants (MIA) has implemented initiatives to boost awareness, as well as training and support to their members to ease the implementation woes.

It is important for SMEs to apply accounting standard that will help them to reduce their compliance costs and remove uncertainties that affect their cost of capital. This is because it will make cross border trade, investment and capital allocation much easier. With the adoption of MPERS, the financial statements of private entities will meet international standards and owing to the similarities between MPERS and IFRS for SMEs except the requirements on property development. The comparability is vital for private entities looking to reach beyond Malaysia's borders as financial institutions and venture capital firms are typically multinational operations which rely on financial statements in making lending decisions and establishing terms and interest rates.

The implementation of IFRS for SMEs as an international recognized framework and the MPERS which is almost identical for the preparation of financial statements is to ensure that lenders, investors and other stakeholders receive high quality financial information in order to help them to make the decisions. In addition, there are many SMEs have outside investors who are not involved in the day to day management of the entity. Global accounting standards for general purpose financial statements and the resulting comparability are especially important when those outside investors are located in a different jurisdiction. Therefore, it is important and relevant for private entities in Malaysia to adopt a global financial reporting language that is up to date and has been adopted by other countries to gain access to a wider market for their financing needs.

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Does Corporate Social Responsibility Influence Takaful Agency's Organizational Performance?

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1. Introduction

Although the Takaful industry has seen double-digit growth since 2010, but it is reported that the industry still suffers from a lack of market penetration, and still underperforms (Halim, 2012) Even, Bank Negara Malaysia reported that large potential Takaful market still remain untapped to its fullest (Bank Negara Malaysia, 2001). In addition, recent Ernst & Young Takaful Report 2012 showed that current Takaful market share in Malaysia and GCC countries stands only at 10% and 15% respectively which is lesser than the industry's potential as a whole. Thus, there have been calls for Takaful industry to apply societal, entrepreneurial, and marketing concept to make the industry more competitive (Halim, 2012; Sharif, 2012). According to Askari et al., (2010) the Islamic financial system consists of several components namely Islamic banking, Islamic insurance (Takaful), Islamic capital market, and other non-bank financial institutions. The formation of Islamic financial institutions and system including Takaful is a "back-to-religion" signal in Muslim world who believe that one's daily life must be in accordance to Shariah (Billah, 2007). Despite of many Islamic finance studies have been conducted, most studies are conducted in the context of Islamic banking (Osman, 2011) and empirical Takaful research is still limited (Abdul Hamid and Othman, 2009). Moreover, most Takaful studies are exploratory study (Farooq et al., 2010) and more conceptual in nature (Abdul Hamid and Othman, 2009).

This research will study the concept of corporate social responsibility (CSR) which is also known as social responsibility (Arnaudov and Koseska, 2012) in the context of Takaful industry in Malaysia as Chapple and Moon (2005) argued that relatively little research on the concept has focused on companies in Asia. From the Islamic point of view, there is a similarity between Takaful concept and social responsibility (Yaacob and Abdul Ghani Azmi, 2012). The foundation of Takaful concept is relationship or brotherhood where it strongly encourage community's benefit (religion, intelligence, life, honor, dignity and property) in fulfilling the Maqasid al Shariah (Yaacob and Abdul Ghani Azmi, 2012). This topic has attracted many researchers to study corporate social responsibility (CSR) either from Islamic point of view (Siwar and Hossain, 2009) or other perspectives (Carroll and Buchholtz, 2000; Maignan and Ferrell, 2004). Another growing issue in CSR topic is the study of the construct and business performance relationship which produces disparity findings (Wickham, 2006). According to Goll and Rasheed (2004) CSR and performance research is context dependent study and proposing environment as contextual variables that moderate the relationship between the constructs may contribute to a better understanding of the constructs. Therefore, it will be another research gap to be fulfilled in the study, where the relationship between CSR and business performance in the context of Takaful agency in Malaysia will be investigated by proposing the role of environment in moderating the relationship between the constructs.

2. Literature Review

Takaful concept

Technically, Takaful comes from an Arabic word of "kafala" which means to guarantee, to look after or trust (Abdul Hamid and Othman, 2009). Literally, "Takaful" is derived from adverbs "takafala" which means "looking after one another" (Abdul Hamid and Othman, 2009). Bakar (2000) asserts that, Takaful is different from conventional insurance because from Takaful concept point of view a company is not the 'insurer' insuring the participants but the participants are actually mutually insuring one another and this is the very essence of the word Takaful in Arabic.

Corporate Social Responsibility (CSR)

The concept of corporate social responsibility has been widely discussed in the literature but it's generally accepted definition is still debatable (Jamali, 2008). This is because the concept has been conceptualized from various angle McDonald and Lai (2009), and cover broader perspective which are economic, legal, ethical and philanthropy (Carroll, 1979). Among earlier definition comes from Bowen (1953 p.6) who defined CSR as:
"the obligations of businessmen to pursue those policies, to make those decisions, or to follow those lines of actions which are desirable in terms of the objectives and values of our society".

Organizational Performance

The mutually agreed definition of performance is yet to be found (Andersen, 2010), because it is a multidimensional concept (Lumpkin and Dess, 1996), and has been conceptualized from divergent perspectives (T. Ramayah et al. 2011). Andersen (2010) categorizes performance in terms of what is being measured and how it is being measured.

Generally, there are two approaches in measuring performance: objective and perceptual (subjective) approach (Andersen, 2010). Many studies have found the perceptual performance of a company is positively related to actual performance (Dess and Robinson, 1984; Golden 1992). In the absence of suitable objective measures, perceptual measure is suggested (Day and Westley, 1988).

Corporate Social Responsibility and Organizational Performance

Research works that study corporate social responsibility and business performance relationship are rapidly growing (Wickham, 2006). McWilliam and Siegel (2000) suggested two types of business performance in corporate social responsibility study; short run and log run profitability. Generally, there is a mixed finding of corporate social responsibility and performance research for example several studies have shown a positive correlation between corporate social responsibility and business performance (Luo and Bhattacharya, 2006). However, other researchers found that the adoption of corporate social responsibility is important but it leads to negative business performance (Qu, 2009), and even no relationship exists between the constructs (Aupperle et al., 1985).

The Moderating Role of External Environment

The study on external environmental concept on an organization's strategic choices is widely researched in the literature Boyd et al., (1993), and it is considered as one of the important contingencies in organization theory and strategic management (Child, 1972). Environmental complexity and volatility influence organizational decision making May et al., (2000), and different organizations are affected by different numbers of environmental factors that are uncertain, complex, and dynamic.

Hypotheses

H1: Corporate social responsibility exert positive influence on organizational performance of Takaful agency.

H2: External environment moderates the relationship between corporate social responsibility and organizational performance of Takaful agency.

3. Methodology

This research will adopt purposive sampling where Takaful agency (the owner/manager) will become the respondents whose criterion meets the purpose of the study. Their homogenous characteristics are crucial to ensure accuracy of the theory testing, consequently increase the internal validity of the study (Calder et al., 1982). Purposive sampling is a nonprobability sampling technique; where the researchers will obtain the information from specific target samples that have required characteristics to become samples, to satisfy researchers' specific purposes, even though they are not fully representative (Zikmund et al., 2010). This sampling technique is inhibited to specific category of people who can provide the required information and may be the only useful way to answer certain types of research question (Sekaran and Bougie, 2009). In this study, the registered Takaful agencies in Malaysia will be chosen as the target respondent.

Data Collection Method

A cross-sectional research will be conducted for this research where self-administered questionnaire will be distributed to Takaful agency's manager of Takaful agencies located within Kuala Lumpur, Wilayah Persekutuan Putrajaya and Selangor state.

Measurement Items

Generally, all construct measures in the literature will be directly employed but necessary modification and adaptation will be made for any unsuitable items to suit the local context and purpose of study (Gu et al., 2008). Only scales that have reliability coefficient of Cronbach Alpha above the acceptable level of 0.7 or item factor loading above 0.5 will be employed as suggested by Nunnally (1978). In addition, this study will adopt 5-point Likert scale because it is more reliable, and can produce interval data that provides a greater volume of data than other scales (Cooper and Schindler, 2006).

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Efficiency Of Malaysian Takaful Operators: Evidence Post 2007 – 2009 Global Financial Crisis

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Abstract

This paper aims at examining the efficiency of Malaysian takaful operators during the post global financial crisis period. In measuring the efficiency, the study employed the data envelopment analysis (DEA) method over a period of 2011 – 2015. The results revealed that majority of Malaysian takaful operators have been operated at a non-efficient level. Further analysis exposed that most of these takaful operators are operating at a wrong scale of operations which give impact of its level of efficiency. In order to improve the level of efficiency, the takaful operators are advised to adjust their scale of operations.

Keywords: Takaful, efficiency, data envelopment analysis, global financial crisis

1. Introduction

Takaful industry in Malaysia has recorded considerable growth especially in terms of new contribution. In the recent report by Bank Negara Malaysia (BNM), the total new contribution for family takaful sector has reached nearly RM 4.0 billion in 2016 (Bank Negara Malaysia 2016). This contributes directly to the overall performance of Islamic financial system in the country. Despite positive development of Malaysian takaful industry, the takaful operators may become less efficient due to its organizational form (Ismail et al. 2011) together with Shariah requirements and restrictions (Baharin & Isa 2013) that may lead to additional costs, time and efforts that need to be done in ensuring that the business and operations are in line with Shariah principles.

In addition, the takaful operators in Malaysia might have been affected by the recent 2007 – 2009 global financial crisis. A study by Njegomir et al. (2010) revealed that the recent 2007 – 2009 gobal financial crisis has led to negative premium growth, declined of investment returns and risen claims. This observation is possible as insurance and takaful sector are integrated and interrelated with financial system, at the same time, plays important supporting role to the stability of financial sector especially during the financial crisis. Hence, the abovementioned scenario motivates us to examine the efficiency of the takaful operators in Malaysia after the crisis.

This paper contributes to the growing literature on efficiency of takaful operators in Malaysia in a number of ways. While previous studies have been focusing on efficiency (Keong 2014) and productivity change (Saad 2012) of general takaful and insurance industry in Malaysia, the present study contributes to the literature by analysing the technical efficiency of family takaful. Furthermore, our study analyses more recent and longer time period compared to Antonio et al. (2014), Keong (2014), Chaibi (2014), Saad (2012), hence, providing the latest evidence and performance of takaful operators' efficiency specifically during the post 2007 – 2009 global financial crisis period.

The aim of this paper is to examine the efficiency of Malaysian takaful operators during the post 2007 – 2009 global financial crisis period. In the analysis, we look into efficient and non-efficient takaful operators based on year-on-year analysis. Subsequently, the study identifies potential reason that contributes towards inefficient takaful operators.

This paper is organized into four sections of which this is the first. The method of this study is presented in section 2 while section 3 presents the results and discussion. Section 4 concludes the paper.

2. Methods

This study involves analysis of efficiency of Malaysian takaful operators using the Data Envelopment Analysis (DEA) method for each year under observation, following previous literature among others are Al-Amri (2015), Noreen & Khan (2014), Dewi W & Murni (2016). This is done to allow variation of efficiency score over time rather than constructing a single multi-year frontier. Furthermore, this is more suitable in a dynamic business environment as takaful operators may be efficient in one year but may not in the following year.

2.1 Data Envelopment Analysis (DEA)

DEA method is used in this study to measure the efficiency of Malaysian takaful operators. The DEA method is chosen for this present study based on several justifications. First, the DEA is less data demanding as it works fine with small sample size (Canhoto & Dermine 2003). This is suitable for Malaysian takaful industry which consists of 11 takaful operators only. Secondly, the DEA approach does not require a preconceived structure of specific functional form to be imposed on the data in identifying and determining the efficient frontier, error and inefficiency structures of the decision making unit (DMU) (Evanoff & Israelvich 1991). Thirdly, this approach allows the researchers to choose any kind of input and output of managerial interest, regardless of different measurement units (Avkiran 1999). Lastly, the DEA approach allows measuring the efficiency of each decision making unit (DMU). This allows ranking amongst the DMU in the sample, and can highlights the areas for improvement for each single DMU (Golany & Roll 1989).

We consider the variable return to scale (VRS) assumption extended by Banker, Charnes, & Cooper (1984) (hereafter BCC). This model was developed based on the original model introduced by Charnes, Cooper, & Rhodes (1978) (hereafter CCR). The BCC model allows for assumption of VRS which enables us to make a detail analysis of inefficient units and take corrective actions to improve efficiency of takaful operators. This can be done as the VRS provides the measurement of pure technical efficiency (PTE), which is the measurement of technical efficiency devoid of the scale efficiency (SE) effects. The existence of scale inefficiency can be detected if there appears to be a difference between the TE and PTE scores of a particular DMU.

VRS version of DEA can be written as follows:

$$
\begin{aligned}
\text{Min} \quad & l_0 - \varepsilon \left[\sum_{i=1}^{m} S_i^- + \sum_{r=1}^{s} S_i^+\right] \qquad (1)\\
\text{Subject to:} \quad & \sum_{f=1}^{N} \lambda_f \, x_{if} = l_0 x_{if_0} - S_i^- \ \text{ where } i = 1 \ldots m\\
& \sum_{f=1}^{N} \lambda_f \, y_{rf} = S_r^+ + y_{rf_0} \ \text{ where } r = 1 \ldots s\\
& \sum_{f=1}^{N} \lambda_f = 1\\
& \lambda_f \geq 0, f = 1 \ldots N, S_i^-, \ S_i^+ \geq 0 \ \forall \ i \text{ and } r
\end{aligned}
$$

The model includes the so-called convexity constraint, $\sum_{f=1}^{N} \lambda_f = 1$ which prevents any interpolation point constructed from the observed DMU from being scaled up or down to form a reference point which is not permissible under the VRS. In this model, the set of λ values minimize l_0 to l_0^* and identify a point within the VRS model whose input levels reflect the lowest proportion of l_0^*. At l_0^*, the input levels of DMU f_0 is pareto-efficient if $l_0^* = 1$ and $S_r^{+*} = 0, r = 1 \ldots s, S_i^{-*} = 0, i = 1 \ldots m$. Technical efficiencies assessed under VRS are referred to as PTE as they are net of any scale effects.

Under VRS assumption, the resulting SE can be measured since in most cases, the scale of operation of the firm may not be optimal. The firm involved may be too small in its scale of operation, which might fall within the increasing returns to scale part of the production function. Likewise, a firm may be too large and operate within the decreasing returns to scale part of the production function. In both cases, efficiency of the firms may be improved by changing their scale of operation. Under VRS, TE scores can be compared. The resulting ratio illustrates SE which is the impact of scale size on the productivity of a DMU. Formally, the SE of DMU f_0 is given as (TE/PTE). Where TE and PTE are technical efficiency and pure technical efficiency of DMU f_0, respectively.

In this study, we consider one (1) output and two (2) inputs to measure the DEA score for takaful operators. On one hand, the output used in this study is contributions (Y1). On the other hand, the inputs used in this study are management expenses (X1) and commission (X2).

2.2 Cross section of takaful operators

Data for the empirical analysis is extracted from financial statements of 11 Malaysian takaful operators over the period 2011 - 2015. The period is chosen so as to provide recent data involving the period of post 2007-2009 global financial crisis.

The financial statements are obtained from the website of each individual takaful operators. Table 1 describes the list of samples of Malaysian takaful operators used in this study. The list represents 100 per cent of takaful operators in Malaysia.

Table 1: List of samples

No.	Name	Ownership
1	AIA PUBLIC Takaful Bhd	Foreign
2	AmMetLife Takaful Berhad	Local
3	Etiqa Takaful Berhad	Local
4	Great Eastern Takaful Berhad	Foreign
5	HSBC Amanah Takaful (Malaysia) Berhad	Local
6	Hong Leong MSIG Takaful Berhad	Local
7	Prudential BSN Takaful Berhad	Local
8	Sun Life Malaysia Takaful Berhad	Local
9	Syarikat Takaful Malaysia Berhad	Local
10	Takaful Ikhlas Berhad	Local
11	Zurich Takaful Malaysia Berhad	Local

Sources: Bank Negara Malaysia's website

3. Results And Discussion

3.1 Descriptive statistics

The DEA results are measured using sets of inputs and output describe in Section 3.1. The descriptive statistics for the inputs and output of the DEA are shown in Table 2.

In general, it is clear that the trend in business for Malaysian takaful operators indicates an upward trend over the period of 2011 – 2015. This trend can be illustrated as in Figure 1.

In terms of mean for contributions, the result in 2011 stood at 343,010 which then improved steadily until it reached 505,248 in 2015. Similar pattern can be observed for mean of management expenses and commission which stood at 52,278 and 95,046 respectively in 2011, which then increased to 89,082 and 194,097 respectively in 2015. This indicates an increase by nearly doubled in takaful operators' input.

Table 2: Descriptive statistic of input and output

		Takaful operators	
2011	**N**	**Mean**	**SD**
Contributions	11	343,010	426,559
Management expenses	11	52,278	50,428
Commission	11	95,046	112,606
2012			
Contributions	11	427,154	525,740
Management expenses	11	59,305	55,256
Commission	11	143,873	158,869

2013			
Contributions	11	457,876	478,446
Management expenses	11	76,836	70,890
Commission	11	159,994	167,540
2014			
Contributions	11	480,096	399,654
Management expenses	11	76,393	70,790
Commission	11	171,073	192,491
2015			
Contributions	11	505,248	452,628
Management expenses	11	89,082	85,503
Commission	11	194,097	232,012
All Years			
Contributions	55	442,677	444,963
Management expenses	55	70,779	66,575
Commission	55	152,817	173,701

Source: Takaful operators' financial statements. All figures are in thousands ringgit Malaysia (RM).

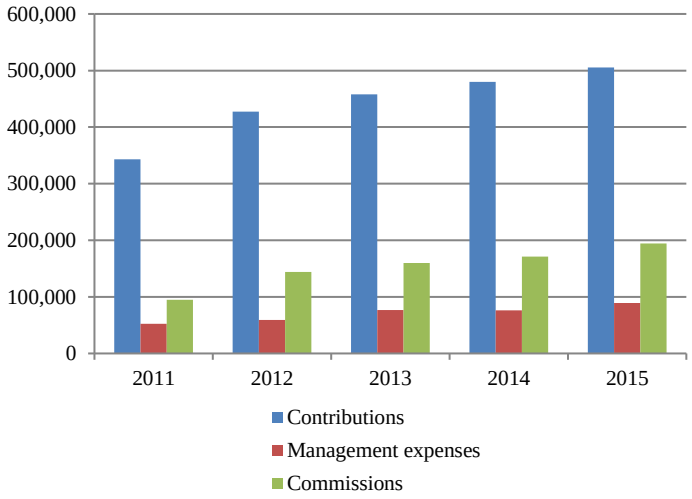


Figure 1: Trend inputs and outputs of Malaysian takaful operators 2011 – 2015

3.2 Empirical results

In this section, we present the number and percentage of efficient (non-efficient) Malaysian takaful operators, measured by the DEA method. This is done by applying the DEA method for each year under investigation. Subsequently, we segregate Malaysian takaful operators according to the specific scale of operation which they belong to; either increasing return to scale (IRS) or decreasing return to scale (DRS) or constant return to scale (CRS).

First, we discuss the number and percentage of efficient (non-efficient) Malaysian takaful operators as tabulated in Table 3.

Table 3: Number and percentage of efficient/non-efficient takaful operators

Year	No. of TO[36]	Efficient TO		Non-efficient TO		IRS		DRS		CRS	
		#	%	#	%	#	%	#	%	#	%
2011	11	5	45.45	6	54.55	1	9.09	8	72.73	2	18.18
2012	11	6	54.55	5	45.45	1	9.09	8	72.73	2	18.18
2013	11	3	27.27	8	72.73	0	0.00	10	90.91	1	9.09
2014	11	2	18.18	9	81.82	0	0.00	10	90.91	1	9.09
2015	11	2	18.18	9	81.82	0	0.00	10	90.91	1	9.09

Source: Authors' own calculation.

In 2011, the results indicate that the number of efficient and non-efficient takaful operators is nearly equivalent where the earlier is 5 (45.45 per cent) while the latter is 6 (54.55 per cent). Similar result can be observed in 2012, however during this period, the efficient takaful operators overtake the non-efficient takaful operators in term of number whereby the number of efficient takaful operators is 6 (54.55 per cent) while the non-efficient takaful operators is 5 (45.45 per cent).

In the subsequent year from 2013 to 2015, the results indicate that the number of efficient takaful operators has reduced tremendously. In 2013, the number of efficient takaful operators is 3 (27.27 per cent) which is less than the non-efficient takaful operators of 8 (72.73 per cent). Later, in 2014 to 2015, only 2 (18.18 per cent) takaful operators were fully efficient compared to 9 (81.82 per cent) non-efficient takaful operators.

In the next part of this section, we discuss the scale of operations of Malaysian takaful operators between 2011 and 2015. The results of IRS, DRS and CRS are reported in Table 3. In all periods under study, it is observed that majority of the takaful operators are operating at a DRS. From 2011 to 2012, there are 8 (72.73 per cent) takaful operators operating at a DRS. The number of takaful operators operating at a DRS increased to 10 (90.91 per cent) from 2013 to 2015. These results suggest that the DRS takaful operators may be too large to operate at a fully efficient level. The results are in accordance to Antonio et al. (2014). In this case, the takaful operators are advised to change their scale of operations in order to improve its level of efficiency.

4. Conclusion

In this paper, we employed the DEA method to examine the efficiency of Malaysian takaful operators by analysing a sample of 11 takaful operators in the country using data from 2011 to 2015. The results indicate that the number of inefficient takaful operators overwhelmed the number of efficient takaful operators. This is mainly due to majority of the takaful operators in Malaysia are operating at a wrong scale, where the institutions are too large to operate at a fully efficient level. In order to minimize the inefficiency level, this study would recommend these takaful operators to change their scale of operations.

This study has one identified limitation. The study utilized data from family takaful business only. Therefore, generalization of the results on general takaful business has to be taken cautiously. Future research in this area should explore on two (2) main focuses namely the determinants which affect the efficiency level of Malaysian family takaful operators; and comparison of efficiency between family takaful operators and insurance companies.

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Disclosure Quality of Forward-Looking Information and Stock Return of the Firm: The Moderating Effect of Corporate Governance Practices

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Abstract

This study investigates how the quality of forward-looking disclosures affect a firm's stock returns and examines the potential of corporate governance practices as a moderator in the relationship. The findings show that the disclosure quality of forward-looking information is positive and significantly related to a firm's stock returns and corporate governance practices also moderate the link between them. The findings have implications for accounting standards setters and regulatory bodies to improve and revise corporate disclosure guides by outlining specific criteria to consider information as high quality in preparing forward-looking statements and to promote corporate transparency.

Keywords: Disclosure Quality; Forward-Looking Information; Corporate Governance Practices

1. Introduction[37]

Researchers and professionals have long been interested in the issue of competency in corporate disclosure practices. The increasing regulations, business perspectives, and firm's strategies increase the relative difficulty of digesting the substance of financial statements without supplementary narrative explanations. In Malaysia, corporations are encouraged to report more than the mandatory disclosures and external users simultaneously demand selected items of voluntary information in corporate annual reports.

Surprisingly, firms seem not to notice the importance of disclosing such information. In terms of important voluntary disclosure items, Hossain et al. (1994) report a mean score of 15.8 per cent, Haniffa and Cooke (2002) 31.3 per cent, Ghazali and Weetman (2006) 31.4 per cent, and Hashim and Saleh (2007) only 10-11 per cent, demonstrating the low rate of voluntary disclosures, including forward-looking information, in Malaysia. This could

[37] Abbreviations:
BMLR: Bursa Malaysia Listing Requirements
MASB: Malaysian Accounting Standards Board
MCCG: Malaysian Code of Corporate Governance
MD&A: Management discussion and analysis

be due to the cost and limited budgets or a fear of releasing too much information to competitors (Ghazali, 2009). Although it is not mandatory, firms still do not disclose some of most important information, though prior studies show that this type of information helps investors and analysts. In addition, Bany et al. (2010), Jaggi et al. (2009), Andres (2008), Faccio and Lang (2002), Claessens et al. (2000), and La Porta et al. (1999) find a significant presence of pyramid firms in East Asia, which control more than half of East Asian corporations and economies (measured in terms of total corporate assets). Based on the information effect hypothesis (Fan and Wong, 2002), concentrated ownership avoids leaks of proprietary information when decision privileges are limited to specific persons. This strategy can prevent competitors from accessing proprietary information about rent seeking activities, as one example. This strategy works in the East Asian environment where it is common to have political lobbying activities with a pyramid ownership structure. In other words, this strategy works in an ownership concentration environment by restricting information flow to the public and reduces potential competition from political rent-seekers.

These findings may well contribute efforts by the International Accounting Standards Board to provide a broad, non-binding framework for the presentation of management commentary related to financial statements prepared according to International Financial Reporting Standards (IFRSs). In this light, the Malaysian Accounting Standards Board (MASB) issued MASB ED 76, Management Commentary (Guidance) for public comment on 30th April 2012, which was subsequently issued (on 28th February 2013) as the Statement of Principles 3 (SOP 3) Management Commentary. This SOP aims to guide firm managers on how to present commentary consistent with the principles of providing management's view of the entity's performance, position, and progress; and supplementing and complementing the information in the financial statements. In aligning with these principles, management commentary should include forward-looking information and information that possesses the qualitative characteristics described in the Conceptual Framework for Financial Reporting. SOP 3 made firms aware of the need to provide future-oriented information to complement and balance investors' needs for accounting information in the annual report.

However, the new accounting rules and promotion of narrative information may only increase the quantity rather than the quality of accounting information, since prior studies assumed that the extent of disclosures is an adequate measure of their quality, or may not even distinguish between the two. Thus, by assuming that the quantity of information somehow implies its quality, empirical studies often use quantitative measures as proxies to measure quality. Nevertheless, the literature emphasizes the importance of developing measures of disclosure quality. Since measuring disclosure quality is fundamentally complex, it is not appropriate to use a simplistic approach such as using the extent of disclosures as a proxy for quality. Beretta and Bozzolan (2008) contribute to the discussion of the usefulness and reliability of different measures of narrative information, specifically forward-looking disclosures. In particular, their findings indicate that multidimensional frameworks of disclosure quality capture the scope of disclosures considered useful by financial analysts in forecasting earnings. The present study will also look at how the quality of forward-looking information disclosed affects a firm's stock returns, which are a focus in many studies since it captures investors' reactions and perceptions of a firm's actions, including information disclosures (Bar-Yosef and Prencipe, 2013; Wang and Hussainey, 2013).

This study will also investigate, whether corporate governance practices have a moderating role that might influence the disclosure quality of forward-looking information. In the context of emerging economies, prior literature on corporate governance and financial reporting highlight the need to consider the moderating role of corporate governance mechanisms (Ahrens et al., 2011), some of which are determinants of disclosure levels in corporate reporting (Alves and Morey, 2012).

2. Literature review and hypotheses development

2.1 Disclosure quality of forward-looking information

Beretta and Bozzolan (2008) argued that disclosure quantity is not a good proxy for disclosure quality, and proposed an index for the quality of disclosures by adopting multidimensional frameworks. They showed systematically that the proposed framework captures the magnitude of annual report disclosures considered valuable by financial analysts in forecasting earnings and that their proposed measure has a stronger positive statistical association with accuracy and a stronger negative association with the dispersion of financial analysts' earnings forecasts compared to a straightforward index of disclosure quantity.

There are many approaches to measuring the quality of information disclosures based on improvements to the quality measure. For example, Hooks et al. (2002) suggested adopting a consensus-reaching methodology for a quality assessment by weighting the number of disclosed items with the quality of the communication subjectively evaluated by researchers, expert accountants, and the chief financial officers of analyzed firms. Botosan (1997) presented a disclosure index that awards one point for each item disclosed. The scoring procedure weights quantitative information more heavily than qualitative information, assuming that quantitative information is more relevant for investors and reinforces the credibility of the disclosed information.

Similarly, Robb et al. (2001) proposed a weighting procedure by assigning a weight of one to each piece of information if there is no disclosure, two if there is some disclosure, and three if there is extensive disclosure. The extra scores from Botosan (1997) and Rob et al. (2001) clearly considers information that may reflect information that users find more important and can assist in their decision-making process.

Beattie et al. (2004) proposed an alternative approach to measure disclosure quality that overcomes the weaknesses of uni-dimensionally weighted indexes. They acknowledge that measuring disclosure quality is essentially complex because it is both abstract and subjective. Thus, by referring to the topics and subtopics of the Jenkins report, they suggest that disclosure quality does not depend only on disclosure quantity, but also how the disclosures cover a variety of topics. Thus, their framework offered a richer descriptive profile of a firm's narrative disclosures than the simple count of disclosed items.

Al-Najjar and Abed (2014) investigated the impact of corporate governance mechanisms and the relationship between the quality of forward-looking information disclosures in the narrative sections of annual reports and the governance mechanisms for non-financial UK listed firms. Using cross-sectional regression analysis, their results showed that board size and the independence of the audit committee are associated with the level of voluntary disclosures of forward-looking information. However, the present study uses the level of forward-looking information disclosures as a proxy for the quality of that information. Wang and Hussainey (2013) examined the impact of corporate governance on the level of disclosures of forward-looking statements in the narrative sections of annual reports and whether statements driven by governance provide useful information about future earnings. However, they acknowledge that despite the robustness of their empirical findings, there are limitations in terms of their disclosure scores, which does not consider the quality of the information in forward-looking statements. Users of corporate narrative reporting are expected to be more interested in both disclosure quantity and quality, so they suggested that future research could develop a quantitative measure for the quality of narrative reporting, which is considerably difficult for studies with large-scale samples.

Based on literature discussed above and considering how aggregate signaling between disclosures of forward-looking information could have implications for signaling firm quality to investors, this study will use signaling theory to explain the relationship between the disclosure level of forward-looking information and a firm's stock returns. Therefore,

H1: The disclosure quality of forward-looking information is positively related to a firm's stock returns.

Since the collapse of Enron, corporate governance has received more attention and increased firms' efforts to set up a strong governance environment to defend shareholders' rights. The governance role should provide firms with guidelines, control managements' executive actions, and satisfy legitimate outlooks for accountability and regulation beyond corporate boundaries (Tricker, 1984). Implementing high standards of corporate governance might help develop financial reporting quality and transparency. Moreover, corporate governance mechanisms might lessen information asymmetry by improving the monitoring system or by increasing the number of independent directors on the board.

Ho and Taylor (2013) investigated the impact of corporate governance on voluntary disclosures of different types of information in the annual reports of Malaysian listed firms and found that the strength of a firm's corporate governance structure clearly influences voluntary disclosure information, including forward-looking information. Their findings also suggest that corporate governance that monitors management is vitally important to reduce the information asymmetry between managers and shareholders. Given the monitoring role of corporate governance, firms with better corporate governance are likely to increase management incentives to disclose more corporate information to their stakeholders.

Besides the impact of corporate governance practices on the disclosure quality of financial reporting, many studies investigate the relationship between corporate governance practices and performance. Haniffa and Hudaib (2006) explore whether the various best practices and recommendations influenced the performance of Malaysian

listed corporations between 1996 and 2000, with results indicating significant associations between both the market and accounting measures of performance with several corporate governance mechanisms. In addition, their results indicate a significant relationship between accounting-based performance measures and role duality and managerial shareholdings, while multiple directorships is associated with market-based performance. The differences among the results also indicate that firms cannot blindly adopt governance structures designed to enhance corporate performance but should consider the unique business environment within their country.

The Malaysian Code of Corporate Governance (MCCG) recommends that corporations adopt good governance practices by having a balanced board composed of at least one-third non-executive directors to monitor management. However, boards dominated by non-executive directors lacking real independence, awareness of their responsibilities, and appropriate qualifications and experience may be detrimental. Dalton et al. (1998) found no relationship between board independence and corporate performance, regardless of the type of performance indicators (accounting or market). Haniffa and Hudaib (2006) supported this finding, demonstrating that boards dominated by non-executive directors do not seem to affect performance.

It is apparent from the literature discussed above that disclosure is an important way for firms to assure current and potential investors to boost the firm's stock returns. At the same time, corporate governance practices can influence both disclosures of forward-looking information and stock returns, especially in attracting a premium on the share price. The findings above suggest the moderating role of the effectiveness of corporate governance practices, which can either weaken or strengthen the relationship between the disclosure quality of forward-looking information and stock returns. Thus,

H2: Corporate governance practices significantly moderate the relationship between the disclosure quality of forward-looking information and stock returns.

3. Research design and methodology

3.1 Data collection

The sample in this study consists of 180 Malaysian public listed firms with the highest market capitalization from nine industries in the Bursa Malaysia. The study considers only the firms with highest market capitalization since larger firms are expected to produce additional information for management purposes and can afford the costs of additional disclosures in annual reports (Camfferman and Cooke, 2002; Ghazali, 2009). The study measures the disclosure quality of forward-looking information by collecting this information from annual reports, specifically the statement from the Chairman and Chief Executive Officer (CEO) since these sections are more likely to contain this type of information (Wang and Hussainey, 2013). This study will only consider data for 2013. The analysis is limited to one year because firms' disclosure policies are relatively stable over time (Botosan, 1997). Botosan's (1997) claim is based on Healy et al.'s (1995) findings, which could identify only 90 "large and sustained" increases in the Association for Investment Management and Research (AIMR) disclosure rankings in a sample of 595 firms in 23 industries from 1980 to 1990.

3.2 Valuation models

This study investigates the relationship between the disclosures of forward-looking information on stock returns to determine whether the disclosure quality is value relevant to investors who rely on this information in their investment activities and decision-making process. This study defines value relevance as the ability of an accounting measure to capture or summarize information that affects firm value. Researchers often measure value relevance as the association between an accounting measure and stock returns and operationalize value relevance in two ways: using a portfolio-returns approach and a regression-variations approach (Francis and Schipper, 1999). A regression-variations approach measures value relevance based on the explanatory power of accounting information to measure market value, the ability of earnings to explain annual market-adjusted returns (return model), and the ability of earnings and book values of assets and liabilities to explain the market values of equity (price model). The regression-variations approach use both the return and price models to assess the value relevance of accounting information. This study adopts Easton and Harris's (1991) return models and Ohlson's (1995) price model.

This study will also use an event study approach to investigate and analyze investors' reactions to forward-looking information disclosures, which then affect the firm's stock returns. An event study is useful because,

assuming rational markets, share prices will immediately reflect the effects of the event. This study contains a prediction that the initial disclosure of forward-looking information in the firm's annual report publication date can be measured over a short period. Therefore, this study will also use an abnormal returns model to detect the effect of the disclosure of forward-looking information during the event window (Brown and Warner, 1985).

3.3 Variables

3.3.1 Dependent variables

The final models use six measurements of dependent variables to measure stock returns. The first dependent variables for the abnormal return model is the cumulative abnormal return of the firm for week 1 (ARW1), week 2 (ARW2), week 3 (ARW3), and week 4 (ARW4), each calculated by the aggregated average abnormal returns over the event window for 7, 14, 21, and 28 working days, respectively, after the annual report publication date. The abnormal return is calculated for each firm for all days, and then determined by subtracting the expected returns from actual returns [Ri-E(Ri)]. This measurement calculates stock returns to investigate short-term effects on stock prices, from the first to the fourth week after the event date (Brown and Warner, 1985; Mackinlay, 1997)

The second dependent variable to calculate stock returns from return model is the cumulative net-of-market 12-month stock returns, calculated as the difference between the firm's stock price at the end of the year and the stock price at the beginning of the year plus the annual dividend divided by the stock price at the beginning of the year $[(P_{it} - P_{it-1} + D_{it}) / P_{it-1}]$ (Jung & Kwon, 2002). The annual earnings per share (EPS) is the firm's reported absolute amount of annual EPS to capture the annual effect on stock returns in terms of the change in stock returns from the prior to the current year.

The third dependent variable, the market value of equity (MV), represents stock returns in the price model, taking the value per share four months after the fiscal year end. This measurement of stock return captures stock returns using market value or current stock prices four months after the fiscal year end.

3.3.2 Independent variables

This study adopts Beretta and Bozzolan's (2008) quality index to measure quality. This index's robustness has been assessed by different methods and it has been recognized as a possible measure to capture the quality of disclosures (Bozzolan et al., 2009; Bravo et al., 2009). This index may capture both the quantity and quality of forward-looking information disclosures in annual reports. While it was designed as a multidimensional framework to account for both the quantity of information disclosures and the richness of the content, this study will only use the richness index as a proxy for the quality of forward-looking information because quantity is analyzed separately using a different method. Furthermore, this study focuses on the quality effect, and so emphasizes the index capturing quality itself, thus moving away from the assumption that quantity can be a proxy for quality.

The richness index (RCN) measures disclosure quality on two other dimensions: width and depth (WID). WID captures the coverage (COV) of important topics as the topics disclosed at least once divided by the total number of topics considered, and the dispersion (DIS) of disclosure as the concentration of the items disclosed. The items that considered in forward-looking disclosures are based on suggestions from the Jenkins report (AICPA, 1994). The strategy and corporate background information includes four items: a) financial structure, b) corporate structure, c) organizational structure, and d) operations. Finally, the external environment includes six items: 1) political, 2) economic, 3) financial, 4) social 5) environmental topics, and 6) industry and legal aspects.
Coverage and dispersion are measured as below:

$$COV_i = \frac{1}{st}\sum_{j=1}^{st} INF_{ij}$$

$$DIS_i = \frac{-\sum_{j=1}^{st} p_{ij} \ln p_{ij}}{\ln st}$$

where:
INF_{ij} = value of '1' if the annual report of company *i* discloses forward-looking information about subtopic *j*, and 0 otherwise.

P_{ij} = amount of information disclosed in subtopic *j* (number of sentences) divided by total disclosure of company *i* (total number of sentences with forward-looking information).

S_t = number of topics (9 topics).

The value of width dimension is obtained as the arithmetic mean of coverage and dispersion dimensions:

$$WID_i = \frac{1}{2}\left(COV_i + DIS_i\right)$$

It is assumed that higher coverage (which refers to the fact of enlightening information about higher number of relevant topics) is related to the richness of the information provided. Higher dispersion (which maintains that information quality will be greater when information published about each of the topics considered is high instead of disclosing only a few information units about some of them) are associated to information richness.

Depth (DEP) depends on the type of measure that is used in an information unit (MSR), on the communication of the economic sign of the disclosed items (ES) and on the outlook profile of disclosed information (OTL). Sentences containing information about measures and economic sign, as well as information about actions, programs, or any information that is useful for forecasting must contribute to the quality of global disclosure for a company. Therefore, these features are expected to be related to information richness.

Firstly, the economic sign and measure index (ESM) is calculated as follows:

$$ESM_i = \frac{1}{2}\frac{1}{id_i}\sum_{j=1}^{id_i} MSR_{ij} + \frac{1}{id_i}\sum_{j=1}^{id_i} ES_{ij}$$

Where:

Id_i = total forward-looking disclosure of company *i* (number of sentences).

MSR_{ij} = value of 1 if a measure of *j* forward-looking information (quantitative or qualitative) is disclosed in the annual report of company *i* and 0 otherwise.

ES_{ij} = value of 1 if the economic sign of information *j* is disclosed in the annual report of company *i* and 0 otherwise.

Secondly, the outlook profile index (OTL) is obtained via:

$$OTL_i = \frac{1}{2}\frac{1}{id_i}\sum_{j=1}^{id_i} ACP_{ij} + \frac{1}{id_i}\sum_{j=1}^{id_i} FL_{ij}$$

where:

OTL_i = outlook profile index for company *i*.

ACP_{ij} = value of 1 if the *j* information (forward-looking) disclosed by company refers to decisions, actions or programs and 0 otherwise.

FL_{ij} = value of 1 if the *j* forward-looking information disclosed by company *i* can be considered as useful for investors forecasts (sales, earnings, and other financial data).

Depth is obtained by averaging the economic sign, the measure index, and the outlook profile index.

$$DEP_i = \frac{1}{2}\left(ESM_i + OTL_i\right)$$

Finally, the quality index (QLI) is obtained when richness index been calculated as a result of averaging width and depth.

$$RCN_i = \frac{1}{2}\left(WID_i + DEP_i\right)$$

As a result, this index is composed of several dimensions that are expected to be related to information quality. The value of the index will ranges from 0.00 to 1.00. Thus, the score for disclosure quality of forward looking statement

will range between 0.00 to 1.00. Score for disclosure quality (QLI) near to value 1.00 indicates higher disclosure quality of forward looking information as compared to value near to 0.00.

Categorizing the selected firms as having good corporate governance practices or not will be based on the MSWG MCG index 2013 list that been published in Malaysia-ASEAN Corporate Governance Report on the top 100 firms with good corporate governance practices for the year 2013. The list is released by Minority Shareholder Watchdog Group (MSWG) on yearly basis and can be downloaded at http://www.mswg.org.my/page.php?pid=128&menu=sub . Methodology used on the corporate governance scoring and how the ranking calculated is based on scorecard that originally developed by MSWG. All the items and criteria considered while calculate the score is presented in the scorecard. However, due to confidentiality of information provided by the firms, the calculation process is not revealed in the report and only summary of findings are disclosed. Further details on the scorecard and summary of findings, including the final of top 100 firms with good corporate governance practices can be referred from the same link.

4. Results and discussion

4.1 Descriptive statistics and econometric issues

Table 1 reports the sector representations of the 180 firms with disclosures of forward-looking information.

Table 1: Sample of firms with disclosures of forward-looking information bay sector

No	Sector	Number of firms	% of sample
1	Construction	11	6.1
2	Consumer	21	11.7
3	Hotels	2	1.1
4	Industrial	32	17.8
5	IPC	5	2.8
6	Plantation	22	12.2
7	Properties	29	16.1
8	Technology	1	0.6
9	Trade/ services	57	31.7
	Total	180	100

Most firms disclosing forward-looking information covered in this sample are from the trade and service sector (31.7%), while only one firm is from the technology sector (0.6%). This indicates that only 180 firms disclose forward-looking information, contrary to Bursa Malaysia Listing Requirements (BMLRs). However, this is likely because this study collects forward-looking information disclosures only from the Chairman and CEO Statements. According to the Corporate Disclosure Guide 2011 by BMLR, Bursa Securities strongly encourages listed firms to prepare and include a separate statement in its annual report containing management discussion and analysis (MD&A) of business operations and financial performance during the financial year to give investors and shareholders a better understanding of the firm. For this purpose, Bursa Securities has provided general guidance on the content of the MD&A in Chapter 6 of the Corporate Disclosure Guide to assist listed firms in the preparation of its MD&A. The MD&A should contain a forward-looking statement, though the pre-analysis of the MD&A found that only 10% of the listed firms contained this section in the annual reports. That is another reason why this study focused on CEO and Chairman Statements instead of MD&As, since the statements are more likely to contain this type of information (Wang and Hussainey, 2013). Thus, the statements section may only have disclosure information for 180 listed firms because the Corporate Disclosure Guide 2011 does not mention disclosing this information in these statements.

Table 2 shows that all of the absolute values of the Pearson's correlation coefficients are relatively low and below 0.8, indicating that multicollinearity is not critical for all proposed models (Gujarati 2002). Hence, the analysis may proceed with the selected variables.

Table 2: Pearson's Correlation test for disclosure quality of forward looking information model

	SIZE	RISK	GROWTH	IND	QFL	EPS	EPSCH	BV
SIZE	1							
RISK	0.241***	1						
GROWTH	-0.143**	-0.183***	1					
IND	0.042	0.166***	-0.239***	1				
QFL	0.009	0.007	-0.101	-0.017	1			
EPS	0.279***	-0.184***	0.005	-0.138**	-0.11	1		
EPSCH	0.013	0.111*	0.011	0.142**	0.136*	0.284***	1	
BV	0.380***	-0.216***	-0.263***	0.005	-0.01	0.568***	-0.065	1

Note: The table presents the results from Pearson correlation coefficients.

***, **, * indicates significance at the 1%, 5%, and 10% levels, respectively

However for Table 3, the Pearson's correlation that examines multicollinearity among the variables shows that the absolute values of the Pearson's correlation coefficients are relatively low and below 0.8 for all variables except for QFL*CGP and CGP. The value 0.857 from the table is greater than 0.8, which indicates that there is a multicollinearity problem between QFL*CGP and CGP. Thus, where these variables are related to each other, the overlap will cause one or more variables to be neglected. According to Gujarati's (2002) rule of thumb, if multicollinearity appears in a regression model, the problem is serious if the pair-wise or zero-order correlation coefficient between two regressors is greater than 0.8. Dropping one of the collinear variables can solve the problem if any of the proposed models consist of variables that are highly correlated. Thus, the variable CGP will be dropped in the next regression analysis to test the hypotheses.

Table 3: Pearson's Correlation test for disclosure quality of forward looking information with corporate governance practices model

	SIZE	RISK	GROWTH	IND	QFL	CGP	QFL*CGP	EPS	EPSCH	BV
SIZE	1									
RISK	0.241***	1								
GROWTH	-0.143**	-0.183***	1							
IND	0.042	0.166***	-0.239***	1						
QFL	0.009	0.007	-0.101	-0.017	1					
CGP	0.456***	0.056	0.048	-0.121	-0.014	1				
QFL*CGP	0.425***	0.039	0.031	-0.092	0.287***	0.857***	1			
EPS	0.279***	-0.184***	0.005	-0.138**	-0.110	0.200**	0.113	1		
EPSCH	0.013	.111*	0.011	0.142*	.136*	0.006	0.021	0.284***	1	
BV	0.380***	-0.216***	-0.263***	0.005	-0.010	0.124	0.114	0.568***	-0.065	1

Note: The table presents the results from Pearson *r* correlation coefficients.

***, **, * indicates significance at the 1%, 5%, and 10% levels, respectively

4.2 Results of cross sectional regression analysis

4.2.1 Disclosure quality of forward-looking information and firm's stock return

Table 4 presents the regression results for the disclosure quality of forward-looking information and stock returns. This study hypothesized that the disclosure quality of forward-looking information will have a positive and significant impact on stock returns. The results in Table 4 indicate that the disclosure quality of forward-looking information (QFL) is positive and significantly related to stock returns (SR) at the 5% level. This finding suggests

that the disclosure quality of forward-looking information can be another good and important source of information for investment activities as it complements and significantly contributes to increasing a firm's stock returns. In addition, earnings information (EPS and EPSCH), which are expected to significantly affect stock returns, seems not to outweigh the importance of the disclosure quality of forward-looking information in stock value, despite its proven explanatory power for a firm's stock returns based on Easton and Harris's (1991) earnings-return model.

However, the disclosure quality of forward-looking information has an insignificant relationship with stock returns due to the presence of book value information (BV) and earnings (EPS) under the price model (Model 4.6) because the explanatory power of these two variables is more significant and value relevant in affecting stock returns at the 1% and 10% levels, respectively. Thus, it is better to improve on the quality aspect of forward-looking information instead of focusing on the disclosure level because the quality can help increase investors' positive reactions towards the firm's stock return.

Table 4: Disclosure quality of forward looking information and firms' stock returns

Variable	Model 4.1	Model 4.2	Model 4.3	Model 4.4	Model 4.5	Model 4.6
	CAR				SR	MV
	W1	W2	W3	W4		
CONSTANT	-2.484*	-2.207	-1.873	-2.322	2.353***	-4.428***
	(1.483)	*(2.356)*	*(3.652)*	*(4.148)*	*(0.740)*	*(1.051)*
SIZE	0.053	0.105	0.165	0.174	-0.245***	0.234**
	(0.091)	*(0.139)*	*(0.218)*	*(0.256)*	*(0.090)*	*(0.092)*
RISK	0.517*	0.715	0.971	1.646**	0.251	-0.118
	(0.302)	*(0.449)*	*(0.650)*	*(0.772)*	*(0.182)*	*(0.300)*
GROWTH	0.251*	0.261**	0.351*	0.299	0.238	0.888***
	(0.136)	*(0.132)*	*(0.198)*	*(0.227)*	*(0.175)*	*(0.171)*
IND	1.062**	0.424	-0.223	-0.234	0.571	-0.278
	(0.389)	*(0.640)*	*(0.902)*	*(1.201)*	*(0.409)*	*(0.217)*
QFL	0.333	0.667	0.340	1.050	1.124**	0.201
	(0.841)	*(1.179)*	*(1.744)*	*(2.037)*	*(0.529)*	*(0.738)*
EPS					-0.067	2.350*
					(0.327)	*(1.373)*
EPSCH					0.639	
					(0.715)	
BV						1.105***
						(0.117)
R^2	0.085	0.037	0.032	0.039	0.147	0.756
Adj R^2	0.057	0.007	0.002	0.009	0.109	0.745
F-statistic	3.00**	1.237	1.082	1.310	3.930***	70.821***
Durbin-Watson stat	1.838	1.859	1.891	1.613	1.406	2.222
No. of Obs.	168	168	168	168	168	168

Note: ***, **, * indicates significance at the 1%, 5%, and 10% levels, respectively.

Figures in parentheses ( ) are standard errors

This finding also suggests that in the case of forward-looking information and stock returns, quantity is not a good proxy for quality since the magnitude of these measures differ. This finding is consistent with Beretta and Bozzolan's (2008) empirical evidence supporting the hypothesis that the dimensions considered in the disclosure quality framework give more a realistic picture of disclosures than quantity does and suggest that the dimensions can complement analyses of disclosures.

*4.2.2 Disclosure quality of forward-looking information, corporate governance practices, and stock retur*ns

Table 5 presents the regression results for the disclosure quality of forward-looking information and stock returns with the presence corporate governance practices. This study hypothesized that corporate governance practices will significantly moderate the relationship between the disclosure quality of forward-looking information and stock returns. This model attempts to test the potential of corporate governance practices to either strengthen or weaken the relationship between disclosure quality and stock returns using the interaction variable (QFL*CGP) the moderating effect.

The results in Table 5 indicate that the relationship between corporate governance practices (CGP) before interaction with QFL is positive but not significantly related to stock returns in any of the valuation models (Model 5.1, 5.2, 5.3, 5.4, 5.5, 5.6). However, the interaction variable QFL*CGP has a negative but insignificant relationship with stock returns for all valuation models. These results indicate that corporate governance practices have an insignificant ability to weaken the relationship between the disclosure quality of forward-looking information and stock returns. These insignificant results might result from the multicollinearity problem arising between the variables QFL*CGP and CGP, as tested in the previous multicollinearity test (Table 3, page 13). To overcome this issue, the CGP variable was dropped in the next regression analysis (Gujarati, 2002) to test the moderating effect. Thus, Model 5.7, 5.8, 5.9, 5.10, 5.11, and 5.12 from Table 5 show the regression analysis after dropping the CGP variable.

Table 5 : Disclosure quality of forward looking information, firm's stock return and corporate governance practices

Variable	Model 5.1	Model 5.2	Model 5.3	Model 5.4	Model 5.5	Model 5.6	Model 5.7	Model 5.8	Model 5.9	Model 5.10	Model 5.11	Model 5.12
	AR				SR	MV	AR				SR	MV
	W1	W2	W3	W4			W1	W2	W3	W4		
CONSTANT	-2.410	-4.820	-5.103	-4.910	2.038***	-3.117***	-2.374	-4.748	-5.023	-4.790	2.057***	-3.074***
	(1.629)	*(3.258)*	*(4.234)*	*(4.761)*	*(0.704)*	*(1.021)*	*(1.609)*	*(3.219)*	*(4.163)*	*(4.685)*	*(0.692)*	*(1.000)*
SIZE	0.033	0.067	0.168	0.114	-0.227***	0.114	0.045	0.090	0.194	0.154	-0.224***	0.133
	(0.101)	*(0.202)*	*(0.263)*	*(0.296)*	*(0.083)*	*(0.092)*	*(0.101)*	*(0.202)*	*(0.263)*	*(0.296)*	*(0.081)*	*(0.089)*
RISK	0.515*	1.029*	1.270	1.954**	0.241	-0.080	0.520*	1.039*	1.281*	1.971**	0.245	-0.074
	(0.308)	*(0.616)*	*(0.775)*	*(0.877)*	*(0.178)*	*(0.295)*	*(0.304)*	*(0.609)*	*(0.768)*	*(0.872)*	*(0.180)*	*(0.298)*
GROWTH	0.253*	0.506*	0.601*	0.548*	0.240	0.895***	0.250*	0.501*	0.595*	0.539*	0.239	0.887***
	(0.137)	*(0.273)*	*(0.308)*	*(0.319)*	*(0.177)*	*(0.167)*	*(0.136)*	*(0.273)*	*(0.308)*	*(0.318)*	*(0.176)*	*(0.168)*
IND	1.093***	2.186***	1.526	1.567	0.571	-0.202	1.066***	2.132***	1.465	1.476	0.562	-0.240
	(0.399)	*(0.798)*	*(1.009)*	*(1.253)*	*(0.413)*	*(0.221)*	*(0.391)*	*(0.783)*	*(0.994)*	*(1.244)*	*(0.408)*	*(0.214)*
QFL	0.643	1.286	1.264	2.119	1.352*	0.282	0.292	0.585	0.480	0.940	1.232**	-0.274
	(1.083)	*(2.167)*	*(2.635)*	*(3.066)*	*(0.711)*	*(0.582)*	*(0.891)*	*(1.782)*	*(2.098)*	*(2.386)*	*(0.594)*	*(0.678)*
CGP	0.512	1.024	1.144	1.720	0.177	0.832						
	(0.731)	*(1.461)*	*(1.534)*	*(1.700)*	*(0.269)*	*(0.958)*						
QFL*CGP	-0.893	-1.786	-2.715	-3.085	-0.687	-0.176	0.125	0.249	-0.441	0.334	-0.335	1.473***
	(1.682)	*(3.363)*	*(3.673)*	*(4.105)*	*(0.733)*	*(2.038)*	*(0.768)*	*(1.537)*	*(1.825)*	*(2.057)*	*(0.328)*	*(0.538)*
EPS					-0.083	2.182					-0.068	2.302*
					(0.325)	*(1.379)*					*(0.328)*	*(1.386)*
EPSCH					0.622						0.636	
					(0.760)						*(0.747)*	
BV						1.131***						1.120***
						(0.115)						*(0.113)*
R^2	0.088	0.088	0.066	0.068	0.149	0.766	0.085	0.085	0.063	0.064	0.149	0.763
Adj R^2	0.048	0.048	0.025	0.027	0.101	0.753	0.051	0.051	0.028	0.029	0.106	0.751
F-statistic	2.206**	2.206**	1.609	1.669	3.079***	57.541***	2.495**	2.495**	1.807	1.822*	3.469***	64.115***
Durbin-Watson stat	1.835	1.835	1.873	1.681	1.424	2.190	1.837	1.837	1.880	1.673	1.411	2.199
No. of Obs.	168	168	168	168	168	168	168	168	168	168	168	168

Note: ***, **, * indicates significance at the 1%, 5%, and 10% levels, respectively.

Figures in parentheses ( ) are standard errors

From the results, QFL has a negative but insignificant relationship with stock returns under the price model (Model 5.12). However, the relationship is positive and significantly related to stock returns (MV) at the 5% level in the same model after the interaction with corporate governance practices (QFL*CGP). This finding indicates that good corporate governance practices can strengthen the relationship between the disclosure quality of forward-looking information and stock returns because corporate governance practices via QFL*CGP as a proxy makes disclosure quality positive and significantly related to stock returns under the price model.

This study also validated Wang and Hussainey's (2013) findings and suggestions that the impact of corporate governance on the level of voluntary disclosures of forward-looking statements in the narrative sections of annual reports is subject to limitations regarding their measure of the disclosure scores, which do not consider the quality of the information in forward-looking statements. The results also imply that firms with high-quality disclosures of forward-looking information can benefit from the effect of such disclosures on stock return by ensuring good corporate governance practices. This is because investors expect that firms should work to solve the information asymmetry issue and minimize the potential agency problems. Thus, they will react more positively to the quality of forward-looking information with improvements in corporate governance practices when the information asymmetry between them can be solved.

The results are consistent with Beeks et al. (2006), who reported that firms with high standards of corporate governance are more likely to provide informative disclosures. This is also consistent with reports in prior research that firms with higher standards of corporate governance are more likely to provide prospective information (Karamanou and Vafeas, 2005; O'Sullivan et al., 2008). Beeks et al. (2006) also found that well governed firms make more informative disclosures, draw more accurate financial analyses, and their share price reacts more rapidly than that of other firms. Wang and Hussainey's (2013) empirical findings also prove that the stock market's ability to anticipate future earnings can be improved through the disclosures of forward-looking statements of well-governed firms. They also confirmed that the effectiveness of corporate governance in the practice of disclosure is a function of certain characteristics, and the voluntary forward-looking statements of well-governed firms contain value relevant information for investors. Al-Najjar and Abed (2014) also recently validated this finding by observing the importance of corporate governance mechanisms and investigating the relationship between the quality of disclosures of forward-looking information in the narrative sections of annual reports and the governance mechanisms.

The combination of high-quality disclosures of forward-looking information and good corporate governance practices can contribute toward improving the firm's stock return. This result shows that investors still need other complimentary sources of information from relevant and reliable sources, depending on the credibility and governance of the firms itself. Thus, high-quality forward-looking information from firms with good corporate governance practices can assist investors in their decision-making process and investment activities, and in turn increase the firm's stock returns.

5. Conclusion

After the Asian financial crisis, the BMLR (formerly the KLSE Listing Requirements) were revised and helped to establish a more sound financial reporting system. Chapter 9 of the KLSE Listing Requirements stipulates continuous disclosure requirements and refers to timely and accurate disclosures by listed companies to improve financial reporting quality. This disclosure requirement helps ensure that there is less information asymmetry and that material information is disclosed on a timely basis to investors. From time to time, the BMLR required or encouraged listed firms to disclose some additional information, including forward-looking statements to improve the transparency of corporate disclosures. While firms were required to disclose this information after 31 December 2011, these must appear in the MD&A section and few firms actually include this section in their annual reports. Thus, this study tries to capture the disclosure level and disclosure quality of forward-looking information among the selected listed firms in other sections of the annual report and its effect on firms' stock returns.

The results show that the disclosure quality of forward-looking information can help improve a firm's stock return compared to the disclosure level of forward-looking information. Thus, it is better to improve on the quality aspect rather than the disclosure level because it can help boost positive investor beliefs and reactions to the firm's stock returns. In addition, this finding suggests that the dimensions in the disclosure quality framework give a more realistic picture of disclosures than quantity does and suggests that the dimensions can complement other analyses of disclosures.

Accounting standards setters and regulatory bodies could improve corporate disclosure guides by outlining specific criteria of information considered as quality information, especially in preparing forward-looking information to guide preparers. Malaysian firms currently disclose forward-looking information with a general guideline that only requires additional voluntary information, not additional quality information that can capture

investors' attention when they are reading financial statements. Accounting bodies should specifically establish and prepare a new framework on the presentation of forward-looking information so investors can rely on that framework and to encourage high-quality disclosures. Providing high quality forward-looking information may help managers decide to incur the associated costs because the positive reaction in terms of stock returns are more beneficial. This new framework also may help promote high-quality disclosures of forward-looking information among Malaysian firms, instead of focusing only on the amount of information that must be disclosed.

This study also suggests that good corporate governance practices can be a better way to attract investors' attention to the quality forward-looking information disclosures. Thus, MSWG should provide a MSWG MCG index list in the Malaysia-ASEAN Corporate Governance ASEAN-CG report annually to assess the corporate governance of public listed firms to encourage improvements. This situation also implies that firms tend to be more transparent in disclosing quality information and predictions when they have good corporate governance practices.

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Talent Management in Global Finance and Accounting Shared Services from Institutional Logics Perspective: A Preliminary Analysis

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Abstract

The purpose of this paper is to provide insights on talent management practices in finance and accounting shared services (F&A SS) in Malaysia. Despite of the advantages gained in terms of world-class infrastructure, tax incentives and competitive ICT prices, F&A SS is still struggling with talent problems. Drawing on institutional logics' perspective, the authors seek to uncover the institutional reasons for observed talent management practices in F&A SS to overcome talent problems. This study uses qualitative methodology with interpretive case study design (Ryan et al., 2002). Specifically, this study is based on two (2) global-F&A SS organizations operated in Malaysia. Data collections include interviews and focus groups. Findings suggest that the main challenge of global F&A SS is managing local talent. Findings illustrate how talent management practices in the cases are influenced by Malaysian institutional orders. The cases responded differently towards particular influential institutional orders, hence indicate unalike results. This paper furthers the theoretical understanding on how local institutional orders constrain global business practices (Robertson, 1995), however they could also enable strategic talent management in F&A SS. The paper focuses on the need for F&A SS to respond strategically to local institutional orders, thus gain legitimacy (Scott, 1991). It is found that idiosyncratic Malaysian institutional orders, religion and community logics, should be recognized and understood by global-F&A SS players. By recognizing and understanding them, F&A SS could manage local accounting talent and instill their global corporate logic.

Keywords: Finance and accounting shared services; institutional logics; talent management

1. Introduction

A global finance and accounting shared services (global-F&A SS) is an internal accountable entity (Strikwerda, 2014) of multinational organization located offshore, established to provide pre-defined finance and accounting services to global business units as in internal market mechanism (Quinn et al., 2000). It has become the trend for multinational companies (MNCs) to not only reduce costs but more importantly to grasp on abundant of accounting talent dispersed all over the world. F&A functions that has been migrated to offshore locations ranging from transactional functions such as bookkeeping, general ledger accounting, account payables, to financial and management reporting (Maelah et al., 2012). Lately, the functions transferred has improved to

higher value added finance and accounting functions such as business analytic, ad-hoc reporting and internal auditing to assist the execution of strategic operations (O'Connor et al., 2015).

In term of global-F&A SS location, India, China and Malaysia are still ranked at the top three favourable offshore SS locations since 2004 (Kearney, 2018). These locations offer various advantages such as lower labour costs, good infrastructure and information and communication technology (ICT) capability as well as tax incentives (Kearney, 2018). A. T. Kearney reports that majority of Fortune 500 companies have operated finance and accounting functions through shared services (SS) organizational form to gain competitive advantage (2018). Based on SSON survey, about half (42 per cent) of SS implementers have entered mature stage which have more than 5 years of experience (Hodge and Hood, 2014). The companies include IBM, British American Tobacco, Shell, DHL and BP where they have moved all or parts of their F&A functions to in-house SS centres (SSC) located elsewhere.

Previous studies discuss finance and accounting (F&A) function in SS, but most of the studies in F&A SS are guided by organizational rational standpoint (such as transaction cost economics (TCE) (Williamson, 2000), and control (Das and Teng, 2001). The literature (such as Amiruddin et al., 2013; Kastberg, 2014; Minnaar, 2014; Minnaar and Vosselman, 2013) discuss more on management control, governance and organizational structure. A group of scholars at Loughborough University, under the umbrella of Centre for Global Sourcing and Services funded by CIMA, has produced papers in F&A SS (Herbert and Seal, 2012, 2014; Rothwell et al., 2011; Seal and Herbert, 2013). However the papers explain organizational changes from multi-divisional form to SS, and how the changes affect accountants' works and responsibilities. There is a dearth of study in F&A SS that explore on how global operations in F&S SS affecting and being affected by local institutional context (except for Cohen and El-Sawad, 2007). Cohen and El-Sawad (2007) suggest that the management of SS in two different institutional contexts (the United Kingdom and India) is contingent with the on going dialogue between these two institutional settings to mitigate different work ethics, expectations and scepticisms among them.

2. Literature review and conceptual frameworks

2.1 Global finance and accounting shared services (Global-F&A SS)

Finance and accounting (F&A) functions in organizations has been redesign (Wang and Wang, 2007) from centralization to decentralization, and outsourcing. Organizations always find new ways to align structure and strategy, to achieve competitive advantage and sustainability. There are many organizations that have implemented shared services (Kearney, 2018) to redesign their F&A functions engendered by the proliferation of information and communication technology (ICT) and the accessibility of accounting talent across borders (Bhimani and Willcocks, 2014). Herbert and Seal (2012) illustrate the evolutionary change of F&A functions in organizations from conventional multi-divisional form (M-form) to shared services. Soalheira and Timbrell (2014) report that majority of Fortune 500 companies now operate F&A SS within their organizations, whereby over 85% of them have captured variety of benefits ranging from cost reductions to capability enhancements in global service delivery (Kearney, 2018).This is mainly due to globalization, where globalization has brought digitization, standardization and automation to alter F&A functions in organizations with value proposition of increased efficiency, cost savings, transparency, security and efficient decision making (Lindvall and Iveroth, 2011).

Shared services (SS) has been viewed as strategic effort by organizations to streamline global operations that involve changes in organizational structure, business processes, system and technology, location and people (Lacity and Fox, 2008). The effort strategically benefits organizations from costs savings to improved control mechanisms and value creations (Strikwerda, 2014).Various studies have been done to understand the effect of SS as new organizational form, however, study on how SS affects employees is still scarce. Howcroft and Richardson (2012) argue that SS organizations have distressed employees affected by it despite of organizational gains. To date, only Cohen and El-Sawad (2007) has explored and explained on how F&A SS located in India that serves the UK clients works on their differences. The study reveals that different working environments plays vital roles in the SS arrangement (Cohen and El-Sawad, 2007), so that both global and local parties involved need to recognize and understand prevailing logics.

In most SS literature, standardization as one of the major globalization forces has become the key process for SS establishment in order to achieve efficiency, consistency, internal customer satisfaction and cost savings (Borman, 2010; He and Cao, 2009; Wagenaar, 2006). Through utilization of ERP system and networking (Lindvall and Iveroth, 2011), organizations standardize business processes and set up their F&A SS located offshores. Standardization of accounting processes is achieved by separating finance and accounting (F&A) works into modules (Keuper and Lueg, 2013). These modules are cleansed from any non-value added redundancy to increase efficiency through business process reengineering (Lacity and Fox, 2008). Then,

modified modules are lifted and transferred to offshore F&A SS, where the modules are run by local accounting talent. Here, the processing of F&A works by SS is not done freely as in centralization form. As part of internal market mechanism in F&A SS environment, global internal customers are charged-back for every F&A services rendered. The term to illustrate the event is 'commodification' (Howcroft and Richardson, 2012, p. 111). The commodification of F&A works allows organizations to separate processes from people and locations, through IT enablement. Then, it becomes the major advantage for organizations to offshore their F&A functions into more economical countries (Gospel and Sako, 2010).

Howcroft and Richardson (2012) argue that standardization of support functions in SS has brought in frustration among employees in terms of limited flexibility, undermining the sense of professionalism, and boredom from monotonous and routine jobs. They also claim that because of 'stickiness of work' (2012, p. 122) and 'the need for highly qualified and culturally sensitive capacities' (2012, p. 119), conflicts surface between SS' employees and global clients. Moreover, part of standardization process, organizations implement homogeneous rules and regulations across their global operations as part of control mechanisms and to promote consistency of practice. This homogenization is associated with generic performance measurement across global operations, where this could intensify pressures among employees in SSC because of cultural differences. These ultimately cause high attrition rate in F&A SSC.

The standardization of F&A works and homogenization of performance measurement across global operations do not recognize the importance of local institutional orders. Meyer et al. (2010) argue that the embedded knowledge of local institutional contexts is indispensable for the success of MNCs to thrive on local resources. Moreover, Elharidy et. al. that study global accounting outsourcing also find that 'embedded relationships' (2013, p. 60) between suppliers (India) and clients (the UK) of accounting services influence control between the parties involved. Elharidy et al. (2013) dissect embeddedness into structural, temporal and cultural, where these three categories of embeddedness imply the same local institutional contexts that need to be recognized and understood by the global F&A SS. Cruz et al. (2011) find that localization process of global management practices by local managers is inevitable to achieve both corporate and local subunits objectives. They define localization as 'a process through which heterogeneous practices can emerge to facilitate the homogenizing tendencies of globalization' (Cruz et al., 2011, p. 412). Apart from that, Sahay et al. (2003) discuss the importance to recognize the forces of local institutional contexts in managing the complexities of global relationships that work across borders.

These show the importance of local institutional orders for global-F&A SS to gain legitimacy from human capital resources, which is local accounting talent. Without recognizing and understanding local institutional orders that nurture local accounting talent, global-F&A SSC could not integrate their global objectives into local workforce. Evidently, a study done by Aman and Asmui (2012) reflect on how local accounting talent in Malaysia do not show strong interest to work in global-F&A SS. However, current literature in F&A SS has not yet rigorously explain the effect of SS organizational form on local accounting talent where the effect is perceived to be critical. It is argued that changes in organizational form, infrastructure, system and processes must be followed by changes in the mind set of employees who are affected by the changes. Bergeron (2003) contends that mind set change of the workforce affected by SS organizational form is vital to its success. In global-F&A SS, local accounting talent are perceived as the most affected, because they are born and raised in local environment but at the same time work in global environment. Local accounting talent inherit and bring in different local institutional logics into global working environment, while global-F&A SS tries to inculcate global corporate logics practiced in rules and regulations, work flows, business processes and performance measurement system.

For accounting talent, the effect of SS organizational form is worrying because SS is claimed to create 'hourglass profession' (Rothwell et al., 2011, p. 241). They argue that hourglass profession is shaped by the slimming of middle level hierarchy, while the works plump at the bottom and top of accounting works hierarchy. This affects skills and professional development among accounting talent who work in F&A SS. It is because that they are not necessarily be upskilled to higher level knowledge work, and their career may be stagnant where they could see no prospect in F&A SS. Hence, a study on talent management practices in F&A SS is needed to explore the issue of local contexts and global operations. Global-F&A SS adapt their organizational practices to local institutional contexts, that subject to constraints imposed by the resources available in the local context as well as constraints imposed by global standards operations.

2.2 Institutional logics

Institutional theory is based on the intertwined of wider societal contexts, organizational fields, organizations and individuals that cross-over each other to bring stability to social behaviour. The new institutional theory discovers that organizations are not only responding to economic forces based on rationality, but react and

behave in accordance with societal pressures. Organizations which idealized as 'rational actor' do not necessarily conform to efficiency objective in their strategic decision making. However, organizations as part of the system in society, 'adopt practices not for performance but legitimacy effects' (Suddaby et al., 2013, p. 331). Legitimacy according to Scott (2008) is 'a generalized perception or assumption that the actions of an entity are desirable, proper or appropriate within some socially constructed system of norms, values, beliefs, and definitions' (Scott, 2008, p. 59). The paper follows recent calls to link research on organizational practices and institutional theory (Suddaby et al., 2013). Organizations that respond to local institutional pressures choose to streamline their global practices towards achieving both organizational goals and societal legitimacy.

The paper chooses to explain societal institutional contexts from institutional logics perspective. The reason is that institutional logics perspective has broaden the new institutional theory limited societal insights and isomorphic organizational practices, to the enunciation of agency, heterogeneity of practices and multi-level of analysis (Thornton et al., 2012). The seminal paper on institutional logics by Friedland and Alford (1991) defines institutional logics as 'values and beliefs that are shown in the practice of individual and organization' (p.248), by which when certain logics are pledged, they could enable and constrain the behaviour of these actors. Institutional logics in actors' belief system are the rules that regulate and guide organizational material practices. Material practices are understood as 'unique events' (Thornton et al., 2012) that articulate the translation of actors' belief from the institutional logics that they subscribed. Here, it can be said that organizations have their own logics to guide operations and achieving goals, however at the same time need to consider societal logics to function in that social situations. Hence, organizations such as global-F&A SS are to recognize and understand societal logics in order to gain legitimacy from important resources.

Institutional logics' literature in accounting explain audit firms' institutional logics conflicts between fiduciary or professional logics and commercial logics (such as Greenwood et al., 2002; Lander et al., 2013; Lounsbury, 2002). Modell explicates the influence of societal institutional logics on management accounting practices (Chiwamit et al., 2014; Modell, 2014, 2009).A study by Nicholson and Aman (2012) explains attrition problem in Indian and UK accounting outsourcing relationships through institutional logics lens and discovers the influence of contexts in managing attrition. The paper extends current accounting literature in F&A SS by drawing on institutional logics to explain how global-F&A SS organizations manage local accounting talent. By recognizing and understanding societal institutional logics that shaped local accounting talent, global F&A SS organizations respond and align their talent management practices strategically to gain legitimacy and impart global standardized finance and accounting working environment to local workforce.

It is recognized that the interplay of four logics in the setting of our study. First, the global-F&A SS organizations bring in two logics into local contexts, which are corporate and market logics. These two logics are the base for their global operations to achieve standardization, efficiency, cost savings and effectiveness. The corporate logic provides source for standardized processes through rules and regulations, and performance measurement. Meanwhile, market logic drives the organization to seek for the most cost effective operations for example by offshoring accounting functions to Malaysia due to labour cost arbitrage. These two logics exist in parallel and have collaborative effects (Reay and Hinings, 2009). They are described as follows.

Table 1: Corporate and market logics (Thornton et al., 2012, p. 56)

	Corporate logic	Market logic
Root metaphor	Hierarchy	Transaction
Sources of legitimacy	Market position of firm	Share price
Sources of authority	Top management	Shareholder activism
Sources of identity	Bureaucratic roles	Faceless
Basis of norms	Firm employment	Self-interest
Basis of attention	Status in hierarchy	Status in market
Basis of strategy	Increase size of firm	Increase profit
Informal control mechanisms	Organization culture	Industry analysts
Economic system	Managerial capitalism	Market capitalism

Secondly, the global-F&A SS operations in Malaysia is not without the contestation of local institutional logics. The logic of religion and community are widely recognized and play important roles in Malaysian institutional contexts. Castells (2010) expresses that ethnicity as in community logic and religion are always part of the fabrics that have considerable influence in the spheres of Malaysian economy, politic and society. Therefore, the paper brings forward the discussion of how these two logics influence talent management practices of global-F&A SS.

Table 2: Community and religion logics (Thornton et al., 2012, p. 56)

	Community logic	Religion logic
Root metaphor	Common boundary	Temple as bank
Sources of legitimacy	Unity of will: belief in trust & reciprocity	Importance of faith & sacredness in economy & society
Sources of authority	Commitment to community values & ideology	Priesthood of charisma
Sources of identity	Emotional connection: Ego-satisfaction & reputation	Association with deities
Basis of norms	Group membership	Membership in congregation
Basis of attention	Personal investment in group	Relation to supernatural
Basis of strategy	Increase status & honour of members	Increase religious symbolism of natural events
Informal control mechanisms	Visibility of actions	Worship of calling
Economic system	Cooperative capitalism	Occidental capitalism

Drawing on institutional logics and talent management literature, the paper conceptualizes a framework as Figure 1 below.

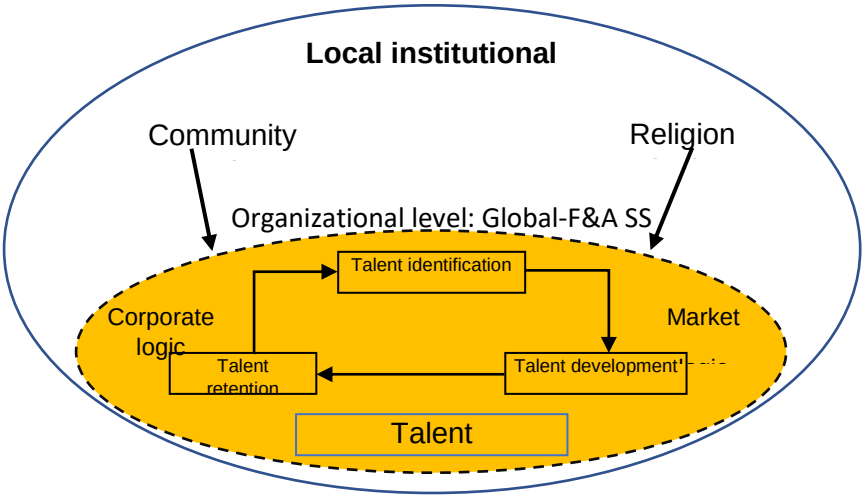


Figure 1: Conceptual framework

The conceptual framework shows how local institutional contexts not only challenge but provide opportunities for global-F&A SS organizations to respond and react. Talent management practices as a way of response by global-F&A SS organizations, also used as vehicle to inculcate global corporate and market logics among local accounting talent so that they could deliver accounting services according global standards.

Firstly, the paper identifies problems faced in managing local accounting talent. Then, explain the institutional logics that co-exist in global-F&A SS organizations and Malaysian institutional contexts. The paper discusses how the co-existence of multiple logics provide opportunities and challenges to global-F&A SS organizations. Lastly, based on the multiple logics, it is explicated that talent management practices as a way of responses by F&A SS organizations.

3. Research setting

Malaysia is chosen as research setting because of the idiosyncrasy of its institutional contexts. For many years, Malaysia has been able to attract foreign direct investment from MNCs to establish their F&A SS functions. AMD, Shell, BP, British American Tobacco and IBM are among the MNCs that already have their own regional and global F&A SS in Malaysia. Besides MNCs, local players such as Petronas, Sime Darby and AirAsia has established F&A SS locally for their regional and global operations. Based on Multimedia Development Corporation (2013) annual report, out of RM12.41 billion export of services sales, RM8.4 billion which is more

than 60 per cent comes from shared services operations. International Data Corporation (2012) reports that F&A SS are accounted for 54% of total SS sales in Malaysia, and is expected to continue maintaining similar rates through 2016. There are several reasons that makes Malaysia the preferred regional and global hub to consolidate MNCs' F&A operations, for example government incentives and policies, access to modern infrastructure, ICT readiness and last but not least talent pool. Even though Malaysia is not competing on costs, it is still cited as offering lower cost advantages as compared to Australia, Hong Kong and Singapore (International Data Corporation, 2012).

Particularly, Malaysia has diverse ethnics population that require different attentions. The three major ethnic groups are Malays, Chinese and Indians. From the total population of 29.72 million in 2013, approximately 60 per cent is Malay background, 32 per cent is Chinese and 8 per cent is Indian (Department of Statistics, 2013). The historical and self-analysis event of race riot in May 1969, has been the critical departure that recognizes the strong influence of multi-ethnicity order in Malaysian societal landscape. The race riot was caused by inadequate efforts in rectifying socio-economic imbalances among different ethnics. At that time, of all Malays households, 65 per cent were in poverty compared to 26 per cent for Chinese households. In the case of Indian, 39 per cent had incomes below the poverty line. Since then, multi-ethnicity becomes the major social fabrics that defines economic system, education and political spheres. New Economic Plan (NEP) was established in 1970 to reorganize and restructure the differences in socio-economic system through economic redistribution. Rukunegara (the national ideology) was formulated in 1971 to express the beliefs and principles of the nation to build the foundation of national unity. Despite of various national programmes held, racial stability is still the primary concern and one of the most influential orders in Malaysia. Recently, Najib Razak, the sixth Prime Minister of Malaysia, has recalled for national unity and ethnic harmony in his ongoing programme of 1Malaysia (pronounced as One Malaysia).

According to Malaysian constitution, Islam is the official religion of Malaysia, however other religions can be practiced (Liow and Pasuni, 2015). Besides having multi-ethnic society, Malaysian system of education, economy, government administration, political discourse and monumental structure are inspired by Islamic order. In order to discard extreme Islamic revivalism movement in 1970s (Shamsul, 1997), Malaysian government devices moderate Islam into its agenda since 1980s (Aziz and Shamsul, 2004; Baharuddin, 2008) with the introduction of Pusat Islam (Islamic Centre for preaching Islam), Bank Islam (Islamic Bank), Takaful (Islamic insurance) and International Islamic University of Malaysia. Shariah-based (Islamic) banking and financial institutions have been introduced since 1983 alongside with conventional banking institutions. The shariah-based banking and financial institutions do not only attract Muslim and non-Muslim in the country, they are also highly demanded by Muslim investors from around the globe. Malaysia represents a Muslim-majority country that embraces globalization in its open global economic system. Malaysia has joined World Trade Organization (WTO) that promotes global trade since 1995. In Southeast Asia, Malaysia has established ASEAN (Association of Southeast Asian Nations) Free Trade Area (AFTA) with nine other ASEAN countries to attract more FDI to ASEAN. In Muslim world, Malaysia which is one of the founding members that has active participation in OIC (the Organization of Islamic Cooperation). As another milestone for Malaysia in globalization, currently Malaysia is in negotiation with New Zealand, Brunei, Singapore, United States, Australia, Japan, Canada, Chile, Mexico, Peru and Vietnam to form The Trans-Pacific partnership agreement (TPPA). Malaysia has become the model for Muslim world to embrace Islam as well as globalization (Mouser, 2007).

Hence, we could see here how Malaysia is formed based on Islam and contested by multi-ethnic society. As Castells (2010) denotes that race and religion are always part of the fabrics that have considerable influence in the spheres of Malaysian economy, political and society. The paper explains how Malaysian idiosyncratic contexts influence F&A SS' talent management practices.

4. Research methodology

The paper adopts interpretive qualitative research approach by collecting empirical data from two case studies of global-F&A SS organizations, which are (1) ABC SS, and (2) XYZ SS. Case study method is applied to address accounting practices that could not be separated from their context (Yin, 2009), whereby context becomes major part of rich explanations for observed accounting practices (Scapens, 2008). Case study is mainly utilized to study organizational practices in the 'fieldwork' that the practices take place and offers rich explanations of the issues under investigation in their own practical setting (Ryan et al., 2002). The cases are selected based on their representation of global business operations of finance and accounting functions located in Malaysia. These cases are MNCs' F&A SS organizations that render services to global internal customers. Data are collected from both cases by semi-structured interviews, focus groups, observations and document reviews. A total of 28 hours interviews were conducted with junior accountants with less than a year of experience, accounting

executives, senior accountants, human resource managers and director of both SS organizations (details are shown in the table below). Observations consist of six (6) times site visits to both organizations, attendance of operational meeting with global internal customers, staff trainings and workshops. Public reports from Malaysian Development Corporation (MDeC), companies' annual reports, brochures and companies' websites were all reviewed and analysed. Further interviews were conducted with MDeC officers and universities' professors to gain more insights on local institutional contexts and local accounting talent with a total of 5 hours interviews. All interviews and focus groups were recorded and transcribed, and memos were written. Transcriptions, memos and pictures were coded into NVivo for analysis. Initially, codes were generated from talent management literature, that categorize talent management practices into three components, which are (1) talent identification, (2) talent development, and (3) talent retention. Then, data were reconceptualised with institutional logics frame to elucidate the reasons for particular talent management practices for each case.

5. Case Analysis

5.1 Case description

ABC SS is a US-based MNC that has 15 years of operations in Malaysia since 2000. Parent company of ABC SS is one of the largest semi-conductor producer in the world with over 70 global sub-units. ABC SS serves parent company in the US and all its global sub-units from Malaysia. The planning and implementation process together with the global ERP system installation took nine months with no consultants hired. ABC SS started with transactional accounting works such as account payables and receivables, and catered only for Asia region. With the closure of Bangkok SS in 2003, all recording and reporting of accounting transactions for Asia were moved to Malaysia. The accounting functions migrated to ABC SS gradually move up the value chain to business analytics such as internal audit, performance reports and corporate planning. By 2008, internal customers being served from Malaysian ABC SS are globally dispersed to all sub-units including US, Germany, China, Japan and Korea.

The second case which is XYZ SS was established in 2010, and it is the second SS for the parent company after Chennai SS. The parent company of XYZ SS which is based in France, operates global container transportation and shipping services. XYZ SS started with only a small unit in the Malaysian subsidiary of the parent company. In year 2012, a company was formed as XYZ SS Sdn Bhd (private limited) to acquire the benefits of Malaysia Super Corridor (MSC) status. After that, the office of XYZ SS was moved to the Golden Triangle of Klang Valley as part of MSC status requirements. With almost 200 workforces, XYZ SS provides transactional and reporting accounting functions to over twenty global internal customers. Besides that, XYZ SS also provides business-specific shipping recording and reporting functions. Table 3 below describes the cases further.

Table 3: Cases description

		Case 1: ABC SS	**Case 2: XYZ SS**
Background		US-based company	French-based company
Nature of business		Semi-conductor manufacturer	Container transportation and shipping services
Revenue (2014)		USD5.51 billion	USD16.7 billion
Number of years in operation		15 years	4 years
Global internal customers		Over 70	Over 20
Number of employees		231 employees	Almost 200 employees
Fraction of employees based on ethnicity		35% Malays : 60% Chinese : 5% Other	50% Malays : 35% Chinese : 15% Other
Director of F&A SSC		Local	Foreign
Global-F&A SSC location		Single global-F&A SSC in Kuala Lumpur	Two global-F&A SSC: one in Kuala Lumpur; the other in Chennai.
Accounting functions:			
	1. Bookkeeping and transactions recording	General ledger accounting; account payables; account receivables; payroll	General ledger accounting; account payables; account receivables; shipping documents
	2. Reporting	Financial and management reports	Financial and shipping reports
	3. Business analytics	Internal audit; ad-hoc reports; business units performance report; dashboard	None

As we can see, the cases employ different fraction of ethnicity, where XYZ SS employs the same proportion of Malays and non-Malays, while ABC SS employs 30 per cent more non-Malays than Malays. Both director of the cases are non-Malays, where the director of ABC SS is local woman and XYZ SS is a French man. Both cases confronted by problems in managing local accounting talent, however they exercise different talent management practices.

5.2 Case analysis based on institutional logics

In this section the paper explains the two case studies based on institutional logics. Both case studies established global F&A SS organizations in Malaysia and offer finance and accounting services to their global business units scattered all over the world. Based on multiple institutional logics, the paper explains how the cases react upon institutional logics and respond to them in their talent management practices.

5.2.1 Global corporate and market logics

Global-F&A SS like any other MNCs is strongly influenced by global corporate logic. Thornton et al. (2012) highlight corporate logic characteristics as bureaucratic in nature with rules and regulations to control and govern the people in the organization. Hierarchical organizational structure is very important in corporate logic with status as basis of attention in the hierarchy system. Besides formal rules and regulations, corporate logic imparts informal control mechanism in organizational culture and exercises managerial capitalism to instil competition among employees.

Standardization is strongly embedded in the structure of global-F&A SS to promote business practice consistency, costs savings and efficiency (Howcroft and Richardson, 2012). Besides that, uniform key performance indicators and homogeneous performance measurement system are exercised globally. In contrast, global-F&A SS organizations are challenged to satisfy divergent expectations from local institutional orders to gain legitimacy.

For ABC SS, standardization is the main objective of what they called CFO (chief financial officer) organization. The CFO organization consists of the whole finance and accounting functions, which are the head quarter's finance headed by CFO, accounting and finance staff in sub-units and ABC SS. The CFO organization is ruled by operating principles to ensure consistency. The director of ABC SS indicated:

> "*For the CFO organization, we actually have our operating principle, and the operating principle is to ensure that at least within the CFO organization all of us say the same thing, walk the same talk. We are very aligned, it helps us with our alignment in knowing what is important for us and our people and also for the company. then we have 1 CFO on the end to end ownership of our processes, cross functional and global collaboration because it is very global, accuracy and integrity of our financial is the key. Everything is standardized. The key fundamental culture or our philosophy is what we called the Company's way, it embodied in our 3 core belief, ownership and commitment, so whatever we say we do we definitely will make sure we do it it, Its very customer focus whether it is internal or external customer and innovation leadership, always learning, always growing, always developing and ourselves chart out our own path, and we come to realize for the 4 As, achievement alignment accountability and agility*." (The director of ABC SS)

The second case, XYZ SS, also grounded by the same principle of business process standardization in its operations. The director of XYZ SS who is a French man specified that "the extension of Chennai SS to Malaysia had brought the processes after many times of improvement". The finding is in tandem with stream of literature in SS (such as Bondarouk and Friebe, 2014; Lacity and Fox, 2008; Schulz and Brenner, 2010), where the main aim of SS organization is to standardized proprietary business processes and systems that do not speak well to each other.

5.2.2 Government market logic

Malaysian government has invested on the development of information and multimedia technology project, namely the Multimedia Super Corridor (MSC) to attract global ICT companies to invest in Malaysia. Unexpectedly, it also attracts MNCs to set up their finance and accounting SS organizations in Cyberjaya, Malaysia. The number of F&A SS organizations established is growing steadily and it contributes about half of shared services and outsourcing cluster's revenue (Multimedia Development Corporation, 2013). There are ten bills of guarantees promised to MSC status companies, and one of the most attractive incentives is the pioneer

status for at least five years. The pioneer status for any companies start up in Malaysia is given tax-free incentive during their pioneer status. Both cases took the advantage of tax-free incentive. ABC SS was incorporated in Malaysia as private limited company in 2008, whereas XYZ SS had formed its private limited company in 2012. This could be part of continuous costs saving mechanisms in each case. The market logic of Malaysian government is strategically favourable towards global-F&A SS to reduce costs of operations.

5.2.3 Malay community logic

In Malaysia, the discussion of ethnicity could not be separated from religion. The two orders have been tied in cultural norms and constitutionally formalized. In Malaysian constitution Article 160, Malay is defined as 'a person who profess the religion of Islam, habitually speaks the Malay language, and conforms to Malay custom'. Therefore, in order to speak about Malay, we need to recognized the influence of Islam in the Malays' spectrum of life (Mutalib, 2007). Some of the findings from the case study are shown as follows:

> "*Because we serve various countries like US, certain public holidays like Maulidul Rasul, Awal Muharram and Eidul fitri, we have to work. So you need to come to the office in those holidays. Certain people they don't like it. For example you have family, during that time it is time for you to be together. That's a famous reason*"
> (HR Manager of XYZ SS)

> "*Most of them leaving after the got married. For girls, that is the most common reason for them leaving. They don't want to jeopardize their happiness and their marriage. Sometimes they stay until they got pregnant and soon after they deliver the baby, they tender resignation letter. We need to be more flexible with women especially, so that we are not end up recruiting again and again*."
> (HR Manager of ABC SS)

> "*I have to work until 11pm. My husband needed to get me from office and we arrived home at almost 1am in the morning. Even though it was not everyday, but my husband need to go to work at 7am. Therefore I have to quit the job*."
> (Ex-employee of XYZ SS)

5.2.4 Chinese community logic

Different from Malay community, Chinese has their own mind set of market logic. Here are some of the findings from Chinese community.

> "*The graduates that we take, they seem to have a sense of pride among them to see how many shared services they have worked with. They compare with each other and is like peer pressure. One of them would say "I already work in BP, in Shell now in XYZ SS that is pretty good. Then another peer would say you have only worked 3 SSC in the past five years? I actually worked in 5!" They tried to move around and tried to get better package because as every time they move it is a jump in their salary as well." (Director of XYZ SS)*
> *"Last year we have a lot of people left when there was new SS setup, they are the younger generation who left which leaving us less than 2 years. they are more like to get 30% increment in salary*." (Director of ABC SS)

> "*…challenges here we have a lot of new SS, and the stole our employees. 30% joined XXX SS, my biggest regret. They just started, and most of the people are from here. They offered 30% more*." (HR Manager of ABC SS)

6. Conclusion

With the availability of multiple logics to respond in local space, global-F&A SS would strategically react and align their talent management practices in tandem with local institutional logics to gain legitimacy from local accounting talent. Global-F&A SS adapt their strategies and organizational practices to local contexts, subject to constraints imposed by the resources available in the local context as well as institutional constraints imposed by their global operations. The ability for global-F&A SS to be aware, recognize and understand influential local

institutional logics, creates the opportunities to reorganize and align organizational practices, ultimately gain legitimacy from local resources. The failure to understand and adapt to local contexts into global F&A SS talent management practices causes problems in managing local accounting talent as they are raised and nurtured in local institutional logics.

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Insights Into Awareness Level Of Investments Behaviour Among Islamic University Students

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1. Introduction

Several research studies have been undertaken to identify the investment behaviour of retail investors and households. The studies which related to awareness, factors of selection, perceptions and acceptability are important. Not only for the potential investors but also to investment companies. In addition, it is vital for the growth of Malaysia's savings and investments. Small savings of the middle-class people act as the driver for the growth of the country. In Malaysia there are various investment options are available in the market. For the layman the safest investment option is required to invest his money and earn interest on it as a return. But the investment objectives are many and varied from one person to another. They may be either to get a regular or steady income, safety of money, continuous return in the future with minimum risk or to enjoy the benefits of tax and capital appreciation. An individual's investment objective also depends on so many personal factors, like his/her age, gender, nature of occupation or qualification.

Financial literacy and financial awareness are two critical elements for the healthy development of the financial market. Financial literacy leads to financial awareness; however, both the terms are used interchangeably. Financial awareness plays a vital role in the financial planning of an individual. Proper financial awareness leads to better financial planning. According to National Institute of Securities Market, the financial planning is defined as "the process of meeting one's life goals through the proper management of personal finances". Shobha and Shalini (2015) asserted that it is a process of taking necessary steps to ensure that an individual is equipped to accomplish his financial goals which he has set out to achieve and is prepared to deal with contingencies as well. In the same year, Purohit and Rohella (2015) agreed that a person need to aware about financial products, market information, sources of getting financial knowledge and confidence of discussing financial issues, so that the person can plan for the future and make proper decisions to meet out the life events.

More specifically, financial awareness refers to the set of skills and knowledge that allows an individual to make informed and effective decisions through their understanding of finances. Financial awareness is mainly used in connection with personal finance matters. As stated by Anthes and Most (2000), personal finance awareness is the ability to read, analyze, manage and communicate about the personal financial conditions that affect material well-being. Then, Thilakam (2012) mentioned that it often involves the knowledge of proper making decisions pertaining to certain finance areas, such as insurance, investing, saving, tax planning and retirement and credit cards.

Nowadays, it is increasingly recognized the relationship between the knowledge of personal financial issues and the financial behaviours. It is understood that the decisions are ultimately made by individuals, although influenced by several factors, such as economic factors and policy structures adopted by government and private industry. Awareness is the ability to directly know and perceive, to feel or to be of events. More broadly, it is the state or quality of being conscious of something. Awareness on investment is one of the components of financial

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awareness. A lot of information regarding the products of investment, issues and challenges related in the market. Nowadays, a lot of scammer issues come into the picture and many victims involved. Besides, many topics debated about the issues of good and bad investments. The example of the unhealthy investments are related with gold investments, "skim cepat kaya", multi-level marketing and others who promised by higher returns in a short time.

These bunches of information create uncertainty and ambiguity for investors and affects their awareness level. A well-informed investor knows which one is important for him/her. Social interactions are also considered a very important aspect in promoting awareness among people and influencing their financial decisions. Investors usually make decisions with the advice of their broker or friends and relatives and sometimes based on some tips given in news channels and some websites. But this is not the case with all the investors. There are some aware investors too who chose their investment portfolio only by themselves.

The awareness level of investors is an important factor that influences the investment behaviour (Das, 2011 & Rajeswari, 2014). A number of studies involved in the education sector. Chen and Pavlicko (1996) found that college students' knowledge of personal investment is low; business majors are more knowledgeable than non-business majors, and within business majors, finance/accounting majors are most knowledgeable. In 2005, Guiso & Jappelli found that awareness is positively associated with education. Highly educated individuals are more likely to exhibit positive behaviours and attitudes as well as show advanced level of knowledge. Moreover, in 2010, Maruthu and Benjamin and Shobana and Jayalakshmi, revealed that only post-graduate qualification has an influence on the investor awareness. In addition, Banumathy and Azhagaiah (2016) and Bhushan and Medury (2013) found that there is a significant difference among the educational groups with respect to awareness. While in a study of Lusardi and Mitchell (2011) they found that those with lower educational attainment are less likely to answer questions correctly and also more likely to say that they do not know the answer.

Moving towards the financial awareness and specifically, investment awareness in Malaysia, a limited number of studies have been conducted. Thus, it is against this backdrop that the present study has been undertaken to fill up this gap and make a modest contribution in the field.

2. Materials And Methods

To achieve the stated objectives of this study, the research is designed using a mixed method approaches by combining qualitative and quantitative methods. It begins with the early stage where the researchers will analyze all the available literature reviews by previous studies on the subjects being studied. This will allow the researchers to find the comprehensive information that can be used in the later stage (content analysis). The next step is organizing a focus group. It will be conducted through discussions and in-depth interviews (average of an hour) which were all will be audio tape recorded and transcribed. Participants were recruited through local community links and were briefed about the aims and objectives of the study. By having focus group sessions, more insights from the students on investments knowledge and relevant issues will be gathered. The findings will be used in developing the survey questionnaire.

A self-administered questionnaire will be included in the sample required that the respondents are university students, aged 18–30, and are all willing to participate on their own. The convenient sampling method has been used as a mode of conducting the survey. Respondents were briefed about the purpose and rationale of the research and invited to fill in self-administered questionnaires. Then, findings from both qualitative and quantitative approaches will be analyzed and finalized. Lastly, the findings of this study will be disseminated as proceedings and journal article.

3. Expected Findings

The proposed research is observing on investment awareness, one of the aspect that is very essential for an investor to cater and consider before they seriously invest in the market. A limited number of studies have been conducted on investors, seeing on what the investors or potential investor's expectation are really looking into. It is hoped that the investor's opinions and views will be taken into consideration in the development of good investment.

4. Conclusion

The proposed study would like to focus on investment awareness among Islamic university students and what are the factors that have been considered by them in choosing good/halal investment. By knowing this valuable information, the investment providers might want to improve their current offerings to better suit the customer's needs and wants.

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Penglibatan Perusahaan Sosial Dalam Memperkasakan Model Wakaf Hostel

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Abstract

Perkembangan kewangan Islam amnya dan wakaf khususnya turut menyumbang kepada sektor pendidikan. Sistem wakaf telah memberi impak yang sangat besar kepada sektor ini. Antara keperluan kemudahan infrastruktur dalam sektor pendidikan ialah pembinaan hostel. Bagi tujuan penginapan, secara asasnya pendekatan pembangunan penginapan pelajar yang selesa mampu melahirkan pelajar yang berkualiti pada masa hadapan. Ia juga antara penyumbang penting bagi melahirkan pelajar yang cemerlang apabila keperluan penting iaitu tempat penginapan yang kondusif disediakan Melihat kepada perlunya hostel bagi kemudahan tempat tinggal kepada pelajar, kajian ini dijalankan bagi mereka bentuk satu model yang menggabungkan penglibatan Perusahaan Sosial (Social Enterprise) dalam memperkasakan wakaf hostel. Perusahaan Sosial merupakan instrumen baru yang semakin aktif dipraktiskan di Malaysia. Oleh yang demikian, kesinambungan terhadap gabungan metod ini berupaya meningkatkan kelangsungan pembangunan ekonomi melalui wakaf seterusnya menyumbang kepada sumber kewangan untuk pembinaan hostel atau asrama. Walaubagaimanapun, dalam melaksanakan model pembiayaan dana wakaf hostel, instrumen tersebut perlu dirujuk kepada keperluan perundangan yang berkaitan bagi mengelakkan ketidakakuran di dalam sistem perundangan sedia ada.

Keywords: Wakaf pendidikan; hostel; perusahaan sisial

1. Pendahuluan

Sektor pendidikan merupakan asas kepada pembinaan tamadun yang gemilang. Ia dibentuk mengikut acuan yang menjadi kepentingan serta kunci utama bagi melahirkan modal insan yang berwibawa. Sehubungan dengan itu, fokus bagi membangunkan sektor pendidikan perlu diberikan perhatian yang serius untuk merealisasikan pembangunan tamadun tersebut. Namun begitu, setiap aspek yang membawa kepada pembangunan pendidikan perlu dilihat secara mendalam sama ada berkaitan tenaga pengajar, institusi pendidikan serta infrastruktur yang tersusun. Oleh yang demikian, bagi memberikan ekosistem pendidikan yang sistematik, ia juga perlu dilihat melalui pembangunan infrastruktur bagi membolehkan para pelajar dan mahasiswa untuk menelaah pelajaran dengan suasana yang lebih kondusif. Salah satu daripada keperluan infrastruktur adalah melibatkan pembinaan Kolej Kediaman pelajar dan mahasiswa. Bagi tujuan penginapan, secara asasnya pendekatan pembangunan penginapan pelajar yang selesa mampu melahirkan pelajar yang berkualiti pada masa hadapan. Ia juga antara penyumbang penting bagi melahirkan pelajar yang cemerlang apabila keperluan penting iaitu tempat penginapan yang kondusif disediakan.

Oleh yang demikian, di dalam kertas kerja ini para penyelidik mengkaji mengenai kaedah yang boleh dilaksanakan dalam membina hostel atau Kolej Kediaman berasaskan kepada konsep wakaf dan model-model ini pula dibentuk dengan menggunakan dua instrumen penting iaitu melalui dana awam Felda, dan kaedah pengkomersilan melalui Social Enterprise. Sehubungan dengan itu, kedua-dua instrumen ini boleh dijadikan sebagai tonggak penting dalam melaksanakan model pembangunan wakaf hostel. Walaubagaimanapun, dalam melaksanakan model wakaf hostel, kedua-dua instrumen tersebut perlu dirujuk kepada keperluan perundangan yang berkaitan bagi mengelakkan ketidakakuran di dalam sistem perundangan sedia ada.

[39] Hisham Sabri merupakan Pensyarah Kanan di Fakulti Ekonomi & Muamalat, Unversiti Sains Islam Malaysia, Malaysia (USIM). hishams@usim.edu.my .

Keunikan berkaitan pembangunan wakaf hostel ini ialah ia mampu menarik lebih ramai penyumbang di kalangan umat Islam bagi membuat pelaburan saham akhirat bahkan pada masa yang sama, niat yang diminta oleh para penyumbang pasti akan dilaksanakan dan ditunaikan oleh operator wakaf. Keadaan ini adalah amat baik supaya tiada keraguan oleh para penyumbang berkaitan hasil sumbangan mereka sebagai dividen akhirat pada masa hadapan. Keadaan ini jika dapat direalisasikan melalui pembangunan wakaf hostel akan memberikan impak positif dalam ekosistem pendidikan di USIM.

2. Definisi Wakaf dari sudut Bahasa dan Istilah

Antara sumber kewangan bagi umat Islam yang menjadi pemangkin ekonomi mampan ialah wakaf. Wakaf juga berfungsi sebagai alat untuk meluaskan sesuatu aset wakaf sejajar dengan perkembangan ekonomi dan pembangunan semasa. Maksud wakaf dan pendifinisiannya adalah seperti berikut.

Dari sudut bahasa wakaf ialah menahan atau mencegah[40]. Manakala dari sudut istilah pula ia ditakrifkan sebagai satu dedikasi melalui sumbangan harta yang digunakan dengan wujudnya ain kekal, dan pewakaf atau mana-mana individu lain tidak mempunyai hak kepunyaan terhadap aset tersebut. Hasil wakaf tersebut disalurkan untuk tujuan kebaikan dan untuk mendekatkan diri kepada Allah.[41]

Berdasarkan pendapat Abu Hanifah, wakaf ialah menahan pemilikan sesuatu harta wakaf daripada pewakaf dan hasil wakaf itu kemudiannya akan diberikan kepada orang miskin atau untuk apa-apa yang bertujuan kebajikan.[42]

Manakala menurut pandangan para Jumhur Ulama' iaitu Abu Yusuf dan Muhammad Ibn Al-Hasan Al-Syaibani daripada Ulama Hanafiah, dan juga telah di fatwakan di dalam Mazhab Hanafi, Syafie dan Hanbali, pengertian wakaf bagi mereka ialah menahan sesuatu harta yang ada padanya manfaat serta kekal asetnya dengan membebaskan pemilikan aset itu daripada pewakaf . Seterusnya, penggunaan aset itu adalah untuk mendekatkan diri kepada Allah dan tujuan kebaikan. [43]

Mazhab Maliki pula berpendapat bahawa pemilik wakaf tidak menghilangkan hak pemilikan pewakaf tetapi hak penggunaannya sahaja yang terputus daripada pemilik aset atau harta wakaf tersebut.[44]

3. Dalil Penyariatan Wakaf

Al-Quran

لن تنَالُوا الْبِرَّ حَتَّى تُنْفِقُوا مِمَّا تُحِبُّونَ وَمَا تُنْفِقُوا مِنْ شَيْءٍ فَإِنَّ اللَّهَ بِهِ عَلِيمٌ[45]

Maksudnya*: Kamu tidak sekali-kali akan dapat mencapai (hakikat) kebajikan dan kebaktian yang sempurna sebelum kamu dermakan sebahagian dari apa yang kamu sayangi. Dan sesuatu apa jua yang kamu dermakan maka sesungguhnya Allah mengetahui.*

Seperti yang diriwayatkan oleh Bukhari dari Anas R.A: Abu Thalhah berjumpa dengan Rasulullah S.A.W. dan berkata Wahai Rasulullah Sesungguhnya Allah S.W.T berfirman di dalam kitabnya " Kamu sekali-kali tidak akan sampai kepada kebajikan yang sempurna sebelum kamu membelanjakan sebahagian harta yang kamu sayangi". Sesungguhnya harta yang paling aku sayangi ialah Bayruha'. Rasulullah sering memasukinya dan meminum air yang segar di dalamnya. Bayruha' itu aku sedekahkan kepada Allah yang aku harapkan kebaikannya dan simpanannya di sisi Allah. Maka tentukanlah sedekah itu sebagaimana engkau sukai wahai Rasulullah. Rasulullah bersabda: Sungguh elok wahai Abu Thalhah. Itulah harta yang menguntungkan. Sesungguhnya aku berpendapat agar engkau menjadikannya sebagai sedekah bagi kaum kerabat. Lalu Abu Thalhah menjadikannya sebagai wakaf antara lain bagi kaum kerabatnya dan anak-anak saudaranya.[46]

Berdasarkan ayat ini, Imam Al-Rafi'i (pengikut mazhab Syafie) mentafsirkan perkataan kebajikan ini termasuklah wakaf. Ini kerana wakaf merupakan salah satu aqad tabaru' dan ganjaran yang diperolehi oleh pewakaf ialah pahala yang berterusan. Oleh itu, ayat ini menjadi salah satu dalil pensyariatan wakaf. [47]

Hadis

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[40]n.a.2010. *Encyclopedia of Muamalat*. Published by Bank Muamalat: Kuala Lumpur. First Edition. p112
[41]Ibid
[42]Tauqir Mohammad Khan.2007. *Law Of Waqf In Islam*.Pentagon Press: New Delhi. p 218.
[43]Zuhaili,Wahbah.1984. *Al-Fiqh Al-Islami Wa Adilatuhu*.Damsyik: Darul Fikr. h.154-155.
[44]Ibid. h.156.
[45]Al-Quran.Al-Imran 3:92
[46]Al-Bukhari, Abu Abdulallah Muhammad Ibn Ismail. n.d. *Sahih Bukhari*. Bayrut: Dar Ibn Kathir. Kitab Al-Wasoya. Bab Min Tasadaq Ila wakiluhu Thuma Radda Al wakil Ilaihi. Juz'3: p.1014.#2607.
[47] n.a. 2010. *Manual Pengurusan Istibdal Wakaf*. Putrajaya: Jabatan Wakaf, Zakat dan Haji (JAWHAR).h.7.

عن عثمان "أن النبي صلى الله عليه وسلم قدم المدينة، وليس بها ماء يستعذب غير بئر رومة.فقال : من يشتري بئر رومة فيجعل فيها دلوه مع دلاء المسلمين بخير له منها في الجنة؟ فاشتريتها من صلب مالي.[48]

Maksudnya : sesungguhnya Nabi SAW sampai di Madinah, dalam keadaan di Madinah tidak ada air yang boleh diminum melainkan air Perigi Raumah. Lalu baginda bersabda : "siapakah yang mahu membeli perigi Raumah, lalu dia mewakafkannya sehingga dia meletakkan timbanya di telaga itu bersama timba-timba orang Islam, dengan ganjaran yang lebih baik baginya dari pada perigi itu di dalam syurga?" lalu aku pun membelinya dengan harta milikku sendiri sepenuhnya."

Pada suatu ketika, penduduk Madinah menghadapi masalah kemarau yang teruk. Hanya satu sahaja sumber air yang masih ada iaitu sebuah perigi bernama Raumah pemilik seorang Yahudi. Saidina Uthman RA telah bertemu dengan pemilik perigi tersebut dan menawarkan harga yang tinggi untuk membelinya. Walau bagaimanapun, orang Yahudi tersebut enggan menjualnya kerana yakin mampu memperoleh keuntungan hasil jualan air minuman pada setiap hari kepada orang ramai. Saidina Uthman tidak berputus asa. Baginda meningkatkan nilai tawaran untuk membeli perigi tersebut secara bergilir-gilir berganti hari dengan pemilik Yahudi tersebut. Ditakdirkan oleh Allah, pemilik Yahudi tersebut telah bersetuju dengan tawaran yang diberikan. Apabila tiba hari giliran perigi untuk Sayidina Uthman, kaum Muslimin Madinah telah mendapatkan air secara percuma dan mengambil bekalan secukupnya untuk dua hari. Apabila sampai giliran perigi itu dimiliki oleh orang Yahudi tersebut, tiada orang Islam yang datang berurusan membeli air darinya. Oleh itu, pemilik Yahudi tersebut membuat keputusan untuk menjual sepenuhnya hak milik perigi tersebut kepada Saidina Uthman. Kemudian, baginda mewakafkan keseluruhan perigi yang menjadi sumber air yang utama di Madinah untuk manfaat kaum Muslimin.[49]

4. Terminologi Wakaf dari sudut Perundangan Malaysia

Merujuk kepada seksyen 2 Enakmen Wakaf Negeri Selangor 2015 , wakaf bermaksud menyerahkan hak milik apa-apa harta yang boleh dinikmati manfaat atau kepentingannya; menyerahkan manfaat atau kepentingan yang boleh dinikmati daripada apa-apa harta; atau menyumbangkan kepakaran dan perkhidmatan yang boleh dinikmati manfaat atau kepentingannya, sama ada sebagai wakaf am atau wakaf khas, menurut hukum Syarak, tidak termasuk amanah yang ditakrifkan di bawah Akta Pemegang Amanah 1949.[50]

Klasifikasi Wakaf

Dalam pengklasifikasi harta wakaf, umunya ia dibahagikan mengikut penerima wakaf. Jenis-jenis wakaf tersebut ialah wakaf *khayri* (kebajikan) dan wakaf ahli (keluarga).

Konsep Wakaf Hostel dalam Wakaf Pendidikan

Konsep wakaf pendidikan adalah untuk membantu membangunkan sesebuah institusi pendidikan melalui sumbangan yang diberikan . Wakaf yang diterima boleh digunakan untuk menampung kos , pembangunan modal insan dan aktiviti peningkatan kualiti pendidikan. (Noor Hisham, 2016)
Wakaf pendidikan boleh didefinisikan sebagai suatu harta, barangan, asset atau tunai yang diberikan kepada sektor pendidikan atau sesbuah institusi sama ada berterusan atau tidak. (Raja Nor Ashikin & Nor Adha, 2014).

[48] Muhammad Bin Isa. 1975. *Jami' As-Sahih Sunan Attirmizi*.n.pl :n.pb. Kitab mal-manaqib. Bab fi manaqibUthman Bin Affanr.a. Juzuk 5: p. 627. #3705.
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[50]Dewan Undangan Negeri Selangor. 2015. *Enakmen Wakaf (Negeri Selangor)* (Enakmen 15, 2015).Seksyen 2

Definisi Perusahaan Sosial (Social Enterprise)

Perusahaan Sosial (*Social Enterprise*) bermaksud satu entiti organisasi yang menjalankan aktiviti bersifat keusahawanan sosial dengan menggunakan model perniagaan serta yang paling utama mempunyai matlamat atau misi sosial sebagai objektif.[51] Social Enterprise menggunakan hasil keuntungan sebagai sumber kewangan bagi mengekalkan keupayaannya dan tidak bergantung kepada dana awam semata-mata.[52]

Perbezaan dan Hubung Kait Terminologi Perusahaan Sosial dengan Keusahawanan Sosial, Perniagaan Sosial, dan Non-Profit Organisation (NPO)

Terma Perusahaan Sosial, Keusahawanan Sosial, Perniagaan Sosial, dan "Non-Profit Organisation" mempunyai perbezaan makna yang kecil (Wolfgang Grassl, 2012). Kedua-dua terma Perusahaan Sosial dan Keusahawanan Sosial juga saling berganti dan berkongsi banyak persamaan(Luke & Chu, 2013). Malahan setiap terma, misalannya 'Keusahawanan Sosial' itu sendiri juga memiliki variasi makna. Sebagai contoh, Susana Bernardin et al (2015) mendefinisikan keusahawanan sosial sebagai satu metod untuk menyediakan jawapan kepada masalah sosial .Manakala Nur Sa'adah & Khairul Akmaliah (2013) telah mendefinisikan keusahawanan sosial sebagai penggunaan kaedah perniagaan yang inovatif untuk menyelesaikan masalah sosial. Tambahan, Luke & Chu (2013) turut menekankan bahawa terma Perusahaan Sosial dan Keusahawanan Sosial adalah sangat berbeza. Hal ini kerana, perkataan 'perusahaan' itu sendiri membawa maksud kepada aktiviti komersil manakala 'keusahawanan' itu bersifat inovatif dengan menghasilkan sesuatu yang baru ke dalam pasaran.

Seterusnya terma Perusahaan Sosial dan Perniagaan Sosial (Social Business). Kebanyakkan penulis membezakan keduanya dengan tujuan dan pulangan keuntungan. Perusahaan Sosial mengimbangi misi sosial dan mencari keuntungan dengan sama rata sementara Perniagaan Sosial lebih mengutamakan usaha untuk dapatkan keuntungan. Namun, misi kemasyarakatan dalam Perniagaan Sosial tidak diketepikan. Dalam konteks distribusi hasil keuntungan, Perniagaan Sosial akan menggunakan 100% daripada hasil keuntungan untuk dilaburkan semula kepada perniagaannya. Hal ini berbeza dengan Perusahaan Sosial, yang mana sesuatu Perusahaan Sosial itu akan membahagi sebahagian keuntungan kepada kelangsungan aktiviti sosial dan sebahagian lagi untuk pelaburan ke dalam perusahaan semula.

5. Konsep Perusahaan Sosial

Ciri-Ciri Perusahaan Sosial

Menurut Kerlin (2006) di dalam penulisannya yang bertajuk *"Social enterprise in the United States and Europe: Understanding and learning from the differences"*[53] telah menyenaraikan sembilan ciri-ciri sesebuah Social Enterprise. Ciri-ciri yang dinyatakan oleh beliau adalah seperti berikut;

i. Penghasilan barangan untuk penjualan atau perkhidmatan yang diupah secara berterusan.
ii. Aras autonomi yang tinggi.
iii. Aras risiko ekonomi yang signifikan.
iv. Harga kerja berbayar yang minimum
v. Mempunyai tujuan untuk memberi manfaat kepada komuniti
vi. Suatu iniatif yang dibuat oleh sekumpulan rakyat.
vii. Kuasa untuk membuat keputusan tidak berdasarkan pemilikan kapital.
viii. Penerima manfaat turut terlibat dalam aktiviti yang dijalankan.
ix. Kadar distribusi keuntungan yang terhad.

Alter, K menyenaraikan karakter-karakter Social Enterprise yang sedikit berbeza. Berikut merupakan karakteristik Social Enterprise bagi Alter, K.;

i. Menggunakan instrumen dan pendekatan perniagaan untuk mencapai objektif sosial.
ii. Mencampurkan kaedah dan sumber sosial serta komersil.
iii. Membina nilai ekonomi dan sosial
iv. Menghasilkan pendapatan daripada aktiviti komersil sebagai dana program sosial.
v. Didorong oleh pasaran dan misi.

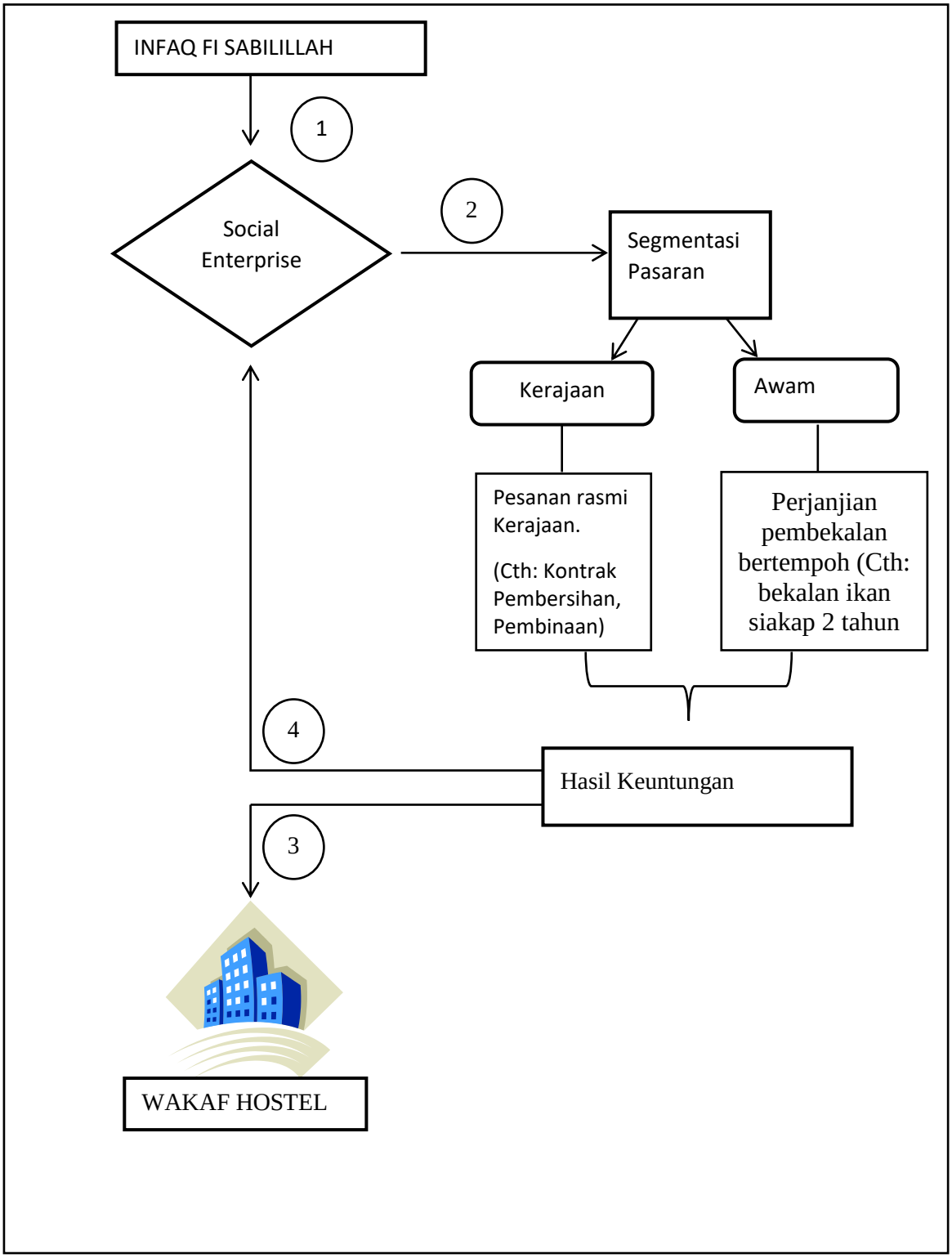
[51]What is Social Enterprise? https://www.socialenterprise.org.my/what-is-social-enterprise/ diakses pada 15 April 2018.
[52] Dart, R. (2004). of Social Enterprise, 14(4), 411–424.p415
[53] Kerlin, J. A. (2006). "Social enterprise in the United States and Europe: Understanding and learning from the differences*." Voluntas*, 17(3), 246–262. https://doi.org/10.1007/s11266-006-9016-2.p249

vi. Menilai prestasi kewangan dan impak sosial.
vii. Mencapai target kewangan demi kebaikan awam.
viii. Menggabungkan strategi perusahaan bagi mencapai misi.

Berdasarkan kedua-dua senarai ciri atau karakteristik sesebuah perusahaan sosial, maka dapatlah dirumuskan bahawa Social Enterprise ialah suatu perusahaan yang bersifat hybrid di mana menggabungkan model perniagaan untuk mendapat keuntungan , serta berobjektif demi kebaikan komuniti.

Di dalam aspek social enterprise pula, beberapa perkara perlu diambil perhatian agar ianya dapat direalisasikan. Bagi kepentingan pembinaan wakaf hostel tersebut aspek mengenai /melibatkan operator social Enterprise tersebut perlu diteliti serta ditapis secara lebih mendalam agar dapat mengetahui tentang roh syarikat wakaf . Syarikat wakaf ini adalah sangat penting kerana momentum penjanaan wang dari social Enterprise itu adalah bergantung sepenuhnya terhadap operator yang dilantik. Sehubungan dengan itu, jika operator berkaitan mempunyai kepakaran dalam bidang perniagaan yang dibentuk oleh social Enterprise tersebut serta disulami dengan ilmu dan roh wakaf maka ia adalah satu daripada kaedah bagi mengekalkan momentum pengurusan yang berkualiti dan berteraskan kepada pensyariatan Islam.

Selain daripada itu, risiko berkaitan tujahan perniagaan yang ingin dilakukan itu juga perlu dilihat secara lebih mendalam. Ini disebabkan, kesilapan dalam membuat pelaburan perniagaan boleh menyebabkan duit daripada dana awam tersebut akan mengalami kerugian. Maka, dalam konteks ini jika permintaan yang tinggi serta mempunyai sifat sekuriti ia boleh dilakukan oleh social Enterprise tersebut. Elemen security business perlu dijadikan tapak terpenting agar ia memberikan pulangan jaminan keuntungan pada masa hadapan. Sekiranya ia dapat dilakukan, maka ia akan menyumbang kepada penjanaan awam yang lebih yakin lagi dalam kalangan para penyumbang yang lain pada masa hadapan.


INFAQ FI SABILILLAH
1
Social Enterprise
2
Segmentasi Pasaran
Kerajaan
Awam
Pesanan rasmi Kerajaan.
(Cth: Kontrak Pembersihan, Pembinaan)
Perjanjian pembekalan bertempoh (Cth: bekalan ikan siakap 2 tahun
4
Hasil Keuntungan
3
WAKAF HOSTEL

6. Operasi Cadangan Model Wakaf Hostel

"Infaq Fi Sabilillah" bermaksud mengeluarkan atau menggunakan harta yang dimiliki untuk kebaikan demi meraih keredhaan Allah. Ia menjadi tonggak asas kepada Model Wakaf Hostel ini. Fasa pertama dimulakan dengan penubuhan sebuah Perusahaan Sosial (*Social Enterprise*). Selepas daripada itu, proses membangunkan sesuatu projek dengan mengenal pasti segmentasi pasaran sedia ada. Terdapat dua cabang bagi pengenal pastian pasaran iaitu dari sektor Kerajaan dan keduanya dari sektor Awam. Ini adalah merupakan kaedah yang terbaik dalam memperkasakan wakaf hostel.

Sebagai contoh, apabila sesuatu perniagaan atau keperluan oleh peniaga boleh dilakukan oleh *Social Enterprise*. (Lihat langkah kedua). Kemudian, suatu *Social Enterprise* yang berasaskan perniagaan ikan air tawar seperti siakap dibentuk. Seterusnya, pihak syarikat atau pengusaha kolam akan memastikan pengeluaran yang diminta oleh pihak pembeli ikan siakap dapat dipenuhi secara sistematik sepertimana yang telah dipersetujui oleh pihak-pihak dalam suatu perjanjian. Oleh itu, satu perjanjian dapat dilaksanakan antara pihak pembeli dan penjual yang diwakili oleh Perusahaan Sosial. Dengan itu, ia telah mewujudkan satu rangkaian perniagaan yang selamat suhunya.

Merujuk kepada langkah kedua juga, ia menunjukkan bahawa punca utama operasi ini adalah daripada satu kontrak yang dimeterai. Misalannya perjanjian pembekalan ikan siakap secara konsisten kepada pihak peniaga, maka secara tidak langsung ia telah memberikan sumber pendapatan secara tetap kepada Perusahaan Sosial tersebut. Hal ini berupaya membangun dan membina prestasi Perusahaan Sosial tersebut. Tambahan, pada masa yang sama hasil jualan yang diperolehi adalah berterusan memandangkan kebergantungan hasil jualan tersebut adalah merujuk kepada perjanjian asal pembelian ikan siakap secara konsisten selama tempoh dua tahun.

Ini menunjukkan bahawa apabila keperluan pengguna dapat dikenal pasti secara konsisten, kemudiannya ia memberi ruang kepada pihak Perusahaan Sosial dalam mewujudkan dan melaksanakan kontrak perjanjian. Ia adalah untuk membina konsistensi jualan dan mengekalkan kestabilan aliran wang Perusahaan Sosial tersebut.

Selepas daripada penyerahan ikan siakap tersebut kepada pihak yang menjalankan perniagaan, seperti perniagaan kedai makan atau restoran, mereka akan membuat bayaran. Bayaran itu akan direkodkan sebagai jualan kepada syarikat ikan siakap tersebut. Sehubungan daripada itu, duit yang diperolehi sebagai hasil keuntungan ia akan disalurkan kepada dua tujuan. Pertamanya, membuat pelaburan semula bagi pembelian benih ikan siakap yang baru dan kos pengurusan syarikat serta yang keduanya pula akan diagihkan ke dalam akaun khas dana wakaf hostel (Lihat langkah ketiga dan keempat). Ini merupakan salah satu kaedah bagi memberikan impak positif kepada perkembangan dana pengurusan wakaf hostel melalui keterlibatan daripada Perusahaan Sosial secara sistematik. Ia turut mampu melonjakkan kutipan dana wakaf hostel secara konsisten.

7. Kesimpulan

Secara kesimpulannya ialah pembangunan wakaf hostel adalah sangat penting dan perlu diberikan keutamaan pada masa sekarang. Ia adalah satu platform yang perlu diberikan perhatian sekiranya peningkatan jumlah pelajar atau unjuran pengambilan pelajar di USIM pada masa hadapan ingin direalisasikan. Oleh itu instrumen atau booster booster wakaf hostel melalui dana awam dan social Enterprise adalah amat signifikan bagi tujuan tersebut. Manakala aspek yang berkaitan seperti integriti pengurusan kewangan kecekapan dalam menguruskan perniagaan berasaskan sosial Enterprise serta ketulusan pelaporan kewangan wakaf hostel perlu diperhalusi supaya model pembangunan wakaf hostel ini dapat diguna pakai pada masa hadapan bagi tujuan tersebut. Tuntasnya penggembelingan tenaga oleh semua pihak secara komprehensif perlu dilakukan berasaskan kepada keintelektualan berpaksikan Syariat Islam.

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Helping Attitude among Startups: A Study on TUBE Mega 5.0 Participants

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Abstract

Helping others is considered and sometimes expected to be a voluntary act. This behavior can be characterized as a helpful behavior that does not expect something in return. In general, the behavior of helping others would create a conducive environment especially when being instilled at an early stage of entrepreneurial journey. The study was conducted on 115 startups company's owners who participated under Tunas Usahawan Belia Bumiputera (TUBE 5.0) organized by SME Corporation, an agency under the Ministry of International Trade and Industries, Malaysia in early March 2018. The rate of return on the questionnaires was 48%. The objective is to find and compare the helping attitude of startups based on several demographic factors. The sample was selected through purposive sampling technique. The researchers used the Helping Attitude Scale (HAS) by Gary S. Nickell. It is a scale with 20-item to measure respondents' belief, feelings, and behaviors associated with helping others. Based on the simple analyses, it is revealed that male startup owners possess better helping attitude than their female counterparts. Further analysis might give the researchers and the audience a better understanding and insights on this issue.

Keywords: Startups; Helping Attitude Scale; TUBE; entrepreneurship

1. Introduction

Startups are integral parts of an economic ecosystem in any given country. In the past couple of years Malaysian startup ecosystem has incubated a great number of amazing startups that has attracted some of the top investors. The Malaysian startup scene is growing at a powerful speed according to 2016 statistics. Investments were up to US$1.45 billion (MYR6.5 billion) in 2016, according to the Malaysia's Security Commission Annual Report 2016 (Pagan Research, 2018).

Helping others is a very important personal trait in which a person is concerned about the welfare of others. Entrepreneurs should be passionate about their ideas, goals and, of course, their companies. This passion is what drives them to do what they do. Some entrepreneurs love the adventure and excitement of creating something new, and once it is established they lose interest and move on to something else. Other entrepreneurs feel passionately about the product they are constructing or the sense of accomplishment they feel because they know they are helping other people, animals, or environment.

2. Defining Startups

According to Neil Blumenthal, co-founder and co-CEO of Warby Parker, "A startup is a company working to solve a problem where the solution is not obvious and success is not guaranteed" (Robehmed, 2018). According to the Indian Government, a startup can be defined as any business entity that has been incorporated 5 years or less, turnover for any of the financial years has not exceeded Rupees 25 crore, and is working towards innovation, development, deployment or commercialization of new products, processes or services driven by technology or intellectual property (Marg & Kunj, 2016). Startups are companies with a limited operating history. This company, in general has just been created, and is still in the development and market research phase. The term 'startup' has become popular internationally since the dot-com bubble when many internet-

based companies have sprung up. Tech-startup is a startup that specializes in the high-tech industry. Startups can have various forms, but the term "startup company" is often associated with companies that are fast-growing and technology-oriented. Investors are attracted to new companies which are clearly characterized by their risk and scalability. So, this startup tends to have a lower 'bootstrapping cost', higher risk, and a higher potential for return on investment (ROI). Successful startups are usually more 'scalable' than established businesses, meaning startups have the potential to grow faster with limited capital, labor or land investment.

3. Background of Bumiputera Youth Entrepreneurs Program (TUBE)

The Bumiputera Youth Entrepreneurs Program or Tunas Usahawan Belia Bumiputera (TUBE) program is a government initiative to encourage the generation of youths to venture into business. It was launched during the Bumiputera Youth Entrepreneurs Congress organized by Ministry of International Trade and Industry of Malaysia (MITI) on 27-29 March 2014. During the Congress' closing ceremony on 29 March 2014, the Prime Minister announced an allocation of RM10 million to SME Corporation Malaysia (SME Corp) to implement the TUBE Program in 2014 (Bahagian Teknologi Maklumat, SME Corp. Malaysia, 2018). The program directly supports the nation's youth development policy where entrepreneurship is one of the key areas of focus for youth to move forward. SME Corp is committed to producing 12,000 young Bumiputera entrepreneurs through the TUBE Mega by 2020. Through the implementation of the TUBE Mega program, an estimated of 37,000 new job opportunities could be created that could generate RM1.1 billion of accumulated sales value and contributed RM450 million to Gross Domestic Product (GDP).

The program targets Bumiputera youths between the ages of 18 and 30 who have deep interest in engaging in entrepreneurship, especially youths who have basic skills certificates from local training institutions or skills centers. The main objective of the TUBE Program is to 1) nurturing and cultivating entrepreneurial spirit among youths, 2) youth paradigm shift from job seeker to owner or business entrepreneur; and 3) forming resilience and identity among youth in managing their own businesses. This TUBE program is specially designed to prepare youth who want to start a business to have mental and physical resilience, as well as being exposed to the real-world business landscape and challenges. This is done through three phases of implementation. In Phase 1, eligible participants will follow boot camp-based military basic physical training to test the power of the mind, learn how to make strategic decisions, courage, leadership characterization and teamwork spirit. This is in preparation for the many challenges that will be faced while doing business. Selection of participants was strictly conducted via interview session to ensure only highly motivated participants will join the program.

Next, during the Phase 2, participants will be exposed to the latest business landscape; including information on the types of assistance and facilities provided by various ministries and agencies to start a business. Participants will also learn various business acquisitions including basic accounting, product marketing and services, as well as presentation ideas and business plans. Finally, in Phase 3 - Participants who passed Phase 1 and Phase 2 will carry out business based on the Business Plan presented to the current Panel of Assessors in Phase 2. The business development of participants in this phase will be guided and monitored through the Buddy System by the Business Counselor SME Corp. Malaysia. The 12-month coaching and monitoring period seeks to ensure TUBErs receive adequate advisory services, so that the business will continue to be resilient and sustainable. All successful participants will be eligible to apply a start-up business grant worth RM15,000.

Since 2014, 2,433 youths underwent training, with 99% of them or 2419 has registered new businesses. From these, SME Corp recorded a RM54.6mil in sales while creating 4,414 new jobs in the same period. In 2018, about 2,000 participants have joined the TUBE program executed at 15 different locations all over Malaysia. This program was jointly organized by government agencies, universities and industry partners (Utusan Borneo Online, 2018).

During the Phase 2, universities were responsible to conduct the training session. A special entrepreneurship and business management module was built to expose participants about this. Universiti Sains Islam Malaysia (USIM) lecturers was assigned to handle TUBErs in Negeri Sembilan. About 115 participants had joined TUBE in Negeri Sembilan located at Ulu Pari PLKN Camp.

4. Helping Attitudes Scale

According to Nickell (1998), helping attitude can be defined as the beliefs, feelings and behavior related to helping people. Helping Attitudes Scale (HAS) is a multidimensional attitude scale. It has been used to gauge the helping attitudes in many demographic layers. A study was conducted by Hafsah Jan in 2017 to gauge the helping attitude of professional and non-professional college students in Kashmir, India. The study revealed that

female possesses better helping attitude than male and also found that both professional and non-professional female college students have better helping attitudes than their male counterparts (Jan, 2017). Another study found that there is a significant correlation between helping attitude and purpose in life in older widowed women living with their families (Fernandes, Sanyal, & Fatima, 2015). In another research, it was concluded that helping attitude can be taught and learnt through exercises (Buragohain & Sonowal, 2016).

5. Methodology

The study was conducted on 115 startups companies' owners who participated under Tunas Usahawan Belia Bumiputera (TUBE 5.0) organized by SME Corporation, an agency under the Ministry of International Trade and Industries, Malaysia in early March 2018. The rate of return on the questionnaires was 48%. The study is an exploratory study. The sample was selected through purposive sampling technique. The researchers used the Helping Attitude Scale (HAS) by Gary S. Nickell. It is a scale with 20-item to measure respondents' belief, feelings, and behaviors associated with helping others which includes 14 positive and 6 negative items. The range of scores on this scale extended from 20 to 100 with neutral score of 60 (Buragohain & Sonowal, 2016). The summation of all scores earned on all statements was taken as the total Helping Attitude score. Each item is answered on a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

6. Results

The mean for this Helping Attitude among Startup is 86.76 with a Standard Deviation of 8.604. The range of score is between 67 to 100. The mean for Male is slightly higher than the Female at 89.03 compared to 84.04. It indicated that men have a more positive attitude towards helping. This is in contract with research done by Nickell, G. in 1998 (Nickell, 1998).

Table 1: Cronbach's Alpha Result

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.808	.851	20

Table 1 given above is the Reliability Statistics Table which provides the value for Cronbach alpha which in this case is .808 and reflects high reliability of the measuring instrument. Furthermore, it indicates high level of internal consistency with respect to the specific sample

Table 2: Gender Distribution of Respondents

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	25	45.5	45.5	45.5
	Male	30	54.5	54.5	100.0
	Total	55	100.0	100.0	

Chart 1: Gender Distribution of Respondents

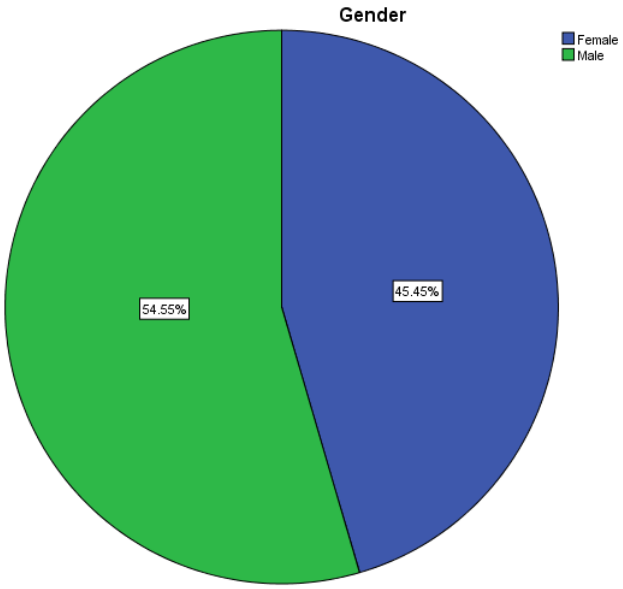


Table 2 and Chart 1 given above illustrate the gender distribution of respondents which provides the gender percentage of the respondents. 54.55% of the respondents are male while 45.45% are female.

Table 3: Type of Business

Type of Business

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Limited liability	2	3.6	3.6	3.6
	Partnership	3	5.5	5.5	9.1
	Sdn Bhd	3	5.5	5.5	14.5
	Sole proprietorship	47	85.5	85.5	100.0
	Total	55	100.0	100.0	

Chart 2: Type of Business

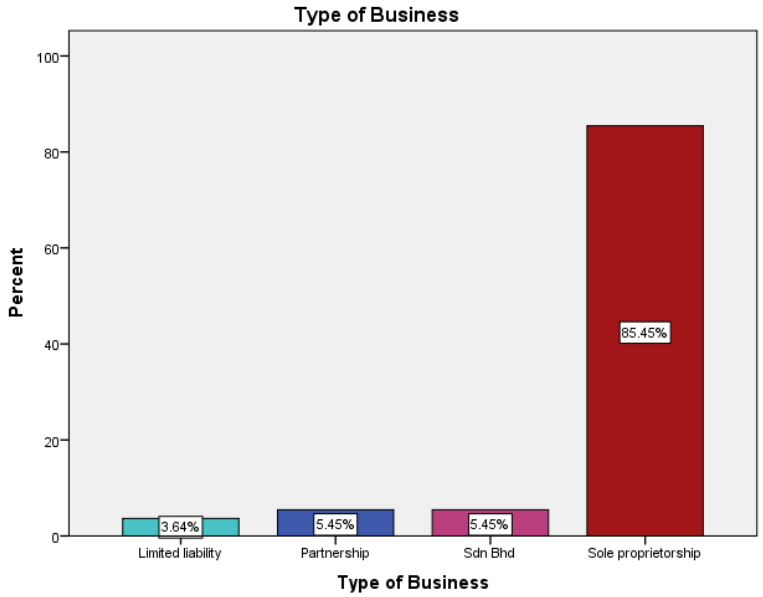


Table 3 and Chart 2 given above illustrate the type of business of respondents. In terms of forms of business, 3.64% are registed as limited liability company, 5.45% as partnership, 5.45% as Sendirian Berhad, and 85.45% are registered as sole propriatorship business.

Table 4: Type of Industry

Industry

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agriculture	10	18.2	18.2	18.2
	Clothing	7	12.7	12.7	30.9
	Food	21	38.2	38.2	69.1
	Services	17	30.9	30.9	100.0
	Total	55	100.0	100.0	

Chart 3: Type of Industry

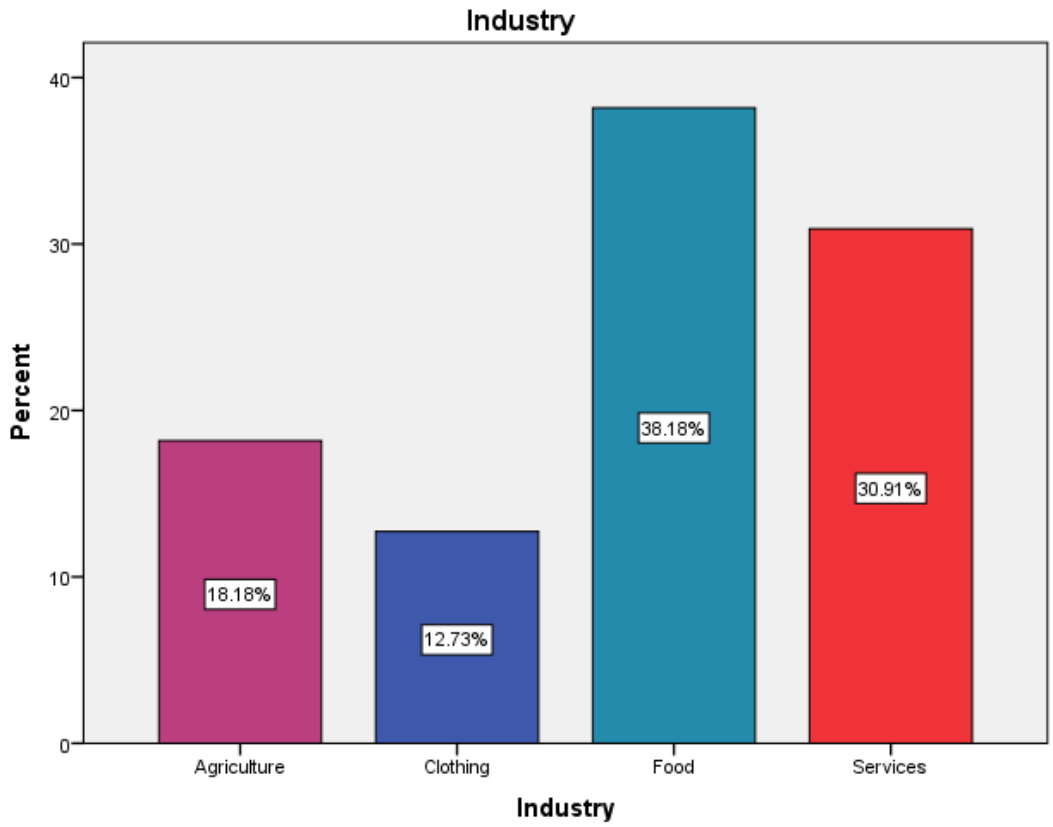


Table 4 and Chart 3 given above illustrate the type of industry of respondents. In terms of forms of business, 18.18% are in the agricultural industry, 12.73% are in the clothing industry, 38.18% are in the food industry, and 30.91% are in the services industry.

Table 5: Years in the Industry

Involvement in business

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 year	10	18.2	18.2	18.2
	2 year	2	3.6	3.6	21.8
	3 year	2	3.6	3.6	25.5
	4 years	2	3.6	3.6	29.1
	Just Started	22	40.0	40.0	69.1
	Less than 1 year	17	30.9	30.9	100.0
	Total	55	100.0	100.0	

Chart 4: Years in the Industry

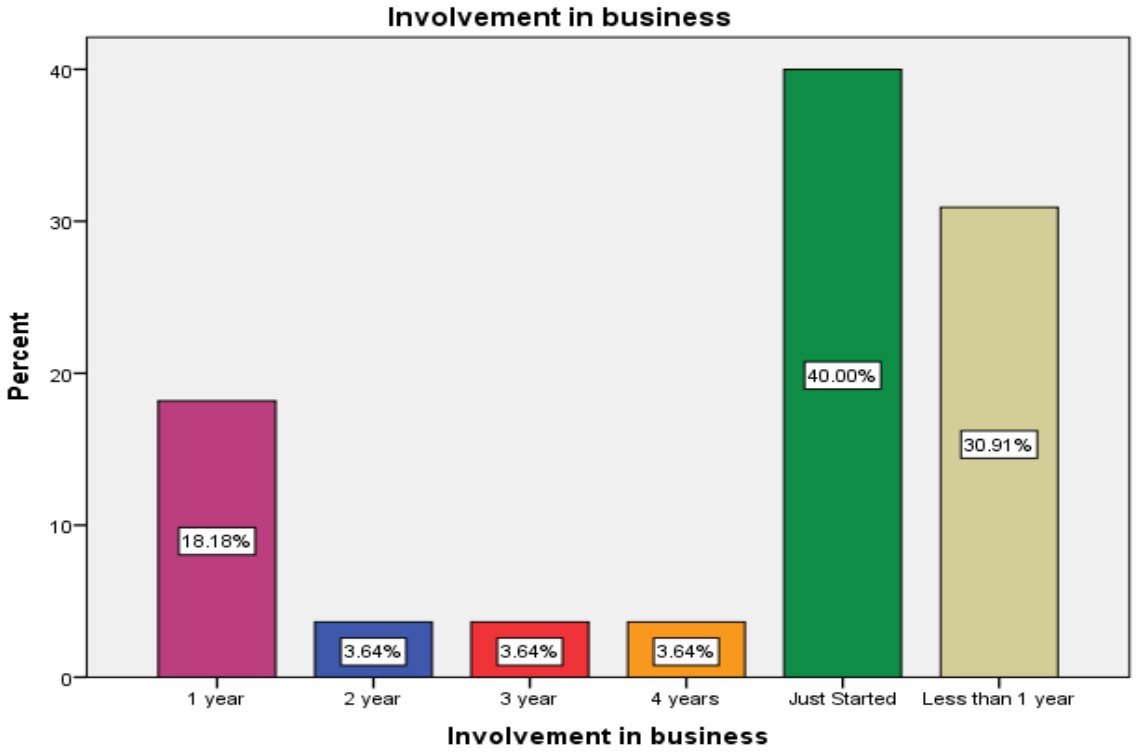


Table 5 and Chart 4 given above illustrate years of involment in business of the respondents. 40% of the have just started setting up their business, 30.91% less than 1 year, 18.18% 1 year, 3.64% 2 years, 3.64% 3 years and another 3.64% has been involved in business in 4 years.

Table 6: Numbers of Staff

Number of Staff (Not including the Owner)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 employee	38	69.1	69.1	69.1
	2 to 5 employees	17	30.9	30.9	100.0
	Total	55	100.0	100.0	

Chart 5: Numbers of Staff

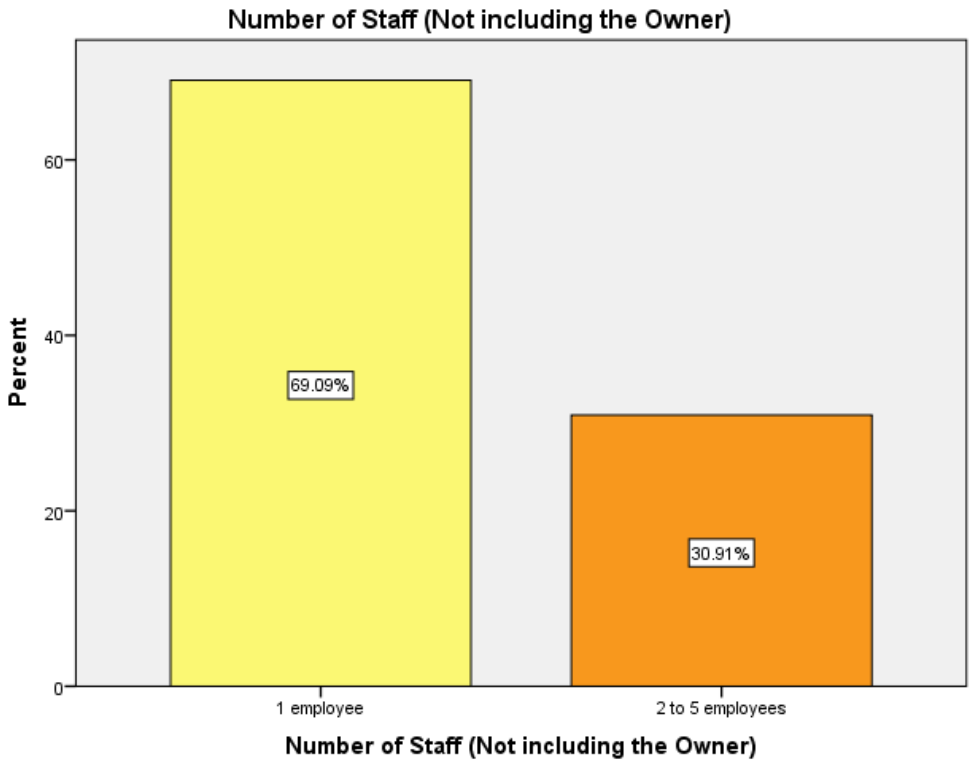


Table 6 and Chart 5 given above illustrate numbers of staff in the business. 69.09% of the respondents have only 1 worker in their business while 30.91% have between 2 to 5 employees in their business.

Table 7: Gender * Amount Allocated for the Needy (2017) Crosstabulation

		Amount Allocated for the Needy (2017)			
		Below RM500	RM1001 to RM5000	RM500 to RM1000	Total
Gender	Female	20	1	4	25
	Male	17	2	11	30
Total		37	3	15	55

Table 7 illustrate the 2017 allocation for the needy based on gender. For female respondents, 80% allocated below RM500, 16% between RM500 to RM1000 and 4% allocated between RM1001 to RM5000 for the needy. For male respondents, 56.7% allocated below RM500, 36.7% between RM500 to RM1000 and 6.6% allocated between RM1001 to RM5000 for the needy.

Table 8: Helping others is usually a waste of time

		Frequency	Percent	Valid Percent
Valid	1.0	43	78.2	78.2
	3.0	7	12.7	12.7
	4.0	1	1.8	1.8
	5.0	4	7.3	7.3
	Total	55	100.0	100.0

Based on Table 8, 78.2% of the respondents are strongly disagree that helping others is usually a waste of time. 17.7% are neither agree nor disagree that helping others is usually a waste of time. 7.3% strongly agree that helping others is usually a waste of time.

Table 9: When given the opportunity, I enjoy aiding others who are in need

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3.0	3	5.5	5.5	5.5
	4.0	10	18.2	18.2	23.6
	5.0	42	76.4	76.4	100.0
	Total	55	100.0	100.0	

According to Table 9, 76.4% of the respondents enjoyed aiding others when given the opportunity to do so while 5.5% are neither agree nor disagree. 18.2% agreed that they enjoyed aiding others when given the opportunity

Table 10: If possible, I would return lost money to the rightful owner.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3.0	2	3.6	3.6	3.6
	4.0	12	21.8	21.8	25.5
	5.0	41	74.5	74.5	100.0
	Total	55	100.0	100.0	

Based on Table 10, 74.5% of the respondents would return lost money to the rightful owner while 21.8% agreed to do so. 3.6% neither agree nor disagree that they would return the lost money to the rightful owner.

Table 11: Helping friends and family is one of the great joys in life.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3.0	1	1.8	1.8	1.8
	4.0	5	9.1	9.1	10.9
	5.0	49	89.1	89.1	100.0
	Total	55	100.0	100.0	

Based on Table 11, 89.1% of the respondents felt strongly agree that helping friends and family is one of the great joy in life while 9.1% agreed to that statement. 1.8% neither agree nor disagree with that statement.

Table 12: I would avoid aiding someone in a medical emergency if I could

		Frequency	Percent	Valid Percent
Valid	1.0	31	56.4	56.4
	2.0	9	16.4	16.4
	3.0	6	10.9	10.9
	4.0	3	5.5	5.5
	5.0	6	10.9	10.9
	Total	55	100.0	100.0

According to Table 12, 56.4% of the respondents felt strongly disagree that they would avoid aiding someone in medical emergency while 10.9% felt the opposite way. 16.4% of the respondents disagreed that they would avoid helping someone in medical emergency while 5.5% felt the opposite way. 10.9% neither agree nor disagree with this statement.

Table 13: It feels wonderful to assist others in need

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	4.0	13	23.6	23.6	23.6
	5.0	42	76.4	76.4	100.0
	Total	55	100.0	100.0	

From Table 13, 76.4% of the respondents felt strongly agree that they felt wondeful to assist others in need while 23.6% agreed to that statement.

Table 14: Volunteering to help someone is very rewarding

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.0	2	3.6	3.6	3.6
	3.0	4	7.3	7.3	10.9
	4.0	8	14.5	14.5	25.5
	5.0	41	74.5	74.5	100.0
	Total	55	100.0	100.0	

It is shown in Table 14 that 74.5% of the respondents felt strongly agree that vounteering to help soeone is very rewarding while 14.5% agreed to thst statement. 7.3% neither agree nor disagree to that statement. 3.6% respondents disagree that volunteering to help someone is very rewarding.

Table 15: I dislike giving directions to stranger who are lost

		Frequency	Percent	Valid Percent
Valid	1.0	27	49.1	49.1
	2.0	11	20.0	20.0
	3.0	10	18.2	18.2
	4.0	1	1.8	1.8
	5.0	6	10.9	10.9
	Total	55	100.0	100.0

Based on Table 15, 49.1% strongly disagree that they dislike giving directions to lost stranger, 20% disagree, 18.2% neither agree nor disagree, 1.8% agree while 10.9% strongly agree that they dislike giving directions to lost stranger.

Table 16: Doing volunteer work makes me feel happy

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.0	1	1.8	1.8	1.8
	3.0	5	9.1	9.1	10.9
	4.0	15	27.3	27.3	38.2
	5.0	34	61.8	61.8	100.0
	Total	55	100.0	100.0	

From Table 16, 61.8% of the respondents are strongly agree with the statement that doing volunteer works make them happy while 27.3% agreed with that statement. 9.1% are neither agree nor disagree. 1.8% felt disagree that dong volunteer work makes them happy.

Table 17: I donate time or money to charities every month

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.0	1	1.8	1.8	1.8
	2.0	5	9.1	9.1	10.9
	3.0	22	40.0	40.0	50.9
	4.0	11	20.0	20.0	70.9
	5.0	16	29.1	29.1	100.0
	Total	55	100.0	100.0	

According to Table 17, 29.1% strongly agree that they donate time or money to charities every month., 20% agree, 40% neither agree nor disagree, 9.1% disagree while 1.8% strongly disagree that they donate time or money to charities evey month.

Table 18: Unless they are part of my family, helping the elderly isn't my reponsibility

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.0	4	7.3	7.3	7.3
	2.0	4	7.3	7.3	14.5
	3.0	3	5.5	5.5	20.0
	4.0	13	23.6	23.6	43.6
	5.0	31	56.4	56.4	100.0
	Total	55	100.0	100.0	

From Table 18, 56.4% strongly agree that they will not help the elderly unless they are part of the family, 23.6% agree, 5.5% neither agree nor disagree, 7.3% disagree while 7.3% strongly disagree that they will not help the elderly unless they are part of the family.

Table 19: Children should be thought about the impotance of helping others

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.0	1	1.8	1.8	1.8
	4.0	10	18.2	18.2	20.0
	5.0	44	80.0	80.0	100.0
	Total	55	100.0	100.0	

Based on Table 19, 1.8% of the respondents strongly disagree that children should be thought about the importance of helping while 80% felt the other day. 18.2% nighter agree nor disagree.

Table 20: I plan to donate my organs when I die with the hope that they will help someone else live.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.0	1	1.8	1.8	1.8
	2.0	3	5.5	5.5	7.3
	3.0	23	41.8	41.8	49.1
	4.0	8	14.5	14.5	63.6
	5.0	20	36.4	36.4	100.0
	Total	55	100.0	100.0	

From Table 20, 36.4% strongly agree that they plan to donate my organs when they die with the hope that they will help someone else live, 14.5% agree, 41.8% neither agree nor disagree, 5.5% disagree while 1.8% strongly disagree that they plan to donate my organs when they die.

Table 21: I try to offer my help with any activities my community or school groups are carrying out.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.0	2	3.6	3.6	3.6
	3.0	6	10.9	10.9	14.5
	4.0	20	36.4	36.4	50.9
	5.0	27	49.1	49.1	100.0
	Total	55	100.0	100.0	

Table 21 shows that, 49.1% strongly agree that they try to offer their help with any activities in their community or school groups are carrying out, 36.4% agree, 10.9% neither agree nor disagree, while 3.6% disagree agree that they try to offer their help with any activities in their community or school groups are carrying out.

Table 22: I feel at peace with myself when I have helped others.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.0	1	1.8	1.8	1.8
	3.0	1	1.8	1.8	3.6
	4.0	18	32.7	32.7	36.4
	5.0	35	63.6	63.6	100.0
	Total	55	100.0	100.0	

Based on the Table 22 above, 63.6% strongly agree that they feel at peace with themself when they have helped others, 32.7% agree, 1.8% neither agree nor disagree, while 1.8% disagree agree that they feel at peace with themself when they have helped others.

Table 23: If the person infront of me in the check-out line at a store was a few cents short, I would pay the differences.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.0	1	1.8	1.8	1.8
	3.0	5	9.1	9.1	10.9
	4.0	17	30.9	30.9	41.8
	5.0	32	58.2	58.2	100.0
	Total	55	100.0	100.0	

According to Table 23, 58.2% strongly agree that they feel at peace with themself when they have helped others, 30.9% agree, 9.1% neither agree nor disagree, while 1.8% disagree agree that they feel at peace with themself when they have helped others.

Table 24: I feel proud when I know that my generosity has benefited a needy person.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.0	1	1.8	1.8	1.8
	2.0	1	1.8	1.8	3.6
	3.0	1	1.8	1.8	5.5
	4.0	15	27.3	27.3	32.7
	5.0	37	67.3	67.3	100.0
	Total	55	100.0	100.0	

From Table 24, 67.3% strongly agree that they feel proud when they know that their generosity has benefited a needy person, 27.3% agree, 1.8% neither agree nor disagree, 1.8% disagree while 1.8% strongly disagree that they they feel proud when they know that their generosity has benefited a needy person.

Table 25: Helping people does more harm than good because they come to rely on others and not themselves.

		Frequency	Percent	Valid Percent
Valid	1.0	21	38.2	38.2
	2.0	10	18.2	18.2
	3.0	9	16.4	16.4
	4.0	8	14.5	14.5
	5.0	7	12.7	12.7
	Total	55	100.0	100.0

Based on Table 25, 12.7% strongly agree that helping people does more harm than good because they come to rely on others and not themselves, 14.5% agree, 16.4% neither agree nor disagree, 18.2% disagree while 38.2% strongly disagree that they helping people does more harm than good because they come to rely on others and not themselves.

Table 27:Giving aid to the poor is the right thing to do.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3.0	2	3.6	3.6	3.6
	4.0	18	32.7	32.7	36.4
	5.0	35	63.6	63.6	100.0
	Total	55	100.0	100.0	

Finally, Table 27 shows that 63.6% of the respondents felt strongly agree that giving aid to the poor is the right thing to do while 32.7% agreed to that statement. 3.6% neither agree nor disagree with that statement.

7. Discussions and Conclusions

Even previous research as mentioned earlier showed that women have the tendency to help others more than men, specifically for this study, it was revealed that the opposite was true. From this study, it is also found that the allocation of fund for the needy is higher for men compared to women. The result could be further refined if the response rate is higher than 48%. Another interesting finding was that most of the respondents have only started their business 1 year or less. This might be another contributing factor. One might argue that they need money to help people and the first few years of establishment is where the money is needed the most. In conclusion, encouraging startups to help people especially in their foundation years can create a strong inner voluntary trait. Helping others is a very important personal trait in which a person is concerned about the welfare of others. Entrepreneurs should be passionate about their ideas, goals and, of course, their companies. Further analysis might give the researchers and the audience a better understanding and insights on this issue.

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Growth Channels: An Empirical Analysis on Malaysian Manufacturing Sector

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Abstract

This study investigates selected growth channels which give effect to the Malaysia Manufacturing sectors' growth. To address the issues, we have adopted a static and dynamic estimation approaches. In the static estimation, the analysis is based on OLS, Fixed and Random Effect besides Generalized Least Square (GLS) estimations. Meanwhile in the dynamic estimation, we focused on the difference and system Generalize Method of Moment (GMM) estimations. The findings suggest that fixed capital formation and human capital channels are always statistically significant regardless of the test applied either in static or dynamic model estimations. The significance of fixed capital formation channel is consistent with the strong and cumulative saving and investment condition in Malaysia which has had a significant effect on the capital formation of the whole country. A negative association for foreign direct investment channel might suggest that the manufacturing sector has had problem to absorb the transfer of technology which had impede the growth of the sector and bring losses to the local industries. Meanwhile, a negative association between government expenditure and economic growth might indicate that the government expenditures pattern has distort the allocation of resources in the sector specifically. Our findings also suggest that a negative relationship between export of manufactured goods and economic growth show that Malaysian export were driven by the economy growth and not vice versa.

Keywords: Growth Channels, Generalized Least Square, Generalize Method of Moment, Malaysia Manufacturing sector

1. Introduction

Malaysia is located at the heart of Southeast Asia which is said to be one of the world's fastest growing regions. The strategic location has made Malaysia an attractive center for trade, investment and tourism. Although Malaysia's population is made up of different races with a diverse cultural background, they live in relative harmony. Malaysia has also enjoyed a long period of democracy and stability since independence, and it retains important political and economic links both within and outside the Asia-Pacific region. With such consistencies, investors are attracted to Malaysia, and thus Malaysia has flourished.

Since independence, the Malaysian economy has grown at a relatively high rate, averaging about 6 percent per annum in the 1960s and improving to 6.8 percent in the 1970s. On average between 1971 and 1980, Malaysian gross domestic product (GDP) grew at a rate of 6.7 percent per annum. In the first half of the 1980s, growth was still at a reasonable annual rate of 6.6 percent, but it was marred by two years of recession from 1985 to1986 when the economy contracted. In the period of recovery from 1988 to 1996, the government had embarked on a liberalization and deregulation approach to revive the economy, in addition to downsizing its activities and introducing fiscal austerity. The economy had rebounded after the 1988 to the point where it had faced a tight labor market, upward pressure on prices and current account deficits (Ariff, 1998; Tham, 1997; Lee, 1996). Before the ASEAN financial crisis, Malaysia's economy had recovered a very rapid growth rate of average 8 to 9 percent per annum. However, during the crisis period (1997-1998), the growth rate was recorded at average of 3 percent per annum. The recovery started in 2002 but still lost the momentum of previous growth and the growth rate from 2001 to 2008 averaged 4 to 5 percent per annum. Malaysia recorded a negative growth rate of 1.7 percent in 2009, however starting from 2010 until the present; Malaysia had recovered and grew on average at 5 to 6 percent per annum.

Malaysia's economic growth channels such as saving, capital accumulation, foreign direct investment inflows and export have been proven historically and empirically significant in driving the growth of the economy. Massive empirical researches such as studies by Hussin et al. (2013), Masron et al. (2012), Ismail and Lazim (2012), Kogid et al. (2010), Hassan, Baharom and Abd Aziz (2010), Chandran and Munusamy (2009), Nair et al. (2006), Zakariah and Ahmad (1999), Tham (1997) and Lin (1996) among others have shown that these channels have brought major changes to the growth of the economy. According to Lin (1996) during the

1960s until the 1980s, Malaysia had experienced neither a savings-investment gap nor a foreign exchange gap to bridge since there had been a substantial accumulation of reserves over these years.

Although many studies were conducted to identify the channels of growth across-countries or at country's level. Yet, study to identify growth channels for specific sector particularly are still scarce. As such, this paper aims to explore this matter particularly for Malaysian manufacturing industries. To grasp a clearer picture, the rest of this paper is organized as follows. Chapter two provides a discussion of the theoretical literatures. Next, chapter three highlights the objective of the paper. Chapter four explain the research methodology including the hypotheses, sources of data and model specification. Next, chapter five discuss the empirical results and finally, chapter six present the conclusion.

2. Literature Review

The role of saving and investment is stressed in the Solow's neo-classical growth theory whereby it is stated that higher investment will raise a country's growth rate until it reaches its steady state or balanced growth path. Solow's growth model also implies that capital which is abundant in developed countries would have a natural tendency to flow towards developing countries due to their higher rate of return (according to the law of diminishing returns). Initial discussion on capital accumulation was highlighted during the years of 'high development theory' which was between the 1940s and 1960s. Under the neoclassical growth theories capital accumulation is an important driving factor towards a steady state level of economic growth. Based on the assumption of constant returns to scale in this model, growth can be achieved in the short run through a higher rate of saving and hence a higher rate of capital formation. In the late 1970s the neo-classical economic theories come to support the idea of positive relationship between foreign direct investment and economic growth, however due to some debatable issues, this has led to the rise of the endogenous growth theories in the late 1980s.

Endogenous growth theory posits a particularly strong and permanent link between investment and growth based on the assumption that more capital itself advances technological progress. The endogenous growth theory framework pointed to a more detailed interpretation of growth, where variables such as research and developments, human capital accumulation (education), externalities and spillover effects and role of the government are identified as the main determinants of economic growth. The theory also pointed that permanent changes in physical investment rates, human capital investment rates, population growth, export shares, and other policy variables, including government consumption, trade policy, property rights, and regulatory pressure, could lead to permanent changes in economic growth. According to the endogenous growth theories also, the positive impact of foreign direct investment on economic growth is twofold. Firstly, through capital accumulation in the recipient economy, foreign direct investment is expected to be growth enhancing by encouraging the incorporation of new inputs and foreign technologies via research and development into the recipient industries. Secondly, through knowledge transfer (human capital education), foreign direct investment is expected to augment the existing stock of knowledge in the recipient country through labor training and skill acquisition.

The importance of investment in physical capital for long-run economic growth is also highlighted in the endogenous growth theories. Theoretically gross capital formation affects economic growth in the same way as foreign direct investment; increasing both the amount and the productivity of the physical capital stock in the economy. Malaysia requires a high rate of capital formation to generate and sustain high economic growth. Such investment will boost the country's productive capacity and standard of living without giving rise to inflationary pressure. The relationship between government spending and economic growth is of contradictory nature. Economists perceive that a higher share of public spending in the economy might either promote or retard economic growth. According to the cost and benefits analysis, the nature of a link between government consumption and economic growth is not clear because an increase in government consumption may enhance economic growth by injecting purchasing power into the economy or may reduce the productivity growth rate by crowding out private investment. Bergh and Henrekson (2011) pointed that the contrasting view exists because of two possible reasons. In developing countries, the public sector is typically small therefore the relationship between government size and growth is positive. Meanwhile the public sector is typically large in developed countries therefore the relationship between government size and economic growth is less positive or may tend to be negative.

Advocates of 'bigger government' argue that government expenditure through various programs provide valuable 'public goods' such as education and infrastructure and an increase in government spending would bolster economic growth since more money is injected into the economy. The proposed economic rationale is that, while government consumption expenditure can affect the short-run economic performance but eventually merely crowds out private investment in the medium run, government investment may have positive,

permanent, effects on potential output. From this standpoint, expansionary fiscal policies can be rescued by their positive supply-side effects. Meanwhile proponents of 'smaller government' claimed that higher spending undermines economic growth by transferring additional resources from the productive sector of the economy to an unproductive sector which uses them less efficiently. Similar to the advocates of 'big government', according to Keynesian theory, increases in government spending would boost economic growth by injecting purchasing power into the economy. They also perceive that the government could reverse economic downturns by borrowing money from the private sector and then returning the money to the private sector through various spending programs. The government could also provide short-term stimulus to help end a recession or depression with deficit spending. The Keynesians are sometimes associated with the advocates of 'bigger government' spending but have no theoretical objection to the proponents of 'smaller government' spending if it can be increased temporarily to deal with the sluggish economy.

Macroeconomic policy is defined as a set of government policies, rules and regulations to control or stimulate the aggregate indicators such as national income, money supply, inflation, unemployment rate, growth rate and interest rate to meet the economic goals at macro level. Since the Keynesian era, both fiscal and monetary policies have been recognized as an effective tool for macroeconomic management. Besides these policies, contract laws, debt management policy and incomes policy are some of the other policies designed to modify macroeconomic indicators of the economy. Massive studies have employed an Index of Economic Freedom as a proxy for the quality of macroeconomic policy. Economists agree that economic freedom along with political freedom is one of the pillars of a country's institutional structure. The index was initially an annual index and ranking created by the Heritage Foundation and The Wall Street Journal in 1995 to measure the degree of economic freedom for countries worldwide. Later, the index was constructed by another institution known as the Fraser Institute. Empirical analysis using the index has produced mixed results in term of the areas of index components and cross-country analysis. One part of the findings suggested that the aggregate economic freedom is important in explaining cross-country differences while the other part shows that the effects are different across the components of the index.

The export-led growth paradigm rose to prominence in the late 1970s when it replaced the import-substitution paradigm that had dominated development policy thinking after the World War II. It rests on a fusion of three strains of argument. The first strain, based on Hecksher–Ohlin–Samuelson comparative advantage theory, is about the gains from trade between economies with different capital–labor ratios (Ohlin, 1933; Samuelson, 1948; Dornbusch et al., 1980). The second strain concerns the benefits of openness for controlling rent seeking, a problem over which import-substitution development was strongly criticized (Krueger, 1974). The third strain has emphasized the benefits of openness for growth where trade encourages technology diffusion and knowledge spillovers that contribute to faster productivity growth (Grossman and Helpman, 1991b). Following a shift from import-substitution strategies to the export-oriented strategies in the 1970s, the Malaysian economy has grown rapidly with a widely held view that such growth is driven by exports particularly of manufactured goods. It was then widely acknowledged that the exports of Malaysia play an important role as a source of its economic growth. Furthermore, the export-led growth hypothesis postulates that export expansion especially of manufactured goods is one of the main determinants of economic growth.

The origin of human capital goes back to the emergence of classical economics in 1776, and thereafter was developed as a scientific theory. After the manifestation of the concept as a theory, human capital is recognized as one of important factors for a national economic growth in the modern economy. Human capital corresponds to any skills and stock of knowledge that accumulate over time in the labor force which is either innate or acquired. Generally, there are two main sources of human capital firstly through formal education from learning accumulated at school and secondly through training and learning by doing which includes knowledge generated by spillover effects.

3. Research Objectives

Many studies were conducted to identify the channels of growth at country's level. However, studies to identify growth channels for specific sector particularly are still scarce. As such, the objective of this paper is to investigate which growth channels determine the growth of the Malaysian manufacturing sector. Based on the literature, six growth channels have been selected for analysis. These channels include fixed capital formation, government expenditure, foreign direct investment, quality of macroeconomics policies, export of manufactured goods and human capital. The analysis was conducted for nineteen industries covering for a period from 1999 until 2006. These industries are food manufacturing, beverages and tobacco, leather and leather products, textiles, wood, plastic, rubber, paper, printing and publication, basic metal, fabricated metal, non-metallic mineral, petroleum, chemical and chemical products, electrical and electronic, machinery, sciences and measuring equipment, furniture, transport and other miscellaneous products. The selection of these industries is

based on two factors. Firstly, the existing and increasing trade performance of that industry during the period of studied and secondly, due to the massive investment opportunities provided by the government to support the growth of these industries respectively.

4. Methodology

4.1 Hypothesis Development

Based on the literature, six hypotheses have been developed to examine the relationship between growth channels and growth of the industries.

As such, the hypotheses developed are:

i. Fixed capital formation has a positive relationship with industry growth.
ii. Government expenditure has a positive relationship with industry growth.
iii. Foreign direct investment has a positive relationship with industry growth.
iv. The quality of macroeconomic policies has a positive relationship with industry growth.
v. Export of manufactured goods has a positive relationship with industry growth.
vi. Human capital has a positive relationship with industry growth.

4.2 Sources of Data

Fixed capital formation and human capital are the determinants representing the allocation and distribution of domestic capital and expenditure. The data was gathered from the Malaysian Department of Statistics. Foreign direct investment inflows is a determinant representing knowledge spill over and technology transmission. The data are obtained from the Malaysian Industrial Development Authority (MIDA) annual report. Government expenditure is a determinant representing the size of the government. The index of macroeconomic quality is a determinant representing the government policies and export of manufactured goods is a determinant representing the outward orientation of policy. An index of economic freedom is used as a proxy for the quality of macroeconomic policies. This index is a guideline to measure the degree and advancement of economic freedom for countries worldwide based on areas such as rule of law, regulatory efficiency and open market access. The data is obtained from the Fraser Institute Database. The data for export of manufactured goods and government expenditure are obtained from the World Bank Database. The summary of the description, sources and the expected relationship of the explanatory variables are provided in Table 4.1 below.

Table 4.1: Variables Description, Sources and Expected Sign for Industrial Growth Channels

No.	Variables	Description	Sources	Expected Sign
1	Output of Industry (y)	Is the dependent variable which is the value of output for industry categorized at 19 sub-industries in Malaysian Ringgit	The Department of Statistics, Malaysia	-
3	Fixed capital formation (fcf)	Gross fixed capital formation by industries.	The Department of Statistics, Malaysia	Positive
6	Government expenditure (ge)	Government consumption as a percentage of GDP.	World Bank, World Development Indicator	Positive
2	Foreign direct Investment inflows (fdi)	Foreign direct investment in approved projects by industry.	Malaysian Industrial Development Authority (MIDA)	Positive
7	Quality of Macroeconomic Policies (mq)	Quality of Macroeconomic policies is proxy by index of economic freedom	Fraser Institute Database at www.freetheworld.com	Positive
5	Export of Manufactures Goods (mx)	Shares of manufactures exports in merchandise exports.	World Bank, World Development Indicator.	Positive
4	Human Capital (hc)	Secondary school enrolment	The Department of Statistics, Malaysia	Positive

4.3 Model Specification

Following Wacziarg (2001) six growth channels are assumed to have impact on the growth of the manufacturing sector and are selected for analysis. Consider the Cobb-Douglas production function relationship investigating the growth in industry's production as follows:

$y = f(fcf, ge, fdi, mq, mx, hc,)$ (1)

where *y* denotes real output of the industry (in RM'000 million), *fcf* denotes the real fixed capital formation in the industry (in RM'000 million), *ge* denotes the real government expenditure (in RM'000 million), *fdi* denotes real foreign investment in the industry (in RM'000 million), *mq* denotes the quality of macroeconomic policy proxy by an index of economic freedom (rating between 10-100), *mx* denotes the real export of manufactured good (in RM'000 million), and lastly *hc* denotes the human capital proxy by the secondary school enrolment (in million). All variables at constant (year 2005) prices are expressed in logarithmic form.

Since we are interested in investigating 19 industries for a period of 8 years, a dataset which features a micro panel characteristic, the above model must be considered in static and dynamic form. Furthermore, in the static model, the ordinary least square (OLS), fixed effects and random effects estimators are assumed to be biased and inconsistent. In the static model the simultaneity bias is associated with the fixed effects in the short panel; *t* = 8 year which exist due to the presence of a lagged dependent variable. Such biases can be solved using the Generalized Method of Moment (GMM) approach. The paper has conducted the Wooldridge test and General White test to check for the serial correlation and heteroskedasticity in the data. Another bias is caused by the possibility that the explanatory variables may be endogenous due to factors such as measurement error and reverse causality. As such, the Durbin-Wu-Hausman test is used to check for the presence of endogeneity. In a dynamic form the model is presented as;

$$y_{it} = \alpha + \beta 1 y_{it-1} + \beta 2 fcf_{it} + \beta 3 ge_t + \beta 4 fdi_{it} + \beta 5 mq_t + \beta 6 mx_t + \beta 7 hc_{it} + \mathcal{E}_{it} \quad (2)$$

where the subscript *i* denotes the *i*-th industries (i = 1...19) and the subscript *t* denotes the *t*-th year (t = 1...8). The equation is expressed in logarithmic form. It is assumed that the disturbance term $\mathcal{E}it$ follow a two-way error component model:

$$\mathcal{E}_{it} = \mu_i + \lambda_t + v_{it} \qquad i = 1.....19 \quad t = 1.....8$$

where μi denotes an industry-specific effect, $\mu i \sim$ IID $(0,\sigma^2 u)$; λ_t denotes a year-specific effect, $\lambda_t \sim$ IID$(0,\sigma^2 \lambda)$ and v_{it} denotes the remainder of the disturbance terms, $v_{it} \sim$ IID$(0,\sigma^2 v)$; all these are independent of each other and among themselves.

5. Empirical Findings

Since the data depicted micro-panel data characteristics with small *t* and larger *i*, our analysis covers both static (OLS, Fixed and Random Effects and GLS) and dynamic model (GMM) estimations. In the static estimations we have include the White general test and Wooldridge test to identify for heteroskedasticity and serial correlation problems in the dataset. We have also included the Durbin-Wu-Hausman test to check for the presence of endogenous variables in the model. To obtain a more convincing result, we have run the GLS estimation which is robust to heteroskedasticity across panels and serial correlation within panels. Meanwhile, in the dynamic estimations we have estimates the Hansen test and the Arellano-Bond test to identify for over identifying restrictions and serial correlation in the GMM model.

The results of the static estimated model pertaining to OLS, Fixed and Random effect and GLS models are shown in Table 5.1 below.

Table 5.1: OLS, Fixed, Random and GLS Result

Variables	OLS	Fixed	Random	GLS
Fixed Capital Formation (FCF)	0.6345*	0.0232	0.1718*	0.572*
	(12.78)	(0.78)	(4.37)	(13.76)
Government Expenditure (GE)	1.2526*	0.1445	0.4061	0.605
	(1.81)	(0.59)	(1.16)	(1.6)
Foreign Direct Investment (FDI)	0.1665*	0.0174	0.0500*	0.079*
	(5.16)	(1.25)	(2.55)	(3.98)
Quality of Macroeconomic policies (MQ)	0.5652	-0.1543	-0.0315	0.112
	(0.83)	(-0.65)	(-0.09)	(0.33)
Export of Manufactured Goods (MX)	-2.9484*	-5.4921*	-4.6465*	-3.286*
	(-1.76)	(-9.15)	(-5.42)	(-3.41)
Human Capital (HC)	-0.0435	0.0746*	0.1322*	0.148*
	(-0.81)	(2.02)	(2.68)	(2.92)
_cons	14.4644*	38.5805*	30.9552*	18.388*
	(1.80)	(12.60)	(7.20)	(3.96)
F	112.74	58.97	-	-
	(0.000)	(0.000)		
Chi^2	-	-	122.54	665.23
			(0.000)	(0.000)
r^2	0.8235	0.5581	0.8297	-
r^2_a	0.8162	-		-
Sigma_u	-	1.29036	0.35555	-
Sigma_e	-	0.20949	0.20949	-
rho[3]	-	0.97432	0.74230	-
White test	69.96	-		-
	(0.000)			
Wooldridge test	137.43	-		-
	(0.000)			
Durbin-Wu-Hausman test	-	26.59		-
		(0.000)		
N	152	152	152	152

Notes: * p<0.10 indicate the 10 percent or smaller significance levels
Figure in parentheses are t-statistics; [3]fraction of variance due to u_i

The results of OLS regression show that foreign direct investment, fixed capital formation and export of manufactured goods have a statistically significant association in determining changes in the growth of the industries. These variables show the expected sign except for export of manufactured goods which shows a contradictory sign. The value of goodness-of-fit measures (R^2) for OLS estimation is 0.824 which indicates a high correlation between variables in the model. Although the coefficient computed represents a highly statistically significant value, a potential problem that may arise in cross-sectional and time-series model is an inefficient result attributed to heteroskedasticity and serial correlation. Our analysis includes the White general test for heteroskedasticity and Wooldridge test for serial correlation to identify these problems. Since the probability value produced for both estimations is smaller than 0.05, the result rejected the null hypothesis of both tests which means that heteroskedasticity and serial correlation exist in the model. Therefore, the standard errors computed in the OLS estimation are biased and leads to bias in the confidence intervals and the test statistics. We have also included the Durbin-Wu-Hausman test to check for the presence of endogenous variables in the model. Since the chi-squared calculated produce a p-value less than 0.05 the result rejected the null hypothesis that the variables are exogenous.

For further analysis the next test is using GLS regression which is robust to heteroskedasticity across panels and serial correlation within panels. The result after correcting for the above mention problems indicate that most of the variables have a statistically significant association at the 90 percent confidence level or higher except for government expenditure and the quality of macroeconomic policies. Thus, human capital is now significant while export of manufactured goods retained the negative sign. We believe that our findings failed to support the school of thought that the economic growth is being export-led. Overall, the findings in the static models are consistent with the theories proposed by Grossman and Helpman (1990, 1991a, 1991b) and Barro and Sala-i-Martin (1997) and the empirical findings obtained by Kogid et al. (2010) and Dutta and Ahmed (2004). To deal with the endogeneity problems in a micro panel data as mention above, this paper used two types of Generalized Method of Moments estimator, firstly the Arellano-Bond (1991) Difference GMM Estimation and secondly the Blundell and Bond (1995) and Blundell and Bover (1998) System GMM Estimation. These GMM approaches are well suited method when dealing with a dynamic micro panel in the presence of an endogeneity problem. Theoretical literatures had suggested that the two-step estimator in both difference and system generalized method of moments (GMM) regression is more efficient than the first-step

estimator. The results of the dynamic estimated model pertaining to both difference and system generalized method of moment models are shown in Table 5.2 below.

Table 5.2: Difference and System GMM Result

Variables	GMM Diff (one-step)	GMM Diff (two-step)	GMM Sys (one-step)	GMM Sys (two-step)
Lag Output	0.0332	0.0238	0.9067*	0.9539*
	(0.26)	(0.25)	(18.64)	(20.28)
Fixed Capital Formation (FCF)	0.0266	0.0268*	0.0672*	0.0593*
	(1.29)	(2.65)	(2.34)	(6.08)
Government Expenditure (GE)	-0.2098	-0.2029*	-0.3777*	-0.5857*
	(-1.40)	(-1.98)	(-1.78)	(-4.52)
Foreign Direct Investment (FDI)	-0.0037	-0.0022	0.0012	-0.0013
	(-0.34)	(-0.28)	(0.08)	(-0.17)
Quality of Macroeconomic Policies (MQ)	0.0666	0.0815	-0.5671*	-0.6346*
	(0.39)	(0.86)	(-3.12)	(-7.64)
Export of Manufactured Goods (MX)	-5.1776*	-5.1878*	-0.0789	0.0095
	(-6.32)	(-8.89)	(-0.18)	(0.04)
Human Capital (HC)	0.0364*	0.0379*	0.0522*	0.0562*
	(1.67)	(3.79)	(1.70)	(1.90)
_cons	38.1002*	38.1914*	2.0892	1.6377
	(6.99)	(10.50)	(0.94)	(1.09)
Chi^2	335.95	1706.00	1118.61	25003.53
	(0.000)	(0.000)	(0.000)	(0.000)
Hansen Test	36.3173	18.2176	40.4886	15.9757
	(0.0141)	(0.5731)	(0.0349)	(0.9368)
Arellano-Bond Test 1^{st} order	-	-3.058	-	-2.927
		(0.0022)		(0.0034)
Arellano-Bond Test 2^{nd} order	-	1.0007	-	0.1969
		(0.3170)		(0.8439)
N	114	114	133	133

Notes: * p<0.10 indicate the 10 percent or smaller significance levels
Hansen Test – test of overidentfying restrictions
Arellano-Bond Test – test for serial correlation in first and second order differenced errors

Both two-step difference and system generalized method of moments (GMM) regression results show that the estimated p-value for both models is smaller than 0.05 with χ^2 test values of 121.36 and 25003.53 respectively. The regression results for two-step difference GMM show that fixed capital formation, government expenditure, export of manufactured goods and human capital have a statistically significant relationship with growth of industries; however, foreign direct investment, the export of manufactured goods and government expenditures show a contradictory sign. Again, our findings failed to support the school of thought that the economic growth is being export-led, instead, it indicates that the growth of manufacturing industries is driven by the growth of the economy. The finding for government expenditure might support the proponents of 'bigger government' school of thought which might indicate that high spending made by the Malaysian government had undermines economic growth by transferring additional resources from the productive sector of the economy to unproductive sector which uses them less efficiently. Negative result for foreign direct investment might indicate issues of losses of business for local companies in some of the industries. As such, a more detail analysis at firms' level are crucial to justify this finding.

Meanwhile, the results for two-step system GMM regression show that fixed capital formation, government expenditure, quality of macroeconomic policies and human capital have a statistically significant association with the growth of industries. Again, government expenditure and foreign direct investment beside quality of macroeconomic policies show a negative sign. Overall, the results in the dynamic estimation for both difference and system GMM are almost similar to the theories proposed by Grossman and Helpman (1990, 1991a, 1991b) and Barro and Sala-i-Martin (1997) and the empirical results obtained by Kogid et al. (2010) and Dutta and Ahmed (2004). The results of the specification tests which test the validity of instruments adopted in the model show that the empirical model has been correctly specified**.** The Hansen test for over identifying restrictions in the two-step difference GMM model which produced a χ^2 calculated value of 18.2176 failed to reject the null hypothesis since the p-value calculated is higher than 0.05. Meanwhile the Arellano-Bond test for serial correlation in the GMM model also failed to reject the null hypothesis of no first-order serial correlation which shows that the instruments (moment conditions) used in the model are valid. These results are also similar with respect to the two-step system GMM model.

6. Conclusion

This paper has been set out to provide empirical evidence of industries growth determinants in Malaysia manufacturing sector during the period from 1999 to 2006. Six determinants which were also named as growth channels were selected. These channels are fixed capital formation, government expenditure, foreign direct investment inflows, quality of macroeconomic policies, export of manufactured goods and human capital. During the period studied, the results suggest that for channels such as fixed capital formation and human capital are always statistically significant regardless of the test applied in static and dynamic estimation techniques.

The results indicate that the growth of the selected nineteen manufacturing industries depend highly on the fixed capital formation and human capital channels. The dynamic methodology adopted using GMM estimation has further confirm the results obtain in the GLS static estimation techniques. During the period studied exports of manufactured goods channel which are statistically significant in almost all tests applied in both static and dynamic estimation methodology, show a consistently negative association with industries growth. As such, this paper concluded that the findings had failed to support the school of thought which stated that economic growth for Malaysia industries is being export-led, instead, it might indicate that the growth of the manufacturing industries is driven by the growth of the economy.

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Kampong Cooperatives Development and Sustainability - A Case Study From *Mizan* Principles

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Abstract

The world's co-operative movement shows that co-operative continue to grow across the globe. In the Malaysian context, neo-endogenous development model has been a focus of many studies on future rural development policies for the 21st century wherein the supporting role of cooperatives may be acknowledged especially in terms of enhancing local capacity and establishing internal and external network. In Malaysia, transformative rural development embodying the characteristics of neo-endogenous development model is embedded in several policies such as the Government Transformation Plan, Economic Transformation Plan and Rural Transformation Plan. However, the role of cooperatives in supporting neo-endogenous model through Sustainable Rural Development (SRD) is constrained by the limited involvement of households as cooperative members. Exploration into the potential of cooperative entrepreneurship is not an aberration. Throughout the world, thousands of cooperatives producing goods and services for the market and also providing social condition and job opportunities. Realizing the advantages of cooperative for community development especially in village or in Malay languange is called *kampong*, this research seeks to understand the *kampong* cooperatives development and sustainability from the *mizan* principles. The word *mizan* in Arabic comes from the word *wazana* means balance and consistency, scales or measurement of an object. On the other view, *mizan* is a tool that shows the value of the scales or measurement of a thing measured or weighed. *Mizan* principles are *al-ubudiyyah, al-syura, al-hurriyah* and *al-musawah*. Those principles are important as guidelines for the process of *kampong* cooperative development. Utilizing upon a qualitative research, a case study of three kampung cooperatives in Negeri Sembilan have been explored. Focus group interviews were conducted with the cooperative members, *kampong* development and security committee members (JKKK) and the villagers. From the focus groups' emerging themes, the study found that there are several issues that need to be addressed. First is regarding the sustainability of *kampong* cooperatives existence, second is on the readiness on *kampong* cooperative towards business development and third is on the understanding of Islamic practice in cooperative management. This research recommends that *kampong* cooperatives should be fully utilizing the unique resources in *kampong* for the sustainability of the *kampong* as well as the development of *kampong* cooperatives.

Keywords: *case study; kampong development; cooperative; sustainability; mizan; kampong (village)*

1. Introduction

The social economy constitutes a broad range of activities which have the potential to provide opportunities for local people and communities to engage in all stages of the process of local economic regeneration and job creation, from the identification of basic needs to the operationalisation of initiatives. The sector covers the economic potential and activities of the self-help and co-operative movements, i.e. initiatives which aim to satisfy social and economic needs of local communities and their members. This sector includes co-operatives; self-help projects; credit unions; housing associations; partnerships; community enterprises and businesses. The social economy is the fastest growing sector in Europe and this context is fertile ground for the creation of many new enterprises locally (Molloy et al. 1999).

Socio-economic development is also related to the cooperatives movement since the struggle of cooperative movement is to develop values focused on human needs within a competitive capitalist system. The International Co-operative Alliance was founded and held its first congress in Manchester in 1896. Today, the Co-operative Principles are successfully applied throughout the world to a vast array of co-operative enterprises, farming cooperatives, fishing cooperatives, credit unions, retail co-operatives, manufacturing co-operatives, even cooperatives providing internet access services (SOEMCO, 2016). Throughout the world, thousands of cooperatives produce goods and service for the market and provide social condition and work opportunities. Realizing the advantages of cooperative for a community development especially in *kampong*, this research seeks to understand the *kampong* cooperatives development and sustainability from the *mizan* principles.

The word *mizan* in Arabic comes from the word *wazana*. In the Maqayis al-Lughah dictionary, the word *wazana* means balance and consistency (Ibn al-Faris, 1979). While the book of al-Mufradat al-Alfaz al-Quran quotes the word *al-waznu* means scales or measurement of an object. In addition, the word *al-waznu* is also understood as a fair scales or measurement (al-Asfhani, 2009). In short, the word *mizan*, *wazana* or *al-waznu* means the scales or measurement done fairly without any addition or reduction. Whilst on the other view, *mizan* is a tool that shows the value of the scales or measurement of a thing measured or weighed (Zainuddin, 2017).

Pertaining to this, four principles of *mizan* will be the main guidelines for conducting the research. They are *al-ubudiyyah, al-syura, al-hurriyah and al-musawah*. *Al-ubudiyyah* principle emphasizes the true nature of self-service to Allah SWT. Hence, all activities carried out within an organization (in this case is the *kampong*) should be based on the devotion to Allah SWT. Islam also encourages *al-syura* practice in the decision-making process. This is because the quality of the results is better than the result of the discussion and involvement of the *syura* members. The importance of this practice is emphasized in the Quran (*Surah al-Shuraa*, 42:38) and is the practice of the Prophet Muhammad and his companions. The Quran explains that syura practice is among the characteristics of the believer and the pleasure of Allah SWT.

Al-hurriyah principle proves that Islam recognizes human freedom in all fields including freedom of thought, opinion, seeking and possessing a lawful property. In terms of management, it leads to the authorization of individual freedom in the organization in carrying out his/her duties such as giving an idea or opinion. It entails the right to carry out *amar ma'ruf nahi mungkar* or reminding of doing good things and leaving things forbidden. *Al-Musawah* or equality is among the principles of management in Islam that every person in an organization should be accepted and treated equally by law or regulation. Everybody should also be given equal rights, opportunities and facilities. Even workers or employers are placed in the same status and what distinguishes them is their piety to Allah SWT. The Quran (*Surah al-Hujurat 49:13*) explains that the equality of rights and services on everyone under the *syar'ie* law without discrimination. In this view, *mizan* is a tool that shows the value of the scales or measurement of a thing measured or weighed. *Mizan* principles are *al-ubudiyyah, al-syura, al-hurriyah* and *al-musawah*. Those principles are important as guidelines for the process of *kampong* cooperative development and sustainability that have been utilized in this research.

1.1 Research Questions

This research seeks to understand the *kampong* cooperatives development and sustainability from the *mizan* principles. The research questions for the study are developed as follows:

How do kampong cooperatives practicing the mizan principles in their organization in ensuring the development and sustainability of the cooperatives?

For the purpose of answering that central research question, three sub-questions are developed as follows:

Sub-question 1.1.1: How are the level of social entrepreneurship awareness in the kampong cooperatives?
Sub-question 1.1.2: What are the elements in mizan principles being practiced by the selected kampong cooperatives in Negeri Sembilan?
Sub-question 1.1.3: What are the sustainability actions undertaken by the kampong cooperatives?

2. Literature Review

2.1 Kampong Development

One of the village culture is referred to cooperation among the villagers. Activities such as *gotong-royong* can strengthen the relationship of the villagers which is known as customs and culture of the *Malays* and also a major factor of a village development (CR, M., MZ, & Lyndon, 2016). In order to ensure that villagers can be together in the modernization of the country, the development of the village should not be taken lightly. Various aspects need to be considered in the pursuit of this objective.

There are several methods that can be proposed to assist the development of a village to continue to be competitive, including heritage conservation, knowledge transfers and economic enrichment. Heritage and culture preservation for example can be carried out by conducting periodic activities that are aimed to encourage practice among villagers and can be done in the economic point of view. Economic improvement can be seen in terms of the use of village resources. It also refers to optimizing the use of all existing natural asset resources, for instance, encouraging villagers to cultivate abandoned land to generate agricultural product (M. Balwi, 2005).Later, to market the village products and encourage entrepreneurship activities among villagers especially the younger generation. Moreover, Lussetyowati (2015) found that the preservation of culture and heritage can be done through Cultural Heritage Tourism. In their study in Palembang, culture heritage tourism may protect the heritage and creates jobs and offers business opportunities, besides strengthens local economy. However, Ahmad (2013) found that "typically Asian" is the factor in (rural) heritage landscapes in Malaysia was understand as places of many inconveniences and relative poverty (compared to urban areas) and that they are not aware of "values" in the practices, beliefs of their everyday landscapes. Since the potential of growth is

still limited because the village mainly focus in their material outcomes such as arts and crafts Ahmad (2013). Therefore, the potential of cultural heritage Tourism could be suggested need to be explored in Malaysian context.

2.2 Cooperative

In Malaysia, several agencies have been established to assist cooperative growth and development, such as Malaysia Cooperative Societies Commission (MCSC), the National Cooperative Organization of Malaysia (NCOM) and the Co-operative College of Malaysia (CCM). In general, those agencies are to strengthen the business activities and management of the cooperative in Malaysia through providing variety of assistance programs and workshops. Therefore, in line with the National Co-operative Policy (DKN), the development of the cooperative can produce many entrepreneurs in order to develop the socio-economic growth. In 1922, over the last 95 years, the existence of co-operative was to address the concern of the community from the perspective of the oppression of the middleman, indebtedness among civil servants and small farmers. In the other word is to reduce the poverty among Malaysian society. Based on a summary of General statistics of the cooperatives, the movement of the country's cooperative has shown a drastically increased since it was introduced around 1922. By mid of 2017, the total number of co-operatives in Malaysia is 13,648 with a total support of 6,733,788 members and the overall turnover of business activities was valued at RM24,359,703,782 (Cooperative Commission of Malaysia, Interim Statistics, 2017). The cooperative functioning pattern continues to grow with a wide range of business sectors such as construction, transport, banking, services, agriculture, housing, consumer, and industrial. Referring to the Malaysia Cooperative Commission, Interim Statistics (2017), the strength of the cooperative movement is in the service sector, particularly in financial services. The largest revenue contribution was generated by 591 credit cooperatives and 2 from the banking cooperatives. This is followed by the product and consumer services sector. Co-operative membership engagement is widespread with professional group employees, statutory bodies, government and private staff, graduates, retired school students, fishermen, farmers, small businessmen and residents of the residential parks are also left behind to enjoy the benefits of operating. With this achievement, the cooperative movement has proven that cooperative development has become one of the important contributors to the stabilization of member's living standards, addressing the issues of local communities and the development of the country's economy. Providing a variety of cooperative function patterns in Malaysia, it has created many job opportunities and businesses as well as optimized the use of local resources. In other words, the operation has been able to harmonize the country by raising human capital and social capital.

2.2.1 Relation Cooperative Members

Ropke (1987) defines the cooperative as a business organization whose owners or members are also the main customers of the company. The establishment of a cooperative is formed by a joint venture company that aims to support economic activities that will benefit every member, board and leader and each member (Hanel, 1989). A common approach to managing a cooperative is to build personality, enhance unity by expressing mutual cooperation and responsibility among fellow members (Muhammad Shehu, 2014; Hansen et al., 2002). Majee (2011) also has the same approach that good cooperation and rapport among fellow members in every social and economic consultation and activity can influence the ability of all members to act more collectively and this will lead to the improvement of quality and prosperous living well-being. According to the Executive Chairman of the Malaysian Cooperative Commission (SKM) Datuk Md Yusof Samsudin on National Day of Nationality (HKN) in 2012, the role of the cooperative organization not only contributes to the welfare of cooperative members but also to the community and subsequently to the nation's socio-economic development.

2.2.2 Job Opportunities

Cooperatives also play a role in providing job opportunities from variety of field such as management, marketing, processing and sales, especially in rural areas (ILO, 2015; Muhammad Shehu, 2014). Besides that, cooperative is able to provide basic needs and eliminate poverty of the community members through development of economic activities (Ibitoye, 2012; United Nation, 2009). Polat (2014) also stated that job opportunities from the cooperative is able to eradicate the problems of poverty that previously unresolved by the government.

2.3 Al-Mizan Concept

Islam advises its adherers to always balance between their strife for worldly gains and hereafter successes. This concept is known as *al-mizan*, which literally means scale (Ibnu Manzhur, n.d.). It is expressed primarily in the Ar-Rahman chapter of the Quran, verses seven to nine, where the word *al-mizan* is mentioned thrice. Here, the word, as reported by multiple exegesis scholars, means justice. That is, the creation of the world is established on the concept of justice and balance, and that men have the obligation preserve justice (Al-Baghawi, 1993; Ibnu Kathir, 2009; Al-Maududi, 2016).

The *mizan* concept is also taught by the Prophet pbuh. In several narrations, he advised the companions to not neglect their worldly needs, and stated that an individual is responsible for God, his family, guests, and himself (Al-Bukhari, n.d.). These responsibilities indicate the necessity of a balanced life. One has to fulfil his obligations to worship God, satisfy his family needs, entertain his guests, and live a balanced, healthy life. Similar assertions were also made in other traditions, where the Prophet pbuh described the religion as vast, and that the act of worship is a marathon; one cannot be expected to perform every act of worship in Islam, lest he fatigue himself (Ibnu Hanbal, 1978). He must be kind to himself so as to prevent himself from being exhausted due to the injustice and imbalance that he imposed on himself.

Mizan is the manifestation of justice and balance in every aspects of life, ranging from economics, social, environmental, technological, and health, among others. In supporting sustainable development, the *mizan* concept takes into account the social, ecological, and economical implications and concerns. Such association is exemplified by numerous studies on *mizan* and environmental ethics and concerns (e.g. Mangunjaya, 2013; Sackor, 2015). *Mizan* in health entails the justice of health practitioners in attending to patients, regardless of the latter's socioeconomic status. It also necessitates an individual to be just to oneself by avoiding harmful practices and practicing a balanced diet and social life (Mohd Rani, 2017).

2.3.1 A Balanced Society

Indeed, Islam highly values moderation and instructs its followers to be moderate in their conducts. In Islamic terms, this concept is known as *wasathiyyah*. *Wasathiyyah* relates to the human conduct, while *mizan* the relationship between men and the universe (Kamali, 2016). One may say that *mizan* is more abstract relative to *wasathiyyah*, as the former is closely linked to intangible values.

These two concepts should be viewed as complements instead of contraries. A balanced society, of which Muslims should aim to become, is comprised of both values. The absence of either in the Muslim society indicates that it has yet to become a balanced one. The convergence of both concepts is the primary requirement for the realization of a balanced Muslim society, which integrates both individualism and collectivism features (Musah, 2011). A balanced society is just in its dealings; it violates the rights of none, and it upholds its responsibilities as the Lord's servant.

The harmonization of traditional and modern values of society is the manifestation of *mizan* values in a balanced society. Urbanization brought upon changes into the society, where previously collective and communal societies transform into individualistic ones (Golany, 1995). Kipnis (2013) stated that modernization theory maintains that urbanization may give rise to individualism and cosmopolitanism. Preserving the traditional social values amidst modern advancements, therefore, is a concern.

Similarly, maintaining fair economic benefits and welfare is also part of *mizan*. Gaps in welfare and income should be minimized. Concentration of wealth and assets is highly discouraged in Islam, and any exceeds in income and assets should be cleansed via alms and other wealth distribution methods. Variations of profit-sharing contracts such as *mudharabah* and *muzara'ah* have also been designed and applied to aid both laborers and asset owners.

Socially, *mizan*-based societies uphold equality for all, regardless of gender, race, or status. Such equality is exemplified by the Prophet's pbuh companions, who came from various cultural and socioeconomic backgrounds. The rich and poor, men and women, slaves and freemen, Arabs and non-Arabs stand toe-to-toe, each contributing to the *ummah* according to their capabilities. Importance is given to one's sincerity and actions for the religion, rather than physical attributes (Muslim, 1991).

2.3.2 Mizan Principles in Socio-Economic Development

Mizan or balance is an important principle for human being to adhere themselves as a servant of Allah SWT and serves with a responsibility as a Caliphate on this earth. The application of the *Mizan* principle in the society educates humans to positioned the ultimate virtue of Hereafterworld ahead of the current world's priorities. Thus, in order to ensure the actualization of balanced in life, there are four important principles that must be

comprehended for us to return to the essence of human creation; ie *al-ubudiyyah, al-shura, al-hurriyah* and *al-musawah.* The explanation of each principle bring the whole meaning of how *mizan* and balance embed in Human life and actions.

i) Al-Ubudiyyah (Self-service to Allah SWT)

The purpose of Allah SWT created man is to devote himself to Allah SWT and be the caliph who upholds the religion of Allah and prosper this world according to the rules of Allah SWT. This bring the meaning that all action in human life is an act of subservient towards Allah SWT. To accomplish this task, humans are obliged to live their lives in harmony with the will of Allah SWT (Aziz & Man, 2012).

This is what meant by the declarations of the Tauhid Ubudiyyah; a complete obedience to Allah SWT throughout life. The word Allah SWT in Surah al-Dzariyat, verse 56 which means "And I did not make jinn and men except to worship me". This verse affirms the word (*Ma* and *Illa*) ie *denying* and *istithna '*. Where it assigns a very strong intentions. The word *Ma* (no) denied any other duties. While the word *Illa* means to abandon others except one thing only that is worship to Allah SWT (Aziz & Man, 2012).

In Surah al-An'am, verse 162-163, Allah SWT ordered the Messenger of Allah to declare; "*Say ye; "My prayer, my religion, my life and my death are because of the Lord God of the universe, no shirk for Him and so I am commanded and I am the first Muslim"*. This verse brings a clear command to the Prophet Muhammad SAW to declare the main principle in Islam, namely all actions in this worldly life both in specific worship such as prayer or general worship that covers all activities of human life; is just for the sake of Allah SWT alone.

Apart from human duty as a caliph on this earth, man must perform his duty to worship (devotion) in the broadest sense to Allah SWT. In order to make all such acts and acts a worship of Allah SWT, we must put forth the intention to do something right, that is to make the good deeds solely for Allah SWT (Borham, 2008). The Messenger of Allah (blessings and peace be upon him) from Sayyidina Umar ibn al-Khattab RA stated: "Indeed, practice is nothing except with intentions and every one will get what is intended. Then whosoever (to) migrate to Allah and His Messenger, then his migration to Allah and His Messenger; and whoever (makes) his hijrah to benefit the world or to marry a woman, his migration is for what is transmitted." (From Bukhari and Muslim).

ii) Al-Syura (Consultation)

Syura is a consultative council. According to Ibn Manzur, the use of shura is for '*Ikhtibar al-syayk li-ma'rifati halihi'* which is to test and analyze something to know the real thing (Ibn Manzur). Al-Habshi (1998) argues that shura is not just a meeting but also a place to present ones' views based on their own expertise in determining a decision. In this case, managers are responsible for planning, formulating, coordinating and controlling all organizational journeys so that organizational objectives are achieved. Shura should be done according to the suitability of time and place. In the context of organization, meetings with people representing various units within an organization can be considered as shura that involves representatives of all members of the organization. Any major decision involving policy, law, and other interests shall be decided with the consent of the majority of the members of the shura. This is the culmination of shura implementation which is desired by syarak (Aziz & Man, 2012; Borham, 2008).

This is confirmed in Surah al-Syura, verse 38; when the Prophet (peace and blessings of Allah be upon him) was still in Makkah and practiced the principles of shura among the small Muslim community. The verdict in Surah al-Syura, verse 38; which means: "*and their affairs are decided in their own shura*", clearly shown its significant in all affairs. In short, shura plays an important role as a place of decision, and produces justice and development based on religious demands. The philosophy of the implementation of shura in the organization is to get the best decision as well as to create understanding (*tafahum*), openness (*tasamuh*), balance (*ta'awan*), justice (*'adalah*) and love (*mahabbah*). These six things are closely intertwined in preserving the human needs (daruriyyah), thus spur the ability in forming a solid and brilliant organization (Aziz & Man, 2012).

iii) Al-Hurriyyah (Freedom)

Freedom or *al-hurriyyah* is very important in Islam, especially in making decision to determine the truth or falsehood. Among the words of Allah that can be attributed to *al-huriyyah* is "There is no compulsion for (entering) religion (Islam); Verily, there is a clear path from the path that goes astray"(QS Al Baqarah [2]: 256). Truth comes from your Lord; And whosoever will (believe) let him believe, and whoever wishes (disbelieve) let him disbelieve" (QS Al Kahfi [18]: 29). The highest freedom that must be understood and practiced is freedom from relying on other than Allah SWT. Fully submitting to Allah SWT is a mandatory requirement in the success of the *mizan* village concept. The success of every effort done is in the power of Allah SWT. In relation

to Islamic economics, freedom is the most important because the validity of the sale or purchase in contract lies in the freedom to pursue or not the economic activity.

In Islam, the freedom meant is the freedom which is framed with Tawhid understanding that is based on the law and the limits set by Allah SWT as outlined in the Quran (Rahmawaty, 2013). In the context of today's reality, al-huriyyah or freedom guaranteed through a process of democracy based on knowledge and ethics is based on Islamic principles which coincide and in line with the implementation of the concept of justice (*'adl*), equality (*musawah*) and *musyawarah (shura*) (Hasan, 2016).

Islam stretches freedom to individuals to own and manufacture goods and to free trade and to set prices. However, every member of society is fully responsible for what is done to achieve the well-being and happiness of life in the world and the hereafter, harmonious and balanced, in line with the needs and interests of the community.

iv) Al-Musawah (Equality)

Al-musawah or equality bring the meaning of equal level or status to all human being. For example, in the Islamic administration, there should not be any group that feel higher or more special than the other. However, important to note that not all equality is fair. Thus, the leadership should takes great responsibility in ensuring that equality in its administration also conforms to the principle of justice. Therefore, the leadership must be trustworthy, possessing trustworthy attitudes and behaviors, honesty and fairness (Aziz, 2015). In socio-community well-being, it is important to enhance on the concept of equality that every human being in principle is the same as the servant of God who is not restricted by race and nation. The difference in human dignity lies in the level of faith in obeying Allah S.W.T. Hence, the rights of an individual should be granted according to the requirements of the Shari'a. Thus the implementation of equality in the organization or business is aimed at equality in terms of opportunities and facilities provided as well as the division of tasks by taking into account the aspects of charity and humanity as asserted by Allah S.W.T.

This principle has a very strong foundation which is outlined in the Quran, in Surah al-Hujurat 49:13 which means "*O mankind! We have created you from men and women, and We have made you nations and tribes, so that you may know (and speak with one another). Surely your noble beings in the sight of Allah is the one who is more taqwa among you, (not of the offspring or of his people). Verily, Allah is All-Knowing, on everything*". This verse verifies that there is no difference between men except those who are devout to Allah SWT, not because of their offspring or their nation.

Socio-economic development especially in the context of the village cooperatives should take into account the principle of *Mizan* as it has been outlined above ie *al-ubudiyyah* (self-devotion to Allah), *al-shura* (discussion), *al-hurriyah* (freedom) and *al-musawah* (equality). These four principles are crucial in ensuring the value of justice and balance were achieved through balanced *mizan* management of socio-economic development in village.

3. Methodology

This research is a qualitative research whereby observation at the *kampong* as well as in-depth interview were adopted. For the primary data collection, this research utlised purposive sampling in gaining data from 1-committee members of *kampong* development and security (JKKK), 2- Board of Directors of existing *kampong* cooperatives, 3- business operators in *kampong*, and 4-youths of *kampong*. For the secondary data, researchers have referred to the data and policy by the Economic Planning Unit of Negeri Sembilan and the Rural Development Ministry. The selected *kampong* profiles also will be utilized in the study.

For the first stage, focus group interview were conducted at a selected *kampong* in Seremban district, Negeri Sembilan. In terms of *kampong* selection, researchers selected *kampong* from the following criteria:-

1- Located less than 30km from the nearby town (Bandar Baru Nilai, Negeri Sembilan)
2- *Kampong* population – 200-300 villagers
3- Available and agree for research collaboration
4- Already established a cooperative – to revise their business operations

From the first stage interview, researchers then conducted a second stage focus group activity whereby a Social Business Model Canvas (http://www.socialbusinessmodelcanvas.com/) workshop session were conducted to coach the villagers in identifying the unique resources that could be transformed into social business activities. Following that, a second workshop will be organized for the social business strategic planning.

3.1 Qualitative Research

One of the advantages of qualitative research is that the qualitative analysis could serve as rich source materials in discovery theoretical relationship between latent variables (Prince et al. 2009). Even though the quantitative research could also give an indicator of the relationship between the latent variables by using advance statistic and econometric analysis such as structural equation modelling, correlation coefficient, granger causality test and several other techniques, the result could not explain in depth the phenomenon rather than giving either positive or negative relationship. Gummesson (2003) quoted in (Cova and Elliott 2006) says "Interpretation is inherent in all human effort to understand the world" (Gummesson,2003, p. 484). Maybe, with Gummesson (2003, p. 492), we should recognize that "interpretive elements are influential and present in all types of research and see them as an asset rather than a cross to bear" (Cova and Elliott 2006).

Another advantage of qualitative research as compared to quantitative research was identified by Yin (1994) quoted in (Saunders et al. 1997). The qualitative research is flexible in the strategy of analysing the data. The researcher could either use a theoretical or descriptive framework to analyse qualitative data or it could explore qualitative data without a predetermined theoretical or descriptive framework (grounded approach). The latter is difficult to be used in the quantitative approach. Qualitative methods weaknesses are concerned with the word of validity and reliability as compared to the scientific approach of the quantitative methods. In the scientific research method, the data is gathered and analysed using a systematic procedures and statistical techniques which comply by the researchers would enable them to generalise their findings. In addition, the research could also be replicated by other researchers in a different context. Therefore, the question of validity and reliability is vitally important by the quantitative research.

3.2 Case Study

3.2.1 Scope of Study

Negeri Sembilan is divided into seven districts which are Seremban, Tampin, Kuala Pilah, Port Dickson, Rembau, Jempol and Jelebu. In terms of economic development, the state's manufacturing sector contributing almost half of the state's gross domestic product (GDP), followed by services and tourism (40.3%), agriculture (6%), construction (2.2%) and mining (0.3%). Manufacturing activity includes electrical and electronics, textiles, furniture, chemicals, machinery, metal works and rubber products. The main industrial areas are Senawang, Sungai Gadut, Tuanku Jaafar Industrial Park, Nilai and Tanah Merah in Port Dickson. Although Negeri Sembilan is mainly an agricultural state, the establishment of several industrial estates enhanced the manufacturing sector as a major contributor towards the state economy. Agricultural activity includes rubber and oil palm plantations, livestock, fruit orchards and vegetable farming. About 3,099 square kilometers are used for rubber and oil palm plantations.

However, the rural regions, especially the inland rural regions remain stagnant with the usual village lifestyle. There is definitely great potential to turn these underdeveloped areas into sustainable models of agriculture and comprehensive educational-related community projects. For instance, the beauty of the natural mountainous and undulating regions, wetlands (streams, rivers and lakes) and the flat plains of the inland regions can be transformed into ideal agrotourism regions. This is also similar with the focus of the State to become an educational hub with the development of colleges and universities. Thus, a comprehensive design of Negeri Sembilan as a scholarly state at both educational and community levels is important.

Particularly, this research has been focusing in Seremban area where three *kampong* were selected for the scope of this study. This research has gained information from committee members of *kampong* development (JKKK), Board of Directors of existing *kampong* cooperatives, villagers, business operators in *kampong* as well as youths of *kampong*.

3.3 Thematic Analysis

The steps involved in the research include:-

1. Defining the research problem and research questions. This were resulted in selecting the research paradigm and methods;
2. Designing the semi-structured interview protocol for interview phase;
3. Conducting the in-depth interview. This were involved preparing a fieldwork protocol, selecting and contacting the entrepreneurs, scheduling the interviews and follow-up contact with the entrepreneurs;
4. Transcribing and translating the interviews;
5. Validating the transcripts by sending them to participants;

6. Managing interview scripts, coding these for themes. Different approaches to analysis were used to see whether the themes corroborate one another for the purpose of triangulation as recommended by Silverman (2001);
7. Analysing interview scripts, employing qualitative methods for thematic analysis; and
8. Reporting and discussing the evidence relating to the research questions.

For the current study, the researcher followed Yin's (2011) description of qualitative analysis five-phased cycle, namely; (1) compiling, (2) disassembling, (3) reassembling (and arraying), (4) interpreting, and (5) concluding. The phases are recursive, which means that while the researcher is in one phase, she may go backward or forward at the same time – backward by returning to altering something done in an earlier phase, and forward by previewing or surfacing an idea for an upcoming phase.

4. Findings & Discussion

This section will provide descriptions of each *kampong* cooperatives that have been interviewed which are Cooperative of Kg. Jimah Bharu, Cooperative of Kg. Pelegong and Cooperative of Kg. Rawa. Following that, using the thematic analysis from the *mizan* principles, a comparison among the three cooperatives will be discussed.

4.1 Cooperative of Kampung Jimah Bharu

Kampung Jimah Bharu is located at the border of Mukim Jimah in Port Dickson District with Mukim Labu in Seremban District (about 18km from Seremban, Negeri Sembilan). Opened in 1960 under the land development plan known as the State Land Plan (Rancangan Tanah Negeri), the main economic activity is rubber. Nevertheless, the villagers (around 200 people) also expanded their economic activity such as fish pond, farming, planting and small businesses. This kampung has founded their cooperative since the kampung's establishment in early 1960. In the early establishment of Kampung Jimah Bharu cooperatives, the main purpose of having a cooperative is to help the members with their household expenditures such as getting their groceries in advance by selling the rubber later on. Next, they expanded the cooperative business by offering business outlets and also credit loans to members. However, the cooperative have suffered losses and credit can't be continued until now. However, they still offer assistance for members who are doing small business by getting them small loans and business grants.

4.2 Cooperative of Kampung Pelegong

Kampung Pelegong is located about 15km from Seremban. The main economic activity of Kampung Pelegong is through a tourism-based homestay. The establishment of cooperative of Pelegong Homestay is to increase the income sources in this cottage industry. The activities of this cooperative including cultural and traditional activities, jungle tracking, river tracking and others. In addition, this homestay cooperative is a homestay registered under the Malaysian Tourism Ministry. Pelegong Homestay is one of the oldest homestay in Negeri Sembilan as well as in Malaysia. The homestay was established in 1996 and the homestay cooperative was established in 2007. The main purpose of the Pelegong Homestay Cooperative establishment is to assist the members of the cooperative and the villagers. In the early stage, 25 houses were participated, however the number has decreased to 10. This is due to the the decrement number of participants since they are old and not capable to handle tourist coming to their homestay.

4.3 Cooperative of Homestay Kampung Rawa

Kampung Rawa is located about 22km from Seremban. It is a traditional kampung and main economic activities are farming and agriculture. The Homestay of Kampung Rawa was established in May 2012 after obtaining a license from the Ministry of Tourism Malaysia. Later in July 2014, the Cooperative of Homestay Kampung Rawa was founded and has received the national award as "COOPSTAY" by ANGKASA in September 2016. Now, the cooperative homestay is in the process of getting an accreditation of "Asian Standard Homestay Operator." There are six main activities in Cooperative of Homestay Kampung Rawa namely equestrian, edu-tourism, health, recreaction, agro-tourism and spa. The cooperative have been actively organizing homestay activities for tourist from both local and international.

4.4 Comparative analysis

Based on the research question developed for this research which is, "***How do kampong cooperatives practicing the mizan principles in their organization in ensuring the development and sustainability of the cooperatives?"*** the following table 1 is presented.

Table 1- Findings of *Mizan* Themes for Three Kampung

No	Theme	Kg. Pelegong	Kg. Rawa	Kg. Jimah Bharu
1	AL-UBUDIYYAH	1. Conduct religious programs/activities (masjid) 2. Pay zakat 3. Contributions to the society/villagers 4. No waqaf 5. Community services 6. Using Islamic banking	2. Conduct religious activities (masjid) 3. No zakat 4. Using Islamic banking 5. No donation/ no waqaf	1. Conduct religious activities (masjid) 2. No zakat 3. Contributions for society 4. Using conventional banking
2	AS-SYURA	1. Conduct meetings/discussion prior to any activities 2. Cooperative meeting	1. Conduct meetings/discussion	1. Conduct meetings
3	AL-HURRIYYAH	1. Reprimanding 2. Freedom to speak	1. Open discussion	1. Freely expressing opinions 2. Open selection for cooperative board of director
4	AL-MUSAWWAH	1. Open elections 2. Equality 3. Fund for welfare/charity	1. No election for board member of the cooperative 2. Open selection 3. Equal opportunity to become a commitee member	1. Open election 2. Cooperation among commitee members
5	SOCIAL ENTERPRISE	1. Did not has a clear understanding	1. Believe that they have conducted social enterprise activities	1. Believe that they have conducted social enterprise business activities

From the above table 1, the research found that there are *mizan* principles, ie. *as-syura, al-musawah and al-hurriyah* which practically exercised by those three kampong. However, for the *al-ubudiyah* principle, it has been found that lacking of knowledge (ie. using Islamic banking) as a reason of not managing the cooperative in shariah compliant. They also have little knowledge of social enterprise but believe that they have conducted social enterprise business activities. As this research was to understand how kampung cooperative utilizing the *mizan* principles in managing the cooperative sustainability and development, it is found that all four principles have been utilized without realizing the importance of those principles due to knowledge lacking. In addition, from the focus groups' emerging themes and workshops, the study found that there are several issues that need to be addressed. First is regarding the sustainability of kampong cooperatives existence, second is on the

readiness on kampong cooperative towards business development and third is on the understanding of Islamic practice in cooperative management.

5. Conclusion

Based on the findings from this research, those *kampong*s were left behind with abundant resources that were not fully utilized. The research also has identified that the *kampong* cooperatives were not valuing their unique resources due to migration of the young generation to nearby cities and also lacking of expertise in the cooperative governance. It is recommended that these *kampong* cooperatives could utilize the *kampong* unique resources which could be developed by the members of cooperative as well as the villagers for the *kampong* cooperative sustainability. More importantly, this research addresses on how the *kampong* cooperatives should govern their organization by applying the *mizan* principles. As mentioned ealeier, the application of the *mizan* principle in the society educates humans to positioned the ultimate virtue of hereafterworld ahead of the current world's priorities. For the practical contribution, this study will assist the Economic Planning Unit of Negeri Sembilan State and relevant agencies especially the Malaysian Cooperative Commission in stimulating the development and sustainability of cooperatives and encourage the participation of *kampong* communities in the socio-economic development.

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