INTERNATIONAL CONFERENCE ON SOCIAL SCIENCES AND HUMANITIES (ICOSAH)

OUM, SEREMBAN
01 NOVEMBER 2017
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOW DOES OWNERSHIP CONCENTRATION AFFECT FIRM PROFITABILITY AND FIRM SUSTAINABILITY?</td>
<td>1</td>
</tr>
<tr>
<td>MANAGEMENT OF DA’WAH TOWARDS MUALLAF: A CASE STUDY AT KOMPLEKS AL-SAADAH, SEREMBAN</td>
<td>11</td>
</tr>
<tr>
<td>THE PREVALENCE OF ALCOHOL CONSUMPTION AMONG UNDERGRADUATES</td>
<td>28</td>
</tr>
<tr>
<td>SUSTAINABLE GROWTH RATE OF FIRM AND SHARE PRICE PERFORMANCE IN MALAYSIA: A PANEL DATA ANALYSIS</td>
<td>40</td>
</tr>
<tr>
<td>DETERMINANTS OF RESIDENTIAL PROPERTY VALUES WITH SPECIAL REFERENCE TO RESIDENTIAL NEIGHBOURHOOD CRIME</td>
<td>54</td>
</tr>
<tr>
<td>JOB CRAFTING AMONG MALAYSIAN ACADEMICS: THE ROLE OF RELIGIOUS PERSONALITY IN JD-R MODEL OF BURNOUT</td>
<td>74</td>
</tr>
<tr>
<td>PENGARUH BIMBINGAN ROHANI ISLAM TERHADAP KESEHATAN MENTAL PASIEN SAKIT JIWA MASA REHABILITASI DI RUMAH SAKIT JIWA DR. AMINO GONDOHUTOMO SEMARANG</td>
<td>87</td>
</tr>
<tr>
<td>FAMILY HARDINESS AND CAREGIVER BURDEN AMONG THE FAMILY OF STROKE PATIENTS</td>
<td>104</td>
</tr>
<tr>
<td>PENGEMBANGAN MEDIA PEMBELAJARAN ANIMASI FISIKA BERBASIS MOBILE LEARNING ANDROID</td>
<td>114</td>
</tr>
<tr>
<td>SOLAR SMARTPHINE: A GREENER SOLUTION</td>
<td>125</td>
</tr>
<tr>
<td>MOLLUSCICIDE REMOVAL FROM PADDY FIELD WASTEWATER A SUSTAINABLE METHOD</td>
<td>132</td>
</tr>
<tr>
<td>LEARNING GUITAR IN AUGMENTED REALITY</td>
<td>144</td>
</tr>
<tr>
<td>IMPLEMENTASI PROGRAM GERAKAN GEMAR SEDEKAH (GREGED) DI SD MUHAMMADIYAH (PLUS) KOTA SALATIGA, JAWA TENGAH, INDONESIA</td>
<td>158</td>
</tr>
<tr>
<td>THE ROLE OF CUSTOMERS CULTURAL VALUES IN DEVELOPING E-LOYALTY</td>
<td>177</td>
</tr>
<tr>
<td>RAPOR KURIKULUM 2013. TINGKAT MADRASAH IBTIDAIYAH BERBASIS WEB</td>
<td>192</td>
</tr>
<tr>
<td>INTERNATIONAL TERTIARY ENROLEMENTS IN MALAYSIA TWO PROPOSED VARIABLES FOR MACRO ANALYSIS</td>
<td>220</td>
</tr>
<tr>
<td>COLLECTIVE INTEGRATIVE IJTIHAD. AN ATTEMPT OF DEVELOPING CONTEXTUAL FIQH MU’AMALAH AS THE FOUNDATION OF SHARI’AH BUSINESS PRODUCT DEVELOPMENT</td>
<td>234</td>
</tr>
</tbody>
</table>
HOW DOES OWNERSHIP CONCENTRATION AFFECT FIRM PROFITABILITY AND FIRM SUSTAINABILITY?

Irene Wei Kiong Ting  
Faculty of Industrial Management  
Universiti Malaysia Pahang, Pahang, Malaysia  
Corresponding Author: irene@ump.edu.my

Norazlin Ahmad  
Faculty of Industrial Management  
Universiti Malaysia Pahang, Pahang, Malaysia

Mohd Ridzuan Darun  
Faculty of Industrial Management  
Universiti Malaysia Pahang, Pahang, Malaysia

Qian Long Kweh  
Faculty of Management  
Canadian University Dubai, Dubai, United Arab Emirates

ABSTRACT

Today’s competitive environment creates a critical problem for firms on how to create sustainable performance in response to the fast-growing development of information technologies and business environment. In this regard, this is the first study examines the impact of ownership concentration on firm profitability and firm sustainability among Malaysian public listed companies. The multiple regression method is employed to examine the relationships. The study concludes that low ownership concentration provides higher profitability for firms compared to high ownership concentration. The research implications contribute to the argument on the corporate governance structure, the application of agency theory and the factors associated with firm profitability and firm sustainability in the literature part. In all, this study highlights the indirect approach to test the impact of ownership concentration to firm profitability and firm sustainability in one test.

Keywords: Ownership concentration, firm profitability, firm sustainability
Introduction

In view of performance and sustainability, maximizing a firm’s value is related to maximizing the shareholders’ wealth. Therefore, managers and investors need to formulate strategies to ensure their firms can sustain good performance where it can give benefits to stockholders as well as insiders’ ownership. In other words, firms must attract more investors to contribute funds for their projects. This argument is supported by Ke and David (2007) which mentioned investors with large ownership stakes have strong incentive to maximize the firms’ value. In other words, firms can improve their profitability if they have higher managerial ownership. Other than that, a study conducted by Clò et al. (2017) show that firms can be sustainable if the shareholders can contribute more capital into the firms, instead relying on the lenders.

However, major problems occur in concentrated ownership when management takes action on the divergence between the control or monitoring rights and the cash-flow rights of the controlling shareholders (Wang & Shailer, 2017). Continuing this debate, boards with a large number of shareholders making it difficult to exercise their power to control and monitor management performance (AL-Najjar, 2015). Thus, this issue has generated interests among researchers in both developed and emerging markets. In this light, even though the relationship between ownership and performance has been a popular topic for decades, most scholars have failed to identify how concentrated ownership affects firm profitability and firm sustainability in one study (Clò et al., 2017).

In general, this study aims to investigate the effect ownership concentration on firm profitability and firm sustainability in Malaysia. Numerous studies have shown the impact of ownership concentration on firm performance and how they can enhance firms’ profits. However, no quantitative analyses have investigated the effects of ownership concentration on firm sustainability in Malaysian publicly listed companies. Thus, this study seeks to fill this gap.

This paper contributes to the argument on the corporate governance structure from several aspects. First, this is the first study that significantly shows the direct relationship ownership concentration on firms’ profitability and firm sustainability in one study. Second, this paper is also the first study that analyses the impact of firm sustainability to ownership concentration for firms in Malaysia. Third, this study used the indirect approach to test the impact of firm profitability on ownership concentration and the impact of ownership concentration on firm sustainability. Therefore, it is hoped that the study’s results could
become an indicator to develop strategies in order to ensure the importance of higher profit with good performance and long-term sustainability, especially for public listed companies in Malaysia.

**Materials and Methods**

The sample data set included the top 200 Malaysian firms excluding finance and insurance firms which are listed on the market capitalization as at 31 December 2015. This study used Malaysian firms as samples as the ownership structure of Malaysian firms is more inclined ownership concentration where there are many large institutions or state-owned enterprises (Nguyen & Giang, 2015). The study period is from 2009 until 2015. The two-stage least squares (2SLS) regression analysis is used to test the hypotheses. The 2SLS approach is used because it deals with the endogeneity problem involving ownership concentration (OC), whereby OC is first regressed on various firm characteristics, including LNTA, which represents firm size; LEV, which denotes firm leverage; FAGE, which means firm age; AMAT, which signifies asset maturity; NDTS, which means non-debt tax shield; and TANG, which means capital intensity. As such, the following equation is estimated.

\[
OC_{it} = \alpha_0 + \alpha_1 LNTA_{it} + \alpha_2 LEV_{it} + \alpha_3 FAGE_{it} + \alpha_4 AMAT_{it} + \alpha_5 NDTS_{it} + \alpha_6 TANG_{it} + \sum \lambda_i Year + \sum \lambda_i Industry_i + \epsilon_{it}
\]

Next, using the predicted values of OC derived from the Stage-1 regression analysis, Equations (1) and (2) below are used to test the effects of OC on (i) firm profitability (FP), as well as (ii) firm sustainability (FS), respectively.

\[
FP_{it} = \alpha_0 + \alpha_1 OC_{it} + \alpha_2 LNTA_{it} + \alpha_3 LEV_{it} + \alpha_4 FAGE_{it} + \alpha_5 AMAT_{it} + \alpha_6 VOL_{it} + \alpha_7 BDIV_{it} + \alpha_8 BIND_{it} + \alpha_9 BSIZE_{it} + \alpha_{10} BMEET_{it} + \sum \lambda_i Year + \sum \lambda_i Industry_i + \epsilon_{it}
\]

(1)

\[
FS_{it} = \alpha_0 + \alpha_1 OC_{it} + \alpha_2 LNTA_{it} + \alpha_3 LEV_{it} + \alpha_4 FAGE_{it} + \alpha_5 AMAT_{it} + \alpha_6 VOL_{it} + \alpha_7 BDIV_{it} + \alpha_8 BIND_{it} + \alpha_9 BSIZE_{it} + \alpha_{10} BMEET_{it} + \sum \lambda_i Year + \sum \lambda_i Industry_i + \epsilon_{it}
\]

(2)

where \(i\) refers to firm; \(t\) refers to year; Year\(_{i}\) refers to year fixed effects; Industry\(_{i}\) refers to industry fixed effects, and \(\epsilon_{it}\) refers to the error term. FP is proxied by (i) return on assets (ROA), which is measured as firm \(i\)’s ratio of net income to total assets in year \(t\), as shown in
Marwa and Azizkpono (2015); (ii) return on equity (ROE), which is measured as firm i’s ratio of net income to the book value of shareholder equity in year t as shown in Omran, Bolbol, and Fatheldin (2008); and (iii) market/book ratio (MTB), which is measured as firm i’s ratio of market value to its book value in year t, consistent with Kaserer and Moldenhauer (2008). As for FS, the measures are split into two specific categories with their own additional robustness checks. First, following the concept of Marwa and Azizkpono (2015), operational self-sufficiency sustainability (Sustainability) is measured as the ratio of total revenue to total expenses. As such, this study also included financial sustainability (FINSUS) which is a dummy variable equal to 1 if firm i has a Sustainability level of 110% or more in year t, and 0 otherwise. The study also examined operation-related sustainability using (i) net profit margin (NPM), which is measured as firm i’s ratio of net income to sales in year t, consistent with Bhuiyan, Siwar, Ismail, and Talib (2011); and (ii) operational sustainability (OPSUS), which is a dummy variable equal to 1 if firm i has a Sustainability level of 100% or more in year t, and 0 otherwise. Prior studies (Omran et al., 2008; Zeitun & Tian, 2007) showed that ownership concentration is quantified as the percentage of shares owned by the top three largest shareholders (Top 3), as well as the percentage of shares owned by the top five largest shareholders (Top 5) as a robustness check.

Our analyses also included various control variables related to firm-specific elements that could affect both firm profitability and firm sustainability, in line with prior studies (Brailsford, Oliver, & Pua, 2002; Erbetta, Menozzi, Corbetta, & Fraquelli, 2013; Martinez & Requejo, 2017). Firm size (LNTA) is represented by the natural logarithm of total assets; asset maturity (AMAT) is measured as (gross property, plant and equipment/Assets) multiplied by (gross property, plant and equipment/Depreciation); non-debt tax shield (NDTS) is calculated as the natural logarithm of depreciation; volatility (VOL) is the standard deviation of ROA for period t in each industry; firm age (FAGE) is the natural logarithm of number of years of establishment; capital intensity (TANG) is the ratio of gross property, plant and equipment to total assets; and firm leverage (LEV) is the ratio of total liabilities to total assets. Moreover, variables related to board of directors are also incorporated in the equations shown above. Board diversity (women directors/total directors), independence (independent directors/total directors), size (logged total board of directors), and meeting (logged total board meetings) are also used in the analyses.

**Results and Discussion**
The results in Table 1 show a significant, negative relationship between ownership concentration and firm profitability. This finding is consistent with Erbetta et al. (2013) which indicated that when firms grow to be larger, their performance, especially on profit, will decline due to the difficulty to control and transfer the firm or business culture. The results in Table 2 show that there is a significant relationship between ownership concentration and firm sustainability. We also used net profit margin and operational sustainability as a measurement to measure firm sustainability, which are untabulated in this paper.

Our findings on Malaysian public listed firms are consistent with existing studies (Akimova & Schwodiauer, 2004; Erbetta et al., 2013). High ownership concentration is related to larger firm and old firm. In other words, when firms already establish for long period, they become larger and can attract more investor. However, when they have a lot of employees, department, subsidiary, rules and procedure, it will create difficulties in monitoring and controlling behaviours of employees. They become take action to exploit minority shareholders interest due to their interest are different with shareholders interest (Fitriya & Stuart, 2012). The interest of employees or manager are more concerned on financial performance while the shareholders are focusing on the return on investment (Gomez-Mejia, Cruz, Berrone, & De Castro, 2011). In this light, even though firm profitability depends on firm sustainability, it is not necessary if higher profit reflects sustainability (Abdullah et al., 2012; Clò et al., 2017).

This study also performed robustness checks in a different setting to support our results. Consequently, we adopt the firm growth instead net profit margin as a proxy of firm sustainability to replicate the results, following Kaserer and Moldenhauer (2008). In this light, when the shareholders are passive, they lost the power to control and monitor the behaviours of managers or employees (Audretsch, Huelsbeck, & Lehmann, 2013; Miller, Minichilli, & Corbetta, 2013), and when managers will take action and give benefit only for their side, it will give bad impact to firms’ performance, hence, To solve this problem, shareholders will hire someone that can be called as the board of directors to help them (AL-Najjar, 2015). The board of directors will use their knowledge and experience to identify factors that can help to firm sustainability. Outsider directors will be appointed to identify and to solve the problems faced by the firm.
Table 1 Regression Result – OC and FP

<table>
<thead>
<tr>
<th>Variable</th>
<th>DV = ROA</th>
<th>DV = ROE</th>
<th>DV = MTB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>0.4864 (8.8261)**</td>
<td>0.6617 (7.1969)**</td>
<td>7.4983 (9.7038)**</td>
</tr>
<tr>
<td></td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Testing variable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Top 3</td>
<td>-0.9944 (-3.3748)***</td>
<td>-2.3675 (-6.7549)***</td>
<td>-7.0484 (-3.2770)***</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Top 5</td>
<td>-1.2368 (-3.2207)***</td>
<td>-2.8478 (-6.7910)***</td>
<td>-11.6588 (-4.8358)***</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control variable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LNTA</td>
<td>0.0099 (1.0468)</td>
<td>0.0443 (4.3638)**</td>
<td>0.0514 (4.6813)**</td>
</tr>
<tr>
<td></td>
<td>*</td>
<td>*</td>
<td>-0.0966 (1.6767)*</td>
</tr>
<tr>
<td>LEV</td>
<td>-0.0517 (-1.6321)</td>
<td>0.0964 (1.3336)</td>
<td>0.0884 (1.2489)</td>
</tr>
<tr>
<td></td>
<td>*</td>
<td>*</td>
<td>-0.0580 (0.4562)</td>
</tr>
<tr>
<td>FAGE</td>
<td>0.0133 (2.5602)**</td>
<td>0.0281 (2.6408)**</td>
<td>0.0405 (1.8461)*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AMAT</td>
<td>-0.0001 (-2.0182)**</td>
<td>-0.0001 (-2.1872)**</td>
<td>-0.0003 (-1.293)*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VOL</td>
<td>0.0820 (0.4793)</td>
<td>0.0095 (0.0676)</td>
<td>0.0157 (0.1125)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BDIV</td>
<td>-0.0438 (-1.6384)</td>
<td>-0.0980 (-1.7221)</td>
<td>-0.1021 (-1.2301)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIND</td>
<td>0.0164 (0.5172)</td>
<td>-0.0771 (-1.7639)*</td>
<td>-0.0852 (-1.9506)*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BSIZE</td>
<td>-0.0021 (-0.1536)</td>
<td>0.0219 (0.6154)</td>
<td>0.0211 (0.5934)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BMEET</td>
<td>-0.0059 (-0.6661)</td>
<td>-0.0060 (-0.6743)</td>
<td>0.0043 (-0.2552)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year fixed effect</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Industry fixed effect</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Adjust R²</td>
<td>0.1058 (3.2598)**</td>
<td>0.1018 (3.1070)**</td>
<td>0.1927 (3.0805)**</td>
</tr>
<tr>
<td>F-statistic</td>
<td>7.7321***</td>
<td>7.4764***</td>
<td>14.0375***</td>
</tr>
</tbody>
</table>

Notes: t-statistics are given in parentheses. ***, ** and * denotes the significance level at 1%, 5% and 10%, respectively.

Table 2 Regression Result – OC and FS (Sustainability and FINSUS)

<table>
<thead>
<tr>
<th>Variable</th>
<th>DV = Sustainability</th>
<th>DV = FINSUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>4.2166 (3.2598)**</td>
<td>2.5148 (2.8085)**</td>
</tr>
<tr>
<td></td>
<td>6.4232 (3.2598)**</td>
<td>2.1550 (3.1070)**</td>
</tr>
<tr>
<td></td>
<td>2.1550 (3.1070)**</td>
<td>2.5148 (2.8085)**</td>
</tr>
<tr>
<td>Testing variable</td>
<td>Top 3</td>
<td>-29.2735</td>
</tr>
<tr>
<td>------------------</td>
<td>-------</td>
<td>----------</td>
</tr>
<tr>
<td></td>
<td>(-2.1996)**</td>
<td>(-1.3875)</td>
</tr>
<tr>
<td></td>
<td>Top 5</td>
<td>-25.3163</td>
</tr>
<tr>
<td></td>
<td>(-1.8837)*</td>
<td>(-1.1696)</td>
</tr>
<tr>
<td>Control variable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LNTA</td>
<td>0.9839</td>
<td>0.8083</td>
</tr>
<tr>
<td></td>
<td>(2.2653)**</td>
<td>(1.9940)**</td>
</tr>
<tr>
<td>LEV</td>
<td>-3.1338</td>
<td>-2.9479</td>
</tr>
<tr>
<td></td>
<td>(-2.8043)***</td>
<td>(-2.7078)***</td>
</tr>
<tr>
<td>FAGE</td>
<td>0.3034</td>
<td>0.3495</td>
</tr>
<tr>
<td></td>
<td>(2.2116)**</td>
<td>(2.0189)</td>
</tr>
<tr>
<td>AMAT</td>
<td>-0.0007</td>
<td>-0.0004</td>
</tr>
<tr>
<td></td>
<td>(-1.2564)</td>
<td>(-0.5246)</td>
</tr>
<tr>
<td>VOL</td>
<td>0.3168</td>
<td>0.3277</td>
</tr>
<tr>
<td></td>
<td>(0.4524)</td>
<td>(0.4752)</td>
</tr>
<tr>
<td>BDIV</td>
<td>-0.2411</td>
<td>-0.2898</td>
</tr>
<tr>
<td></td>
<td>(-0.4427)</td>
<td>(-0.5154)</td>
</tr>
<tr>
<td>BIND</td>
<td>1.7104</td>
<td>1.5645</td>
</tr>
<tr>
<td></td>
<td>(1.4432)</td>
<td>(1.3688)</td>
</tr>
<tr>
<td>BSIZE</td>
<td>-0.4396</td>
<td>-0.4810</td>
</tr>
<tr>
<td></td>
<td>(-1.8662)*</td>
<td>(-1.9658)**</td>
</tr>
<tr>
<td>BMEET</td>
<td>-0.4607</td>
<td>-0.4616</td>
</tr>
<tr>
<td></td>
<td>(-2.1183)***</td>
<td>(-2.1197)***</td>
</tr>
<tr>
<td>Year fixed effect</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Industry fixed effect</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Adjust R²</td>
<td>0.0641</td>
<td>0.0540</td>
</tr>
<tr>
<td>LR statistic</td>
<td>243.9471***</td>
<td>243.3937***</td>
</tr>
<tr>
<td>F-statistics</td>
<td>4.7424***</td>
<td>4.1166***</td>
</tr>
</tbody>
</table>

Notes: t-statistics are given in parentheses. ***, ** and * denotes the significance level at 1%, 5% and 10%, respectively.

**Conclusion**

Our analyses of the ownership concentration of Malaysian public listed firm had shown firm profitability and firm sustainability and profitability is usually related to performance and sustainability. In this light, when firms can achieve higher profits for their business, they can sustain for a longer period. One of the factors leading to high profitability and sustainability is resources or fund contributed by the shareholders or investors. When firms have high ownership concentration, it will increase financial resources in their business.
However, when separate ownership and control is given to different parties, it will create bigger problems reduce profitability and become unsustainability.

This study thus contributes to the argument on corporate governance structure, the application of agency theory and the factors associated with firm profitability and firm sustainability in the literature part. However, the sample size is limited to only Malaysian public listed firms; hence, future studies could use samples from other countries. Besides, future research may assess the differences in the roles played by the different types of ownership structure.

References


MANAGEMENT OF DA’WAH TOWARDS MUALLAF: A CASE STUDY AT KOMPLEKS AL-SAADAH, SEREMBAN

By:

Masnih binti Mustapa¹, Nur Aimie Syarmimi Binti Jaafar, Kalsom binti Ali.

Faculty Leadership and Management
Islamic Science University of Malaysia
Nilai, Negeri Sembilan

¹Corresponding Author: masnhmustapa@ymail.com

ABSTRACT

Islam is a religion that promises life to the welfare of its adherents. Prophet is a noble man who has been sent to bring prosperity to the entire world. Islam presents a guide that covers all aspects of life. However, based on various information and display news there is some Muslims who are still looking for the promised prosperity. Based on these issues, this study was conducted to review and explored what about the implementation management carried out to the new Muslims by the responsible authorities and others who also contribute and help to the solution of problems faced by the New Muslims. This study will attempt to get information and views on the various aspects which could clarify the real issues that have been and are taking place. Implications of the study will be elaborated together with recommendations for future studies.

KEY WORDS

Islam, muallaf, da’wah, management, responsible
INTRODUCTION

Da’wah to muallaf is one of the important issues that need to be focused. It is very important to avoid a convert back to the original teachings of their religion. This is because there are cases of converts apostasy. Da’wah management to these people need to be upgraded from time to time in order to favor the supremacy of Islam and Muslims can live as they enjoyed. Many people would like to see those muallaf get feeling of pleasure religion after Islam and no major issues were impediment to achieving that goal.

Well-being of a person closely associated with financial factors, knowledge, faith, relationships, jobs and so on. Parties involved in matters related to the muallaf shall take steps as soon as possible to ensure the well-being of this group is reached. If the issue cannot be resolved, it is feared that symptoms such as such as apostasy, an increase of street beggars, the collapse of marriage and similar other things will occur.

Based on these needs, this study related to the management of Da’wah to the muallaf converts were made at Kompleks Al-Saadah, Seremban, Negeri Sembilan. This study focuses on Da’wah management system implemented by them, in addition to identifying programs for the benefit of muallaf and the problems that exist among them.

In the end of the study, suggestion and the view will be presented and hopefully it can be a guide to any parties’ deal with the issue management of Da’wah to Muallaf.

PROBLEM STATEMENT

Islam is a religion that promises life to the welfare of its adherents. The Prophet Muhammad S.A.W is a noble man who has been sent to bring prosperity to the entire world. Islam presents a guide that covers all aspects of life. It is all spelled out by the basic resources of life in Islamic guidance by either the Quran or Hadith is broken or otherwise clarify the scholars that these sources.

However, based on various information and display news there is some Muslims who are still looking for the promised prosperity. The question is whether they have not tried to get it as demanded welfare or absence of any efforts to help them achieve the dream of the promised Islamic. These are topics that always linger and become an issue among muallaf who have chosen Islam as a way of life.
It is common knowledge that the authorities and given responsibilities and various other parties have done what is necessary to ensure that those muallaf get a prosperous life based on the teachings of Islam professed. Various aid has been granted that cover various aspects. Nevertheless, the voices and views that questioned the role and responsibilities as well as the assistance provided is still an issue in the community. This situation is evidenced by what have been displays in news about the hardships that reveals to some Muslim converts.

Based on these issues, this study will be conduct by the researcher to review and explore about the implementation Da’wah carried out in their management to the muallaf by the authorities with responsibility and others who also contribute and help to the solution of problems faced by the muallaf. This study will attempt to get information and views on the various aspects which could clarify the real issues that have been and are taking place.

The study on the management of his missionary recently been implemented specifically in Kompleks Al-Saadah, Seremban, Negeri Sembilan. However, this study will also look at the roles undertaken by other parties such as organizations and charitable organizations and any party that has to do with muallaf either directly or indirectly.

RESEARCH QUESTION

a) What is the management system of Da’wah against the Muallaf taken by the Kompleks Al-Saadah?

b) How Kompleks Al-Saadah implement Da’wah program to Muallaf?

c) What is the problems arising in the management of Da’wah to Muallaf.

RESEARCH OBJECTIVE

The main objective of this study is:

a) Identify the management system of Da’wah against the Muallaf taken by the Kompleks Al-Saadah.

b) Identify the Da’wah programs for Muallaf taken by the Kompleks Al-Saadah.
c) Identify the problems that arise in the management of Da’wah to *Muallaf*.

**RESEARCH SIGNIFICANT**

The results of this study will hopefully help all parties especially those involved directly in the management of the *muallaf*, especially Kompleks Al-Saadah and other related organizations. It is hoped that this study will further strengthen the management systems of Da’wah to the *Muallaf*.

The study is also expected help the parties involved indirectly or directly in the management of Da’wah to *Muallaf*. Based on the studies conducted, appropriate measures may be carried out in their efforts to contribute and help the *Muallaf*.

The results from this study is expected that those *Muallaf* will receive attention and assistance as possible that eventually help them solve their problems.

The study is also expected to help the *Muallaf* continue to live as a Muslim in a calm, peaceful and prosperous. All or part of the problems faced either due to self, family, community, work, study etc. is no longer a barrier to becoming a true Muslim.

**RESEARCH METHODOLOGY**

The term methodology is derived from the English “method” that brings meaning a way of doing something, especially one that is well known and often used.\(^1\) While the term methodology is the science of method and procedure and the methods used in a particular activity.\(^2\) In other words, methodology is the set of methods and principles that used when studying a particular subject or doing a particular kind of work.\(^3\)

In scientific research, research methodology is a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically. In it we study the various steps that are generally adopted by a researcher in

---

\(^1\) Pearson Education Limited (2009), *Longman Dictionary of Contemporary English*, Rotolito Lombarda, Milano, Italy: Edinburgh Gate, p.1100
\(^3\) Pearson Education Limited (2009), *Longman Dictionary of Contemporary English*, Rotolito Lombarda, Milano, Italy: Edinburgh Gate, p.1100
studying his research problem along with the logic behind them. It is necessary for the researcher to know not only the research methods/techniques but also the methodology.\(^4\)

From what has been stated above, we can say that research methodology has many dimensions and research methods do constitute a part of the research methodology. The scope of research methodology is wider than research methods.\(^5\)

From the above discussion, it is understood that the method is a very important scientific research. The study will be based on an appropriate method obtain results that are not in doubt. Instead of an investigation without applying the appropriate methods and correctly, resulting in findings disputed authenticity.

In this study, the method to be used is:

a) Data collection method

b) Data analysis method

a) Data collection method

The data is intended here is information collected and analyzed in a research. Similarly, any question in the data include the words, letters, diagrams, charts, the ballots, reading water meters and so on. In conclusion, the data is raw information which forms the basis research, either for analysis or made by conclusions.

Data is basically divided into two basic data and secondary data derived from second parties. Data base is one that is collected directly from the object or source. In addition to basic data is the data obtained from secondary sources such as printed materials.\(^6\)

In this study, the main method of data collection is made directly on the object or source, known as external studies which include the random sampling method. This method is a method to obtain the necessary information related to the management of da’wah the \textit{Muallaf}. Getting close to the parties involved in the management of da’wah to the \textit{Muallaf}

\(^5\) Ibid, p.8
and view management system and implementation practices. Survey forms submitted to the respondent through a series of meetings held.

b) Data analysis method

The procedure for analyzing the survey data is by using the Statistical Package for Social Science (SPSS). The process of analyzing data from the questionnaires will be started by reviewing the questionnaires that were obtained from the respondents. After the quantitative data obtained will be analyzed using SPSS. The questionnaires have adopted the binary scale on which it will only see the descriptive aspects only, through frequency distribution and percent. While data from interviews were analyzed by comparison to institutions involved as well as comparisons with previous studies.

With the amount of accumulated data obtained through the ways above, the data is analyzed by the following methods:

i. Inductive method, means to offer a general truth by showing, that if it is true for a particular case. It is true for all such cases. Inductive approach is psychological in nature. Inductive method develops curiosity with in the individual which is need of the day. The data obtained will be concluded in the form of a general description.

ii. Deductive method, is based on deduction. In deductive method, we proceed from general to particular and from abstract and concrete.

iii. Comparative method, is a fundamental tool of analysis. It sharpens our power of description, and plays a central role in concept-formation by bringing into focus suggestive similarities and contrast among cases.

Data and information is still treated as raw materials that serve as the basis either for research or analysis material for temporary conclusions.

---


8 Ibid, p.22

LITERATURE REVIEW

During the early history of Islam during shortly after the time of the prophet, ‘muallaf’ has been a concept in literature which refers to those who are ready to embrace the Islamic religion and/or the muallaf.\(^{10}\) Jasni bin Sulong (2014) wrote that religious conversion or converts is referring to one leaving his faith and embracing another faith. Conversion to Islam or “muallaf”, is specially refers to whom embracing Islam and giving devotion to the teaching of Islam and its law.\(^{11}\) The term *muallaf*, the same meaning as ‘convert’ is also applied in the Constitution of Malaysia.\(^{12}\)

The word ‘Muslim converts’ means those who are changed from their previous religions to Islām and become Muslim. In Islām, they are called ‘muallaf’. The Encyclopedia of Islām explains that the word comes from the Arabic ‘Al-a Qulūbuhum’ which means “those whose hearts are won over” or “those hearts that need softening” (C.E Bosworth, E. Van Donzel, W.P Heinrichs and C.H Pellat, 1993:254). The term applied to those former opponents of the Prophet Muhammad who are said to have been reconciled to the cause of Islām by gifts of 100 or 50 camels from the Prophet Muḥammad’s share of the spoils of the battle of Hunayn, after Muḥammad’s forces had defeated the Hawāzin confederation, and which were divided out at the al-Dijrana. The list included the Meccan Leader Abū Sufyān and his sons Mu’a’wiyya and Yazīd and various Bedouin chiefs of the tribes of western Arabia. On the other hand, the actual phrase is connected with the Qurān in the Sūra Al-Tauba: 60, which means: “Zakāt is for: the poor, the destitute, those who collect it, reconciling people’s hearts (), frees slaves, spending in the way of Allah, and travelers. It is a legal obligation from Allah. Allah is all knowing, all wise”\(^{13}\).

Until now, the scientific study to those muallaf is quite a lot, but there is a gap of studies on the management to muallaf and it still in the beginning. This condition may be due to the convergence of in depth research on topics such as the reasons for the muallaf to Islam, the causes of apostasy among muallaf and so on. The research on the issue of muallaf seem to


\(^{12}\) The word was used in the Administration of Islamic Law Enactment of Malaysia, 1992 and the Law Reform (Marriage and Divorce) Act, 1976. It also used in the same meaning of (those who are embraced Islām and not from Malays) in Article 11 (1) and Article 12 (3) and (4), Federal Constitution of Malaysia.

make a notion that the management of this group will go hand in hand with the titles of the study as stated.

In order to decide on the management of Da’wah to muallaf as the title of this writing, some previous writings that touch on those muallaf have been seen. The results of the observations made in respect of available writings focus on the issue of muallaf as described and did not touch directly on the issue of management of da’wah to Muallaf.

The literature review of this research is divided into four major parts:

(i) Muallaf: Historical and theoretical issues.
(ii) Implementation of Da’wah to Muallaf.
(iii) Management of Muallaf in Malaysia.
(iv) Problem rise among Muallaf.

i. **MUALLAF: HISTORICAL AND THEORETICAL ISSUES.**

It is known whether Islam started around the 7th to 8th centuries. Despite concerns about the reliability of early sources, the beginnings of Islam date back to the 7th century, when the prophet of God Muhammad was active in the area of Mecca and Medina as a messenger of God, teaching and governing in the name of God.\(^{14}\) In Muhammad’s lifetime, Muslims became a religious and political community in which the Prophet was the head of the state. His authority allowed him to manage the territory and the nation, pass justice, collect taxes, lead the army and make peace. After the death of the Prophet it was necessary to find a suitable successor in order to preserve the unity of the Islamic world and to spread the word of God (Allah).\(^{15}\)

Alwani Ghazali (2015) explained that the Prophet Muḥammad’s ḥadīth (literally means speech), which is regarded as source of knowledge in Islam, contains mostly a record of his conversation with the people around him during his time. To this extent, all fields in Islamic studies concerns with the contents of the ḥadīth for providing important reference for problems in Qur’ānic exegesis, jurisprudence, ethics and Islamic thought. Some studies in Arabic linguistics and literature focused on Prophet Muḥammad’s use of metaphor, analogy, syntax and other literary elements, but none investigates ‘how’ the Prophet thinks in all his conversation with people of many styles, personalities and backgrounds.

\(^{14}\) Dragan Poto Cnik. *Islam Between the Past and the Present.* University of Maribor, Slovenia. Volume 2. p. 171

\(^{15}\) Ibid, p. 171.
His first successor was the Prophet’s father-in-law Abu Bakr. Almost half a century later, the eagerness which was ignited by the new religion made the Arabs set out to conquer the world, which started one of the most important chapters in the history of the humankind.16

Sayid Abul A’la Mawdudi (1996) says the Prophet Muhammad (peace be upon him) changed the character of Arabian life in a short period of only twenty-three years. He instilled in the people a spirit that helped to serve the cause of Islam. They set out with a great mission of spreading Islam all over the entire world. The Prophet passed away at the age of sixty-three, after completing the greatest mission of all time. During the period of Prophet Muhammad, there was a gradual breaking of new ground. Islam was gaining a following all over Arabia. This is one side of the story. On the other hand, the defenders of the old order, people with vested interest and steeped in ignorant customs were hardening their opposition to Islam. Whenever muallaf in Islam were presented, they were abused, humiliated, beaten, tortured, expelled and even put to death. Nevertheless, they remained firm and steadfast. At last the Makkah elders devised a plot to assassinate the Messenger of God in order to nip the Islamic movement in the bud. When affairs reached the pitiful state, God ordered His Messenger to leave Makkah and migrate to Madinah.17

Contemporary studies have explored conversion in sociological terms, reflected in the theoretical contributions of Lewis Rambo and Charles Farhadian (2014, 2005, 1999), where conversion is seen as the term for all forms of religious change, whether physical, mental, psychological, emotional or intellectual. Rambo (1993) examined a variety of disciplines – including anthropology, sociology, religious studies and psychology – to establish why people convert. His main focus lay in attempting to understand the factors that contribute to conversion, alongside the effect of the individual’s decision on his or her society. Rambo created his own framework of seven interlinked conversion stages to explain his theory: (1) context, (2) crisis, (3) quest, (4) encounter, (5) interaction, (6) committing and (7) consequences. These stages emphasize the complex set of factors that can affect the individual’s decision-making process, such as marriage, commitment, or the need for spiritual security and social belonging said Mona Alyedreessy,(2016).18

17 Ibid, p.3.  
18 Mona Alyedreessy. 2016. British Muslim Converts: An Investigation of Conversion and De-Conversion Processes to And from Islam. Faculty of Arts and Social Sciences Kingston University, London. p.34.
Individuals have specific needs or reasons that drive the conversion process: spiritual, emotional, social, intellectual, psychological or political. The search for what is deemed significant to individuals shapes the journey of converts. It will influence the type and sources of educational literature they will read, the type of people they associate with and the communities they would like to join. The ‘search’ refers to the pathways and processes that individuals take to reach their destination. Meredith McGuire (1997: 71) defines conversion as a process of religious change, which ‘transforms the way the individual perceives the rest of society and his or her personal place in it, altering one’s view of the world’. Usually people adopt new identities and lifestyles once they convert to a religion, as it requires commitments to worship, rituals and moral obligations.  

ii. **IMPLEMENTATION OF DA’WAH TO MUALLAF.**

Recent writings, which highlight the da’wa, are numerous. There are few areas where the da’wa is useful such as inviting non-Muslims to embrace Islam. In fact, it is also proposed to show something new in Islam.

Since most of what is written, in both Arabic and English, by Muslims on da’wa toward non-Muslims assumes mostly Christian targets, it is natural that da’is have elaborated specific strategies for this group. The grounding idea among almost all Muslim activists is the insistence that Christianity has somehow failed. According to Forey (2012), the 18th and especially 19th centuries witnessed an onslaught of Christian missions to the Muslim lands, though there had been previous organized attempts by Christians to baptize Muslims. Makdisi (1997) also said that European colonies in most Muslim Asia and Africa countries made these Christian missionary activities possible. Christian missionary societies were also active in the Ottoman Empire where authorities kept them from openly proselytizing among mainstream Muslims (though they were free to engage non-Muslim subjects of the empire as well as heterodox Muslims, like Alevi).

Muslims, on the other hand, did come into occasional contact with Christian missionaries. These contacts (educational, medical, and others) had several consequences for Muslims. In fact, some converted to Christianity, while others, still nominally Muslim, embraced

---

19 Ibid, 35.
20 Consider, for example, Muhammad Ghazali’s position provided in the previous chapter (Ghazali, 1965: 26). See also Nadwi, 1983: 65–80
European lifestyles. An absolute majority of them, however, not only remained true to Islam but also made it their objective to keep Islam alive within their communities and to foster Islamicity there. Siddiqui argues that da’wa was indeed a direct reaction to activities of Christian missionaries in Muslim lands, especially on the Indian Subcontinent, but also in the Levant and in Southeast Asia (Siddiqui, 2001).

Egdunas Racius (2004) says, it is these Muslims who held unfriendly attitudes to both Christianity and Christians as missionaries. The tendency to negatively view Christian missions, both in former (colonial) and contemporary times, has persisted to the present day. To Muslims, Christian missionaries did and continue to do an anachronistic, and thus negative, service – they drag Muslims backwards into a religion both wrong in itself and one that has been abrogated by the coming of Muhammad and the revelation of the Quran. Sometimes Christian missionaries, therefore, are identified as Satan’s minions and urged to be resisted by all available means. Among other things, Christian missionaries are accused by Muslims of having reaped an ill-begotten fortune in Muslim lands: They did not gain significant numbers of converts to Christianity, and yet they lured many Muslims away from Islam, effectively secularizing Muslim societies. Ultimately, Muslims were made to suffer the loss, even as the Christian missionaries themselves were among the losers. In other words, while Christians hoped to bring God to Muslims, they instead distanced Muslims from Allah.

According to Abur Hamdi Usman (2016), the study found that there are various factors that drive Muallaf in Selangor. The results show there are three factors driving a respondent to embrace Islam such as to find meaning in life, to find peace with yourself, observations. Based on table 1 above, 176 respondents said they want to find a meaning in their life, and 138 said they want to find peace within themselves, and 111 respondents said among the factor that motivate them to embrace Islam was the result of their long observation towards Islam. The data obtained show the highest factor that drives to Islam was to find the meaning of life (Ali, 1999). Other factors which are preferred by respondents in the conversion to Islam was their studies of Islam. They believe Islam can solve their problems, rather than inspiration or dream, and influence their interactions with Muslims (Wohlbrab-Sahr, 1999).

Abur Hamdi Usman (2016) in his study, the truth in Islam can be gained directly or through research, observation and inspiration or dream become major encouragement for Muslim converts to Islam in Selangor. The absence of information and do not receive accurate information about Islam were the factors that delayed the acceptance of da’wah efforts by
Islamic groups. Attention and efforts should be intensified to attempt descriptions of Islam towards the people who are not embraced Islam yet. These efforts also can remedy misconceptions or misunderstandings Non-Muslim towards Islam that causes them to abstain or be afraid to reach out to Muslims. Encouragement aspects in the form of Psychosocial and bio psychosocial have been undertaken by MAIS in particular and all those involved should be maintained even can be improved to encourage mu'allaf to choose Islam as their faith. Hence, letting those who are not embraced with Islam to find Islam through their natural instinct only, or just feeling of shortage when they are not convert to Islam will cause the process of Islamization become stagnant.

In fact, da'wah should also be directed toward the Muslim. It is called as indirect da'wah or Islamic lifestyle (Da'wah bil-Hal). It is to take Islam to non-Muslim, not by pulpit preaching and mailing Islamic literature but by doing what Muslim ought to do, living, drinking, eating, sleeping and behaving as Muslims are enjoined to do. This method is more attractive because people can practically see the beauty of Islam within the ummah. (Su'aidi, 2007).

iii. MANAGEMENT OF MUALLAF IN MALAYSIA.

There are a lot of academic writings on Management of Muallaf in Malaysia. But this writing only focusses on the management of zakat for muallaf in Malaysia and studies on the management to muallaf still in the beginning. Only Abur Hamdi Usman (2016) described about management of muallaf that Selangor Fatwa which dated on October 25, 2007, the convert will carry the name muallaf after 5 years by ‘uruf (custom) provided that they have been joining the religion classes that are recognized or organized by MAIS. Moreover, MAIS is responsible for financing the cost of learning for this newly convert. Selangor Fatwa decided that in five years, a person muallaf can manage themselves if they are committed to follow each class organized in each district, attend courses and programs which organized by the MAIS.

Fuadah Johari (2014) asserts the success of zakat distribution and aids for sustaining muallaf belief and thought. Fuadah says that the management of zakat is made efficient to ensure that the rights of the recipients and the society, in general, will not be put in jeopardy. The question is then raised regarding the type of zakat distribution or programmes pertaining to the asnaf Muallaf. Fuadah Johari (2014) also concluded in her study, that Muallaf lack of understanding of Islam is a problem to be solved. It is because there is still a possibility of
apostasy (murtad), back to their original or previous religion. Therefore, as our responsibility towards the Muallaf, the coaching or fostering program should be scheduled and conducted intensively and structurally. So, there will not be any impression directed to Muslims or Islam which is large in quantity but weak in quality. Muallaf’s problems should be solved integrally both in terms of understanding the true Aqidah and how to develop an Islamic family life. Therefore, the newly converted Muslims could be expected to experience and embrace Islam totally (kaffah).

iv. **PROBLEM RISE AMONG MUALLAF.**

Islamic conversion is a common daily activity in Malaysia, but there are some problems faced by Muslim converts after their conversion to Islam. These problems could be due to many reasons, such as lack of knowledge, realization, confirmation or confused acceptance of the religion or the sociological complexities or the negative impact of surroundings. However, the issue of conversion is complicated.

Sayyid Buhar (2013), said the transition period experienced by the converts attests their inner conflicts adapting to their new surroundings. Their parental faith may no longer be relevant, but adopting a new religion and living in the same society with different traditions of the old religious faith would lead to traumatic inner conflicts which are invisible. Consequently, these feelings may gradually direct them to various conflicting feelings towards Islam on two continue, negative insights or otherwise. It is the impact of the inner conflicts involving the invisible feelings of the converts that lends weight to the concern of this study. The inner conflicts involving the invisible feelings of the new Muslim converts are caused by various factors. Among others are religion, ruhani and sociological aspects, or any other self-motivated negative feelings or it could also be a real test from Allah s.w.t.

Certain problems faced by Chinese Muslim converts after their conversion to Islam, especially Malaysian Chinese Muslim converts. These kinds of problems may lead to certain negative invisible feelings from time to time in the converts before, during and after their conversion. The following are the stated problems in her research; the place of residence, cultural shock and transformation of identity, identity crisis, the impact of being referred to as mu’allaf, the weakness of faith (aqidah) among the Muslim converts, acceptance by Malay society, financial problems, lack of proper Islamic knowledge, misunderstanding and misconception of Islam, boycott of non-Muslim family, confidential or secret conversion,
fear of losing Chinese identity, acceptance and usage of Islamic name, confusion of converting to Islam or becoming Melayu, ill treatment from Muslim community or racial issues of Islamic conversion, loss of jobs because of Islamic conversion, lack of support from Muslim community, feelings of inferiority complex when with the Muslim community, unwanted attitudes of religious authorities, the challenges during the conversion and with the registration procedures, attending in obligated official Islamic classes or Islamic compulsory courses over an extended period of time explains Suhaila Abdullah (2006).

In Islam, how to establish sociological stability of Muslim converts at their cross-cultural diversity is very clearly stated by M. Muslehuuddin (1999) in his book A comparative study of Islam and its social system which says, “Islam takes a theological view of life which has a purpose and design to be fulfilled, the value of Islamic society lies in its morality and its norms of good and evil virtue and vice which are to be strictly observed by the divinely revealed knowledge.” The scholar added Allamah Iqbal’s (1915) statement in his Asrar-ekhudi (The secrets of the self) exhorts the individual to develop his personality through faith and try to imitate God in His Attributes which are the real spiritual values that impart solidarity to the state and society alike. God is the locus of intrinsic values and the Qur’an is the source of moral law. (Allamah Muhammad Iqbal).

In the research done by Shakirah Binti Mohd Annuar (2002) on the understanding of Islam among the Muslim converts of Pulau Pinang, she stated certain weaknesses of conversion authorities such as the time schedules for Islamic classes which are not convenient to those working Muslim converts, the untrained teachers or the inefficiency of the teachers to conduct Islamic classes, the disorganized syllabus or irrelevant Islamic books. This research study agrees with the scholar when she highlighted the above problems faced by Muslim converts. These problems may also lead the new Muslim converts to uncertainty about their newly embraced religion. Subsequently, this may lead them to a confused stage where they may have some negative invisible feelings towards Islam.

Following the literature on dialogue is the need to study and discuss several issues that remain vague. Firstly, theological issue in dialogue–of whether adopting pluralistic outlook is the only way to approach interfaith dialogue or is there any harm to alternately use some other style? Secondly, further discussion on the relationship between da’wah and dialogue by considering the comprehensive meaning of both terms. Thirdly, how does sīrah indicate Muslims’ international relations? Additionally, there is also a need to demonstrate practical
example of the theories of dialogue embedded in the Qur’an. The study of dialogic thinking in the sīrah is only the beginning of the long journey ahead in relation to dialogue and peaceful co-existence.21

CONCLUSION

It is hoped that the study of management of da’wah to Muallaf will benefit many parties either are related directly or indirectly with those Muallaf. Through the findings obtained and proposals, hopefully it will give new impetus to the new Muslims to continue the pleasures of life as an individual called a Muslim and thereby achieve the level of faith stronger as felt most by another Muslim.

The number of muallaf are increasing from time to time across the country has admitted enhanced the growth and development of Islamic da’wah, but in the meantime the problems that go with it also has made their life just distracted from the corner harmony and serenity. With the effective measures taken in the management of da’wah to these Muallaf by all parties, it is expected to continue and grow the teachings of Islam and the problems that arise can be addressed properly and effectively.

BIBLIOGRAFY


Title: THE PREVALANCE OF ALCOHOL CONSUMPTION AMONG UNDERGRADUATES

i. Ninderpal Singh Balwant Singh (Author) ninderpal@utar.edu.my
   Faculty of Arts and Social Science, Universiti Tunku Abdul Rahman, 31900, Kampar, Perak.
   Contact address:

ii. Charles Ramendran SPR (Co-author) charlesr@utar.edu.my
    Faculty of Business and Finance, Universiti Tunku Abdul Rahman, 31900, Kampar, Perak.

iii. Clarence Anthony Puspanathan (Co-author) clarencean@utar.edu.my
     Faculty of Arts and Social Science, Universiti Tunku Abdul Rahman, 31900, Kampar, Perak.

iv. Pragash Muthurajan (Co-author) pragashm@utar.edu.my
    Faculty of Arts and Social Science, Universiti Tunku Abdul Rahman, 31900, Kampar, Perak.

v. Lim Shiang Shiang (Co-author) sslim@utar.edu.my
    Faculty of Arts and Social Science, Universiti Tunku Abdul Rahman, 31900, Kampar, Perak.
THE PREVAlANCE OF ALCOHOL CONSUMPTION AMONG UNDERGRADUATES

NINDERPAL SINGH BALWANT SINGH*
CHARLES RAMENDRAN SPR
CLARENCE ANTHONY PUSPANATHAN
PRAGASH MUTHURAJAN
LIM SHIANG SHIANG

Faculty of Arts and Social Science, Universiti Tunku Abdul Rahman, 31900, Kampar, Perak.

Abstract
Although alcohol is banned in same states in Malaysia, the country's non-Muslims population still consumes an extremely high level of alcohol without much restriction. Alcohol consumption among undergraduates in Malaysia is a topic less discussed. This paper would like to propose peer pressure as the key determinants of alcohol consumption among Chinese and Indian undergraduates. The study was conducted using a validated Alcohol use Disorder Identification Test (AUDIT) and followed by a face-to-face interview with the consented respondents. Data was collected from 10 respondents from a private university in Perak. The results indicated high prevalence of alcohol consumption among undergraduate students. All respondents had an innate to consume alcohol and would prefer consuming alcohol in groups. Reason of consuming alcohol consumption differed for male and female. It was found that male drinkers would consume alcohol in order to reduce stress and to kill boredom. Compared to female consumers were due to the eagerness to try and being part of the group was seen as the reasons for consumption. Whereas, joyful feeling and the sense of happy experienced after the few sips was also identified as reasons to repeat consumption. There is a need for a more proactive intervention in order increase awareness and behaviour towards alcohol consumption.

Key words: Alcohol, Undergraduates, Peer Pressure
Literature Review

Alcohol, is a volatile, flammable, colourless, clear liquid with slight characteristic odor that comes from breaking down (fermenting) of natural substances such as fruit, corn, grain or sugarcane. Ethanol or ethyl alcohol, an organic compound found in any alcohol. It is classed as a ‘depressant’ drug. High doses of this drug may depress the central nervous system, reduce the brain functions which eventually will affects the cognition, emotion and action of the consumer (Dougherty et al., 2000).

Alcohol consumption is classified as yearning, tolerance, and pensiveness with alcohol and keep drinking despite the drinker aware of its insidious consequences to their health, personal or even business affairs (Drummond et al., 1990). Often, some internal organs issues such as liver, pancreas, heart and brain damages can go unnoticed until it’s too late. The vital part is drinkers must be aware that even low consumption of alcohol can crucially undermine one’s driving, even when they don’t feel buzz (Warren, 2010).

The complications of frequent alcohol consumption always overlooked. Alcohol companies often promoting alcoholism as something ‘fun’, but the major consequences of regular consumption is that when people’s ‘fun’ is limited the moment they begin to depend on alcohol to socializing (Steketee, 2013).

Alcoholism can be sneaky in how it affects not only the life of the drinker, but the lives of their beloved one. There are two basic ways that someone can misuse alcohol – they can either have a behavioral disorder, more commonly known as “alcohol abuse,” or they can have an actual physical dependence on alcohol, which is the technical definition of alcoholism (Alan, 2013). Alcohol abusers typically have the ability to curtail their use of alcohol, but due to whatever external stimuli are driving them to drink, they typically are locked in a self-destructive cycle that can frequently lead to full-fledged alcoholism (Alan, 2013).

According to medical expert Wandler (2013), alcohol is generally the first drug that teenagers engaged with. Moreover, most people in the US viewing alcohol as something better than drugs, which most of the time drinkers don't aware about their evolution from social drinking to alcohol abuse and all the way to alcohol dependence. He added, the difference in all of these is the intensity and duration of drinking, and it is different for men and women. It's considered a woman has a problem with alcohol if she is consuming more than four alcoholic beverages in a sitting, or more than seven alcoholic beverages in a week. Meanwhile for a
man, more than five alcoholic beverages in a setting and 14 alcoholic beverages in a week. He observed this alone is probably more called alcohol abuse. While alcohol dependence means the drinker actually addicted to the alcohol, which the body cell reconstructed rapidly to the high alcohol consumption, resulting in a higher level of “tolerance”.

Patterns of alcohol consumption vary between countries. In Western societies, alcoholism is socially recognised and it is the world’s most favorite drug. Meanwhile in Malaysia, it is legal to consume alcohol in most areas; although it is forbidden to Muslims. The legal age for consumption is 18 which would be raise to 21 on 1st December 2017. Christina (2011) stated, despite its small population and size, Malaysia is ranked world’s 10th largest in alcohol consumption, with more than US$500mil (RM1.5bil) spent on alcohol with a per capita consumption of seven litres (Assunta et al., 2010). Kortteinen (2008) cited, 45% of Malaysians youths that admitted engage with alcohol are underage.

High demand for alcoholic drinks amounts to consequences such as increased violence in society (Stempliuk, 2005). High alcohol consumption among women believed to cause unfeminine, immoral attitudes and other problems in the fetus among pregnant women. Ironically, low to moderate drinking able to lower the risk of heart disease and stroke, and vise-versa (Warren, 2010).

Sommers & Sundararaman (2007), opined that alcohol consumption among teenagers under 21 has been identified as a serious health issue.

Alcohol consumption among youth can result several consequences. Obviously, alcohol consumption will affect the health the consumers. There are four main issues will be resulted from alcohol consumption; academic achievement, social relationships, risk-taking behaviors and health issues (Wechsler & Nelson, 2008).

High levels of alcoholism among individuals aged 18 to 29, which mostly are undergraduates represent a distinct population, is of particular concern (Harrington et al., 2008). Reavley (2011), observed the rampancy of alcoholism and related issues is higher in tertiary education institution than in the general public. Carey et al. (2007) opined students nowadays drink more than among earlier generations.

The review of literature for alcohol-related violence is immense. A quick search in various literature databases reveals countless number of articles that evolve within this topic.
The risk of injury and accidents related to alcohol consumption, alcohol dependence and a lower tolerance to alcohol is believed to be greater on the young drinkers up to the age of 25, compared to older adults (WHO, 2006). Underage drinkers always dealt with social issues, often resisted to involve in healthier activities, more prone to involve in illegal activities and unprotected sex (Langley & Kypri, 2003).

Alcohol consumption is a leading factor of many types of violence, and there is solid evidence of a linkage between alcoholism and violence (Graham & Homel 2008).

Alcohol is also a significantly contribute to violent crime. In England and Wales alone, 44% of victims believed their attacker consumed alcohol and it is thought to be a reason behind half of the domestic violence incidents in the UK (Kohn & Smart, 1984).

According to a study by Australian’s national drug institution, harm linked with the alcoholism, especially among youth is an accounting issue by the government. In average, one in four citizens were victimized verbally; 13% were frightened and 4.5% of victims aged 14 years or older were victimized physically by an individual who consumed alcohol (Rivers & Noret, 2010).

The frequency of abuse by an alcohol drinker is doubled the frequency caused by any other types of drug. Besides that, more than one-third of victims (38%) were drunk during the incident. This is clearly shows that violent offences are involved people who have consumed alcohol (Plant et al., 2002).

The environment of tertiary education institution, including the accessibility of alcohol and the type of institution, will influence alcoholism and abuse in the campus. Schools known as ‘party schools’ is a place for binge drink. Drinking at 21st birthday party, and sport events have been linked with high alcohol consumption (Glassman et al., 2010).

A study on 4,390 high school alumni revealed 80% of respondents reported either drunk, binge drinking, or drank and drive. More than 50% admitted that drinking had caused them to feel ill, absent to school or work, get arrested by police, or involved in car accident (Ellickson et al., 1996).

Research conducted by Otago University in 2003 on students aged 16 to 24 shown that 84% of the respondents were harmed by their friends whom under the influence of alcohol. The study showed that 20% of the male and 10% of the female respondents were physically
attacked at least once in four weeks prior to the study, and 20% of the respondent’s property destroyed (Kohn & Smart, 1984).

Accordingly, to Porter & Pryor (2007), alcohol consumption is believed to have a negative impact on education both directly (cognitive ability) and indirectly (study habits). As a result, underage students who consumes alcohol reflects poor attendance and academic performance.

A study conducted by Eng et al. (1996) in New Zealand revealed the presence of direct effect of drinking on student’s cognitive ability, as the brain is still under the developing phase up to the age of 20. Put it simple, students allocated more time for drinking and less hours spent on studying outside of class. Thus, resulted poor academic performance

Yamada et al. (1996) revealed that alcoholism among high school students significantly reduces the probability of their graduation by 6.5% on every 10% increase the probability of being a frequent drinker.

Johnston et al. (2010) revealed, over 80% of college students in United States had at least one alcoholic drink in a two-week time. 40% of these college students are binge drinking, easily surpassing their non-college peers. College environment which turned the students from depending on parents at home to depending on their peers on campus is the reason behind the large discrepancy between college students and their non-college peers (Borsari et al., 2015).

The transition to tertiary education institution is a difficult time frame for parents to monitor and curb the misuse of alcohol among their children. Most of the time, students entering university with alcohol addiction which their parents have no idea how the habits developed into an addiction, and the university is clueless on how to screen the addiction during the admissions process (Wood et al., 2004).

The major influence on commencement of drinking habits among young drinkers rooted from parents’ attitudes and behaviour with respect to alcohol, before peer influences become more influential and bring it to the next level of consumption called ‘addiction’. Children from high alcohol consumption family and children of strictly prohibitive parents more likely to have a greater risk of drinking excessively. Nevertheless, this is a complex relationship. For instance, some children from heavy drinking parents consciously avoid alcohol due to the negative consequences that they have eye-witnessed in their family (Pettigrew & Donovan, 2013).
The more positive effects of consuming alcohol that a student experience on one week, the more they consume on the following week. There is no such thing as all individuals who engage with alcohol will experience negative effects, and not all individuals will experience the same on all their subsequent consumptions. The experience of negative consequences are just being a part of the factors to maintain the drinking habits (Lange et al., 2002).

Another study in Federal University of Alagoas observe family institution is the influential for the commencement of alcoholism among students, the higher education institution is just play the role as a venue to keep up with the addiction (Brandão et al., 2011).

Lorant et al. (2013) exposed, environmental factors highly contribute to the alcohol consumption among university students, and the impact is worst among students staying in university accommodation which engaged with large number of room-mates.

**Method**

**Participants**

There were only ten respondents participated in this study. All respondents were selected for a face-to-face in-depth interview session. All participants are pursuing their tertiary education at a private university in Perak. The participants consist of five male and five female respondents; with five from the Indian and five Chinese.

**Measures**

Besides seeking demographical questions to the participants, the Alcohol Use Disorders Identification Test (AUDIT) was used as well (Babor, Higgins-Biddle, Saunders, & Monteiro, 2001). The AUDIT is a widely used by scholars as well as medical practitioners to identify the level of risk. Moreover, the AUDIT has been used widely among 1st world countries as well as third world countries (Almarri, Oei, & Amir, 2009; Giang, Allebeck, Spak, Van Minh, & Dzung, 2008; Tsai, Tsai, Chen, & Liu, 2005).

Alcohol use was measured by the total score of AUDIT where higher scores indicate greater alcohol use. In addition, the participants’ risk level was measured based on the AUDIT’s four risk categories. Risk categories were: low-risk (AUDIT total score 1–7), risky or hazardous (AUDIT total score 8–15), harmful risk (AUDIT total score 16–19), and high risk (AUDIT total score 20 or more; Babor et al., 2001).
Procedure

The participants were identified out of their university campus ground and informal permission to carry out the research was sought and granted individually. Any participant, who fulfilled the inclusion criteria, was eligible to participate. The inclusion criteria were university students. The AUDIT was distributed individually and was collected right after completing. Respondents were then asked if they were willing to continue with the in-depth interview session.

Findings and Discussion

A personal interview was conducted on ten respondents using snowball sampling technique. There were five male and five females selected as the respondents for this study. The respondents consist of Chinese and Indian and were in their final year of undergraduate study. The family monthly income of all respondents was above RM3000.00.

Based on the validated Alcohol Use Disorder Identification Test (AUDIT), majority of the respondents are categorized as hazardous drinkers and are alcohol dependent. According to the feedback, seven out of eight respondents would consume six drinks in one session. Moreover, eight of the respondents were advised by a health care worker to reduce their alcohol consumption due to health concerns. It is further supported by the findings of Idayu, Mahmoud, Azlinda, Rusdi and Anne (2015) whereby Malaysian youth have shown high incidence towards alcohol consumption.

All ten respondents consumed their first alcoholic beverage during secondary school. Six of the respondents were approached by their peers and two of the respondent by their own initiative. The findings also revealed that all respondents had the innate intention of consuming alcohol. All respondents were classified as current drinkers and beer was the most common alcoholic beverage consumed by respondents.

Majority of the respondents would consume alcohol out of their home without their parent’s knowledge and prefer drinking in a group. This result is consistent with Amit, Hasking and Enderson, (2012), where pressure, social-economic status and different level of exposure was seen as the contributing factor. Moreover, the decision to consume alcoholic beverages tends to be perceived as a personal choice and as an individual; it is expected to be responsible for his or her drinking behavior.
The male respondents would consume alcoholic beverages due to “stress” and / or due to “boredom”; whereas female respondent was due to the “joyful feeling” and sense of “happiness”. Despite of the changes in trends (Roche et al., 2008), tendency of being involved in risky drinking are commonly experienced by men compared to women (Johnston, O’Malley, Bachman, & Schulenberg, 2004). The source of money to pay for their drinks would be from the pocket money provided by their parents.

The finding of this study also shows that peer influence is the root cause of alcohol consumption. Consuming alcoholic beverages is synonymous with male gender among Asian countries. But in recent decade women have also shown interest due to awareness as well as influence of western civilization. Hence, it has become a major concern due to the fact that, alcoholic consumption elevates risk of sudden death and personal injury (Amit, Hasking & Enderson, 2012).

**Limitation of Study**

The findings of this study should be interpreted with limitations in mind; since it is self-reported, in which participants were self-selected for participation. Hence, participants that were anxious of discussing their alcohol use may have elected not to participate in the study. Correspondingly, participants may have not been truthful with their alcohol use as it is an undesirable behavior, especially among females. Ample effort was made to reduce participant biasness and increase the chances for drinkers to be involved in this research.

**Conclusion**

The finding of this study is imperative in providing the direction for future research on alcohol consumption among Malaysian youth. A key indication of this study shows that consumption of alcohol consumption begins within the secondary school age between 13 years of age up to 17 years of age. Peer pressure was reported as the contributing factor of alcohol consumption. Nevertheless, self-initiation based on the environment the participant was brought up also plays as a contributing factor.

**Bibliography**


AlcoholEdu® for College National Survey Database, 2008-2009, Outside the Classroom.


Video

SUSTAINABLE GROWTH RATE OF FIRM AND SHARE PRICE PERFORMANCE IN MALAYSIA: A PANEL DATA ANALYSIS

Norfhadzilahwati Rahim
PhD. Candidate
Correspondence Author: fhadzilahwati@raudah.usim.edu.my / fhadzilahrahim@gmail.com

Universiti Sains Islam Malaysia

ABSTRACT
This paper investigates the relationship between sustainable growth rate and share price performance of firm in Malaysia. The results support the efficient-market hypothesis ((EMH) that share price performance reflect all relevant information especially the increasing and decreasing sustainable growth rate of firm. This research uses yearly data covering the period 2005-2015 for a total of 4470 observations. The impact of before and after crisis during 2007 is also investigated, using dummy variables as proxies, respectively. Three different models like Ordinary Least Squares (OLS), Random Effect Model (REM), and Fixed Effect Model (FEM) were used for the analysis. Breusch-Pagan LM test, and Hausman test are also conducted to choose which model is more appropriate for the analysis. And, analyze time fixed effect by using Least Square Dummy Variable (LSDV) time-fixed effect estimation. The results found that there is a significant relationship between sustainable growth rate and share price performance of firm in Malaysia. Fixed effect model is more applicable to use on the analysis means each firms have their own heterogeneity. And, there is a significant difference on sustainable growth rate and share price performance between before and after crisis during 2007. This research gives valuable information to the literature by contributing understandings of the firm’s growth and also, firm’s future share price performance.

Keywords: Sustainable Growth Rate, Share Price Performance, Ordinary Least Squares (OLS), Random Effect Model (REM), and Fixed Effect Model (FEM)
1. Introduction

The general body of realistic work in finance and accounting studies whether there is information in firm’s growth for their future share price performance. Growth and firm’s management can be one of the conflict arise in the organizations because many executives realize that higher growth will give the company higher profit and market price. The management did not see that rapid growth can lead the company into bankruptcy (Higgins, 1977)

This is happened because when the company grow too quickly, its can put considerable draining on a company’s resources. While, company grow to slow have a different situation which is the company no less pressing set of financial concerns. And, when company grow at a rate that is not sustainable, the company will face financial distress because available resources may not enough to support the growth rate. The concept of SGR can force manager to make a decision based on financial consequences when sales increase and to set target sales growth that are consistent with financial policies. Gao & Zhang (2015) stated that the share price can be reflected by the disappointment and negative emotions of the investor and can diverge from the objective of financial management.

The share price performance will enable the investors, fund managers, brokers, and bank analyst to make an appropriate investment decision. The theory supported the efficient-market hypothesis (EMH) that share price performance reflect all relevant information (E. F. Fama, 1970), especially the increasing and decreasing sustainable growth rate of firm. Therefore, this paper aims to investigate the relationship between sustainable growth rate and share price performance of firm in Malaysia.

The remainder of the paper is organized as follows. Section 2 discusses the literature review based on previous studies. Section 3 describe the sample and research methodology, and detail discussion on findings in Section 4 and section 5 concludes the discussion.

2. Literature Review

The term sustainable growth rate has come to be used to refer to the maximum a firm can grow without borrowing more money and selling new equity. The definition was first suggested by Higgins (1977). A firm’s sales and assets can grow if the company sells no new
equity and needs to retain its capital structure (Platt, Platt, & Chen, 1995). The sustainable growth rate is seen as a factor strongly related to firm performance and it can play an important role in addressing the issue of maximizing growth rate in sales without to increase firm debt or issues new equity. The sustainable growth rate is a key indicator to the firm in gauging their business prosperity performance.

Raisch & von Krogh (2007) confirmed the growth corridor’s relevance for managerial practice: Companies that grew within the limits set by their growth corridor outperformed their peers that did not. The so-called “smart growers” delivered an average return to shareholders of nearly double the rate of slower- or faster growing companies. However, more than 75% of the overall group failed to operate within this zone and paid a price one way or another in rising debt, declining profit margins or falling share prices.

Moreover, Lockwood & Prombutr (2010) investigated the associations between sustainable growth and stock returns for the duration of 1964–2007 by monthly stock price. In that study, they used Time-Series Regressions, Cross-Sectional Regressions and Cross-Sectional Firm-Level, and Regression Tests to obtain the significant results. They found that high sustainable growth firms tend to have low default risk, low book-to-market ratios, and low subsequent returns. In addition, net profit margin is the major determinant of subsequent returns compared with each sustainable growth rate components. Sustainable growth rate maintain after controlling for asset growth and capital expenditure growth.

Another analysis stated that the sustainable growth effect is attributable to risk and not to mispricing. The results are consistent with E. Fama & French (1995) discussion on rational pricing. The authors found that low-profit firms tend to have high BE/ME ratios and also, high required returns. In this case, Fama and French mentioned that low profitability reflects high distress risk, which in turn should be related with high required returns.

The sustainable growth rate for acquiring firm is an important determinant of the crosssectional variation in the merged entity’s long-term operating and stock performance (Olson & Pagano, 2005). To get the accurate results, they used the mergers of U.S. publicly traded bank holding companies during 1987-2000 period. The most economically significant determinants of the merged bank’s abnormal stock return performance are the acquiring bank’s estimated sustainable growth rate prior to the acquisition, as well as post-acquisition changes in this growth rate, and the bank’s dividend payout ratio.
Gu & Huang (2014) examined the association between credit booms, financial crises and income inequality as an indicator to determine whether the firm’s sustainability was affected. Taken together, this study used data from 14 advanced countries between 1920 and 2000 suggesting that these are not general relationships. They found evidence which noted that a rise in top income shares leads to credit booms while credit booms heighten the probability of a banking crisis. Rather, it points back to a familiar boom-bust pattern of declines in interest rates, strong growth, rising credit, asset price booms and crises.

3. Research Method

3.1 Variables Used

The study analyzes the impact of sustainable growth rate on the share price performance by using panel data analysis. Yearly data are collected from the Thomson Reuters database for the 10 years period of 2005 until 2015 (4,470 observations). Share price performance (SPP) is used as the proxy for the dependent variable. Sustainable growth rate (SGR) and pre and post financial crisis during 2007 (prepost) represents as the proxy for independent variables. Table 1 shows the statistical summaries of each variable.

Table 1: Descriptive Statistics of Sustainable growth rate and each key financial factor

<table>
<thead>
<tr>
<th>Standard</th>
<th>SPP</th>
<th>Overall</th>
<th>Between</th>
<th>Within</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>.142556</td>
<td>.2728173</td>
<td>.9074101</td>
</tr>
<tr>
<td></td>
<td></td>
<td>.9474558</td>
<td>.07443</td>
<td>.82339</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.89767</td>
<td>-.2854024</td>
<td>-5.171105</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4470 n</td>
<td>447</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4.696211</td>
<td>T =</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>43.4595</td>
<td>10</td>
</tr>
</tbody>
</table>

N = 4470 n = 447
Based on Table 1, for share price performance (SPP) the overall variance is 0.94746² = 0.89767, of which the within variance is 0.90741² = 0.82339, or just 82.339 percent. The result implies that within variance for sustainable growth rate is higher than between variance. This means that the time series variation is more dominated than cross sectional variation. Similar with sustainable growth rate (SGR) and pre and post financial crisis during 2007 (prepost by using dummy variable which are 0 is before crisis and 1 is after crisis) the within variance component dominates. This result indicates that within variance (time series variation) is dominated than between variance or cross-sectional variance.

### 3.2 Model Equation

Share price performance (SPP) as a dependent variable, regressed with two different independent variables such as Sustainable growth rate (SGR) and pre and post financial crisis during 2007 (prepost). Three different models like Ordinary Least Squares (OLS), Random
Effect Model (REM), and Fixed Effect Model (FEM) were used for the analysis. The framework for this analysis is a regression model of the form

$$ y_{it} = \beta_0 + \beta_1 x_{1it} + \beta_2 x_{2it} + \varepsilon_{it} $$

(1)

Based on pooled model, it is pooling all data together into one dataset and imposing a common set of parameters across units and time. And, pooled model essentially has the same intercept and slope across unit and time. But, the result of pooled model may result in heterogeneity bias. Therefore, random effect and fixed effect assume that each unit has their own intercepts. To solve such a heterogeneity bias, error term can be form as

$$ \varepsilon_{it} = \lambda_i + \mu_{it} $$

(2)

In order to apply random effect and fixed effect denotes as:

$$ y_{it} = \beta_0 + \beta_1 x_{1it} + \beta_2 x_{2it} + \lambda_i + \mu_{it} $$

(3)

Moreover, random effect is when $\lambda_i$ is uncorrelated with each variable ($x_{it}$) shown as $\text{Cor} (\lambda_i, x_{it}) = 0$. The hypotheses to choose either pooled OLS or Random effect is more appropriate as shown below:

- $H_0: \sigma^2_{\lambda} = 0$ (pooled OLS model)
- $H_1: \sigma^2_{\lambda} > 0$ (random effects)

And, fixed effect is when $\lambda_i$ is correlated with each variable ($x_{it}$) shown as $\text{Cor} (\lambda_i, x_{it}) \neq 0$. The hypotheses to choose which one is more appropriate either random effects or fixed effects can be form as

- $H_0: \text{Cov} (\lambda_i, x_{it}) = 0$ (no correlation between $\lambda_i$ and $x_{it}$: Random effect)
- $H_1: \text{Cov} (\lambda_i, x_{it}) \neq 0$ (correlation between $\lambda_i$ and $x_{it}$: Fixed effect)

4. Findings and Discussion

4.1 Results

The correlation matrix is conducted to see the relationship between share price performances (SPP), Sustainable growth rate (SGR) and pre and post financial crisis during 2007 (prepost). The results of correlation matrix is presented in Table 2.
<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1 Pooled OLS</th>
<th>Model 2 Random Effect</th>
<th>Model 3 Fixed Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.204*** (0.0223)</td>
<td>0.204*** (0.0223)</td>
<td>0.205*** (0.0225)</td>
</tr>
<tr>
<td>SGR</td>
<td>0.178*** (0.0278)</td>
<td>0.178*** (0.0278)</td>
<td>0.153*** (0.0297)</td>
</tr>
<tr>
<td>Prepost</td>
<td>-</td>
<td>-0.107*** (0.6751)</td>
<td>-0.107*** (0.6751)</td>
</tr>
</tbody>
</table>

Based on table 2, the result found that the positive correlation between the share price performance (SPP) and sustainable growth rate (SGR) at 1 percent level of significance. In other words, sustainable growth rate increasing or decreasing will make share price performance increased or decreased. Moreover, the relationship between share price performance and pre & post financial crisis during 2007 is negatively correlated at 1 percent level of significance. Meaning that the prepost crisis would give negative relation to the share price performance.

The pooled OLS effect model, random effect model, and fixed effect model are conducted to test which model are more suitable for the regression analysis. The results of panel data analysis are presented in Table 3.
The pooled effect model analysis creates the results of uses all variation in the data which mean that the intercept and the slope are the same across units and time. Based on table 3, the results in Model 1 (Pooled OLS) show that sustainable growth rate (SGR) and pre-and post-financial crisis during 2007 have significant impact to the share price performance with the same intercept and slope across units and time. The results are significant at 1 percent and 5 percent.

The random effect model analysis produces the results based on individual effects ($\lambda_i$) which the intercept based on individual may eliminated the result in heterogeneity bias. The results of model 2 (Random effect) indicate sustainable growth rate (SGR) and pre-and post-financial crisis during 2007 have significant impact to the share price performance at 1 percent and 5 percent level of significance, respectively. In order to test whether a random effect (GLS) or pooled OLS is more appropriate for the heterogeneity biases. Based on Breusch-Pagan LM test, the null hypothesis is accepted because p-value is more than 0.05 ($\sigma^2_{\lambda} > 0$). Therefore, the OLS (pooled OLS model) is appropriate to use than random effect model.

Based on the results fixed effects in table 3, the results indicate that sustainable growth rate (SGR) and pre-and post financial crisis during 2007 have significant impact to the share price
performance which the results same like pooled OLS and random effects model. The results are significant at 1 percent and 5 percent level of significance, respectively. Moreover, by using the Hausman test to find which one is more appropriate either random effects model or fixed effect model. The null hypothesis tested is Cov (\( \lambda_i, x_{it} \)) = 0. The results indicate that it is significant at the 5% level. Hence, we choose a fixed effect model due to rejected the null hypothesis indicated that there are correlated between \( \lambda_i \) and \( x_{it} \). This mean that the fixed effect model analysis is more accurate when focusing on a specific set of company that are not randomly selected but fixed selected from some large of a population.

The further analysis, we have to detect heteroscedasticity by using the Modified Wald test for groupwise heteroscedasticity in the residuals of a fixed effect regression model (Greene, 2012). The results are shown as below

\[
H_0: \sigma(i)^2 = \sigma^2 \text{ for all } i
\]

\[
\text{chi2 (447) } = 2.2e+05
\]

\[
\text{Prob>chi2 } = 0.0000
\]

This result found that the p-value is less than 0.05 or 5 percent level of significance. It is indicated that the variances are not constant which mean that there is a heteroscedasticity problem.

The following analysis is to analyze the serial correlation or autocorrelation in panel data by using Wooldridge test. The results form as

\[
H_0: \text{no first-order autocorrelation}
\]

\[
F(1, 446) = 0.046
\]

\[
\text{Prob } F = 0.8305
\]

Since p-value is more than 0.05 or 5 percent level of significance, we accept the null hypothesis. This means that there is no first-order autocorrelation.

Based on results on table 3, since the final model is fixed effect, therefore table 4 is conducted by using Least Square Dummy Variable (LSDV) time-fixed effect estimation to test if time fixed effect are needed when running a fixed effect model. The hypothesis is H0: No timeeffect, and H1: There is a time-effect.
Table 4: Results of Least Square Dummy Variable (LSDV) time-fixed effect with Dependent variable is Share price performance (SPP)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.509***</td>
<td>0.509***</td>
<td>0.509***</td>
</tr>
<tr>
<td></td>
<td>(0.0431)</td>
<td>(0.0431)</td>
<td>(0.0431)</td>
</tr>
<tr>
<td>SGR</td>
<td>0.175***</td>
<td>0.175***</td>
<td>0.175***</td>
</tr>
<tr>
<td></td>
<td>(0.0269)</td>
<td>(0.0269)</td>
<td>(0.0269)</td>
</tr>
<tr>
<td>Prepost</td>
<td>-0.468***</td>
<td>-0.454***</td>
<td>-0.469***</td>
</tr>
<tr>
<td></td>
<td>(0.0610)</td>
<td>(0.0528)</td>
<td>(0.0498)</td>
</tr>
<tr>
<td>Tdum1</td>
<td>-0.220***</td>
<td>-0.220***</td>
<td>-0.220***</td>
</tr>
<tr>
<td></td>
<td>(0.0610)</td>
<td>(0.0610)</td>
<td>(0.0609)</td>
</tr>
<tr>
<td>Tdum2</td>
<td>-0.107*</td>
<td>-0.107*</td>
<td>-0.107*</td>
</tr>
<tr>
<td></td>
<td>(0.0610)</td>
<td>(0.0610)</td>
<td>(0.0610)</td>
</tr>
<tr>
<td>Tdum3</td>
<td>-0.889***</td>
<td>-0.889***</td>
<td>-0.889***</td>
</tr>
<tr>
<td></td>
<td>(0.0610)</td>
<td>(0.0610)</td>
<td>(0.0609)</td>
</tr>
<tr>
<td>Tdum5</td>
<td>0.168***</td>
<td>0.154***</td>
<td>0.169***</td>
</tr>
<tr>
<td></td>
<td>(0.0610)</td>
<td>(0.0528)</td>
<td>(0.0498)</td>
</tr>
<tr>
<td>Tdum6</td>
<td>-0.0306</td>
<td>-0.0450</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0610)</td>
<td>(0.0528)</td>
<td></td>
</tr>
<tr>
<td>Tdum8</td>
<td>0.282***</td>
<td>0.268***</td>
<td>0.283***</td>
</tr>
<tr>
<td></td>
<td>(0.0610)</td>
<td>(0.0528)</td>
<td>(0.0498)</td>
</tr>
<tr>
<td>Tdum9</td>
<td>0.0288</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0610)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tdum10</td>
<td>-0.109*</td>
<td>-0.123**</td>
<td>-0.108**</td>
</tr>
<tr>
<td></td>
<td>(0.0610)</td>
<td>(0.0528)</td>
<td>(0.0498)</td>
</tr>
<tr>
<td>F-statistics</td>
<td>39.18***</td>
<td>44.75***</td>
<td>52.09***</td>
</tr>
<tr>
<td></td>
<td>(0.0000)</td>
<td>(0.0000)</td>
<td>(0.0000)</td>
</tr>
<tr>
<td>Observations</td>
<td>4,470</td>
<td>4,470</td>
<td>4,470</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.077</td>
<td>0.077</td>
<td>0.077</td>
</tr>
</tbody>
</table>

Notes: Standard errors in parentheses except for F-statistics, which is p-values. ****, **, and * denote significant at 1%, 5% and 10% levels, respectively.
Model 1 is the first process of analysis which are Tdum4 and Tdum7 is omitted. Model 2 is the process to drop Tdum9, and Model 3 dropped Tdum6 because p-value for Tdum9 and Tdum6 is the highest among the time dummies. In model 1, all the variables except Tdum9 and Tdum6 is significant at 1 percent and 10 percent level of significant. And, F-statistics indicated that the null hypothesis is rejected meaning that all years coefficients are jointly significant since p-value is less than 0.05. Therefore, time effect are needed.

Next, Model 2 is a further investigation on the time dummy variable which is drop insignificant time dummy variable where drop the highest p-value first. The results also shows that all variables is significant at 1 percent and 10 percent level of significant excepted Tdum6 because p-value is more than 0.05 or 5 percent level of significant. F-statistics shows that p-value is less than 5 percent.

Furthermore, Model 3 dropped Tdum6 because the p-value is more than 5 percent and the results shows that all variables is significant at level 1 percent and 10 percent, respectively. The F-statistics also show p-value is less than 5 percent and therefore, the result indicates the time dummies are significant. This confirms the significant joint time dummies results on Model 1 and Model 2.

Lastly, Paired sample t-test is conducted to test whether there is a significant different on share price performance between pre and post financial crisis during 2007 and the results is presented in Table 4.

Table 5: Results of Paired Sample t-test before and after crisis on Share price performance (SPP)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs.</th>
<th>Mean</th>
<th>Standard Error</th>
<th>Standard Deviation</th>
<th>[95% Confidence Interval]</th>
</tr>
</thead>
<tbody>
<tr>
<td>prespp</td>
<td>1,788</td>
<td>.2061669</td>
<td>.0313044</td>
<td>1.323699</td>
<td>.1447698 .267564</td>
</tr>
<tr>
<td>postssp</td>
<td>1,788</td>
<td>.0975402</td>
<td>.0130759</td>
<td>.5529128</td>
<td>.0718945 .1231859</td>
</tr>
<tr>
<td>diff</td>
<td>1,788</td>
<td>.1086267</td>
<td>.0338506</td>
<td>1.431364</td>
<td>.0422358 .1750176</td>
</tr>
</tbody>
</table>

\[
\text{mean(diff)} = \text{mean(prespp - postssp)}
\]

\[
t = 3.2090 \quad \text{Ho: mean(diff) = 0}
\]

\[
\text{degrees of freedom} = 1787
\]

Ha: mean(diff) < 0
Ha: mean(diff) != 0
Ha: mean(diff) > 0
\[
\begin{align*}
\Pr(T < t) &= 0.9993 & \Pr(|T| > |t|) &= 0.0014^{***} \\
\Pr(T > t) &= 0.0007
\end{align*}
\]

Notes: ***, **, and * denote significant at 1%, 5% and 10% levels, respectively.

Based on Table 5, the results show that there is a mean difference between prespp and postsspp of 0.1086267 with a standard deviation of 1.431364, a standard error of the mean of 0.0338506, and 95% confidence interval of 0.422358 to 0.1750176. Then, the t-value is 3.2090 with the degree of freedom of 1787 and the statistical significance (p-value) of the paired test (Pr(|T| > |t|) under Ha: mean(diff) != 0), which is 0.0014. As the p-value is less than 0.05, it can be concluded that there is a statistically significant difference between prespp and postsspp which is not equal to zero.

5. Conclusion

This research analyzes the relationship between sustainable growth rate and share price performance by using three models to investigate such as pooled effect model, random effect model and fixed effect model. Based on the results, three models produce the same results that sustainable growth rate and share price performance is significant at 5 percent level of significant. In other words, the increasing or decreasing on sustainable growth rate may affect to the share price performance.

By identifying heterogeneity bias, the analysis used Breusch-Pagan LM test, and Hausman test to find which model is more appropriate. And, the final results we get that fixed effect is more appropriate to be choosing from the specific set of company. For further analysis, Least Square Dummy Variable (LSDV) time-fixed effect estimation is conducted to test if time fixed effect are needed when running a fixed effect model. And, F-statistics indicated that the null hypothesis is rejected meaning that all years coefficients are jointly significant since p-value is less than 0.05. Therefore, time effect are needed. The results also found that there is a significant difference on sustainable growth rate and share price performance between before and after financial crisis during 2007.

The results of this research could give some information and understanding about the association between sustainable growth rate and share price performance. This also aligned with efficient-market hypothesis (EMH) that share price performance reflect all relevant
information (E. F. Fama, 1970) and useful information especially for investors, fund managers, brokers, and bank analyst to make an appropriate investment decision. Future research might analyze another factor such as macroeconomic and microeconomic variables in order to find another factors that contribute to the changes of share price performance.

References


DETERMINANTS OF RESIDENTIAL PROPERTY VALUES WITH SPECIAL REFERENCE TO RESIDENTIAL NEIGHBOURHOOD CRIME

Sunday Emmanuel Olajide\textsuperscript{1} & Mohd Lizam\textsuperscript{2}

\textsuperscript{1}Department of Estate Management, Federal Polytechnic of Ado-Ekiti, Ekiti State, Nigeria

\textsuperscript{2}Department of Real Estate, Faculty of Technology Management & Business, Universiti Tun Hussein Onn Malaysia. E-mail: lizam@uthm.edu.my

Corresponding E-mail: sundavolajide2012@gmail.com

A cursory search into relevant literatures reveal that required attention is yet to be paid to the impact of Residential Neighbourhood Crime (RNC) on residential property values (RPV) in spite of its lethal effect especially on the real estate professionals who are expected to champion the cause. The paper explored the position of residential neighbourhood crime in determinants of residential property value. The study adopted stratified and purposive sampling methods in selecting 1000 residential housing residents within Southwestern Nigeria for sampling. Only 467 of the sampled resident provided data that were found usable after data screening. Data collected were analysed using structural equation modelling (SEM). The study identified accessibility as the most statistically significant determinant of residential property value, followed by residential neighbourhood crime, and lastly, by the building and neighbourhood characteristics. The study was, thus, able to empirically establish residential neighbourhood crime as an important determinant of residential property value in Southwestern Nigeria. Practical implication of the study is the need for realtors, researchers and policy makers to put up frantic effort in ensuring that residential neighbourhood crime is eradicated or at least controlled to the barest minimum so as to boost housing investment.

Keywords: Accessibility; Building and neighbourhood characteristics; Determinants; Residential neighbourhood crime; Residential property values; SEM.

Paper Type: Research paper

1. INTRODUCTION

There is enough literature to support the fact that residential property value could rarely be discussed without mentioning some drivers that serve as determinants or attributes (Kauko, 2003; Tech-Hong, 2011; Abidoye & Chan, 2016). Prominent among these attributes include accessibility, neighbourhood characteristics, structural attributes, availability of public facilities and a host of others. However, residential neighbourhood crime (property crime) which comes in the form of burglary, street incivility, robbery, vandalism and occasional violent crimes has been found to be overly missing in the list of residential property value determinants in most studies. This study considers this as being grossly inadequate, considering the devastating effect property crime can have on the residential neighbourhood which usually reflects on the housing investment as well as housing values. Inferably, this translates to the fact that a residential neighbourhood already stigmatized for neighbourhood crime may bring bless income to the investor or developer. Hence, there is need to undertake research in this regard with a view to enhancing housing sustainability which is expected to attract value appreciation of the properties within the neighbourhood.
Residential property as a form of real property represents the class that provides living accommodation. It does not only accommodate the living but non-living as well (human properties). Residential property takes different forms. Housing can be classified by four distinct criteria: design (bungalow, duplex, flat and the likes); density (low, medium and high density); in terms of settlement (rural, sub-urban and urban housing); and in terms of ownership (public and private housing).

Over the years, researchers have devised different methods of measuring the critical determinants of residential property values but just a very few have recourse to residential neighbourhood crime (RNC) as a substantive value attribute, notwithstanding the devastating the generally perceived consequence of RNC on housing investment. The best one could get in existing literature (Abidoye & Chan; 2016, Babawale & Adewumi, 2011, Babawale, Koleoso & Otegbulu, 2012) is to treat security as a subset of neighbourhood characteristics which ought not to be. This study has been conceptualized to fill this major gap in knowledge. The main goal of the study, therefore, is to explore the position of residential neighbourhood crime in determinants of residential property value. The study is quite germane at this point as existing literature (Aluko, 2011; Adegoke, 2014; Selim, 2009) have concentrated on accessibility and neighbourhood characteristics as determinants of residential property value. The study therefore explore: whether RNC is a significant determinant of residential property value, and to rank its position in relation to the other two factors (accessibility and neighbourhood characteristics) that have been established in the literature.

2. LITERATURE REVIEW

2.1 Nature Of Residential Neighbourhood Crime

The problem of crime has become a standard component in the discussion of urban issues, and the control of crime is now as much an urban policy issue as is inadequate housing and poverty (Narroff, Hellman and Skinner, 1980). It is essentially and gradually manifesting that these problems are interrelated. Property crime, especially in homes, is said to be globally on the increase.

Ratcliffe (2001) and Moreto (2010) define ‘residential burglary’ as the unlawful entry into other peoples’ residential apartment for the purpose of committing a crime. Offences that constitute residential neighbourhood crime, apart from burglary, include street incivility, graffiti, robbery and violent crime. For the purpose of this research, residential burglary is used to refer to breaking into, entering into and stealing from dwelling offences. The fact that homes are usually left vacant during the day accounts for the frequent burglary offending. Many urban dwellers, especially those in high income class, are mostly victimized due to their massive acquisition of personal effects (valuables) and the fact that they reside in large detached dwellings with many accessible entry points like doors and windows (Grabosky 1995).

The cumulative effects of crime on the socio-economic reconstitution, or concentration of particular groups, within neighbourhoods, play out over decades. However, changing levels of crime are likely to induce more immediate responses at the individual level. Increases in crime will directly impact an individual’s perception of safety in a neighbourhood. In turn, as perceptions regarding the safety of one’s own community deteriorate, urban residents often choose to move from impacted communities in search for a safer neighbourhood (Cullen and Levitt, 1999; Dugan, 1999; Tita et.al, 2006). Primarily, crime and fear of crime lead to flight from the city to the suburbs. It leaves in its wake areas
of concentrated poverty and racial/ethnic enclaves in the urban core (Jargowsky, 1996; Massey and Denton, 1993).

As housing markets serve as the arena in which the impact of crime first manifests itself, these markets can potentially serve as early indicators of neighbourhood decline. Therefore, a more complete examination of how crime affects local housing prices will ultimately lead to a better understanding of the larger issue pertaining to small crime impacts on residential stability (Schwartz et. al., 2003; Ihlanfeldt and Mayock, 2010).

Increase in the crime rate in Nigeria was being reported as early as the eighties (Fabiyi, 2006). Lives were no longer safe; the country was characterized by insecurity challenges posed by offenders. Nigeria, as a matter of fact, has over a century developed large towns and cities, but the reality of insecurity especially posed by criminals is relatively recent. The crime wave and the extent of violence in Nigeria are becoming more frequent, more offensive and horrendous. There are daily reports of more violent crimes (Fabiyi, 2004; Agbola, 1997). High rate of poverty was also identified as a major cause of the sudden surge of neighbourhood crime. Population in poverty has been growing steadily over time, for example, in 1985, 27.2 percent of Nigerians were rated as poor; in 1990, it was measured as 56 percent; in 2000, it was estimated to be about 66 percent and in 2014, Nigeria was classified as the third poorest country in the world (Federal Office of Statistics, Nigeria, 2014; World Bank, 2014).

2.2 Housing Characteristics/Attributes

Olajide et. al. (2013) defined real property as any personal belonging with a title, which can be conveyed and re-conveyed at law with a distinguishing characteristic of immobility, like land and building. They went further to assert that residential property is any building that is primarily used as living accommodation. The study further unveiled that residential property is seldom called housing which can be further expressed in terms of density as low, medium and high; settlement as rural, semi-rural and urban; by design as tenement, flat, bungalow, duplex, manssonatte and the likes. In terms of residential property value, Mackmin (2014) opined that the residential market is imperfect as he believes that there is no central market place, as a result of which buyers and sellers are relatively uninformed and even their professional advisors, valuers and agents, only have a limited knowledge of what is available for sale and of what is happening in the market. He added that every house, flat, bungalow or other unit of residential accommodation is unique in some respect. Essentially, studies have shown that the value of residential property can be influenced by a good number of factors (see Table 1). The table reveals that most studies either omit property crime as an influencing factor or at best put it under neighbourhood characteristics. Sequel to this and looking at the lethal effect of property crime on the property value, there is the need for additional studies by valuers in this respect.

A residential property as a heterogeneous good can be defined by a vector of characteristics or attributes of which its summation makes up either the rental or capital value. However, previous researchers had identified some housing characteristics that impact on their prices. An effort is made in Table I to identify some of them. A cursory examination of the attributes mentioned in Table 1, residential neighbourhood crime is either merged with other attribute or overly ignored. Does this interpret to meaning that it is not an important attribute of residential property value? This forms the main thrust of this study.

Table 1 Housing characteristics/attributes
<table>
<thead>
<tr>
<th>S/N</th>
<th>Author(s)</th>
<th>Title of Article</th>
<th>List of Attributes</th>
<th>Type of Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td>Kauko (2003)</td>
<td>Residential property value and locational externalities: on the complimentary and substitutability of approach</td>
<td>Accessibility factors, Neighbourhood factors, Specific negative externalities, Public services, Taxes and Identity factors</td>
<td>Capital Value</td>
</tr>
<tr>
<td>3.</td>
<td>McCluskey, Deddis, &amp; Lamount, (2000)</td>
<td>The application of surface generated interpolation models for the prediction of residential values</td>
<td>Date of sale, Age of property, size, Neighbourhood quality, building characteristics</td>
<td>Group Cluster</td>
</tr>
<tr>
<td>5.</td>
<td>Selim (2009)</td>
<td>Determinants of house prices in Turkey: Hedonic regression versus artificial neutral network</td>
<td>Location, type of house, Age of building Building facilities, Other structural characteristics</td>
<td>Capital Value</td>
</tr>
<tr>
<td>6.</td>
<td>Megbolugbe (1989)</td>
<td>A hedonic index Model: The housing Structural traits like size, age roof cover and capital values</td>
<td>Rental and capital values</td>
<td></td>
</tr>
</tbody>
</table>
market in Jos, Nigeria plumbing features of the building, Neighbourhood traits like school, road, water & electricity quality; Locational traits(access to economic, social and political activities)

7 Bello and Bello. (2008) Willingness to pay for better environmental services: evidence from the Nigerian real estate market. Internal Factors like age, size of plot and building, condition of facilities. External factors like general state of economy, population, employment, immigration, finance, location, infrastructure, transport and neighbourhood

8 Tse and Love (2000) Measuring residential property values in Hong Kong Structural, Physical, Capital Value Neighbourhood and Environmental attributes

Source: Authors’ compilation, 2016

2.3 Residential neighbourhood crime and property investment (value) in Nigeria

In many economies of the world, real property is one of the main sources of investment. This has been attributed to the rapid urban growth, which has put enormous pressure on land in Nigerian cities. Residential property as a sub-sector of real estate has been described as the second most important need of man after food (Agbola, 1997). As a matter of fact, a substantial proportion of all investments in Nigeria are in residential real estate (Ogunleye, 2015). An approximate estimate put the value of dormant investment in real estate at about #8.5 trillion (Hayford, 2006). Barlowe (1972) confirmed that two-thirds of the investment in the United States of America is made up of real estate. Also, Ogunleye (2012) mentioned that the highest share of world’s (37%) and US (40%) wealth in the context of the totality of real estate, equity, bonds, cash and commodities. The position of Ajayi (1998) is that since so much of the nation’s wealth lies in its real estate assets, he is of the view that valuers should
have the duty of contributing their expertise to efficiency in the use of the scarce resources. The fact that residential properties are commonly and increasingly becoming popular form of investment in Nigeria and by extension, all over the world, researchers especially in real estate sector must do everything possible to improve through efficient management and updated studies. Closely related to this Ajayi (1998) pointed out that investors in residential property often times are uncertain about the outcomes of their actions. Future events are difficult to forecast in precise term and over time such forecast becomes unreliable. In Nigeria, a lot of risks and uncertainties affect real estate investment which includes the soaring trend of criminal activities within the residential neighbourhood which studies have found to be detrimental to the income flow (rental and capital incomes) from the investment (Ogunleye, 2015; Ajayi, 1997).

Ajibola, et. al (2011) emphasized on the role that adequate provision of security facilities within the residential neighbourhood can play in improving the values of such properties. The study focused on the impacts of gated communities on residential property values with a comparison between Onipetesi gated estate and its environs within Ikeja, Lagos, Nigeria. The research found that residential properties within the gated community were more expensive (in terms of rental and capital values) than other adjacent non-gated properties. The study further revealed that the quest for security of lives and properties was a major factor attracting people to the estate, hence, in terms of economic sustainability, the study noted that gated communities provided good basis for improving the standard and quality of valuation of residential properties. The comparative analysis of rental tread Onipetesi estate (gated) and Idi-Mangoro (non-gated revealed that over the period of 2005 and 2009, the rental values of residential properties within the gated estate were consistently higher than that of the non-gated estate. The percentage difference in the rental values between the two estates was between 17-25%. Also, the result of the study showed that 76% of the respondents agreed that the estate’s system of gates and other security systems led to increase demand for residential properties within the estates. In addition, the result revealed that 69% of the respondents posited that security facilities provided by the communities served as an important consideration in negotiation during the tenancy transaction. This implies that property crime borne out of insecurity has influence on the property value and by extension, housing investment.

In the view of Bello (2011), high rate of crime within the Nigerian urban centers led to a corresponding increase in the level of insecurity of lives and properties. Consequently, a potential renter or buyer of house would always be concerned with the crime rate in a neighbourhood before making their choices. Using Oke-Aro and Alaba-Layout in Akure to examine the perception of crime and its effects on property values in the two neighbourhoods, the study found that residents of the neighbourhoods have negative perception living in crime areas and that the rate of crime was inversely related to property values. The study observed that occupants of properties in the neighbourhoods perceived crime (especially burglary, robbery and vandalism) to be very high especially in Oke-Aro neighbourhood where occupants live in slum and abject poverty. This result implies that there is a correlation among environmental planning, poverty and property values. Also, the regression analysis showed crime to be negatively correlated with property values which means that as crime increases, rental value of residential property decreases. The general
implication of this study is that crime can negatively impact on housing investment which calls for urgent response from researches and policy makers.

From a different perspective Gambo (2012) centered his study on impact of violent ethno-religious conflict (incivility) on residential property values in Bauchi using Hedonic price modeling. The findings of the study revealed that conflict free area was the most influential variable determining rent. This translates to the fact that religious conflict (incivility) is capable of influencing housing value which ought to reflect as a determinant variable of residential property value. From the foregoing, it can be empirically substantiated that property crime is capable of impacting on residential property values.

2.4 Research Assessment Framework

Consequent to the analytical tool adopted for this study (structural equation modelling), Figure 1 is presented to define the research assessment framework. The framework describes the various applicable variables under consideration. The independent variables are accessibility (ACB), building and neighbourhood characteristics (BNC) and residential neighbourhood crime (RNC) while the dependent variable is named residential property values (RPV). The framework is also presented to graphically present the three (3) hypotheses adopted for this research. These are:

H1: Accessibility (ACB) has a significant and direct effect on residential property values (RPV).
H2: There is a significant relationship between building and neighbourhood characteristics (BNC) and residential property values (RPV).
H3: Residential neighbourhood crime (RNC) has a significant and direct effect on residential property values (RPV).

Figure 1: Research assessment framework
3. METHODOLOGY

3.1 Questionnaire Development

In the course of this research, the instrument was measured on a Likert Scale. Likert scale was “developed with the principle of measuring attitudes by asking people to respond to a series of statements about a topic, in terms of the extent to which they agree with them, and so tapping into the cognitive and affective components of attitudes” (Likert, 1932; McLeod, 2008). This scale allows for freedom of opinion and relative ease of data analysis with the assumption that strength/intensity of experience is linear (McLeod, 2008). Lorenzo et al. (2008) recommended a minimum scale of 4 to 11. However, Dawes (2008) also argued that the increase in number of response option has no significant effect on the scale reliability or validity. In addition to this, Johns (2010) posited that when response scale is below 5 points, the response becomes significantly inaccurate because it will be measuring only direction instead of the magnitude. Similarly according to him, scales above five (5) points usually pose difficulty of making distinction between the scales to respondents. Hence, this instrument was measured on a scale of 1-5 from strongly disagree (1) to strongly agree (5). The questions relating to each constructed were adapted, adopted and formulated through the related literature while the reliability test was conducted to measure the internal consistence of the research instruments.

3.2 Data Collection

The data acquired through questionnaires to answer the research questions were summarized and analyzed using MS Excel 2013, SPSS v22 and AMOS v20. The respondents’ comments from the open-ended questions in the questionnaire were equally quantified and used in the analyses.

A pilot study was conducted on 75 samples out of which 50 were found usable. An exploratory factor analysis (EFA) was performed to confirm factor structure and reliability of the items. Principal component analysis using Promax rotation was used to access the factor structure.

A total of 1,000 copies of a set of questionnaires was administered in this order: Lagos- 400, Ibadan- 300 and Ado-Ekiti- 300 totalling 1000. The questionnaire was distributed to residents (head of household) in the study area as respondents using purposive (in the sense that only he head of household is eligible to attend to the questionnaire) and stratified random sampling was use to select the estates as well as the particular house on which the questionnaire is to be administered. A sample size calculator was used to estimate the minimum sample size required from the population of 5762 residents in the study area (Kumar, 1999; Guthrie, 2010).

This research applied the sample size formula (Figure 2); with a resident population of 2,488 in Lagos metropolis, 1, 654 in Ibadan and 1620 in Ado-Ekiti across the three cities under consideration using a confidence level of 95%, confidence interval of 5% (or Standard Error), and the sample size needed was 340 for Lagos, 280 for both Ibadan and Ado-Ekiti or more. The retrieved and useable questionnaires for the research were 488 out of which 467 passed the screen tests.
4.0 DATA ANALYSIS

4.1 Reliability Analysis

The essence of carrying out the reliability analysis of each construct is to assess the internal consistency of the measurement instrument through the Cronbach alpha. Table 2 presents the reliability analysis result for Accessibility (ACB), Building and Neighbourhood Characteristics (BNC), Residential Neighbourhood Crime (RNC) and Residential Property Values (RPV). The Cronbach alpha for ACB, BNC, RNC and RPV are 0.819, 0.935, 0.928 and 0.887 respectively. These values exceeded 0.60 indicating that the items are reliable for measuring the respective constructs (Pallant, 2011).

<table>
<thead>
<tr>
<th>Factors/Constructs</th>
<th>Items</th>
<th>Cronbach alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessibility (ACB)</td>
<td>DPWPV, PTEHV, PCBD, HCLPV and LDRPV</td>
<td>0.819</td>
</tr>
<tr>
<td>Building neighbourhood characteristics (BNC)</td>
<td>RNLPV, ABDEV, TQCM, and LAAV</td>
<td>0.935</td>
</tr>
<tr>
<td>Residential Neighbourhood crime</td>
<td>FEGCOM, COINT, INSUR, TEGHD, CCTV</td>
<td>0.928</td>
</tr>
<tr>
<td>Residential property values</td>
<td>SSNCV, AADPV, BDIV, HAPHV, ABFCV, RMPV, PCDPU</td>
<td>0.887</td>
</tr>
</tbody>
</table>

4.2 Data Normality

In applying structural equation modeling, it is required that data should be normally distributed. Hence, this necessitates that data normality should be confirmed (Hair, et. al., 2011). In this particular study, all values of skewness and kurtosis for the four (4) constructs have below +1 and -1 indicating the multivariate normality of the distributed data (Pallant, 2011).
4.3 STRUCTURAL EQUATION MODELING (SEM) USING ANALYSIS OF
MOMENT STRUCTURES (AMOS)

SEM-AMOS is software encompasses such diverse statistical techniques as path analysis,
confirmatory factor analysis, causal modeling with latent variables, analysis of variance and
multiple linear regressions. AMOS could be accessed through various ways but for the
purpose of this study it was accessed through licensing a copy from Statistical Package for
Social Sciences (SPSS), Version 22 which was meant for personal computer.

Essentially, SEM is an extension of the general linear model (GLM) that enables a
researcher to test a set of regression equations simultaneously. The basic approach to
performing a SEM analysis includes establishing relevant theory, model construction,
instrument construction, data collection, model testing, result and interpretation. The model
consists of a set of relationships among the measured variables. These relationships are then
expressed as restrictions on the total set of possible relationships. The results feature overall
indices of model fit as well as parameter estimates, standard errors and test statistics for each
free parameter in the model.

The choice of SEM-AMOS software for this study was considered desirable as a
result of a number of attractive virtues it enjoys like clear and testable assumptions
underlying the statistical analyses which gives investigator full control and potentially
furthering understanding of the analyses; a graphical interface which boosts creativity and
facilitates rapid model debugging; possibility of comparing regression coefficients, mean and
variances simultaneously; provision of overall tests of model fit and individual parameter
estimate test at the same time; possibility of purging errors through measurement and
confirmatory factor analysis and its most attractive quality among others.

4.4 Measurement Model

The use of structural equation modeling (SEM) in analyzing the data through AMOS 21.0
software required a two-step approach which was employed as a pre-requisite for the use of
SEM (Awang, 2015). The first step required the preparation of the measurement model
estimated for the purpose of confirmatory factor analysis (CFA) with the principal aim of
checking the model fit and validity. The goodness of fit is in agreement with the laid down
principles (see Table 3). Findings as presented in Figure 2 show that the factor loadings after
necessary deleting were found to be significant. That is, not less than 0.6 (Hair, et. al., 2011;
Awang, 2014); the chi-square/df stood at 3.824 which is less than the benchmark 0f < 5.0
(March and Hocevar, 1985); the GFI is up to 0.9 (Joreskong and Sorbom, 1984). CFI is 0.938
(Bentler, 1990). TLI is 0.926 (Bentler andBonett, 1980); RMSEA (root mean square error of
approximation is 0.078 which is less than the benchmark of ≤ 0.080 (Browne, Cudeck and
Bollen, 1983). In summary, these result figures meet all the recommended criteria for the
good model fit (Hair, et. al., 2011; Babin, et. al., 1994; Awang, 2015).

Table 3: Goodness-of-fit index and level of acceptance

<table>
<thead>
<tr>
<th>Name of Category</th>
<th>Goodness-of-fit indices</th>
<th>Acceptance Level</th>
<th>Comments</th>
<th>Literature support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absolute fit</td>
<td>Chisq</td>
<td>P &gt; 0.05</td>
<td>Sensitive to sample size greater than 200</td>
<td>Wheaton et. al (1977)</td>
</tr>
<tr>
<td>Absolute fit</td>
<td>RMSEA</td>
<td>RMSEA &lt; 0.08</td>
<td>Range 0.05 to 1.00 is acceptable</td>
<td>Browne and Cudeck (1993)</td>
</tr>
<tr>
<td>Fit Type</td>
<td>Measure</td>
<td>Value</td>
<td>Description</td>
<td>Reference</td>
</tr>
<tr>
<td>------------------------</td>
<td>---------</td>
<td>---------</td>
<td>----------------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>Absolute fit</td>
<td>GFI</td>
<td>&gt; 0.90</td>
<td>GFI = 0.95 is a good fit</td>
<td>Joreskog and Sorbom (1984)</td>
</tr>
<tr>
<td>Incremental fit</td>
<td>AGFI</td>
<td>&gt; 0.90</td>
<td>AGFI = 0.95 is a good fit</td>
<td>Tanaka and Huba (1985)</td>
</tr>
<tr>
<td>Incremental fit</td>
<td>CFI</td>
<td>&gt; 0.90</td>
<td>CFI = 0.95 is a good fit</td>
<td>Bentler (1990)</td>
</tr>
<tr>
<td>Parsimonious fit</td>
<td>Chisq/df</td>
<td>&lt; 5.0</td>
<td>The value should be less than 5.0</td>
<td>Marsh and Hocevar (1985)</td>
</tr>
</tbody>
</table>

Figure 2: The Measurement Model
To ensure that the model is properly fit, the data were also tested for construct validity which involved the discriminant and convergent validity as well as the correlation matrix for the entire research constructs (Hair, et. al., 2011; Awang, 2014).

Discriminant validity is achieved when the square root of the Average Variance Extracted (AVE) is greater than the correlation with other constructs (Hair, et. al, 2011). The loadings of all reflective indicators are above 0.6 after the data had been refined through reliability test (Cronbach alpha) and expository factor analysis (EFA). The values of composite reliability for all reflective constructs are above 0.7 (Hair, et. al. 2011; Awang, 2015) and the AVE for each construct is above 0.50 (Fornell & Larcker, 1981) confirming a convergent validity as shown in Tables 4 and 5

<table>
<thead>
<tr>
<th>Construct</th>
<th>Code</th>
<th>Items</th>
<th>Loading</th>
<th>CR&lt;sup&gt;a&lt;/sup&gt;</th>
<th>AVE&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACB</td>
<td>LDRPV</td>
<td>Location determines housing values</td>
<td>0.81</td>
<td>0.87</td>
<td>0.74</td>
</tr>
<tr>
<td></td>
<td>HCLPV</td>
<td>House with contaminated location affects value</td>
<td>0.68</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PCBD</td>
<td>Proximity to CBD affects value</td>
<td>0.76</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DPWPV</td>
<td>Distance to work affects property values</td>
<td>0.81</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RNC</td>
<td>CCTV</td>
<td>Use of CCTV to scare offender affects values</td>
<td>0.85</td>
<td>0.94</td>
<td>0.75</td>
</tr>
<tr>
<td></td>
<td>TEGHD</td>
<td>Obstruction to target areas reduces crime</td>
<td>0.88</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>INSUR</td>
<td>Increased surveillance &amp; lighting scare offender</td>
<td>0.85</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>COINT</td>
<td>Community integrations discourages crime</td>
<td>0.93</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FEGCOM</td>
<td>Fencing and gated community aids security</td>
<td>0.82</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BNC</td>
<td>LAAV</td>
<td>Landscape attracts additional value</td>
<td>0.91</td>
<td>0.94</td>
<td>0.77</td>
</tr>
<tr>
<td></td>
<td>TQCM</td>
<td>Type &amp; quality of construction add to value</td>
<td>0.90</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ABDEV</td>
<td>Age of building determines housing value</td>
<td>0.81</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>RNLPV</td>
<td>Neighbourhood layout influences value</td>
<td>0.88</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RPV</td>
<td>HAPHV</td>
<td>Human activities can influence property value</td>
<td>0.76</td>
<td>0.85</td>
<td>0.54</td>
</tr>
<tr>
<td></td>
<td>RMPV</td>
<td>Residential mobility affects property value</td>
<td>0.78</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ABFCV</td>
<td>Adequacy of building facility determines value</td>
<td>0.63</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PCDPU</td>
<td>Property crime determines property crime</td>
<td>0.65</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>BDIV</td>
<td>Building design influences value</td>
<td>0.75</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Composite Reliability (CR) = (square of the summation of the factor loadings)/ {(square of the summation of the factor loadings) + (square of the summation of the error variances)}.
b Average Variance Extracted (AVE) = (summation of the square of the factor loadings) / \{(summation of the square of the factor loadings) + (summation of the error variances)\}

Table 5: Correlation matrix for the entire research constructs

<table>
<thead>
<tr>
<th></th>
<th>ACB</th>
<th>BNC</th>
<th>RNC</th>
<th>RPV</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACB</td>
<td>0.86</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BNC</td>
<td>0.55</td>
<td>0.88</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RNC</td>
<td>0.11</td>
<td>0.02</td>
<td>0.87</td>
<td></td>
</tr>
<tr>
<td>RPV</td>
<td>0.86</td>
<td>0.48</td>
<td>0.23</td>
<td>0.73</td>
</tr>
</tbody>
</table>

Note: N=467; Numbers in parentheses are standard error; ACB = Accessibility; BNC = Building and Neighbourhood Characteristics; RNC = Residential Neighbourhood Crime; RPV = Residential Property Value

4.5 STRUCTURAL MODEL

The structural model was developed in order to test the proposed hypotheses as shown in the research assessment framework (path analysis diagram) in figure 1. The obtained CFA model is perfectly fit as the values of all estimated measures GFI, AGFI, CFI, TLI and RMSEA are greater than the threshold level. The percentage of variance explained (R²) for the model stands at 0.74 (74%) indicating that the model has good explanatory power (Hair, et al., 2011; Awang, 2014). Figure 3 gives the graphical presentation of the structural model while Tables 6 and 7 show the standardized regression weight and its significance for the entire path in the Model and the summary of the tested hypotheses in this research respectively.

Figure 3: The Structural Model

Table 6: The standardized regression weight and its significance for the entire path in the Model.
<table>
<thead>
<tr>
<th>Construct</th>
<th>Path</th>
<th>Construct</th>
<th>Estimate</th>
<th>S.E</th>
<th>C.R</th>
<th>P-value</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>RPV</td>
<td>&lt;---</td>
<td>ACB</td>
<td>0.82</td>
<td>0.052</td>
<td>13.492</td>
<td>***</td>
<td>Significant</td>
</tr>
<tr>
<td>RPV</td>
<td>&lt;---</td>
<td>BNC</td>
<td>0.01</td>
<td>0.031</td>
<td>0.297</td>
<td>0.766</td>
<td>Not Significant</td>
</tr>
<tr>
<td>RPV</td>
<td>&lt;---</td>
<td>RNC</td>
<td>0.18</td>
<td>0.030</td>
<td>4.926</td>
<td>***</td>
<td>Significant</td>
</tr>
</tbody>
</table>

ACB = Accessibility; BNC = Building and Neighbourhood Characteristics; RNC = Residential Neighbourhood Crime; RPV = Residential Property Value.

Table 7: The summary of the tested hypotheses in this research

<table>
<thead>
<tr>
<th>S/N</th>
<th>The main hypothesis statement in the research</th>
<th>Estimate</th>
<th>P-value</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>H1 Accessibility (ACB) has a significant and direct effect on residential property values (RPV).</td>
<td>0.82</td>
<td>***</td>
<td>Supported</td>
</tr>
<tr>
<td>2.</td>
<td>H2 There is a significant relationship between building and neighbourhood characteristics (BNC) and residential property values (RPV).</td>
<td>0.01</td>
<td>0.766</td>
<td>Not Supported</td>
</tr>
<tr>
<td>3.</td>
<td>H3 Residential Neighbourhood crime (RNC) has a significant and direct effect on residential property values (RPV).</td>
<td>0.18</td>
<td>***</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Key: *** represents P-value is less than 0.001

5. DISCUSSION.

The comprehensive review of literature facilitated the earlier presented hypothesised research model in the Table 7. The hypothesised results in the Table 6 outlined the outcome of every respected path in the structural measurement model. Therefore, every path’s hypothesis in this research is presented accordingly in the next paragraphs.

**Hypothesis (H1): Accessibility (ACB) has a significant and direct effect on residential property values (RPV).** The result shows that Accessibility ($\beta = 0.82$, $z = 13.49$ and $p = 0.000 < 0.001$) are strongly significant to residential property values. Therefore hypothesis H1 is supported and held true. The research outcome confirms that accessibility is considered a very important determinant of residential property values. This implies that from the residents’ perspective accessibility to market, place of work, place of worship and recreation among others should be considered as an important attributes even from the conception stage in order for the property not only to increase in value but also to maintain the value appreciation.

In addition, this research finding is consistent with the empirical findings by Jang & Kang (2015); Abidoye & Chan (2016); Oloke, Simon & Adesulu (2013) and Aluko 2011) in which they variously supported that accessibility as an attribute does significantly influence residential property values.

**Hypothesis (H2): There is a significant relationship between building and neighbourhood characteristics (BNC) and residential property values (RPV).** In the same vein, the research’s result found that building and neighbourhood characteristics ($\beta = 0.01$, $z$
= 0.30 and \( p = 0.77 > 0.05 \) have no significant impact (statistically) on residential property values within the Nigerian housing neighbourhoods. Therefore, the hypothesis is rejected and empirically not supported by this research.

This implies that from the majority of the residents that participated in this research and quite representing the generality of Nigerian urban residential estates, building and neighbourhood characteristics may not necessarily be of high priority for a tenant or resident. This may not be far from the fact that in any civilized economy minimum construction requirement is expected to be followed during residential development more so it serves as a place of abode and where residents’ valuables are kept. Another reason why this value attribute may not be considered as so important is the fact that different designs and standards of residential accommodation exist like low income housing, medium income housing and high income housing. The financial ability of the prospective resident often determines the location and type of house to occupy.

Essentially, this finding is consistent with the past research studies of RoyalLePage (2003) and Tse & Love (200) in which all attested to the fact that building and neighbourhood characteristics may not necessarily constitute a serious determinant of residential property values. However, the result of this research is in contrast with the research findings of Aluko (2011) and Ajibola, Awodiran & Salu-Kosoko (2013) among others which found that building characteristics of a house have a direct impact in its value determination.

**Hypothesis (H3):** Residential Neighbourhood crime (RNC) has a significant and direct effect on residential property values (RPV). As presented in the Table 7, research outcome shows that residential neighbourhood crime (\( \beta = 0.18, Z = 4.93 \) and \( p = 0.000 < 0.001 \)) is significant and have direct effect on property values. The outcome of this research showed a strong support for hypothesis H3 as demonstrated in the final structural measurement model (see Figure 3). By implication therefore, the research finding shows that the prevalence of residential neighbourhood crime in the forms of burglary, incivilities, street crimes, robbery and even violent crimes have a strong significant and direct effect on residential property values and of course housing investment. Therefore, above research hypothesis is supported.

Principally, the essence of this research is to statistically test the impact of key determinants (Accessibility, Building and neighbourhood characteristics as well as residential neighbourhood crime) of residential property value with special reference to residential neighbourhood crime. In other words, the study was meant to statistically assess neighbourhood crime as a value determinant along with two other variables as earlier on reiterated. There are enough literature supporting Accessibility and building neighbourhood characteristics but a vicious dearth of publication on the impact of residential neighbourhood crime as a determinant of housing value especially from real estate practitioners, hence, the need for this research.

With regards to the grievous consequences of residential neighbourhood crime on the residents, neighbourhood and government activities; the research is considered desirable. Residents have been found to suffer psychological fear of crime which could lead to poor health, unproductivity and often sudden death (Cohen, 1990). Residents have also found to incur additional cost of housing maintenance in the area of providing security. Also neighbourhood crime has caused the environment to suffer decline, stigmatization and negative residential mobility which are found of capable of discouraging housing investment.
with direct reflection on general practice of real estate business. Residential neighbourhood crime has also been found to affect government activities by reducing government revenue from property tax as well as increasing public budget to curb neighbourhood incivility. From the foregoing, it becomes imperative to give residential crime the necessarily attention it deserves.

In summary and by implication, residential neighbourhood crime is found to be a great threat to housing investment and neighbourhood civility. This research finding supported the past empirical outcome of Pope and Pope (2012); Ceccato and Whilhelmsson, (2011); Boggess, et al (2013); Adegoke (2014) and Ihlanfeldt & Mayock (2010) who reported that residential neighbourhood crime (property crime) has a direct negative effect on residential property values and essentially housing investment.

6. CONCLUSION
In line with the objective and problem statement of this study, effort was made in the course of the research to empirically prove and analyse the relevance of residential neighbourhood crime as a determinant of housing value among other determinants of accessibility as well as building and neighbourhood characteristics. The result of the findings supports the proposition (hypothesis) that residential neighbourhood crime has direct and significant impact on residential property values. Hence, the hypothesis is supported and held to be true.

Consequent to the position of existing literature, residential neighbourhood crime has been described to be detrimental to housing investments (Gibbons, 2004; Pope and Pope, 2012; Cohen, 1990) as it is capable of causing artificial residential mobility, residential neighbourhood stigmatization and neighbourhood decline – all towards reduction in housing values, be it rental or capital.

It is therefore in the interest of this research to make a clarion call on researchers, practitioner and policy maker especially in real estate profession on the need to pay more attention toward devising modern residential neighbourhood crime prevention techniques in the form of research and policy making. This is more needed in the developing nations like Nigeria where the crime risk factors like poverty, illiteracy, juvenile delinquencies, homelessness, unemployment and poor environmental design are found to be prominent. Government at various levels is enjoined to roll out programmes and policies toward tackling these risk factors. Also, considering the role of housing to the national economy, it is expedient for all concerned stakeholders to see this call as an urgent one considering its relevance in boosting housing values in particular and general economy in general. The research however recognises the fact that the critical determinants of residential property values are more than three, however, accessibility (ACB) and building and neighbourhood characteristics (BNC) were found to be in the top ten through data mining. It is however open for future research opportunity.

From the analysis and result of findings, there is a correlation between residential neighbourhood crime and residential property value. However, while the correlation is relatively low (23%), the causal effect (regression) of RNC on RPV is highly significant (less than 0.001) which translates to the fact that the effect of RNC (which is mostly negative) is strongly felt by RPV. The inference is that researchers, urban planners, realtors and policy makers need to rise up to the challenge of making sure that all is done in the area of research
and mounting relevant programmes in ensuring that neighborhood crime is curbed, reduced or prevented so as to ensure sustainable housing and boosting housing investment.

ACKNOWLEDGEMENTS

This work was supported by the Universiti Tun Hussein Onn Malaysia (UTHM) and the Nigerian Tertiary Education Trust Fund (TETFund). The researchers express their invaluable gratitude to UTHM and TETFund for their support.

7. REFERENCES


Dawes, J. G. (2008), Do data characteristics change according to the number of scale points used? An experiment using 5 point, 7 point and 10 point scales. International journal of market research, Vol.51, No. 1, Pp.61-77


Guthrie, G. (2010), Basic Research Methods: An Entry to Social Science Research.: SAGE publications: London


Johns, R. (2010), Likert items and scales: Survey Question Bank; Method Fact Sheet 1.


ABSTRACT

The aim of this study was to examine the impact of job demands, job resources, burnout and religious personality on the job crafting behaviour of Malaysian academics. Job crafting refers to proactive behavior aimed at optimizing the fit between person and job. Using job demands-resources theory, the researcher hypothesized that job crafting would be positively related to job resources and person-organisation fit, and negatively to hindrance demands. Furthermore, it will be hypothesized that these relationships would be qualified by personal resources; religious personality. A total of 377 academics from Malaysian Public universities is aim to fill out an electronic questionnaire. Job Crafting will be measured using Job Crafting scale by Bakker, Demerouti & Sanz-Vergel (2014). Job demand will be operationalized as workload, emotional exhaustion, work-family conflict and job resources will be operationalized as autonomy, professional development and social support (Demerouti, Bakker and Mustert, 2001). While religious personality will be operationalized based on Muslim Religious Personality Index adapted from Krauss (2007) with pro-social behaviour, ritual behaviour and anti-social behaviour constructs. Regression analyses will be used to test hypotheses. Job burnout will be assessed using Oldenburg Burnout Inventory (OLBI; Demerouti & Nachreiner, 1998; Demerouti et al., 2003), the findings will be expected to reject the null hypothesis and may contribute on the JDR Model with an application of religious factor that leads to one factor of personal resources. With the rejection of null hypotheses, job crafting in the form of increasing job resources is expected to positively related to opportunities for development, autonomy and social support; and negatively related to hindrance job demands; workload, emotional exhaustion and work-family conflict - particularly when religious personality was high. Conclusions: The combination of job crafting and religious personality is important for the realization of a resourceful work environment and fit between person and organisation. Implications for academics’ management: Interventions aimed at fostering job crafting should be tailored to the motivation of higher education institution’s academics.

Keywords: Job Demand, Job Resources, Religious Personality, Job Crafting Behaviour
contribute to rising job stress (Bakker, Van Emmerik & Van Riet, 2008). Academic staff are now expected to fulfil multiple role demands within the work setting, for example, teaching, research, consultation and supervising research students. Academicians are also dealing with the pressures of competing demands, such as balancing teaching with research, and attempting to balance traditional workloads with the presence of new pressures, such as teaching internationally and via online methods which is one of educational innovation nowadays.

When academicians perceive that they are provided with adequate system-level support for their work, they are less likely to experience stress and more likely to experience well-being at work. Academicians are also required to bring money into the university through research grants or publications, as in Malaysia, some research performance is evaluated and funded by federal government based on research productivity.

9. PURPOSE OF THE STUDY

Therefore, this study will be conducted to examine the level of burnout of academics in one of Malaysian public university with the contribution factor of job demands, job resources and personal resource (religious personality).

Hundred (100) academicians from several Malaysian public university will be taken as a sample for pilot study. Thus, the findings will be expected to contribute on the JDR Model with an application of religious factor that leads to one factor of personal resources. This study, therefore, has three primary objectives as below:

1. It aims to identify the impact of job resources on the job crafting behaviour among Malaysian academics.

2. It aims to identify the impact of religious personality on the job crafting behaviour among Malaysian academics.

3. It aims to identify the mediating impact of burnout between job demands and job crafting behaviour among Malaysian academics.

10. RESEARCH QUESTIONS

Three research questions will be handled with great interest. Research question 1 must be answered to achieve research objective 1, while research question 2 must be answered to achieve research objective 2. Same goes for research question 3 must be answered to achieve research objective 3 regarding the influence of religious personality to assess burnout levels among academics in Malaysian public university.

Research question 1: Is there any significant impact of job resources on the job crafting behaviour among Malaysian academics?

Research question 2: Is there any significant impact of religious personality on the job crafting behaviour among Malaysian academics?

Research question 3: Does burnout mediate the impact of job demands on the job crafting behaviour among Malaysian academics?
In achieving its research objectives and answering the research questions, this study will employ a quantitative research methodology.

11. PROBLEM STATEMENT

Job crafting is, in the context of the JD-R model, about moulding a job according to the employee’s preferences, skills, and abilities and thereby making actual changes in levels of job demands and job resources (Tims, Bakker & Derks, 2012). It is important to note that job crafting and job redesign are not interchangeable terms. Job redesign considers changes to the job as a whole and is a top-down approach, while job crafting is more concerned with task-related aspects of the job and is a bottom-up approach (Tims et al., 2012). Thus, in line with the JD-R model, job crafting addresses job demands and job resources (Tims & Bakker, 2013), which can positively influence employee behaviour. Currently, there is little studies have been conducted on job crafting within the Malaysian context. Due to its importance to organisations, a gap has been identified that needs to be addressed. Therefore, the present study aims to investigate the impact of religious personality, job demands and job resources towards job crafting behaviour possessed by academics in Malaysia.

The implications of high job demands in academics can be troubling to institutions. Academics especially junior members will quit and switch to another institution if they cannot stand with the pressure and burnout (Idris, 2009). Statistic shows that teacher’s burnout is in high ranking as compared to academics’ burnout. This is based on the previous study which stated that teachers are often physically and emotionally challenged; therefore, they may experience burnout. Teacher burnout has been shown to have negative effects on teacher and student performance (Huberman & Vandenberghhe, 1999; Maslach & Leiter, 1999). Besides, a research in Hong Kong primary and secondary school showed teachers perceived different level of stress (Chan, Chen & Chong, 2010). Whereas most research carried out in European and North American countries indicated high levels of burnout among primary school teachers (Mearns & Cain, 2003). However, research on elementary university lecturers in the United States shows that working experience can influence academic’s burnout (Cheek, Bradley, Parr & Lan, 2003). In line with that, research in Malaysia also indicates lecturers from different working experience categories suffer varying levels of burnout (Mukundan & Khandehroo, 2009).

This research is likely to be beneficial to higher educational institutions in understanding academics’ job burnout, religiosity literature and to academics. For instance, higher educational institutions can use this research to help identify their academics staff’s priorities, their institutions’ performance in comparison to academics’ priorities and students’ performance in terms of continuous growth. The ability to measure what the academics want will enable employing institutions to retain satisfied academics, promote their university products and services and gain higher levels of satisfactions among students, parents and external people (Masuku & Muchemwa, 2015).

So far only personal resources have been integrated into the JD-R model, but personal religiosity factors could also be included. Again, it is likely that there is no single best way to integrate religious personality factors of this kind into the model. It is possible that workaholism leads to more job demands, because workaholics are actively looking for more work (Machlowitz, 1980). However, religious personality may also moderate the relation between job demands and burnout; for people scoring high on religious personality this
relation would be weaker, because religious personality did recover appropriately from their work (Law, Sweeney, & Summers, 2008).

Therefore, it is vitally important for institutions specifically the research universities to direct its efforts towards the level of burnout of employee. This may create an opportunity for this research to fill in the contextual gap.

12. LITERATURE REVIEW A. JOB CRAFTING

Job crafting is a concept that explicitly focuses on employee job redesign (Wrzesniewski & Dutton, 2001). In job crafting, employees independently modify aspects of their jobs to improve the fit between the characteristics of the job and their own needs, abilities, and preferences (Berg, Dutton, & Wrzesniewski, 2008). According to Wrzesniewski and Dutton (2001), employees may initiate three types of changes in their jobs. First, employees may craft the tasks they must fulfill at work. For example, an employee could ask for different tasks at work that require new skills because they feel that the job is becoming monotonous. Second, employees may craft the interpersonal relationships they experience when performing their work. For example, an employee may regularly meet with a colleague they consider inspiring. Third, employees may craft their own cognitive stance toward their work by positively reframing the manner in which they think about the job. An employee engages in the third type of job crafting when they consider a specific task boring but reframes this task as boring but important. The task does not change, but the employee views it in a more positive manner. These changes allow employees to make their work more engaging and meaningful (Tims & Bakker, 2010; Wrzesniewski & Dutton, 2001).

Because job crafting involves initiating changes in the job design, it is operationalized according to the types of job characteristics suggested in the Job Demands Resources (JD-R) model (Bakker & Demerouti, 2007; Demerouti et al., 2001): job demands and job resources (see also Tims, Bakker, & Derks, 2012). Job characteristics that require sustained effort from employees and are, therefore, associated with certain costs are labeled job demands. Job characteristics that contribute toward achieving work-related goals, reducing the effect of job demands and associated costs, and stimulating personal development are called job resources. This distinction allows the model to be applied to many occupations and jobs. Moreover, this distinction allows researchers to assess which job characteristics employees change when they craft their jobs. In line with the JD-R model, job crafters change either the level of job demands, the level of job resources, or both.

Using the refined JD-R model, Tims et al. (2012) recently distinguished empirically between four job crafting dimensions. Two of these dimensions refer to the type of job resources that are crafted: **structural** (e.g., autonomy and variety) and **social job resources** (e.g., social support and feedback). The other two dimensions refer to the level of job demands: **challenging** (e.g., new projects) and **hindering job demands** (e.g., fewer cognitive demands).

13. B. BURNOUT

Many scholars have commented that the current research on the construct of burnout and its history, development, and measurement are strongly related to the Maslach Burnout Inventory (MBI; Maslach, Jackson, & Leiter, 1996) and its different versions (for example,
MBI-GS; Schaufeli et al., 1996). An alternative instrument that was proposed to address the content-related and methodological disadvantages of the above-mentioned measures of burnout is the Oldenburg Burnout Inventory (OLBI; Demerouti & Nachreiner, 1998; Demerouti et al., 2003). In this scale, burnout is operationalized by means of (physical, affective, and cognitive) exhaustion and disengagement, whereas personal accomplishment is excluded.

Furthermore, the OLBI items assess cognitive and physical components of exhaustion in addition to the affective component included in the MBI. Finally, the OLBI (MBI-GS; Schaufeli et al., 1996) is not restricted to human services, but it can be used to measure burnout in all employees, irrespective of their occupation. These findings further support researcher’s decision to use the OLBI to assess burnout in academics.

14. Exhaustion

Building on the two dimensions of job burnout proposed by the OLBI (Demerouti et al., 2003, 2010), the researcher define academic burnout as a phenomenon that is characterized by feelings of (emotional, physical, and cognitive) exhaustion due to the demands of studying and an attitude of withdrawal and detachment from one’s studies. According to the main assumptions of the job demands-resources model (Demerouti et al., 2001), the study characteristics that university students usually face are likely to initiate feelings of exhaustion (due to increased levels of study demands) and disengagement (due to the absence of study resources).

More specifically, university students have to deal with high levels of cognitive (for example, studying, preparing for classes/exams, working on papers), and quantitative (for example, meeting deadlines) demands that may deplete their energy resources and lead to exhaustion.

15. Disengagement

In a similar vein, lack of instrumental (for example, control) or socio-emotional resources (for example, support from teachers or administrative staff) may demotivate students and enhance their feelings of disengagement from their studies. Although there are good reasons supporting this assumption as the structure of the activities pursued by students resembles the structure found in numerous occupations, the necessity of justifying it through modern invariance testing procedures (Cheung & Rensvold, 2002) still remains. In this study, we aimed to fill this void in the literature by investigating the invariance of academic and job burnout across students and employees.

C. JOB DEMANDS AND JOB RESOURCES

The JD-R model was first published under that label by Demerouti et al. (2001) in an attempt to understand the antecedents of burnout. Their model drew upon Lee and Ashforth’s (1996) meta-analysis, in which eight “job demands” and thirteen “job resources” were identified as possible causes of burnout. Demerouti et al. (2001) defined job demands as “those physical, social, or organizational aspects of the job that require sustained physical or mental effort and are therefore associated with certain physiological and psychological costs”.

The early JD-R model proposed two processes for the development of burnout. First, long-term excessive job demands from which employees do not adequately recover may lead to sustained activation and overtaxing, eventually resulting in exhaustion, the energetic
component of burnout. Second, a lack of resources precludes that job demands are met and that work goals are reached, which leads to withdrawal behavior.

Indeed, withdrawal, or reduced motivation/disengagement, for example, the motivational component of burnout, acts as a self-protective strategy to prevent further energy depletion. Consistent with this reasoning, research revealed main effects of demands and resources on burnout; whereas job demands were associated with exhaustion, lacking resources were linked to disengagement (Bakker, Demerouti & Euwema, 2005; Bakker, Demerouti & Verbeke, 2004; Bakker, Demerouti, Taris, Schaufeli & Schreurs, 2003; Demerouti et al., 2001; Hansen, Sverke & Näswall, 2009; Xanthopoulou et al., 2007).

D. RELIGIOUS PERSONALITY

Personal resources directly impact well-being. As personal resources are defined in terms of resiliency and control, they may reduce burnout and increase engagement. In a study among Spanish teachers, it has been found that emotional and mental competencies at the beginning of the academic year predicted levels of burnout and engagement at the end of that year, controlling for baseline levels of demands and resources. Similarly, Xanthopoulou, Bakker, Demerouti, and Schaufeli (2009) reported in an 18-month longitudinal study that personal resources (self-efficacy, optimism, and organization-based self-esteem) predicted later work engagement, next to job resources (control, supervisory coaching, feedback, and opportunities for development).

One of major contribution for this study is by applying the religious personality factors that can be considered as one of personal resources which may influence the different level of job burnout among academics.

The "Religious Personality" subscale, though containing several items specific to Islamic religious practice and ritual behavior, is predominantly comprised of items of a universal nature not necessarily specific to Islam but deemed a key aspect of Islamic religiosity. This construct is represented by items relating to ritual worship which reflect one's direct relationship with God. and mu'amakit, or religiously-guided behaviors towards one's family, fellow human beings and the rest of creation (Krauss, Hamzah & Idris, 2007).

Religiosity scales always suffer from limitations in that no single scale can entirely capture the multiple dimensions of religious life. This study will use three constructs under religious personality; pro social behaviour, ritual behaviour and anti social behaviour.

16. UNDERPINNING THEORY

During the past decade, the number of studies with the job demands–resources (JDR) model (Bakker & Demerouti, 2007; Demerouti & Bakker, 2011; Demerouti et al., 2001) has steadily increased. The model has been used to predict job burnout (for example, Bakker et al., 2005, 2008; Demerouti et al., 2001), organizational commitment, work enjoyment (Bakker, Van Veldhoven, & Xanthopoulou, 2010), connectedness (Lewig, Xanthopoulou, Bakker, Dollard, & Metzer, 2007), and work engagement (Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007; Hakanen, Bakker, & Schaufeli, 2006).
One important reason for the popularity of the JD-R theory is its flexibility. According to the theory, all working environments or job characteristics can be modeled using two different categories, namely job demands and job resources. Thus, the theory can be applied to all work environments and can be tailored to the specific occupation under consideration.

This study will focus on Job Demands and Resources theory which also known as JDR Theory by Bakker et al (2014). Below are the research framework of this study as an extension of JDR Theory with the contribution of religious personality factor.

17. **Figure 1: The original of JDR Model by Bakker (2014)**

18. **Figure 2: Research framework of an extension of JDR Model of burnout with religious personality and job crafting**

This framework may illustrate the relationship between the three main hypotheses proposed in this study.

**Hypothesis 1:** There is no significant impact between job resources and job crafting behaviour among Malaysian academics.
Hypothesis 2: There is no significant impact between religious personality and job crafting behaviour among Malaysian academics.

Hypothesis 3: There is no significant mediating effect of burnout between job demands and job crafting behaviour among Malaysian academics.

Below is the operationalization of the research framework which includes the constructs identified for this study under each variable.

Figure 3: Research Framework Operationalization of an extension of JDR Model of burnout with religious personality and job crafting

19. RESEARCH METHODOLOGY A. Population and Sampling

The sampling frame of this study will only focus on the Malaysian public universities. A list of academics has been selected from the current list provided by Ministry of Higher Educational Malaysia as at December 2016. A complete population of Malaysian public universities is 22,002 academics will form the sample for this study. This proposed study will be using stratified sampling technique. According to Krecjie and Morgan (1970) table, 377 sample size will be selected from a total population of 22,002 academics. The calculations of stratified random sampling are as given in Table 1.

Table 1: Stratified Random Sampling Calculation of Malaysian Public Universities

<table>
<thead>
<tr>
<th>No.</th>
<th>Universities</th>
<th>Formula ratio</th>
<th>Sample size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Universiti Malaya</td>
<td>1225/22002*377</td>
<td>21</td>
</tr>
<tr>
<td>2.</td>
<td>Universiti Sains Malaysia</td>
<td>1225/22002*377</td>
<td>21</td>
</tr>
<tr>
<td>3.</td>
<td>Universiti Kebangsaan Malaysia</td>
<td>1050/22002*377</td>
<td>18</td>
</tr>
<tr>
<td>4.</td>
<td>Universiti Putra Malaysia</td>
<td>1050/22002*377</td>
<td>18</td>
</tr>
</tbody>
</table>
20. B. Data Collection Procedures

The survey questionnaires will be adapted from previous literature. The questionnaire will be composed of four (4) major parts; Section 1- Demographic Variables, Section 2- Job Demands and Resources, Section 3- Religious Personality, Section 4 – Burnout and Section 5 – Job Crafting Behaviour. The respondents will be requested to rate on a scale of 1 (Never) to 5 (Always) on each of the statements (Likert scale). The online questionnaire comprised 90 questions with drop-down response categories. Technical considerations and the nature of the Internet as a research tool suggested that it was important to keep the questionnaire as short as possible. Therefore, the included scales were shortened versions of their originals. Stanton, Sinar, Balzer, and Smith (2002) encouraged researchers to offer reduced-length versions of measures and suggested an exhaustive list of strategies to do so. Essentially, Stanton et al. (2002) recommended that researchers reduce scales on the basis of indices of internal, external, and judgmental item qualities. In accordance with this recommendation, the selection of shortened versions was based on psychometric considerations, with the most reliable (internal item quality) and face-valid items included (judgmental). In addition, the shortened scales correlated well with originals (external).

Academician’s burnout will be operationalized as exhaustion and disengagement and will be measured using Oldenburgh Burnout Inventory (OLBI) by Demerouti and Bakker (2007). Job demand will be operationalized as workload, emotional exhaustion, work-family conflict and job resources will be operationalized as autonomy, professional development and social support (Demerouti, Bakker and Mustert, 2001). While religious personality will be operationalized based on Muslim Religious Personality Index adapted from Krauss (2007) with pro-social behaviour, ritual behaviour and anti-social behaviour constructs. Last but not least, the main dependent variables, Job Crafting will be assessed using Job Crafting Scale.
adapted from Bakker et al. (2014). Thus, the findings will be expected to contribute on the JD-R Model with an application of religious factor that leads to one factor of personal resources towards job crafting behaviour in Malaysian context.

21. C. Limitations
The study will be limited its scope only to Malaysian public universities. Another further limitation is the study only focuses on academics who currently hold an academics post from lecturer to professor.

22. D. Implications of the study
Several implications from this study can be considered by academics (for example either private higher institutions or public higher institutions). These implications can be used by the institutions to enhance their awareness on the influence of religious personality factor that may result to different level of burnout among academics.

The findings of this study will also make several implications to the sector of higher educational sector especially in their policy matters, reward matters and human resource management.

23. REFERENCES


ABSTRAK


Kata kunci : Bimbingan Rohani Islam, Kesehatan Mental
I. PENDAHULUAN

Pada zaman globalisasi ini kemajuan teknologi dan informasi semakin membuat permasalahan manusia semakin kompleks. Kontak sosial yang semakin longgar dan bebas dapat menjadikan disintegrasi masyarakat dan disintegrasi perorangan. Kehidupan yang serba materialistis dan individualitas semakin tampak pada kehidupan manusia disekitar kita. Dengan keadaan seperti itu tentu masalah yang ditimbulkan tidak hanya masalah kehidupan secara jasmani melainkan termasuk menjadi masalah kesehatan jiwa seorang individu.


Gangguan mental pada diri manusia diakibatkan karena tidak terpenuhi kebutuhan hidupnya baik kebutuhan jasmani maupun rohani. Hubungan kemanusiaan yang awalnya persahabatan berubah menjadi sebuah kepentingan, antara satu dengan yang lain saling bersaing untuk memenuhi kebutuhan yang semakin mengikat. Hidup manusia akhirnya membawa manusia dalam keresahan, gelisah dan renggang satu sama lain (Darajat, 2001: 4).

Kesehatan mental adalah terwujudnya keserasian yang sungguh-sungguh antara fungsi-fungsi kejiwaan dan tercapainya penyesuaian diri secara individu dengan dirinya sendiri dan lingkungannya berdasarkan keimanan dan ketaqwaan, serta bertujuan untuk mencapai kehidupan yang bermakna dan bahagia di dunia dan di akhirat. (Bastaman, 2001: 133).


Pelayanan bimbingan rohani Islam di RSJ Dr. Amino Gondohutomo Semarang diberikan kepada pasien dengan tujuan meningkatkan kepercayaan diri dan pengharapan rehabilitasi lewat suara dalam kegiatan spiritual. Pelayanan bimbingan rohani Islam merupakan bentuk pelayanan yang diarahkan kepada pembinaan kerohanian pasien, adapun bentuk pelayanannya berupa ceramah, diskusi dan teori-teori ibadah. Sedangkan untuk petugas bimbingan rohani Islamatau rohaniawan yaitu khusus ada pembimbing kerohanian dengan didampingi pekerja sosial dan perawat.

Berdasarkan latar belakang diatas, maka peneliti tertarik untuk meneliti sejauh mana pengaruh bimbingan rohani Islam terhadap kesehatan mental pasien sakit jiwa masa rehabilitasi di rumah sakit jiwa dr. Amino Gondohutomo Semarang.

Tujuan Penelitian ini merupakan penelitian kuantitatif yang bertujuan akan berusaha menguji secara empiris apakah ada pengaruh bimbingan rohani Islam terhadap kesehatan mental pasien sakit jiwa masa rehabilitasi di Rumah Sakit Jiwa Dr. Amino Gondohutomo Semarang.

II. METODE PENELITIAN

Penelitian ini ada penelitian kuantitatif, karena data-data yang diperoleh nantinya berupa angka-angka. Dari angka yang diperoleh akan dianalisis lebih lanjut dalam analisis data. Penelitian menggunakan angket sebagai instrumen
untuk mencari data penelitian yang disusun berdasarkan variabel yang akan
diteliti, karena penelitian ilmiah harus didasarkan penelitian yang objektif. Untuk
itu perlu diterapkan metode yang tepat, sebab metode berpengaruh besar terhadap
hasil yang akan dicapai. Dan karena penelitian ini merupakan penelitian
kuantitatif, maka hasilnya dengan menggunakan perhitungan statistik. (Hadi,
rohani Islam sebagai variabel independen, sedangkan variabel kedua yaitu kesehatan mental sebagai variabel dependen.

Bimbingan rohani Islam yang dimaksud dalam penelitian ini adalah bimbingan
rohani Islam yaitu proses pemberian bantuan terhadap individu agar mampu
menyadari akan eksistensinya sebagai makhluk Allah yang seharusnya hidup
selaras dengan ketentuan dan petunjuk Allah, sehingga dapat mencapai kebahagiaan dunia dan akhirat. (Faqih, 2001: 85). Adapun indikator dari
bimbingan rohani Islam dalam penelitian ini yaitu : Frekuensi waktu bimbingan
dilakukan, Frekuensi pembimbing melakukan bimbingan, Frekuensi kemampuan
pembimbing dalam menyampaikan materi, dan Frekuensi tingkat kenyamanan
dalam melakukan bimbingan.

Kesehatan mental yang dimaksud dalam penelitian ini adalah terwujudnya
keserasian yang sungguh-sungguh antara fungsi-fungsi kejiwaan dan tercapainya
penyesuaian diri secara individu dengan dirinya sendiri dan lingkungannya
berdasarkan keimanan dan ketaqwaan, serta bertujuan untuk mencapai kehidupan
yang bermakna dan bahagia di dunia dan di akhirat. (Bastaman, 2001: 133). Adapun indikator kesehatan mental dalam penelitian ini yaitu : Terhindarnya
seseorang dari gangguan jiwa, Kemampuan seseorang untuk menyesuaikan diri,
Kemampuan dalam mengembangkan dan memanfaatkan segala potensi yang ada,
dan Mempunyai kesanggupan dalam menghadapi problem yang terjadi(Darajat,
1982: 11).

Subjek penelitian yang dimaksud adalah pasien sakit jiwa masa rehabilitasi di
RSJ dr.Amino Gondohutomo Semarang. Pengambilan sampel pasien masa
rehabilitasi dengan kriteria pertama pasien yang telah mendapatkan bimbingan
rohani Islam, kedua pasien dalam keadaan sadar atau tenang, ketiga pasien yang
berusia antara 17 sampai 60 tahun, keempat pasien dengan pendidikan terakhir
tingkat sekolah dasar (SD). Dengan mengambil sampel dan dengan kriteria
tertentu, hal itu diasumsikan pertama pasien telah mengetahui baik buruknya
bimbingan rohani Islam, kedua pasien dengan sadar dapat mengisi angket, ketiga pasien dapat membaca dan mengisi angket dengan benar.

Pengambilan sampel ini didasarkan pada pertimbangan dan acuan umum dari pengambilan sampel Suharsini Arikunto, yaitu apabila subjek kurang dari 100, maka populasi diambil semua, dan apabila jumlah subjek lebih dari 100, maka sampel yang diambil antara 10-15% atau lebih dari populasi yang ada (Arikunto, 2006: 134).


Metode pengumpulan data yang digunakan dalam penelitian ini adalah dengan angket bimbingan rohani Islam dan kesehatan mental. Dalam hal ini penyusunan angket menggunakan skala Likert yang terdiri dari lima jawaban yaitu sangat sesuai (SS), sesuai (S), netral (N), tidak sesuai (TS), sangat tidak sesuai (STS). Pemberian skornya tergantung dari favorable dan tidaknya suatu item. Skor bergerak dari nilai lima sampai nilai satu pada jawaban favorable dan satu sampai lima pada unfavorable.


Angket bimbingan rohani Islam. Untuk angket bimbingan rohani Islam menggunakan 40 item pernyataan. 20 item untuk favorable dan 20 item unfavorable.

| Tabel 1 |
Blue print angket bimbingan rohani Islam

<table>
<thead>
<tr>
<th>No</th>
<th>Indikator</th>
<th>Favorable</th>
<th>Unfavorable</th>
<th>Jumlah</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Frekuensi waktu bimbingan dilakukan</td>
<td>1, 5, 7, 8, 12</td>
<td>11, 15, 16, 32, 33</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>Frekuensi pembimbing melakukan bimbingan</td>
<td>2, 6, 21, 22, 30</td>
<td>3, 17, 20, 23, 31</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>Frekuensi kemampuan pembimbing dalam menyampaikan materi</td>
<td>13, 24, 26, 34, 35</td>
<td>14, 18, 25, 36, 37</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>Frekuensi tingkat kenyamanan dalam melakukan bimbingan</td>
<td>4, 9, 28, 29, 38</td>
<td>10, 19, 27, 39, 40</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Jumlah</td>
<td>20</td>
<td>20</td>
<td>40</td>
</tr>
</tbody>
</table>

Angket kesehatan mental. Untuk angket kesehatan mental menggunakan 40 item pernyataan. 20 item untuk favorable dan 20 item unfavorable.

Tabel 2

Blue print angket kesehatan mental

<table>
<thead>
<tr>
<th>No</th>
<th>Indikator</th>
<th>Favorable</th>
<th>Unfavorable</th>
<th>Jumlah</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Terhindarnya dari gangguan jiwa</td>
<td>1, 3, 6, 7, 8</td>
<td>9, 11, 12, 32, 33</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>Kemampuan seseorang menyesuaikan diri</td>
<td>4, 5, 14, 15, 23</td>
<td>16, 17, 19, 34, 35</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>Kemampuan dalam mengembangkan memanfaatkan segala potensi yang ada</td>
<td>2, 13, 20, 21, 22</td>
<td>10, 18, 24, 25, 36</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>Mempunyai kesanggupan dalam menghadapi problem yang terjadi</td>
<td>26, 27, 28, 29, 39</td>
<td>30, 31, 37, 38, 40</td>
<td>10</td>
</tr>
</tbody>
</table>


Pengujian pengaruh variabel independen terhadap variabel dependen dalam penelitian ini dengan menggunakan teknik analisis regresi sederhana. Teknik analisis tersebut dilakukan dengan memanfaatkan program SPSS 16.0. Berdasarkan pengujian tersebut akan diketahui pengaruh bimbingan rohani terhadap kesehatan mental.

### III. HASIL PENELITIAN DAN PEMBAHASAN

#### Deskripsi Subjek Penelitian

Subjek pada penelitian ini adalah pasien sakit jiwa masa rehabilitasi di Rumah Sakit Jiwa Dr. Amino Gondohutomo Semarang. Tidak seluruh populasi yang diambil untuk dijadikan subjek penelitian melainkan mengambil sampel pasien masa rehabilitasi dengan kriteria pertama pasien yang telah mendapatkan bimbingan rohani Islam, kedua pasien dalam keadaan sadar atau tenang, ketiga pasien yang berusia antara 17 sampai 60 tahun, keempat pasien dengan pendidikan terakhir tingkat sekolah dasar (SD). Dengan mengambil sampel dan dengan kriteria tertentu, hal itu diasumsikan pertama pasien telah mengetahui baik buruknya bimbingan rohani Islam, kedua pasien dengan sadar dapat mengisi angket, ketiga pasien dapat membaca dan mengisi angket dengan benar.
### Tabel 3
**Tabel Subjek Penelitian Berdasarkan Jenis Kelamin**

<table>
<thead>
<tr>
<th>No</th>
<th>Jenis Kelamin</th>
<th>Jumlah</th>
<th>Prosentase</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Laki-Laki</td>
<td>27</td>
<td>77,14 %</td>
</tr>
<tr>
<td>2.</td>
<td>Perempuan</td>
<td>8</td>
<td>22,86 %</td>
</tr>
<tr>
<td></td>
<td><strong>Jumlah</strong></td>
<td><strong>35</strong></td>
<td><strong>100 %</strong></td>
</tr>
</tbody>
</table>

### Tabel 4
**Tabel Subjek Penelitian Berdasarkan Tingkat Pendidikan**

<table>
<thead>
<tr>
<th>No</th>
<th>Tingkat Pendidikan</th>
<th>Jumlah</th>
<th>Prosentase</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>SD / MI</td>
<td>12</td>
<td>34,30 %</td>
</tr>
<tr>
<td>2.</td>
<td>SMP / MTs</td>
<td>6</td>
<td>17,14 %</td>
</tr>
<tr>
<td>3.</td>
<td>SMA / SMK / MA</td>
<td>11</td>
<td>31,42 %</td>
</tr>
<tr>
<td>4.</td>
<td>Perguruan Tinggi / PT</td>
<td>6</td>
<td>17,14 %</td>
</tr>
<tr>
<td></td>
<td><strong>Jumlah</strong></td>
<td><strong>35</strong></td>
<td><strong>100 %</strong></td>
</tr>
</tbody>
</table>

### Tabel 5
**Tabel Subjek Penelitian Berdasarkan Usia**

<table>
<thead>
<tr>
<th>No</th>
<th>Usia</th>
<th>Jumlah</th>
<th>Prosentase</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>17 – 20 Tahun</td>
<td>5</td>
<td>14,28 %</td>
</tr>
<tr>
<td>2.</td>
<td>21 – 30 Tahun</td>
<td>8</td>
<td>22,86 %</td>
</tr>
<tr>
<td>3.</td>
<td>31 – 40 Tahun</td>
<td>15</td>
<td>42,86 %</td>
</tr>
<tr>
<td>4.</td>
<td>41 – 50 Tahun</td>
<td>6</td>
<td>17,14 %</td>
</tr>
<tr>
<td>5.</td>
<td>51 – 60 Tahun</td>
<td>1</td>
<td>2,86 %</td>
</tr>
</tbody>
</table>
INTERNATIONAL CONFERENCE ON SOCIAL SCIENCES AND HUMANITIES (ICOSAH)

| Jumlah | 35 |

Dari ketiga tabel diatas telah jelas bahwa dalam mengambil sampel tidak membeda bedakan responden yang akan diambil, terbukti berdasarkan jenis kelamin baik laki-laki maupun perempuan ada yang dijadikan sampel, berdasarkan tingkat pendidikan baik dari SD, SMP, SMA dan Perguruan Tinggi / PT kesemua tingkatan jenjang pendidikan ada yang dijadikan sampel, sedangkan berdasarkan usia baik dari usia 17 sampai 60 Tahun juga merata ada yang dijadikan sampel.

Deskripsi Data Penelitian

Sebelum angket disebarkan kepada responden, terlebih dahulu angket diujikan kepada pasien sakit jiwa masa rehabilitasi di RSJ Dr. Amino Gondohutomo Semarang yang tujuannya untuk mencari item yang berkualitas. Langkah yang penulis lakukan adalah dengan mencari validitas dan reliabilitas angket tersebut. Setelah diketahui bagaimana keadaan sebenarnya dari item tersebut, maka akan diketahui mana item yang baik dan yang mana item yang sebaiknya diperbaiki atau dibuang. Validitas adalah ukuran yang menunjukkan tingkatan-tingkatan kevaliditasan atau kesahihan sesuatu instrumen (Arikunto, 2002: 70).

Sedangkan reliabilitas adalah kehandalan alat ukur (reliabilitas) yang pada dasarnya merupakan indeks yang menunjukkan sejauh mana suatu alat ukur dapat dipercaya atau diandalkan, apabila pengukuran diulangi dua kali atau lebih (Singarimbun, 1998: 22).

Uji coba dilakukan terhadap 35 pasien sakit jiwa masa rehabilitasi di RSJ Dr. Amino Gondohutomo Semarang dengan 80 item pertanyaan, 40 tentang bimbingan rohani Islam dan 40 tentang kesehatan mental. Untuk mengetahui tingkat validitas dan reliabilitas instrumen angket variabel bimbingan rohani Islam dan kesehatan mental pasien dilakukan melalui program SPSS versi 16, dengan hasil sebagai berikut:

Angket tentang bimbingan rohani Islam setelah diadakan uji SPSS, maka ada 15 data yang tidak valid, yaitu item nomor: 1, 4, 5, 8, 9, 12, 18, 21, 23, 24, 29, 30, 31, 32, 38 sedangkan item nomor: 2, 3, 6, 7, 10, 11, 13, 14, 15,
16, 17, 19, 20, 22, 25, 26, 27, 28, 33, 34, 35, 36, 37, 39, 40 adalah valid. Jadi angket tentang bimbingan rohani Islam ada 15 item yang tidak valid dan 25 item yang valid. Dengan demikian 25 item dinyatakan reliabel, karena alpha lebih besar dari r tabel, yaitu: 0,829 > 0,334.

**Tabel 6**

Hasil ringkasan uji validitas angket bimbingan rohani Islam

<table>
<thead>
<tr>
<th>No</th>
<th>Variabel</th>
<th>Valid</th>
<th>Invalid</th>
<th>Jumlah</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bimbingan Rohani Islam</td>
<td>2, 3, 6, 7,</td>
<td>1, 4, 5, 8,</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10, 11, 13,</td>
<td>9, 12, 18, 17, 19, 20, 14, 15, 16,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>22, 25, 26, 21, 23,</td>
<td>24, 29,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>27, 28, 33, 30, 31,</td>
<td>32, 38</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>34, 35, 36,</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>37, 39, 40</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Tabel 7**

Hasil ringkasan uji reliabilitas angket bimbingan rohani Islam

<table>
<thead>
<tr>
<th>No</th>
<th>Variabel</th>
<th>Alpha</th>
<th>R tabel</th>
<th>Keterangan</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bimbingan Rohani Islam</td>
<td>0,829</td>
<td>0,334</td>
<td>Reliabel a &gt; r tabel</td>
</tr>
</tbody>
</table>

Dan angket tentang kesehatan mental setelah diadakan uji SPSS, maka ada 10 data yang tidak valid, yaitu item nomor: 5, 6, 9, 10, 16, 17, 21, 22, 29, 39, sedangkan item nomor: 1, 2, 3, 4, 7, 8, 11, 12, 13, 14, 15, 18, 19, 20, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 36, 37, 38, 40, adalah valid. Jadi angket tentang kesehatan mental ada 10 item yang tidak valid dan 30 item yang valid. Dengan demikian 30 item dinyatakan reliabel, karena alpha lebih besar dari r tabel, yaitu: 0,869 > 0,334.

**Tabel 8**
Hasil ringkasan uji validitas angket Kesehatan Mental

<table>
<thead>
<tr>
<th>No</th>
<th>Variabel</th>
<th>Valid</th>
<th>Invalid</th>
<th>Jumlah</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Kesehatan Mental</td>
<td>1, 2, 3, 4, 7, 8, 11, 12, 13, 14, 15, 18, 19, 20, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 36, 37, 38, 40</td>
<td>5, 6, 9, 10, 16, 17, 21, 22, 29, 39</td>
<td>40</td>
</tr>
</tbody>
</table>

Tabel 9
Hasil ringkasan uji reliabilitas angket kesehatan mental

<table>
<thead>
<tr>
<th>No</th>
<th>Variabel</th>
<th>Alpha</th>
<th>R tabel</th>
<th>Keterangan</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Kesehatan Mental</td>
<td>0,869</td>
<td>0,334</td>
<td>Reliabel</td>
</tr>
</tbody>
</table>

Hasil uji normalitas dengan menggunakan teknik nonparametrik test dengan menggunakan SPSS versi 16 dengan koefisien KS-Z untuk variabel bimbingan rohani Islam: , P > 0,05, dan untuk variabel kesehatan mental: , P > 0,05. Sedangkan hasil uji homogenitas dengan menggunakan teknik compare means dengan menggunakan SPSS versi 16 dengan koefisien one-way anova untuk variabel x terhadap y , F = 1,669 p > 0,05. Berdasarkan hasil, p > 0,05 maka variannya adalah homogen.

Hasil Uji Hipotesis

Tabel 10
Ringkasan Hasil Akhir Analisis Regresi

<table>
<thead>
<tr>
<th>Model</th>
<th>JK</th>
<th>RK</th>
<th>df</th>
<th>F reg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>3190,417</td>
<td>3190,417</td>
<td>1</td>
<td>28,089</td>
</tr>
<tr>
<td>Residual</td>
<td>3749,126</td>
<td>113,610</td>
<td>33</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>6939,543</td>
<td>-</td>
<td>34</td>
<td>-</td>
</tr>
</tbody>
</table>

Tabel 11

<table>
<thead>
<tr>
<th>N</th>
<th>F (\text{reg} )</th>
<th>F (\text{tabel} \ (5% / 1%) )</th>
<th>Kesimpulan</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>28,089</td>
<td>0,334 / 0,430</td>
<td>Signifikan</td>
</tr>
</tbody>
</table>

Dalam analisis lanjut akan dibuat semacam interpretasi dari hasil perhitungan dengan menggunakan rumus regresi linier sederhana satu prediktor yang telah diproses antara variabel \(x\) dan \(y\). Dalam pelaksanaan langkahnya adalah mengkorelasikan hasil perhitungan \(F_{\text{reg}}\) dengan data tabel \(F_{\text{tabel}}\) untuk \(N = 35\) pada taraf signifikan 1% = 0,430 maupun pada taraf signifikan 5% = 0,334. Jika nilai \(F_{\text{reg}}\) lebih besar dari taraf signifikan 1% atau pada taraf 5% maka hipotesis penelitian diterima, jika sebaliknya nilai \(F_{\text{reg}}\) kurang dari taraf signifikan 1% pada taraf signifikan 5% maka hipotesis ditolak. Dengan demikian dalam analisis varian garis regresi diperoleh bahwa harga \(F_{\text{reg}} = 28,089\) yang apabila harga \(F_{\text{reg}}\) ini dikonsultasikan dengan tabel \(F_{\text{tabel}}\) pada \(N = 35\) akan diperoleh bahwa \(F_{\text{reg}} = 28,089 > \text{taraf signifikan 5\% maupun 1\%}\) berarti signifikan.

Pembahasan Hasil Penelitian

Rumah Sakit Jiwa Dr. Amino Gondohutomo Semarang merupakan salah satu Rumah Sakit Jiwa yang selain memberikan pelayanan medis juga memberikan pelayanan spiritual bagi pasien, yaitu dalam bentuk bimbingan rohani Islam. Bimbingan rohani Islam ini merupakan bagian dari unit rehabilitasi yang bisa pula disebut rehabilitasi spiritual. Bagian kerohanian,
terdiri dari dua pegawai, yaitu Muhammad Kayun dan Muhammad Hasim. Mereka memberikan pelayanan bimbingan rohani Islam secara bergantian setiap minggunya, sehingga bimbingan ini berjalan dengan efektif, yaitu setiap minggunya pasti ada pembimbingnya.


Disamping itu kita harus memohon kepada Allah dengan do’a. Selanjutnya adalah mengingatkan pasien bahwa untuk selalu dalam keadaan tenang, tidak gelisah, tidak cemas. Mau mengenali lingkungan dan mampu mengembangkan potensi yang dimilikinya. Menganjurkan pasien untuk optimis dan tidak putus asa dalam menghadapi cobaan yang sedang dihadapi. Dan yang terakhir petugas bimbingan rohani Islam mengajak pasien untuk saling Tanya jawab dan ditutup dengan doa bersama sama.

Rumah Sakit Islam Sultan Agung Semarang ini tidak hanya memberikan pelayanan spiritual atau bimbingan rohani Islam saja, tetapi ada juga bimbingan bagi perawat atau pegawai rumah sakit, yang kegiatannya dinamakan pengajian yang diselenggarakan di Masjid setiap hari sabtu minimal satu bulan sekali.. Kegiatan pengajian ini dilaksanakan bertujuan agar nilai-nilai ajaran Islam dapat terinternalisasi dalam kehidupan sehari-hari. Sedangkan untuk yang bimbingan rohani Islam bagi pasien dilaksanakan setiap hari sabtu mulai jam 08.30 sampai selesai.

Selain itu ada juga kegiatan yang serupa dengan bimbingan rohani Islam yaitu kegiatan berupa diberikan bacaan-bacaan buku-buku yang
kaitannya dengan bimbingan rohani Islam. Di dalam kegiatan membaca buku-buku yang terkait dengan bimbingan rohani Islam terdapat materi-materi yang disampaikan antara lain teori ibadah sehari hari. Kegiatan yang sudah tercantum di atas dilakukan hanya bertujuan agar pasien, perawat dan pegawai yang lain yang ada di Rumah Sakit Jiwa Dr. Amino Gondohutomo Semarang ini mengetahui dan faham akan nilai-nilai ajaran Islam untuk bekal dikehidupan mereka sehari-hari maupun dikehidupan mereka kelak serta yang terpenting khususnya bagi pasien dapat membantu dalam kesembuhan mentalnya (wawancara dengan Kadis, S.Sos Kepala Unit Rehabilitasi).


Hasil penelitian juga menunjukkan, bahwa terdapat pengaruh positif yang signifikan antara bimbingan rohani Islam terhadap kesehatan mental pasien sakit jiwa masa rehabilitasi di RSJ Dr. Amino Gondohutomo Semarang. Karena semakin tinggi intensitas mengikuti bimbingan rohani Islam maka semakin baik pula kesehatan mental pasien sakit jiwa masa rehabilitasi di RSJ Dr. Amini Gondohutomo Semarang. Akhirnya dari uraian di atas dapat disimpulkan bahwa bimbingan rohani Islam sangatlah berpengaruh terhadap...
kesehatan mental seseorang, terutama pasien sakit jiwa masa rehabilitasi di RSJ Dr. Amino Gondohutomo Semarang.

IV. KESIMPULAN

Dari hasil penelitian dan data lapangan yang diberlakukan, maka disini dapat ditarik suatu kesimpulan, sebagai berikut: Terdapat pengaruh positif signifikan bimbingan rohani Islam terhadap kesehatan mental pasien sakit jiwa masa rehabilitasi di RSJ Dr. Amino Gondohutomo Semarang, artinya apabila semakin banyak bimbingan rohani Islam yang diberikan oleh petugas kerohanian kepada pasien atau semakin tinggi intensitas pasien dalam mengikuti bimbingan rohani Islam maka semakin banyak pula pengaruh kesehatan mental pada pasien sakit jiwa masa rehabilitasi di RSJ Dr. Amino Gondohutomo Semarang. Terbukti dengan hasil korelasi analisis regresi (=28,089) reg F lebih besar dari nilai r yang ada dalam tabel korelasi product moment dengan angka 0,334 dalam taraf signifikan 5% dan 0,430 dalam taraf signifikan 1% pada N = 35. Dengan demikian hipotesis yang dikemukakan “Ada pengaruh bimbingan rohani Islam terhadap pasien sakit jiwa masa rehabilitasi di RSJ Dr. Amino Gondohutomo Semarang, semakin baik pula kesehatan mental mereka”.

DAFTAR PUSTAKA


www.rs-amino.provjateng.go.id
FAMILY HARDINESS AND CAREGIVER BURDEN AMONG THE FAMILY OF STROKE PATIENTS

Ika Latifah Damayanti
Libbie Anmatagia

Correspondence author: libbie.anmatagia@uii.ac.id
Universitas Islam Indonesia

ABSTRACT

This research aims to examine the correlation between family hardiness and caregiver burden among the family of stroke patients. The hypothesis of this research is “there is a negative correlation between family hardiness and caregiver burden among the family of stroke patients”. The higher the family hardiness score, the lower the caregiver burden score, and vice versa. Respondents in this research were 36 family member of stroke patients, male and female, aged over 17 years. This research used Zarit Burden Interview (ZBI) and Family Hardiness Index (FHI). ZBI developed by Zarit (Siegert, Jackson, Tennant, & Turner-Stokes, 2010) and FHI developed by McCubbin & McCubbin (Wiedebusch, McCubbin, Muthny, 2007). Data were analyzed by Spearman product moment. The results showed that there is a correlation between those two variables, $r = -0.472$ and $p=0.002$ ($p<0.05$), which means that there is a negative correlation between family hardiness and caregiver burden. From the results, we could conclude that the hypothesis is being accepted.

Keywords: family hardiness, caregiver burden, stroke

Stroke is a syndrome consisting of symptoms of rapid loss in focal central nervous system (Ginsberg, 2007), that caused by blockage of blood clots, constriction of blood vessels, blockage and constriction of blood vessels, or rupture of blood vessels (Feigin, 2006). The most typical physical stroke symptoms are paralysis, loss of sensation in the face, difficulty speaking or understanding of speech, difficulty swallowing, and loss of vision (Feigin, 2006).

Stroke is a major cause of long-term disability so that patients will need help from family, close friends, or nurses (Aarli, Dua, Janca, & Muscetta, 2006). Stroke patients need caregiver to help them to perform the daily activities. The family caregiver is often referred to as the 'backbone' of long-term care because most patients are treated by family at home, usually a spouse, and have an important role in the treatment. (Feinberg & Pilisuk, 1999 dalam Melo, Maroco, Mendoca, 2011). According to the American Heart Association (Diana, Sukarlan, Pohan, 2012) caregiver is someone who provides assistance to others who suffer from chronic...
diseases. Family caregiver is the family member who has the most responsibility for patient’s care and daily decision making (Melo, dkk, 2011).

Being a caregiver is not easy. Based on interviews on caregiver family, it is known that a caregiver has some duties, for example: help patient to take a bath, clean the patients urinate, and wash patient’s dirty clothes. Caregiver do these tasks everyday. Even stroke patients with severe dysfunction should be given help like a baby. Caregiver becomes troublesome when the patient is very dependent in doing daily activities. A caregiver said that sometimes he was in trouble when he had to provide care to patients and do other responsibilities at about the same time. When caregiver is tired, he will be easy to be angry at other family members.

The research conducted by Hasan, Mohamed, Elnaser, & Sayed (2011) found that burden is usually experienced by caregiver while they are very busy take care of patients, feel worry and sad, spend lots of time, energy, and money. From the interview, it is known that a caregiver said that when he is tired, it is easy for him to get upset. Another caregiver said that he feel angry when the patient closes his mouth tightly and refuses to eat.

Caregiver burden is defined as the type of stress or tension experienced by the caregiver in relation to the problems or challenges faced by the caregiver as a result of the status of being a ‘nurse’, so the role as the ‘nurse’ causes discomfort for the caregiver (Zarit, Reever, & Bach-Peterson, 1980 in Buhse, 2008). Kim, Chang, Rose, & Kim (2011) defined the caregiver burden as a multidimensional response to the negative judgment and perceived stress resulting from take care of patient.

Some factors that may affect caregiver burden include responsibility for caring, social and economic status, disease progression, and perceived stress resulting from take care of patient (Gonzalez-Salvador et al. 1999, Schulz & Martire 2004, Etters et al. 2008, Carretero et al. 2009 in Kim, et.al, 2011), and family hardiness (Sheppard & Mandleco, 2014).

In Indonesia, people see family as an important part of life. Mangundjaya (2010) found that, despite the fact that Indonesia is consist of many tribes, most of the tribes are using the collectivism culture. When someone suffer from stroke, the negative effects are occurred not only to patients, but also to the family member that has role as a caregiver. Family hardiness is seen as a family characteristic, defined by a family’s sense of control over life events and stressors, perception of change as beneficial, active orientation to adapting to stressors, and confidence that they can endure challenges (McCubbin, McCubbin, & Thompson, 1991). Families with high hardiness shared caregiving and family task responsibilities, while families
with moderate-hardiness lacked collaboration regarding caregiving and family tasks (Niyomthai, Tonmukayakul, Wonghongkul, Panya,& Chanprasit, 2010).

Based on the description above, researchers assume that there is a correlation between family hardiness and caregiver burden, so the hypothesis proposed in this study is "There is a negative relationship between family hardiness and caregiver burden in the family of stroke patients. The higher the family hardiness, the lower the caregiver burden, and vice versa. The purpose of this study was to determine the relationship between family hardiness and caregiver burden in the family of stroke patients.

most patients are treated by family at home, usually a spouse, and have an important role in the treatment. (Feinberg & Pilisuk, 1999 dalam Melo, Maroco, Mendoca, 2011). According to the American Heart Association (Diana, Sukarlan, Pohan, 2012) caregiver is someone who provides assistance to others who suffer from chronic diseases. Family caregiver is the family member who has the most responsibility for patient’s care and daily decision making (Melo, dkk, 2011).

Being a caregiver is not easy. Based on interviews on caregiver family, it is known that a caregiver has some duties, for example: help patient to take a bath, clean the patient’s urinate, and wash patient’s dirty clothes. Caregiver do these tasks everyday. Even stroke patients with severe dysfunction should be given help like a baby. Caregiver becomes troublesome when the patient is very dependent in doing daily activities. A caregiver said that sometimes he were in trouble when he had to provide care to patients and do other responsibilities at about the same time. When caregiver is tired, he will be easy to be angry at other family members.

The research conducted by Hasan, Mohamed, Elnaser, & Sayed (2011) found that burden is usually experienced by caregiver while they are very busy take care of patients, feel worry and sad, spend lots of time, energy, and money. From the interview, it is known that a caregiver said that when he is tired, it is easy for him to get upset. Another caregiver said that he feel angry when the patient closes his mouth tightly and refuses to eat.

Caregiver burden is defined as the type of stress or tension experienced by the caregiver in relation to the problems or challenges faced by the caregiver as a result of the status of being a ‘nurse’, so the role as the ‘nurse’ causes discomfort for the caregiver (Zarit, Reever, & Bach-Peterson, 1980 in Buhse, 2008). Kim, Chang, Rose, & Kim (2011) defined the caregiver burden as a multidimensional response to the negative judgment and perceived stress resulting from take care of patient.
Some factors that may affect caregiver burden include responsibility for caring, social and economic status, disease progression, and perceived stress resulting from taking care of patient (Gonzalez-Salvador et al. 1999, Schulz & Martire 2004, Etters et al. 2008, Carretero et al. 2009 in Kim, et.al, 2011), and family hardiness (Sheppard & Mandleco, 2014).

In Indonesia, people see family as an important part of life. Mangundjaya (2010) found that, despite the fact that Indonesia is consist of many tribes, most of the tribes are using the collectivism culture. When someone suffers from stroke, the negative effects are occurred not only to patients, but also to the family member that has role as a caregiver. Family hardiness is seen as a family characteristic, defined by a family’s sense of control over life events and stressors, perception of change as beneficial, active orientation to adapting to stressors, and confidence that they can endure challenges (McCubbin, McCubbin, & Thompson, 1991). Families with high hardiness shared caregiving and family task responsibilities, while families with moderate-hardiness lacked collaboration regarding caregiving and family tasks (Niyomthai, Tonmukayakul, Wonghongkul, Panya, & Chanprasit, 2010).

Based on the description above, researchers assume that there is a correlation between family hardiness and caregiver burden, so the hypothesis proposed in this study is "There is a negative relationship between family hardiness and caregiver burden in the family of stroke patients. The higher the family hardiness, the lower the caregiver burden, and vice versa. The purpose of this study was to determine the relationship between family hardiness and caregiver burden in the family of stroke patients.

**METHOD**

**Respondents**

Respondents in this study were family members who became caregiver of stroke patients: children, spouse, and siblings. Respondents in this study were male and female, with the minimum age 17 years old.

**Data Collection**

In this quantitative research, the data were collected from two scales: *Zarit Burden Interview* and *Family Hardiness Index*. Zarit Burden Interview developed by Zarit (Siegert, Jackson, Tennant, & Turner-Stokes, 2010) and Family Hardiness Index developed by McCubbin & McCubbin (Wiedebusch, McCubbin, Muthny, 2007). The Caregiver Burden
scale consist of 22 items. The aspects used include: personal tension, role tension, and guilty feelings. The Family Hardiness Index consist of 22 items. The aspects used include: commitment, control, challenge.

**Data Analysis**

Data analysis in this research using Spearman’s product moment correlation technique.

**RESULTS**

**Descriptive**

There were 36 respondents in this study.

a. **Gender**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>15</td>
<td>41.67%</td>
</tr>
<tr>
<td>Female</td>
<td>21</td>
<td>58.33%</td>
</tr>
</tbody>
</table>

b. **Age**

<table>
<thead>
<tr>
<th>Age</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 30 years old</td>
<td>6</td>
</tr>
<tr>
<td>30 – 45 years old</td>
<td>10</td>
</tr>
<tr>
<td>Above 45 years old</td>
<td>20</td>
</tr>
</tbody>
</table>

c. **Relationship between respondents and patients**

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children</td>
<td>13</td>
</tr>
<tr>
<td>Spouse</td>
<td>18</td>
</tr>
<tr>
<td>Siblings</td>
<td>5</td>
</tr>
</tbody>
</table>

d. **Occupation**

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labour</td>
<td>4</td>
</tr>
<tr>
<td>Teacher</td>
<td>1</td>
</tr>
<tr>
<td>Housewife</td>
<td>5</td>
</tr>
<tr>
<td>Employee</td>
<td>12</td>
</tr>
<tr>
<td>Student</td>
<td>1</td>
</tr>
<tr>
<td>Trader</td>
<td>10</td>
</tr>
<tr>
<td>Pensioner</td>
<td>1</td>
</tr>
<tr>
<td>Farmer</td>
<td>2</td>
</tr>
</tbody>
</table>

e. **Income**
### Categorization

#### a. Caregiver burden

Results of the caregiver burden scale scores can be seen in the table below.

<table>
<thead>
<tr>
<th>Score</th>
<th>Categorization</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>X &lt; 16,006</td>
<td>Very low</td>
<td>21</td>
<td>58.33%</td>
</tr>
<tr>
<td>16,006 ≤ X ≤ 32,002</td>
<td>Low</td>
<td>13</td>
<td>36.11%</td>
</tr>
<tr>
<td>32,002 &lt; X ≤ 47,998</td>
<td>Medium</td>
<td>2</td>
<td>5.56%</td>
</tr>
<tr>
<td>47,998 &lt; X ≤ 63,994</td>
<td>High</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>X &gt; 63,994</td>
<td>Very high</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>36</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Based on the caregiver burden table above, it can be seen that half of the respondents were in very low category (58.33%). Then, as many as 13 respondents (36.11%) were in the low category. The remaining 2 respondents (5.56%) were in the medium category.

#### b. Family hardness

Results of the Family Hardiness score categorization can be seen in the table below:

<table>
<thead>
<tr>
<th>Score</th>
<th>Categorization</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>X &lt; 19.2</td>
<td>Very low</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>19.2 ≤ X ≤ 26.4</td>
<td>Low</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>26.4 &lt; X ≤ 33.6</td>
<td>Medium</td>
<td>9</td>
<td>25%</td>
</tr>
<tr>
<td>33.6 &lt; X ≤ 40.8</td>
<td>High</td>
<td>25</td>
<td>69.44%</td>
</tr>
<tr>
<td>X &gt; 40.8</td>
<td>Very high</td>
<td>2</td>
<td>5.56%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>36</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Based on the family hardiness table above, it can be seen that two-thirds of the respondents were in high category (69.44%). Then, as many as 9 respondents (25%) were in the medium category. The remaining 2 respondents (5.56%) were in the very high category.
Hypothesis Testing

The hypothesis testing showed that $r = -0.472$ and $p = 0.002$ ($p < 0.05$). Based on the correlation test results, it can be seen that there was a significant negative relationship between the family hardiness and caregiver burden, so the hypothesis can be accepted. Coefficient of determination ($r^2$) = 0.223, it means that the effective contribution of family hardiness to caregiver burden was 22.3%. Thus, it was found that as many as 22.3% of caregiver burden was influenced by family hardiness, while the rest of 77.7% was influenced by other variables.

**DISCUSSION**

This study showed that there was a relationship between family hardiness with caregiver burden on family who take care of stroke patients ($p= 0.002$, $r: -0.472$). Our result was in agreement with the previous study which has already reported that family hardiness is negatively correlated with the caregiver burden. Sheppard and Mandleco (2014) found that there was a correlation between family hardiness and caregiver burden in a family with the special need children.

Most of respondents in this research had high family hardiness scores and low caregiver burden scores. From the interview, we found that many of them think that take care of the patients was their responsibility as family. Male and female respondents in this study generally have the same duties in treating patients. Both of them also had a strong commitment and had a responsibility to take care of the patients.

Olson, DeFrai, & Skogrand (2011) said that family is two persons or more who share resource, responsibility in decision making, have the same value and purpose, and also commitment. Therefore, family member should help each other, one of which is helping the family member who suffers from stroke. In this research, we found that respondents who play a role as children in family, said that take care of parents who suffer from stroke is a kind of...
‘returning the favor’ process. They also feel proud because they could take care of their parents for some years. Meanwhile, caregivers who play a role as spouse in family, said that they had responsibility as husband or wife. Therefore, they should be together in both good and bad time. It is because of they have a marriage commitment. Respondents behavior, both children and spouse of the patients, indicated a strong commitment.

The second aspect is challenge. This aspect also arise in caregivers who become respondents in this research. Kobasa (Bower, Chant, Chatwin, 1998) said that challenge include the family capacity to accept new ideas. Niyomthai, Tonmukayakul, Wonghongkul, Panya, & Chanprasit (2010) found that families with high-hardiness continuously strove to overcome caregiving hardships and had hope for the stroke member’s long existence. From the interview, it is known that caregiver who has a high family hardness score tend to see their condition as a challenge from God. And they believe that with the challenge there is also a convenience from God.

The third aspect of family hardiness is control. Kobasa (Bower, et.al, 1998) said that family control include the conditions under which the feelings experienced are within their own control, not conditioned by external events. Family caregivers who were able to control the stressor also had a good problem solving while they had to take care of the patients. Thus, they tend to had low burden score.

Result showed the determination coefficient \( r^2 \) was = 0,223. It means that as much as 22.3% caregiver burden influenced by family hardiness, while the rest of 77.7% influenced by other variables. According to research conducted by Morimoto, et al (2003) burden was influenced by decreased quality of life of caregiver. Caregiver burden can also be affected by family financial condition (Lai,2012).

**CONCLUSION**

Conclusion

There is a significant negative correlation between family hardiness and caregiver burden among the family of stroke patients. The higher the family hardiness score, the lower the caregiver burden score, and vice versa. From the result, we could conclude that the hypothesis is being accepted. This research also found that 22.3% caregiver burden influenced by family hardiness, while the rest of 77.7% influenced by other variables.

Relevance for further research
From the results, it is known that there is a correlation between family hardiness and caregiver burden. Furthermore, it is important to create an intervention to increasing the family hardiness. This is also an effort to prevent caregiver burden.

Results showed that 22.3% caregiver burden influenced by family hardiness, while the rest of 77.7% influenced by other variables. Further research should examine the correlation among those variables with caregiver burden.

REFERENCES


PENGEMBANGAN MEDIA PEMBELAJARAN ANIMASI FISIKA BERBASIS MOBILE LEARNING ANDROID

Akhmad Haryanto*, Fatma Nailul Muna*, Budiyono Saputro**, dan Arif Billah**
*Mahasiswa Tadris IPA IAIN Salatiga Indonesia
**Dosen Tadris IPA IAIN Salatiga
Email: akhmadharyanto@hotmail.com

ABSTRAK

Penelitian ini bertujuan untuk mengembangkan media pembelajaran fisika berbentuk software animasi yang dapat ditanamkan pada operating system Android yang dapat digunakan sebagai media alternatif dalam proses pembelajaran mandiri siswa. Penelitian dan pengembangan ini menggunakan pendekatan penelitian (Research and Development). Objek penelitian ini berupa media pembelajaran animasi fisika berbasis mobile learning android. Hasil penelitian ini adalah (1) need assessment kebutuhan pengembangan media pembelajaran animasi fisika berbasis mobile learning android dengan total rata-rata 4,88 (sangat butuh). (2) hasil FGD dan validasi pengembangan media pembelajaran animasi fisika berbasis mobile learning android adalah draft media pembelajaran animasi fisika berbasis mobile learning android yang dapat membantu pembelajaran fisika.

Kata Kunci: Media Pembelajaran, Mobile Learning, Android, Fisika

PENDAHULUAN


Kemampuan dan teknologi telepon genggam sebagai media komunikasi dan informasipun terus meningkat dan berinovasi sehingga menjadi layak kita sebut sekarang ini sebagai
smartphone. Operating System (OS) pada smartphone-pun bermunculan. Beberapa OS yang familiar di tengah masyarakat saat ini adalah Android, iOS, Windows Phone, Java ME, Symbian, BlackBerry, dan Samsung.


Dalam dunia pendidikan, teknologi informasi dan komunikasi mendorong penciptaan inovasi-inovasi dalam pembelajaran yang dapat menjadi solusi untuk memfasilitasi peserta didik agar dapat belajar dimana saja dan kapan saja tanpa dibatasi ruang dan waktu dengan mudah dan terjangkau (Rukhiyat, 2014: 108). Hasil penelitian Ruchiyat adalah salah satu contoh yang membuktikan bahwa penggunaan smartphone terkait pembelajaran dalam dunia pendidikan memungkinkan adanya “mobile learning”.

Media mobile learning berbasis android merupakan media pembelajaran alternatif yang memiliki karakteristik unik yakni dapat digunakan dimana saja dan kapan saja, didukung dengan visualisasi dan animasi yang menarik (Isma, 2015: 470).

Fisika merupakan salah satu cabang ilmu yang mempelajari segala sesuatu tentang fenomena alam yang bersifat nampak maupun “abstrak” mulai ukuran mikro seperti atom hingga makro seperti tata surya dan galaksi. Salah satu fenomena yang dipelajari dalam fisika adalah tentang gerak. Gerak lurus adalah salah satu bagian yang tercakup dalam materi gerak. Materi gerak lurus membahas hubungan antara beberapa variabel didalamnya seperti perpindahan, kecepatan, percepatan, dan waktu. Proses pembelajaran gerak lurus pada peserta didik di sekolah maupun mandiri sangat membutuhkan adanya media yang dapat memvisualkan ataupun menganimasikan hubungan antara variabel-variabel di atas untuk memudahkan dalam memahaminya.

Uraian di atas menjadi dasar penulis dalam pengajuan untuk melakukan penelitian pengembangan media pembelajaran animasi fisika berbasis mobile learning android dalam rangka membantu memudahkan peserta didik dalam pemahaman materi tersebut.

KAJIAN TEORI
Media merupakan alat yang harus ada apabila kita ingin memudahkan sesuatu dalam pekerjaan. Media merupakan alat bantu yang dapat memudahkan pekerjaan. Setiap orang pasti ingin pekerjaan yang dibuatnya dapat diselesaikan dengan baik dan dengan hasil yang memuaskan (Nova, 2011: 15).


Berdasarkan pengertian media pembelajaran diatas, diperoleh bahwa media pembelajaran yaitu sarana dan prasarana guna membantu penyampaian pelajaran agar lebih mudah dalam proses pembelajaran demi tercapainya tujuan belajar.

**Mobile learning** didefinisikan sebagai semua jenis lingkungan belajar dan ruang-ruang yang memperhitungkan mobilitas teknologi, mobilitas pelajar dan mobilitas belajar (Mohamed, 2010: 20). Berdasarkan definisi tersebut, definisi belajar sudah berevolusi mengikuti perkembangan teknologi sehingga untuk dapat memperoleh pengetahuan, siswa dapat memperolehnya dimanapun dan kapanpun, tidak lagi hanya berada diruang kelas (Yudha, 2016: 12).

**Mobile learning** merupakan dasar dari pembelajaran digital dengan kombinasi yang efektif dari teknologi komputasi mobile. Media ini membuat peserta didik dapat setiap saat dan dimana saja dapat dengan mudah mendapatkan informasi pengetahuan (Jiaqi Di, 2012: 1).

Menurut Abdul (2012: 2), terdapat tiga fungsi Mobile Learning dalam kegiatan pembelajaran di dalam kelas (classroom instruction), yaitu sebagai suplemen (tambahan) yang sifatnya pilihan (opsional), pelengkap (komplemen), atau pengganti (substitusi).

1. **Suplemen (tambahan)** Mobile Learning berfungsi sebagai suplemen (tambahan), yaitu: peserta didik mempunyai kebebasan memilih, apakah akan memanfaatkan materi Mobile Learning atau tidak. Dalam hal ini, tidak ada kewajiban/keharusan bagi peserta didik untuk mengakses materi Mobile Learning. Sekalipun sifatnya opsional, peserta didik yang memanfaatkannya tentu akan memiliki tambahan pengetahuan atau wawasan.

2. **Komplemen (pelengkap)** Mobile Learning berfungsi sebagai komplemen (pelengkap), yaitu: materinya diprogramkan untuk melengkapi materi pembelajaran yang diterima
peserta didik di dalam kelas. Di sini berarti materi Mobile Learning diprogramkan untuk menjadi materi reinforcement (penguatan) atau remedial bagi peserta didik di dalam mengikuti kegiatan pembelajaran konvensional.

3. Substitusi (penganun) Beberapa perguruan tinggi di negara-negara maju memberikan beberapa alternatif model kegiatan pembelajaran kepada para peserta didik /siswanya. Tujuannya agar para peserta didik dapat secara fleksibel mengelola kegiatan perkuliahanannya sesuai dengan waktu dan aktifitas sehari-hari peserta didik. Ada tiga alternative model kegiatan pembelajaran yang dapat dipilih peserta didik, yaitu:
   a. sepenuhnya secara tatap muka (konvensional)
   b. sebagian secara tatap muka dan sebagian lagi melalui internet
   c. sepenuhnya melalui internet.

   Beberapa kelebihan mobile learning dibandingkan dengan pembelajaran lain adalah (Mohamed, 2012: 34):
   1. Akses mudah dimana saja
   2. Dukungan pembelajaran jarak jauh
   3. Dapat meningkatkan pembelajaran berpusat pada siswa
   4. Baik untuk mereview konten pembelajaran
   5. Mendukung pembelajaran mandiri siswa
   6. Dapat meningkatkan interaksi antara siswa dan guru
   7. Mengurangi hambatan komunikasi antara guru dengan siswa

   Selain kelebihan diatas, mobile learning juga mempunyai beberapa kekurangan yaitu (Yudha, 2016: 15):
   1. Perbedaan kecepatan akses internet dibebberapa daerah
   2. Dalam penggunaannya harus tetap diawasi agar tidak disalah gunakan selain untuk belajar.
   3. Masih adanya anggapan negative untuk membawa mobile device kedalam ruang kelas.
   4. Kurang memuaskannya tampilan dan fasilitas yang terdapat pada mobile device.
   5. Sulitnya mengintegrasikan secara efektif mobile learning dengan kurikulum yang ada.


Sistem operasi Android bersifat open source sehingga programmer berburu untuk membuat aplikasi maupun memodifikasi aplikasi android. Setiap programmer mempunyai peluang yang sama besar untuk bisa mengembangkan aplikasi Android sebab sifatnya yang open source.

Istiyanto (2013:16) menjelaskan faktor penyebab popularitas aplikasi android antara lain:

1. Faktor kecepatan

Efisiensi aplikasi dalam memberikan data secara tepat sesuai dengan keinginan user. Aplikasi mobile dibuat sederhana untuk kabutuhan tertentu dan tidak sekompleks aplikasi untuk PC. Sehingga pengguna dapat dengan mudah dan cepat mengakses data yang ia butuhkan.

2. Aspek produktivitas

Beragamnya aplikasi yang dipasarkan memudahkan pengguna untuk mengatasi problem atau masalah yang ia hadapi sehari-hari. Aplikasi mobile saat ini telah berkembang untuk berbagi keperluan mulai dari sekedar game sampai tutorial untuk memasak sudah tersedia. Berbagai masalah keseharian kini dapat diatasi dengan mencari aplikasi yang ada di pasar.

3. Kreatifitas desain

Desain yang ditawarkan mempunyai kemudahan penggunaan (user friendly). Pengembang juga membuat berbagai penyesuaian sesuai dengan pengguna. Penyesuaian berdasarkan umur, pendidikan dan kalangan membuat pengguna lebih leluasa dalam menjalankan aktifitas mobile.

4. Fleksibilitas dan keandalan
Setiap aplikasi yang dipasarkan hanya diperuntukan untuk keperluan yang spesifik saja. Keterbatasan inilah yang sering merepotkan pengguna. Namun keterbatasan dari aplikasi dapat ditutupi dengan mencari aplikasi lain yang sesuai dengan yang dibutuhkan oleh pengguna.

**METODE PENELITIAN**


Teknik pengumpulan data penelitian ini adalah lembar penilaia produk, angket dan wawancara. Lembar Penilaia diberikan untuk dosen ahli materi, dosen ahli media dan guru fisika guna menilai kualitas media pembelajaran fisika yang telah dikembangkan berdasarkan aspek isi, kreatifitas dan penggunaan. Angket responden diberikan kepada guru untuk mengetahui bagaimana tanggapan guru terhadap kelayakan media pembelajaran.

**HASIL PENELITIAN DAN PEMBAHASAN**

1. **Need Assesment** Media Pembelajaran Animasi Fisika Berbasis Mobile Learning Android

   **Tabel 1.1 Tabel Analisis Kebutuhan**

<table>
<thead>
<tr>
<th>NO</th>
<th>Indikator</th>
<th>Responden</th>
<th>Rata-rata Skor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Potensi materi</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>2.</td>
<td>Keter.tarikan Tampilan</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>3.</td>
<td>Kemudahan dalam Penggunaan</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>4.</td>
<td>Buku panduan penggunaan</td>
<td>5</td>
<td>4.8</td>
</tr>
<tr>
<td>5.</td>
<td>Evaluasi pembelajaran pada software</td>
<td>5</td>
<td>4.6</td>
</tr>
</tbody>
</table>

   Guru dalam menjalankan tugas penyampaian pembelajaran di kelas membutuhkan media. Media pembelajaran yang peneliti tawarkan ini berbasis animasi software android.
Penelitian dan pengembangan media pembelajaran animasi fisika berbasis mobile learning android ini berdasarkan analisis kebutuhan guru IPA Fisika dilapangan. Adapun hasil analisis kebutuhan rata-rata adalah 4,88 (sangat butuh), dengan rincian: potensi materi 5 (sangat butuh), ketertarikan tampilan 5 (sangat butuh), kemudahan dalam penggunaan 5 (sangat butuh), buku panduan penggunaan 4,8 (sangat butuh), dan evaluasi pembelajaran pada software 4,6 (sangat butuh).

Analisis kebutuhan tersebut terdiri dari berbagai indikator. Adapun indikator tersebut adalah potensi materi fisika yang dapat dibuat dalam animasi berbasis software android, tampilan pada software android, kemudahan dalam penggunaan, buku panduan, dan evaluasi pembelajaran pada media animasi fisika berbasis software android.

2. Draft Pengembangan Media Pembelajaran Animasi Fisika Berbasis Mobile Learning Android

Berdasarkan analisis kebutuhan, FGD, dan validasi ahli, peneliti dapat menyusun draft animasi fisika berbasis mobile learning android. Adapun draft animasi fisika berbasis mobile learning android adalah sebagai berikut:

Gambar 1.1 Tampilan Menu Awal Aplikasi Media Pembelajaran Fisika

Pada menu awal aplikasi media pembelajaran animasi fisika berbasis mobile learning android terdapat 4 tombol yang terdiri dari:
1. Tombol materi : tombol ini digunakan untuk menuju tampilan sub materi yang terdapat dalam aplikasi.
2. Tombol larihan : tombol ini berfungsi untuk menuju tampilan soal yang telah di muat dalam aplikasi.
3. Tombol info : tombol ini berfungsi untuk menuju tampilan info tentang pengembang dari aplikasi.
4. Tombol exit : tombol ini berfungsi untuk keluar dari aplikasi.

Gambar 1.2 Tampilan Menu Materi Aplikasi Media Pembelajaran Fisika

Pada menu materi aplikasi media pembelajaran animasi fisika berbasis mobile learning android terdapat 6 tombol yang terdiri dari:

1. Tombol definisi gerak : tombol ini digunakan untuk menuju tampilan materi definisi gerak yang terdapat dalam aplikasi.
2. Tombol besaran gerak : tombol ini digunakan untuk menuju tampilan materi besaran-besaran pada gerak yang terdapat dalam aplikasi.
3. Tombol gerak lurus : tombol ini digunakan untuk menuju tampilan materi gerak lurus yang terdapat dalam aplikasi.
4. Tombol gerak dan gaya : tombol ini digunakan untuk menuju tampilan materi hubungan gerak dan yang terdapat dalam aplikasi.
5. Tombol gerak vertikal : tombol ini digunakan untuk menuju tampilan materi gerak vertikal yang terdapat dalam aplikasi.

6. Tombol home : tombol ini digunakan untuk menuju tampilan menu awal aplikasi.

Gambar 1.3 Tampilan Materi Aplikasi Media Pembelajaran Fisika

Pada menu materi aplikasi media pembelajaran animasi fisika berbasis mobile learning android terdapat 3 tombol yang terdiri dari:

1. Tombol home : tombol ini digunakan untuk menuju tampilan menu awal aplikasi
2. Tombol next : tombol ini digunakan untuk menuju tampilan materi yang selanjutnya.
3. Tombol prev : tombol ini digunakan untuk menuju tampilan materi yang sebelumnya.

Gambar 1.4 Tampilan Latihan Soal pada Aplikasi Media Pembelajaran Fisika
Pada menu latihan soal aplikasi media pembelajaran animasi fisika berbasis mobile learning android terdapat 2 tombol yang terdiri dari:

1. Tombol home : tombol ini digunakan untuk menuju tampilan menu awal aplikasi
2. Tombol next : tombol ini digunakan untuk menuju soal yang selanjutnya.

SIMPULAN

Berdasarkan hasil penelitian dan pembahasan yang telah diuraikan, dapat disimpulkan bahwa media pembelajaran animasi fisika berbasis mobile learning android sangat dibutuhkan oleh guru. Skor analisis kebutuhan media pembelajaran animasi fisika berbasis mobile learning android 4,88(sangat dibutuhkan). Guru sebagai praktisi membutuhkan media yang dapat membantu memahami siswa. Oleh karena itu dengan adanya bahwa media pembelajaran animasi fisika berbasis mobile learning android dapat memenuhi kebutuhan para guru dalam proses pembelajaran.

Media pembelajaran animasi fisika berbasis software android ini dinyatakan layak untuk diuji setelah dilakukan validasi oleh ahli media, ahli materi, dosen dan praktisi. Rincian tahapan validasi meliputi validasi materi, kelayakan tampilan, dan kemudahan dalam penggunaan.

DAFTAR PUSTAKA


SOLAR SMARTPHONE: A GREENER SOLUTION

Ar-Rayyan Fikri Fadli Fizari, Irhamna Fikri Fadli Fizari, *Fadli Fizari Abu Hassan Asari & Azlina Mat Saad

1Darjah 2 Wawasan, Sekolah Tengku Budriah, 02600 Arau, Perlis, Malaysia.
2Faculty of Business Management, Universiti Teknologi MARA, Perlis Branch, Arau Campus, 02600 Arau, Perlis, Malaysia.
3School of Environmental Engineering, Universiti Malaysia Perlis, Kompleks Pengajian Jejawi 3, 02600 Arau, Perlis, Malaysia.

*Corresponding e-mail: fizari754@yahoo.com

Abstract

High frequency of usage causes the smartphone battery power to diminish, thus needs a lot of charging. At the same time, more batteries need to be used and eventually these batteries will be thrown into the environment without a proper monitoring. Hence, we recommend solar smartphone, as a greener solution to these two problems. This solar smartphone can be charged using the solar energy. In addition, energy of the moon, light and fire can be the alternative sources. All these energies can be absorbed via solar panels, located at the back of the smartphone. A micro transformer will multiply the solar power, before it is stored in the battery. This energy-saving process may increase the lifetime of a smartphone. In addition, no more power bank is needed as it can be charged at any time, automatically or manually. This saves the environment in terms of materials usage for manufacturing of both batteries and power banks. Moreover, the cost can be saved through free energy consumption and long-life batteries. This innovation has won a bronze medal at an international level; besides qualifying the lead author to receive a young researcher award at a local innovation competition. It is a hope that this innovation will attract attention from many parties in looking at the importance of this technology to the environment.

Keywords: solar, smartphone, sustainability, micro transformer, communication
1.0 INTRODUCTION

High frequency of usages cause the smartphone battery power to diminish thus needs a lot of charging. Most users will charge at a short period and continue to use it. This can affect the battery life, as more than 50% of battery damage is caused by insufficient and incorrect charging (Manbat, 2017). More batteries will be bought and used in replacing the damaged ones. These lead to an increase in users’ costs.

At the same time, more batteries will be discarded, especially in the landfills. Without proper and continuous monitoring, corrosion process caused by air and water may pollute our environment (Clean Up Australia, 2009). In detail, its chemical content may pollute the groundwater source which ends in the sea. Additionally, it can trigger underground combustion releasing harmful gases into the air (Kattenburg, 2017).

For that, various ways have been proposed to overcome these two problems. Among them are energy-saving batteries, long-life batteries, garbage isolation at source and recycling. However, we need a more comprehensive solution. Not limited to battery saving, it should be an environmentally friendly product. Thus, we recommend a solar smartphone!

Solar smartphone is an easy, economical and sustainable solution. The idea of using solar for smartphone is new. The nearest innovations are solar power bank and solar charger, which requires additional equipment. In addition, more money has to be spent by the consumers in purchasing this additional equipment.
2.0 OBJECTIVES

There are three objectives of this solar smartphone:

i) Proposes free of charge energies usage, including the sun, the moon, light and fire.

ii) Saves resources (no need for charger) & reduces waste (fewer batteries used).

iii) Can be used anywhere, including in areas with no electricity source.

3.0 HOW IT WORKS

This process is organized in seven steps in facilitating readers understanding:

i) Several solar panels are located at the back of the smartphone.

ii) The panels absorb energy from light sources like the sun, the moon, lamp and fire.

iii) Micro-scale transformer multiplies the energy gained.

iv) The energy is channeled to the battery via energy ribbon.

v) The energy is then stored in the battery.

vi) Charging is automatically OFF when user starts talking, and resumes once the call is end. ON/OFF manual button is also available.

vii) Full capacity charging is 2 hours for source from the sun and 4 hours for other sources (the moon, lamp and fire).

Figure 1.0: Outer part of solar smartphone
Figure 1.0 shows the outer part of the solar smartphone, while Figure 2.0 reflects the inner part of the solar smartphone.

The major difference between this solar smartphone and the other smartphones lies in the solar panels and its micro transformer. Solar panels absorb power from light through photovoltaic processes. Logically, if it can be used to move a car, heating the water for home use and the alternative energy for electricity, imagine what its impact to a small smartphone.

However, solar panels without micro transformer are inefficient. This applies to Samsung Blue Earth mobile phone. It can only be used for five minutes even though it has been sunlit for an hour (Nick, 2015). Keep in mind that this is a regular phone and not a smartphone with more applications and a complex built-in. For that, high capacity micro transformer is needed in generating a lot of energy and sustainable capability (Seemingly, 2013).

4.0 DEVELOPMENT

Since the main author is still a standard two student, more time is needed in understanding the basic concepts of electronics and solar energy. It is likely that this solar smartphone will be developed starting in standard four and completed in standard six. It will be branded as Ar &
Ir, inspired by the names of main author siblings, Ar-Rayyan Fikri (Ar) and Irhamna Fikri (Ir). Please pray for our success in realizing this dream into a reality.

5.0 ACHIEVEMENT

This innovation has been presented at the Young International Innovation Exhibition 2017 (YIIX ’17). As a result, the lead author has brought home a bronze medal (Figure 3.0) and gained valuable experiences. This unique product attracted attentions from many parties. The lead author was also awarded the Young Researcher Special Award during the PTSS 2nd National Innovation Competition (PTSS INNOCOM 2017), as shown in Figure 4.0. The status of the youngest presenter made it the most visited booth.

Figure 3.0: YIIX ’17 bronze medal
6.0 CONCLUSION

It is our hope that this solar smartphone will be successfully developed in the near future. Besides saving energy and money, it is also environmentally friendly. The success of this product in winning the bronze medal of innovation and being recognized a special award proves that this product is of high interest and high commercial value. Age is not a hindrance, while effort and pray are essential foundations for our solar smartphone.
REFERENCES


MOLLUSCIDINE REMOVAL FROM PADDY FIELD WASTEWATER: A SUSTAINABLE METHOD

Azlina Mat Saad, Farrah Aini Dahalan, Naimah Ibrahim, & Sara Yasina Yusuf
School of Environmental Engineering, Universiti Malaysia Perlis, Kompleks Pengajian Jejawi 3, 02600 Arau, Perlis, Malaysia

Abstract

Metaldehyde is a polar molluscicide used worldwide to combat pests including slugs and snails in various planting area such as vegetables and paddy farming. In Malaysia, this pesticide has been applied to eliminate golden apple snail or locally called siput gondang emas. The increase in snail population caused the increase in the use of this pesticide. The existence of this molluscicide in the aquatic environment leads to deterioration of water and sediment conditions. Furthermore, the polluted water sources such as rivers and streams have an impact on the end-user mainly humans and animals. For that reason, we proposed to used biological wastewater treatment to overcome this metaldehyde pollution in paddy field wastewater. In this biological wastewater treatment, we focused on utilizing aerobic granulation technology to remove metaldehyde from paddy field wastewater. The aerobic granular sludge was developed from seed sludge in the bioreactor system particularly sequencing batch reactor that operated in 8 cycles in 24 hours a day. This technique is sustainable since no hazardous waste produced from the treatment method.

Keywords: sustainable, economy, biological, golden apple snails, biodegradation

1.0 Introduction

In the agricultural sector, pests have become the main enemy that farmers must handle (TECA, 2015). Agriculture pests such as insects and mollusks have reduced crop yields and resulted in losses to farmers (Heong et al., 1995). Pest insects for example, rice planthoppers have become a phenomenon feared by farmers when it caused severe damage to rice plants in Asia including Malaysia, India, Japan, and Indonesia (Heong and Hardy, 2009). On the other hand, Plan et al (2008), reported that golden apple snails (Pomacea canaliculata) are serious pests of rice in South-East Asia. This snail ate and destroyed young irrigated paddy plant and decline the yield of paddy (MADA, 2014). For that reason, farmers in paddy cultivation area
for instance in Malaysia choose molluscicide, specifically metaldehyde to kill their main paddy plant enemy, namely golden apple snail as shown in Figure 1. There choose this molluscicide due to the effectiveness of this compound to eliminate golden apple snails from their paddy field (Calumpang et al., 1995).

Bristol Water (2012) reported that metaldehyde is an organic molluscicide that is widely used in farming and landscape management to kill pests such as snails, slugs, and gastropods. This pesticide is toxic for acute health effects resulting in death is consumed by non-target animals directly or indirectly and categorized under Class II toxins (WHO, 1996 and PAN UK, 2001).

Figure 1: Golden apple snails in paddy field farming area

1.1 Problem statements

However, immoderate use of these harmful pesticide for a long period to get rid of this pest has brought serious problems to the environment if not addressed immediately. Figure 2 shows that metaldehyde has been used in paddy field area in Malaysia. The high solubility properties of this toxin increase the potential for soluble in soil and cause water pollutant. What's more, this hazardous compound and its degradation product can remain within the aquatic environment because of the low vapor pressure characteristic (Nabeerasool et al., 2015). In the aquatic environment of paddy field, this pesticide undergoes bioaccumulation proses in aquatic freshwater biota such as fish and edible snails. Metaldehyde finally enters human and animal bodies systems through food chain and affect the health of humans and animals (EFSA, 2010).

Due to the negative impacts of this pesticides to the environment, human and animals, various removal method have been applied to eliminate this pesticide from water. Some of the
removal methods such as phenolic carbons, granules activated carbon, advanced oxidation and activated carbon have been developed to treat water from this pesticide (Shu et al., 2013). However, some of this method required lots of money and not so environmental friendly because of hazardous waste production. Even, usual water treatments using ozone and chlorine also failed to remove this stubborn pesticide (Marshall, 2013). For the solution, we choose a sustainable method, namely aerobic granulation technology using sequencing batch reactor to treat polluted paddy field wastewater.

Figure 2: Metaldehyde has been applied in paddy field area

1.2 Objectives of the study

The aim of this study is to provide a sustainable treatment method to get rid of this molluscicide from the paddy field wastewater. This study also determine the availability of aerobic granules to reduce metaldehyde concentration in paddy field wastewater. The microorganisms in the aerobic granules developed using aerobic granulation technology are played the most important roles in reducing metaldehyde in the wastewater samples.

Aerobic granulation has been used widely to treat various of wastewater including pharmaceutical and industrial due to the efficiency of this method to stand shock loading toxins of organic pollutants. According to Weber et al. (2007), aerobic granules are surrounded by extracellular polymerase substances (EPS) that protect them from organic pollutants disturbance. The aerobic granules posses high rates of metabolism and the
difference zones inside the granules perform different functions in reducing organic pollutant to treat wastewater efficiently.

2.0 METHODOLOGY

2.1 Configuration of Bioreactor

A bioreactor is made from acrilic materials. This bioreactor is a cylindrical shape column with 35 cm in height, 10 cm in diameter and 2.5 L of total volume as shown in Figure 3. The arrangement of equipments such as peristaltic pumps and air pump in the bioreactor set-up is shown in Figure 4. The operation system known as sequencing batch reactor contains of four main steps. The step starts with filling process followed by aeration, settle and ends with withdraw process. Three hours total time is needed to complete a cycle containing these four steps. Figure 5 explains in details about what happened in each step.

![Figure 3: A schematic drawing for bioreactor used in this study](image)
Figure 4: Bioreactor configuration

- The biomass in the bioreactor is let to settle at the bottom of the bioreactor.
- The upper part of the biomass in the bioreactor is withdrawn from the reactor.
- Oxygen is supplied into the bioreactor from the air pump.
- Synthetic wastewater is pumped into the bioreactor via tubing by peristaltic pump.

Figure 5: Steps involved in sequencing batch reactor system

- Filling (0.50 hrs)
- Aeration (2.0 hrs)
- Settled (0.42 hrs)
- Withdraw (0.08 hrs)

The biomass in the bioreactor is let to settle at the bottom of the bioreactor.
2.2 Activated sludge

To start the aerobic granulation process, we need to collect fresh activated sludge from wastewater treatment nearby. As we can see, at the early stage, activated sludge are irregular fluffy flocs shape with brown in colour as shown in Figure 6. The activated sludge samples are tested according to American Standard Method for wastewater (2005) for parameters such as biomass concentrations, dissolved oxygen (DO) and pH. Then, the activated sludge is introduced as starter or seed into the bioreactor. Synthetic wastewater containing of acetate and other substances is provided into the bioreactor to feed the microorganisms (Nor-Anuar, 2008).

![Activated sludge sample](image)

Figure 6: Activated sludge sample

2.3 Organic chemicals removal

Parameters such as chemical oxygen demand (COD), ammoniacal nitrogen (AN) and metaldehyde removal have been measured to monitor the efficiency of the aerobic granules in reducing this organic pollutants from the wastewater. Both parameters are measured using Standard Method for Wastewater (2005).

A batch experiments is conducted to measure the metaldehyde removal performance of aerobic granules. A series of metaldehyde concentration is prepared in conical flasks (from 210 to 330 mg/L). Data for this experiment are collected in every three days in two weeks. The samples collected will be extracted using liquid-liquid extraction method.
3.0 RESULTS AND DISCUSSION

Aerobic granules with spherical shape are started to replace activated sludge in the bioreactor in two weeks. The increase in size of aerobic granules can be seen by naked eyes. Morphology of the aerobic granules can be seen in details using light microscope with digital camera. Figure 7 shows the variation in sizes of aerobic granules grown in the bioreactor.

![Figure 7: Aerobic granules in bioreactor](image)

After two weeks, this aerobic granules shows high ability in reducing chemical oxygen demand (COD) as shown in Figure 8. At the same time, the concentration of ammoniacal nitrogen (AN) in effluent samples decrease after two weeks. The increase in removal percentage of AN exhibits the ability of aerobic granules in treated the wastewater as depicted in Figure 9. For that reason, we believe that this aerobic granules can reduce metaldehyde concentration in wastewater as they show good removal performance on organic pollutants such as COD and AN.
Figure 10 shows the biomass concentration values in bioreactor. The biomass concentrations were detected to fluctuate over the time due to the adaptation of bacteria to the new environment condition in the bioreactor system. Figure 11 shows the detection of metaldehyde using gas chromatography mass spectrometry (GC-MS) in paddy field water in Arau, Perlis. This metaldehyde detection demonstrate the existence of this pesticide in the paddy field water. Farmers in this area used this pesticide to kill golden apple snails in their farming area since this molluscicide exhibits good performance in eliminating golden apple snails in their paddy area.
4.0 Conclusion

This study approaches a sustainable method to reduce the toxicity and effect of this molluscicide in the water ambient. This aerobic granulation technology is believed to be one of the alternative that give a big positive impact in treating wastewater worldwide.
5.0 Acknowledgement

Authors would like to thank Ministry of Higher Education (MOHE) Malaysia and UniMAP for Fundamental Research Grant Scheme (FRGS) No. 9003-00386 and MyBrain15 (MyPhD) Scholarship.
References


LEARNING GUITAR IN AUGMENTED REALITY

Chan Shu Sean¹, Rajermani Thinakaran²

¹ Undergraduate student
² School of Computing, Nilai University,
No 1, Persiaran Universiti, Putra Nilai, 71800 Nilai, Negeri Sembilan.

Corresponding author email: chan-shu-sean@hotmail.com

Abstract

A guideline is essential for every beginners in the progress of learning music instruments to monitor their foundation during earlier times. Without a proper guideline, learners especially those who self-learned will get frustrated with the uncertainty in their performance. Although guitar as one of the most notable self-learning music instrument is very attractive to beginners but it becomes a nuisance where flipping the pages with tablatures along with the chords while playing it for novice guitarists as they have to stop playing. This project will be conducted to create a system for learning guitar in augmented reality (AR). AR is a view from a real time/world environment where the computer generated elements are displayed on the screen of a device with real world sensory input such as sound, video or graphics. AR has the ability to enrich the display content to become more interactive and fun. The main functionality of the system is to detect user’s fingers position and the fiducial marker for chord verification by matching the fingers position with the fiducial marker that being installed on the guitar instrument. Since youngster from the millennium years are familiar with electronic devices, AR will become a better platform for the environment of self-learning guitar.

Keywords: augmented reality, guitar application, marker-less tracking, marker-based tracking.

1 INTRODUCTION

There is always a barrier whenever we are learning something unfamiliar. We often find a solution to break through the barrier and end up with another obstacle with different level. Guitar as one of the popular-musical instruments for self-learning often accompanied by very spontaneous learning process. Nevertheless, there is no appropriate or stated procedure to master a musical instrument outside of the classical repertoire or academic instruction (Green, 2008). Tablature is traditionally used to learn playing guitars, which is quite easy to understand but again and again looking into the tablature and then playing is distracting. An
experiment conducted by Keebler et al. (2014) with six participants without any formal or informal guitar training. The experiment is to test the result of learning guitar by using the traditional way, follow diagram and another way which is by using a special guitar Fretlight®, a built in LED guitar assisted by its learning program that will indicate LED light wherever the note is expected to be played on the fretboard. The results from the learning process are as Figure 1.

![Scale Accuracy During Session 1 Training](image)

**FIGURE 1:** Experiment Result of Scale Accuracy between using Fretlight and Diagram

As we can see, interactive learning by Fretlight® results better in term of scale accuracy. However not everyone could afford the expensive Fretlight® guitar. Current technologies using A may assist in lowering the initial struggle involved in learning music by lowering the difficulties of conventional teaching materials. AR works by augmenting what we see in the “real world” with additional information, presented digitally. AR enables a user to see and interact with virtual imagery overlaid on his or her surrounding real environment. AR systems have three critical characteristics: They integrate real and virtual images, interactive at real time, and the virtual content is recorded in 3D (Billinghurst et al., 2015).

Several years ago, there has been an argument that viewing AR as a concept rather than a type of technology would be more fruitful for educators, researchers, and designers (Wu et al., 2013). The requirements for virtual learning environments have been already well defined. AR up until now still has not been systematically considered in educational learning system. Approximately, all educational application requires industrial, instructional and cognitive features to be conscientiously examined ahead implementation. An instructor’s conventional delivery can be improved by exploring multimedia content over the Internet, likewise in an AR environment. Beforehand, the educational system must be clear,
understandable, straightforward and robust and provide users with precise and concise information. This will increase the level of students’ understanding and their skills. In addition, the digitisation of the AR learning material must be carried out correctly so that every information is precisely and clearly presented to users. The digitisation is commonly an offline process and consists of various operations, depending on the objective (Shimabuku et al., 2017).

The primary goal of this project is to design, implement and evaluate interaction techniques for creating AR in guitar learning system. The motivation for this research comes from the need for more efficient and instinctive interaction approaches for guitar self-learning system. AR based education will be more accessible to learners and educators across the world and it is continuing to be the focus area for creating enhanced value in everyday interactions.

2 AUGMENTED REALITY

AR consists of fusing of live images with virtual layers of information. The principle of AR, in which virtual content is extended on the top of a real environment, is not to be confused with Virtual Reality (VR), where the computer-generated virtual environment is mostly or totally virtual for people to experience it. There exist two distinct types of AR, which differ in the way that the virtual layer associated with a given environment is identified: location-based AR and image-based AR (Cheng and Tsai, 2012). Location based AR application rely on the spatial environment and the orientation of the device without external resources such as marker or barcode, to select and display location relevant information. Thus, location-based AR sometimes refers to marker-less AR. For image-based AR, applications use image recognition algorithms to trigger the display of relevant content over a recognised physical pattern which called markers. Therefore, image-based AR also known as marker-based AR. This article will focus on the combination of markerless and marker-based AR.

2.2 Benefits of AR in Education

• Education will become more interactive, efficient, effective and simple (Lee, 2012).

• AR system is able to accomplish educational environments which are better in productivity, contentment, and interactive than previously
• AR system could provide motivating, entertaining, and engaging environments conducive for learning.

• AR applications in educational background are appealing, simulating, and interesting for learners.

2.3 Input and Tracking Devices in AR

Displays, input devices, tracking devices, and processors are commonly the principal elements for an augmented reality system (Chawla, 2015). Input devices are devices that can help user input commands to the AR system, such as microphones, cameras and controllers. Microphones can be used for speech recognition and cameras can be used for hand gesture detection and recognition. Some AR systems use electronic gloves (Figure 2) or wrist band as input controller.

![FIGURE 2: CaptoGlove: Wearable Gaming, VR, AR, PC & Mobile Controller](image)

Tracking devices in AR system include digital cameras, global navigation satellite system (GNSS), inertial measurement unit (IMU), solid state compass, wireless modules, etc. (Lai, 2017). GNSS provides the geographical location of the system, while other wireless modules like Wi-Fi and Bluetooth can provide relative location in the indoor scene. Besides tracking, pose estimation is also a crucial part in AR system, it provides the necessary geometry information for correct projection of virtual imagery. Failures in pose estimation may cause false projection with the addition of user’s adverse reaction like dizziness for head-mounted AR system.

3 MARKER BASED METHOD

Computer vision uses markers that are patterns which can be detected with relatively simple algorithm in a very short time. They are widely used in applications that relative pose
and position between camera and object are required. Circular and square markers are the most common types in computer vision, because their geometric property makes them easy to detect and more robust than other shapes. In this method, a particular target is looked for by the device. Usually these are small, two-dimensional barcodes known as data-matrix codes or it’s a 2D image printed on something like a poster (Figure 3). The mark is identified via the camera by the augmented reality application device, the image is processed, the barcode is converted into a web address, and a relevant web page is requested by the browser with additional information (Zheng et al., 2017). Every set of alternative markers or fiducial markers, as these "added reference points" are called, can be read by the AR systems by designing them appropriately. Marker-based method generally can be divided into two steps, marker candidate detection and marker identification.

![ArUco markers used in OpenCV toolbox](image)

**FIGURE 3: ArUco markers used in OpenCV toolbox**

### 3.1 MARKER CANDIDATE DETECTION

In marker Candidate detection step, algorithms search for the region that matches the perspective distortion of the marker geometry (Benligiray et al., 2017). For square markers, this means search for matching quadrilaterals, and for circles this means ellipses. Since most markers only contain white and black, images are converted into grayscale images. Then binarization and edge detection are usually used as pre-process to help extract candidate regions.

### 3.2 MARKER IDENTIFICATION

For the marker identification step, the perspective distortion of candidate regions are often removed by homography transform. Depending on the way that markers are encoded,
there are several ways to identify markers. Correlation-based markers are corresponded with reference grids. This kind of markers can be identified by calculating the correlation coefficient (Garrido-Jurado et al., 2016). For digital code-based markers, marker ID can be directly read from the marker. Usually the marker ID is made of binary digits. There are various methods for encrypting the marker, few separate the marker into square sub regions, few use triangles indicating at several angles, and few use encryption methods based on Fourier transform alike. While for the topology-based markers, marker identification depends on topological adjacency. Region adjacency graph is computed using the binary image. Topology-based markers are robust to geometry distortions, but the topology itself can be changed by occlusion.

### 3.3 MARKER DETECTION AND TRACKING

Since the main purpose for augmented reality is to enhance the reality with virtual content, it is important to make sure that virtual objects are correctly registered to the real scene. This can help users view the virtual content as part of the real world. Accurate registration can be retrieved by estimating the pose of the camera or user’s view point. The registration process usually consists of two parts:

- Fiducial marker (Figure 4) or feature points are detected, using marker based methods or maker-less methods.
- Estimates the pose and map 3D virtual objects through proper projective geometry (Zheng et al., 2017).

![FIGURE 4: (a) Fiducial marker samples](image)

Figure 5 shows the process of marker detection and tracking. There are three stages include:

- The first stage – Pre-processing
Image frame is captured and undergo image processing which in this case – grey scaling stage.

- The second stage – Detection

The system detects key points based on gradient changes, from the key points, feature is extracted to matches the key points from original image’s key points.

- The third stage – Tracking

If the marker is found, it continues to execute, else, read again the image from the input.

FIGURE 5: Marker Detection and Tracking (Tun, W.N. et al., 2017)

4 MAKER-LESS METHOD

Maker-less method is based on the feature extraction and recognition in the real world. It may be less accurate than marker-based method, but it does not need any marker to be placed ahead. It assists the AR system spots the view in a more natural way. In the feature extraction step, the goal is to find areas of interest in input image that can be served as unique and reliable markers. There are lots of feature detection and extraction algorithms based on different single or combination of features, such as edges, corners, blobs, ridges. For example, corner-based detectors focus on the rapid change of image gradients, using the first or second derivative of gradients along different directions (Wang et al., 2016).
After features are recognized, a small image patch around the significance point (or area) will be extracted using particular feature extraction algorithm and feature descriptors will be provoked. Feature descriptors are important for the following feature matching part. Since relative position between camera and the object is always changing, it is necessary to use descriptors that are invariant to scale and rotation, such as Scale-Invariant Feature Transform (SIFT) and Speeded-Up Robust Features (SURF). In order to achieve rotation invariant, the direction of dominant gradient in the feature point region usually serves as the main direction.

Then feature descriptors are computed in scale-space to achieve scale invariant.

Not like marker-based methods, in which markers have their own ID, markerless methods find corresponding point by feature matching process. Firstly, a distance function that compares features is defined. Then, for a given feature in image A, use the distance function to test all the features in image B. The one with minimum distance can be considered as the corresponding feature point. There are many kinds of distance functions, like Sum of Squared Difference (SSD), Sum of Absolute Difference (SAD), etc. Besides the exhaustive search method that mentioned above, there are many other search methods using different searching strategy. For example, Flann-based matcher uses a fast approximate nearest neighbour search algorithm.

To improve the matching result, false matches can be removed by certain filter algorithms. One popular method is using the random sample consensus (RANSAC) method. RANSAC estimates the homography transform matrix between matched feature points, using only part of the feature points. Then it calculates the reprojection error of feature points using current homography transform matrix and mark inliers and outliers. After several loops, the algorithm picks the transformation that has most number of inliers and remove the outliers. The final homography matrix is generated by using least-square method with inliers.

4.1 MARKER-LESS TRACKING

This tracking method works by using scanning algorithms and feature detection systems. Say, we want to find the information about some object, we can simply point our phone at it and have some kind of feature-detection or pattern identification systems try to
recognize it. Specific scanning algorithms are used to identify it. It creates or projects a virtual grid on the image caught by our camera. The

GPS already locates the approximate location of our phone or the device we are using. And to pinpoint the exact location, the automatic scan finds several anchor points and binds a virtual model to it. The marker less technology has a lot of benefits including that the real life object can act as a marker by itself and there is no expense of building or designing markers on the objects. We don’t have to make distinctive optical identifiers. The physical objects have the digital images projected directly upon them. This is known as projection mapping and can be used to quite remarkable effects (Agrawal & Patel, 2017).

5 COMPARISON OF AR MARKERS

The relationship between development in image recognition technology and AR-capable devices are correspond. As a result, most implementations of markerbased AR recognise objects using computer vision algorithms (Vogt and Shingles, 2013). There are three types of AR markers: Fiducial marker, Quick-response (QR) Code and Natural Marker. QR Code is a 2D barcode generated for an internet based link while natural marker is object-based marker. Among these markers, Fiducial marker is the most popular among AR markers due to it easy implementation. Below (Table 1) is the comparison of markers:

<table>
<thead>
<tr>
<th>Table 1: Comparison of AR Markers (Gomes Jr. et al., 2017)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical feature</td>
</tr>
<tr>
<td>Training independence</td>
</tr>
<tr>
<td>Model storing</td>
</tr>
<tr>
<td>Environment remains unchanged</td>
</tr>
<tr>
<td>Multiple viewpoint detection with a single loaded marker</td>
</tr>
</tbody>
</table>

6 POSE ESTIMATION

In order to place a virtual object in 3D, we need to know the relative pose between the object and the camera (or user’s view point). Then we can calculate the object’s corresponding 2D projection from user’s view. The general equation of such transformation is:

\[ x = K[R|t]X \]
where X is a point in 3D space, x is the 2D projection of X on image plane, K is the camera intrinsic matrix, and \([R|t]\) is the extrinsic matrix (rotation and translation) (Marchand et al., 2016). Camera matrix K can be obtained by camera calibration, or we can use the structure from motion method mentioned above. Then, with the location of detected markers of feature points, pose \([R|t]\) can be computed using simple least square method. Once the pose is estimated, virtual objects can be easily projected to the 2D image plane.

### 7 RESEARCH METHODOLOGY

The system will be implement by using several tools such as computer with webcam, fiducial marker paper, and a normal guitar with 6 strings. The fiducial marker paper will be stick on the guitar and place directly in front of the webcam. The system will allow the webcam to capture the image and perform the methodology as will be mentioned after this.

#### 7.1 DESCRIPTION OF METHODOLOGY

![Stages of chord and finger detection](image)

FIGURE 6: Stages of chord and finger detection

The following are the description for each stage of research method.
Stage 1: Image input

Image is captured by camera as input.

Stage 2: Marker-based detection technique
   Step 1, read fiducial marker into system.
   Step 2, extract the feature or the marker.

Stage 3: Capture fingering position (figure 7)
   Step 1, identify the hand.
   Step 2, outline the finger positions.
   Step 3, from fingers, draw out ellipse.
   Step 4, locate fingertip.
   Step 5, track the fingertips of the hand posture.

Stage 4: Compare marker input (e.g. C chord) and finger position on the strings.

Stage 5: Output

   Indicate users whether they are playing it correctly.

In stage 3, fingertips are detected using a curvature-based algorithm on the contour of a user's hand (Figure 7). The candidate fingertip point is outlined by the high curvature value. Each fingertips are accurately located by fitting an ellipse on it. Five fingertips are identified and controlled based on the post of a thumb so that the fingertips are used as point correspondences for a camera pose estimation algorithm (Lee & Hollerer, 2009).

FIGURE 7: Stage 3 example (Huidong, 2016)

8 CONCLUSION

This paper summarizes the steps taken in designing a prototype system for teaching the basics of guitar to beginner level students, by using functionality of an implemented
augmented reality interface toolkit. The interactive AR scenarios demonstrate the potentials of learning and training through natural human-computer interaction techniques supporting learners to enjoy an entertainment and interactive music guide. Another advantage of this approach is that it is generic and can be easily extended and adapted to other areas of music. Currently the framework provides visual information to potential learners but could not perform a comprehensive sound-simulation nor provide real-time feedback. The correction of the auditory information can be performed using Digital Signal Processing (DSP) filters and the suggested information must be provided to the learner in real time.

Unlike other AR interfaces, this trial is specifically concentrate on multimedia augmentation and interaction techniques for learning guitar. In the future, all the learning scenarios which are currently fixed in the system will be stored in a database system so that users can access it from anywhere. Undoubtedly, AR interfaces are capable of exploiting a number of different approaches and can provide unique solutions for many potential commercial applications. In the coming years, AR learning systems will provide automatic feedback for actions or situations that are otherwise impossible to achieve. However, to increase the usefulness of learning applications more sophisticated teaching environments must be designed to provide a complete and powerful solution to modern education.
REFERENCES


IMPLEMENTASI PROGAM GERAKAN GEMAR SEDEKAH (GREGED) DI SD MUHAMMADIYAH (PLUS) KOTA SALATIGA, JAWA TENGAH, INDONESIA

Danang Setiawan, S.Pd.I
Progam Magister Pendidikan Guru Madrasah Ibtidaiyah, Institut Agama Islam Negeri Salatiga, Jawa Tengah, Indonesia
Email: danangsetiawan532@gmail.com

ABSTRAK


Kata Kunci: sedekah, pendidikan karakter, kecerdasan emosional.

PENDAHULUAN

Undang-undang No. 20 Tahun 2003 tentang Sistem Pendidikan Nasional menjelaskan bahwa Pendidikan nasional berfungsi mengembangkan kemampuan dan membentuk watak serta peradaban bangsa yang bermartabat dalam rangka mencerdaskan kehidupan bangsa, bertujuan untuk berkembangnya potensi peserta didik agar menjadi manusia yang beriman dan bertakwa kepada Tuhan Yang Maha Esa, berakhak mulia, cakap, kreatif, mandiri, dan menjadi warga negara yang demokratis serta bertanggungjawab” (Pasal 3 Undang-undang No. 20 Tahun 2003).

Dari kutipan rumusan fungsi dan tujuan pendidikan nasional yang tertulis dalam Undang-undang tentang Sistem Pendidikan Nasional, secara jelas menekankan bahwa titik
berat tujuan Pendidikan Nasional adalah pendidikan karakter, pendidikan moral, manusia yang susila, bertanggung jawab, dan demokratis, di samping cakap (cerdas) adalah wujud manusia yang bermoral, manusia yang beriman dan bertakwa terhadap Tuhan Yang Maha Esa, yang berbudi luhr, yang berkepribadian, mantan dan mandiri, dan memiliki rasa tanggung jawab, jelas adalah wujud dari pribadi yang bermoral.

Pertanyaannya adalah mengapa sistem pendidikan yang dirancang untuk melahirkan manusia Indonesia yang bermoral dan berkarakter sampai dipandang oleh sementara pihak sebagai mengabaikan pendidikan moral? Di pihak lain, ada yang memandang bahwa pendidikan nasional sampai batas tertentu telah mampu membina otak. Dalam kaitan ini penulis berpandangan bahwa penyelenggaraan pendidikan nasional yang dirancang untuk mencerdaskan kehidupan bangsa masih jauh dari terwujud.22

Wujud dari upaya mencerdaskan kehidupan bangsa, pendidikan Islam turut andil dalam hal ini. Peraturan Menteri Agama No. 2 Tahun 2008 menjelaskan bahwa pembelajaran Fiqih diarahkan untuk mengantarkan peserta didik agar dapat memahami pokok-pokok hukum Islam dan tata cara pelaksanaannya untuk diaplikasikan dalam kehidupan sehingga menjadi muslim yang selalu taat menjalankan syariat Islam secara sempurna. Dalam hal ini jelas Peraturan Menteri Agama tersebut telah mengamanatkan untuk membekali peserta didik agar dapat melaksanakan dan mengamalkan ketentuan hukum Islam dengan benar dalam melaksanakan ibadah kepada Allah dan ibadah sosial. Pengamalan tersebut diharapkan menumbuhkan ketaatan menjalankan hukum Islam, disiplin dan tanggung jawab sosial yang tinggi dalam kehidupan pribadi maupun sosial.


Islam sebagai pandangan hidup. Dijelaskan bahwa pendidikan Islam adalah usaha sadar untuk menyiapkan peserta didik meyakini, memahami, menghayati, mengamalkan Agama Islam melalui kegiatan bimbingan, pengajaran dan latihan dengan memperhatikan tuntutan untuk menghormati Agama lain dalam hubungan kerukunan antar umat beragama dalam masyarakat untuk mewujudkan persatuan Nasional.


---


motivasi bahwa dengan bersedekah dapat membantu orang lain yang sedang berada dalam himpitan kesulitan ekonomi. Karena sedekah merupakan ibadah sosial merupakan ibadah yang mempunyai efek langsung dengan konteks kehidupan masyarakat sekitar. Makna sedekah tidak hanya fokus menggunakan harta untuk hal-hal yang baik. Namun terdapat makna sosial yang hendak menelamatkan kehidupan orang miskin, anak yatim, para pengemis, pemulung dan peminta-minta. Sedekah berarti bentuk sikap kita untuk membentengi diri dari kefakiran.


Penerapan program sedekah di SD Muhammadiyah (Plus) Kota Salatiga. Sebagaimana dikutip dari artikel berikut ini:

“SIDOMUKTI – Sejumlah siswa SD Muhammadiyah Plus Salatiga yang menjadi anggota dokter kecil sekolah, menggalang dana bantuan bagi korban banjir. Kegiatan selama beberapa hari tersebut diperoleh dari menyisihkan uang saku setiap siswa. Aksi sosial siswa sebagai bentuk kepedulian terhadap sesama tersebut, mampu mengumpulkan uang senilai Rp 4.006.500. Dana tersebut kemudian akan disalurkan kepada korban banjir yang berada di wilayah Kudus, Demak, Jepara, dan sekitarnya. Penyalurannya melalui Pimpinan Daerah Muhammadiyah (PDM) wilayah setempat. Kepala Sekolah SD Muhammadiyah Plus, Sutomo, MAg didampingi Suwarno, SPd.I selaku pembimbing keislaman dan kemuhummadiyahan mengatakan, program tersebut merupakan bagian dari pendidikan sosial (kecerdasan sosial) dan melatih anak agar berempati terhadap bencana yang terjadi. Sekaligus melahirkan empati yang tinggi dan mampu berinisiatif, untuk membantu warga yang membutuhkan bila terjadi bencana,”" jelas Sutomo, kemarin."

SD Muhammadiyah yang dulunya HIS Muhammadiyah merupakan amal usaha monumental sebagai cikal bakal perkembangan Muhammadiyah di Salatiga. Tempo dulu sekolah ini telah melahirkan banyak kader. Pada tahun 2002 PDM (Pimpinan Daerah Muhammadiyah) bersama para manant pimpinan mengadakan rapat untuk mengambil keputusan di antara dua pilihan iaitu ditutup atau dikembangkan secara revolusioner dengan mengubahnya menjadi SD Unggulan, dengan segala konsekuensi pendanaannya. Kebijakan

\[\textit{Sdmpsalatiga.sch.id}, \text{diakses 8 September 2014, pukul 10.00 WIB.}\]


Berdasarkan latar belakang di atas, maka peneliti tertarik untuk meneliti implementasi program gerakan gemar sedekah di SD Muhammadiyah (Plus) Kota Salatiga.

**METODE PENELITIAN**

Penelitian ini merupakan penelitian kualitatif, yakni penelitian yang bertujuan untuk memahami fenomena yang terjadi pada subyek penelitian, seperti perilaku, persepsi, motivasi, tindakan, dll., secara menyeluruh dan dengan cara deskripsi.²⁷

Penelitian ini dapat dikatakan sebagai penelitian dengan teknis analisis deskriptif karena dalam melakukan penelitian tidak menggunakan angka-angka statistik, melainkan penelitian yang berangkat dari fakta-fakta dan peristiwa yang konkret, baik alamiah maupun rekayasa. Penelitian deskriptif dalam pendidikan dan kurikulum pengajaran merupakan hal yang cukup penting. Karena di dalamnya mendeskripsikan fenomena kegiatan pendidikan, seperti pembelajaran dan lain-lain.²⁸ Penelitian ini juga disebut penelitian survei, merupakan metode formal untuk memperoleh informasi yang ditempuh dengan penyebaran angket atau wawancara secara pribadi serta dengan observasi terhadap subyek penelitian. Penelitian ini kurang mengendalikan kontrol proses penelitiannya, tidak seperti eksperimen, tetapi biasanya dapat membuat kesimpulan umum yang tinggi daya generalisasinya.²⁹ Penelitian survei tidak


hanya digunakan untuk melukiskan kondisi yang ada, tetapi juga untuk membandingkan keadaan tersebut dengan kriteria yang telah ditetapkan atau menilai keefektifan program.\textsuperscript{30}

**Fokus Penelitian**

Dalam mempertajam penelitian ini, peneliti menetapkan batasan masalah yang disebut dengan fokus penelitian, yang berisi pokok masalah yang masih bersifat umum. Spradley dalam Sugiyono menyatakan bahwa “\textit{A focused refer to a single cultural domain or a few related domains}” maksudnya adalah bahwa fokus penelitian merupakan domain tunggal atau beberapa domain yang terkait dari situasi sosial. Dalam penelitian kualitatif, gejala itu bersifat holistik (menyeluruh, tidak dapat dipisah-pisahkan), tetapi keseluruhan situasi sosial yang diteliti meliputi aspek tempat (\textit{places}), pelaku (\textit{actor}) dan aktivitas (\textit{activity}) yang berinteraksi secara sinergis.\textsuperscript{31} Sesuai dengan rumusan masalah dan tujuan penelitian, maka yang menjadi fokus dalam penelitian ini adalah Implementasi program gerakan gemar sedekah (GREGED) dalam peningkatan sikap kepedulian sosial siswa. Kehidupan sosial memang erat kaitannya dengan hubungan sesama manusia. Seringkali adanya ketimpangan sosial antara kalangan masyarakat kaya dan miskin. Kesenjangan yang terlalu lebar berpotensi untuk terjadinya kekacauan sosial. Belakangan ini, masyarakat kurang peduli terhadap lingkungan. Kebanyakan harta yang dimiliki seolah-olah tidak ada campur tangan Allah, dianggap jerih payah sendiri, sehingga mereka acuh tak acuh, hidup individualistic. Dalam membentuk kepedulian sosial tentunya ditunjang program sekolah yang membina dan mengasuh peserta didik sesuai pendidikan Islam di atas. Salah satu solusi pendidikan Islam untuk mewujudkannya adalah melalui program gerakan gemar sedekah yang akan diteliti.

**Sumber Data**

Penelitian implementasi gerakan gemar sedekah (GREGED) pasti membutuhkan data untuk menulis tulisan ini. Penulis mencoba memakai sumber data, yakni data yang diperoleh dari sumber-sumber terkait, yaitu sumber yang memuat informasi atau data tersebut adalah wawancara dengan kepala sekolah SD Muhammadiyah (Plus) kota Salatiga, guru kelas dan guru pembimbing, orang tua, siswa dan buku-buku yang ada kaitannya dengan skripsi ini.


Dalam pengujian keabsahan data, metode penelitian kualitatif menggunakan istilah yang berbeda dengan penelitian kuantitatif. Jadi uji keabsahan data dalam penelitian kualitatif meliputi uji *credibility* (*validitas* interval), *transferability* (*validitas eksternal*), *dependability* (*reliabilitas*), dan *conformability* (*obyektivitas*).

Sebelum data dianalisis, diperlukan verifikasi terhadap data yang telah terkumpul. Verifikasi tersebut dilakukan dengan metode triangulasi. Metode triangulasi yaitu teknik pemeriksaan keabsahan data dengan cara memanfaatkan sesuatu yang lain di luar data yang terkumpul. Tujuannya adalah untuk mengecek atau membandingkan keabsahan data tersebut. Setelah itu, data yang sudah terkumpul dan terseleksi dianalisis agar ditemukan makna dibalik data tersebut.

Denzin, sebagaimana dikutip oleh Sudarwan Danim menjelaskan ada empat jenis triangulasi, yaitu triangulasi sumber (*sources triangulation*), triangulasi metode (*methods triangulation*), triangulasi peneliti (*investigators triangulation*) dan triangulasi teori (*theory triangulation*).32 Dari keempat jenis triangulasi tersebut, triangulasi yang digunakan dalam penelitian ini yaitu triangulasi sumber dan metode.

Setelah data diverifikasi, barulah data tersebut dianalisis. Adapun analisis dalam penelitian ini menggunakan analisis deskriptif, yakni menganalisis secara kritis segala fenomena yang ditemui di lapangan sehingga menghasilkan simpulan penelitian yang obyektif. Analisis tersebut menggunakan metode inductif.

Dalam penelitian ini, analisis yang digunakan adalah analisis inductif atau generalisasi. Pendekatan inductif dimaksudkan untuk membantu pemahaman tentang pemaknaan dalam data yang rumit melalui pengembangan tema-tema yang diikhtisarkan dari data kasar.33 Langkah-langkahnya yaitu menganalisis secara rinci segala fenomena yang terjadi di lapangan. Dari fakta-fakta khusus yang telah terkumpul, kemudian dilakukan generalisasi dengan menginduk atau merujuk pada kerangka teoritik yang telah disajikan.

Implementasi Program Gerakan Gemar Sedekah butuh dikaji secara mendalam. Oleh karena itu peneliti mencoba menganalisis penelitian ini dengan memakai analisa kualitatif deskriptif yang akan lebih menjadikan valid dalam penulisan skripsi. Analisis ini mengandung

---


dua tahap proses analisis data yakni: pertama adalah analisis yang dilakukan terhadap data yang berupa kata-kata tertulis atau lisan dari orang-orang dan perilaku yang dapat diamati. Kedua adalah analisis yang bermaksud untuk memuat deskripsi mengenai situasi-situasi atau kejadian-kejadian yang telah dianalisis awal pada tahap pertama. Dari dua proses analisis data ini akan ditemukan satu titik akhir yang merupakan kesimpulan dari penelitian ini.

HASIL PENELITIAN

Penelitian yang dilakukan oleh penulis dalam jurnal ini adalah berbentuk deskriptif kualitatif, yakni penelitian dengan cara memaparkan dalam bentuk kualitatif terhadap obyek yang didasarkan pada kenyataan dan fakta-fakta yang tampak pada obyek tersebut. Sehingga untuk menganalisis data yang telah dikumpulkan digunakan bentuk analisis deskriptif kualitatif yaitu menganalisis data dengan berpijak pada fenomena-fenomena yang kemudian dikaitkan dengan teori atau pendapat yang telah ada.


34 Lexy J. Moloeng, Metodologi Penelitian Kualitatif, hlm. 4.

35 Hasil wawancara dengan wakil kepala sekolah bapak Ainul Huri, S.Pd.I, pada Senin, 30 Maret 2015

Ruang lingkup pembelajaran materi fiqih Ibadah di Madrasah terdiri dari: shalat, puasa, zakat, dan lain sebagainya. Selain diwajibkan atas pelaksanaan shalat, zakat, umat Islam dianjurkan bersedekah dan infaq. Infaq adalah memberikan bantuan atau pertolongan berupa barang (harta) atau yang lain tanpa mengharap imbalan dan hanya mengharapkan ridha Allah SWT. Bersedekah dapat diwujudkan dalam berbagai bentuk, baik materi maupun yang bersifat non materi. Misalnya, berupa sumbangan pikiran, tenaga, atau perkataan berupa saran dan nasihat yang baik. Menurut para fuqaha (ahli fiqih) sedekah dalam pengertian di atas disebut sedekah secara spontan dan sukarela.36

Tentunya program ini mendukung sesanti (slogan) “AKU ANAK CERDAS BERAKHLAK MULIA”, kata AKU dimaksudkan sebagai penyadaran akan potensi diri dan motivasi diri sendiri; ANAK CERDAS adalah modal kreatifitas dan kemampuan memecahkan masalah; BERAKHLAK MULIA adalah kunci sukses dan hidup bermakna. Untuk mewujudkan sesanti tersebut, diadakan program GREGED untuk siswa kelas VI dibantu guru pendamping yang profesional serta silaturahmi yang intens antara orang tua dan sekolah, karena keterpaduan sikap dan pandangan antara keduanya merupakan kunci keberhasilan pendidikan.37

PEMBAHASAN

Dasar Program GREGED

GREGED ini berangkat dari surat al-Ma’un yang berarti barang-barang yang berguna. Termasuk golongan surat-surat Makkiyyah. Surat al-Ma’un diturunkan sesudah surat al-Takatsur (bermegah-megahan), yakni surat ke 16 dan sebelum al-Kafirun (surat ke 18). Nama al Ma’un diambil dari kata al Ma’un yang terdapat pada akhir ayat. Secara etimologi, al-

36Amirulloh Syarbini, The Miracle of Ibadah, (Bandung: Fajar Media, 2011), hal. 110.
37Hasil wawancara dengan wali kelas VI Al-Kindi ibu Oktaviana Safitri, S.Pd, pada Senin, 30 Maret 2015.
Ma’un berarti banyak harta, berguna dan bermanfaat, kebaikan dan ketaatan, dan zakat. Menurut Muhammad Asad kata "al-Ma'un" berdasarkan berbagai tafsir klasik dapat dipahami sebagai "comprises the small items needed for one's daily use, as well as the occasional acts of kindness consisting in helping out one's fellow-men with such item. In its wider sense, it denotes "aid" or "assistance" in any difficulty" (...kata "al-Ma'un" mencakup hal-hal kecil yang diperlukan orang dalam penggunaan sehari-hari, juga perbuatan kebaikan berupa pemberian bantuan kepada sesama manusia dalam hal-hal kecil. Dalam maknanya yang lebih luas, kata al-Maun berarti "bantuan" atau "pertolongan" dalam setiap kesulitan).³⁸

Program ini mengaplikasikan isi kandungan dari surat al-Ma’un. Program tersebut merupakan bagian dari pendidikan sosial (kecerdasan sosial) dan melatih anak agar berempati terhadap bencana yang terjadi. Sekaligus melatih anak melaksanakan pendidikan agama dengan praktik langsung dalam bentuk infaq/shadaqah. Diharapkan nantinya siswa memiliki empati yang tinggi dan mampu berinisiatif, untuk membantu warga yang membutuhkan bila terjadi bencana. Serta yang menjadi landasan ada visi dan misi dari SD Muhammadiyah (Plus) kota Salatiga.³⁹

Anak adalah titipan Tuhan yang sangat berharga. Kewajiban pendidik adalah mendidik anak sebaik-baiknya dalam hal melatih gemar sedekah. Sedekah adalah amalan yang bisa merubah perilaku yang melakukan dan juga kehidupan yang menerima. Sedekah bisa berdampak besar bagi kehidupan yang melakukannya, sikap empati, rasa menolong, positive thinking, ketulusan dan keikhlasan.

**Tujuan Program GREGED**

Pada penelitian ini, program non-akademik yang diteliti adalah GREGED yang memiliki tujuan:

**Membangun kecerdasan emosi anak**

Sedekah diberikan pada hal-hal yang bersifat sosial, seperti membantu korban bencana alam, memberikan santunan kepada anak yatim, memberikan bantuan kepada anak kurang mampu untuk sekolah, dan kegiatan sosial lainnya. Menjalin hubungan sosial dengan orang

---

³⁸Muhammad Asad, *The Message of the Qur’an*, hal. 102

³⁹Hasil wawancara dengan kepala sekolah bapak Sutomo, M.Ag, pada Senin, 30 Maret 2015.
lain adalah sifat hakiki dimiliki manusia sebagai makhluk sosial yang merupakan komponen dari kecerdasan emosional.\textsuperscript{40}

**Membangun kecerdasan spiritual anak**

Ketika siswa mampu memiliki kemampuan sosial, mampu menghadapi dan memanfaatkan penderitaan, rasa sakit, memiliki visi dan prinsip nilai, serta memiliki komitmen dan bertindak penuh tanggung jawab serta menaruh perhatian pada kepentingan orang lain. Ini artinya, siswa memiliki pemahaman tentang tujuan hidup akan memunculkan kecerdasan spiritual.\textsuperscript{41}

**Langkah Pelaksanaan Program GREGED**

Gerakan Gemar Sedekah (GREGED) merupakan gerakan penggalangan dana yang dilakukan oleh siswa - siswi kelas VI SD Muhammadiyah (Plus) Kota Salatiga yang dilakukan setiap hari sebesar 500 rupiah. Dana ini digunakan untuk membantu korban bencana alam dan kegiatan sosial. Dalam program ini siswa dilibatkan secara langsung, dari proses pengumpulan sampai penyaluran dana yang dibimbing oleh wali kelas. Program ini dimulai sejak tahun 2011, sebelumnya nama program ini adalah GJL (Gerakan Jum’at Lima Ratus). Kemudian berubah nama menjadi GREGED (Gerakan Gemar Sedekah). Adapun langkah pelaksanaan program GREGED sebagai berikut:

Siswa kelas VI yang dibagi menjadi 3 kelas yaitu VI Al-Kindi wali kelas ibu Dwi Wuryandari, S.Pd., VI Al-Farabi wali kelas ibu Oktaviana Safitri, S.Pd., VI Al-Rumi wali kelas ibu Puji Lestari, S.Pd dan ketua koordinasi kelas VI adalah bapak Rifa Asqowi, S.Pd.I yang mengatur mengenai kegiatan akademik ataupun non akademik kelas VI selama 1 tahun. Adapun kegiatan akademik dan non akademik terlampir pada lampiran penelitian ini.

Pihak sekolah sebelum penyelenggaraan program GREGED telah melaksanakan dialog interaktif wali murid, dan disepakati setiap hari siswa kelas VI menyisakan uang sakunya Rp. 500,00. Itu artinya setiap siswa mampu mengumpulkan setiap minggu Rp.500,00 X 6 hari = Rp. 3.000,00. Dan selama sebulan setiap siswa mampu mengumpulkan uang Rp. 3.000,00 X 4 minggu = Rp. 12.000,00. Sedangkan siswa kelas VI berjumlah 73 yang dibagi 3 kelas.

\textsuperscript{40}Hasil wawancara dengan koordinator tim guru kelas VI bapak Rifa Asqowi, S.Pd.I, pada Senin, 30 Maret 2015.

\textsuperscript{41}Monty P. Satiadarma, Fidelis E. Waruwu, *Mendidik Kecerdasan*, (Jakarta: Pustaka Populer Obor, 2003), hlm. 45-46.
Sehingga setiap bulannya siswa kelas VI mampu mengumpulkan uang sedekah sebesar Rp. 12.000,00 X 73 siswa = Rp. 876.000,00. Siswa mengumpulkan uang sedekah ke wali kelas VI masing-masing dan wali kelas akan mengumpulkan ke koordinator kelas VI bapak Rifa Asqowi, S.Pd.I yang akan menyalurkan uang sedekah dengan melibatkan siswa kelas VI di lapangan. Terhitung mulai bulan Agustus 2014 hingga Maret 2015 siswa kelas VI telah mengumpulkan Rp. 876.000,00 X 8 bulan = Rp. 7.008.000,00 yang disalurkan dalam kegiatan-kegiatan GREGED sebagai berikut:


b. Aksi sosial siswa sebagai bentuk kepedulian terhadap sesama tersebut, mampu mengumpulkan uang senilai Rp 4.000.000,00. Dana tersebut kemudian akan disalurkan kepada korban banjir yang berada di wilayah Kudus, Demak, Jepara, dan sekitarnya. Penyalurannya melalui Pimpinan Daerah Muhammadiyah (PDM) wilayah setempat tahun 2014 lalu.

c. Hari Kamis tanggal 17 Oktober 2014 anak-anak kelas VI SD Muhammadiyah Plus Kota Salatiga mengisi kegiatan jeda semester dengan berkunjung ke Dinas Perkebunan Pembibitan tepatnya di daerah Noborejo. Setelah selesai belajar tentang bercocok tanam lalu anak-anak kelas VI melanjutkan perjalanan menuju desa Ngronggo. Di sana anak-anak kelas VI menyerahkan bantuan air bersih kepada warga Ngronggo yang memang sangat membutuhkan air bersih.42

Siswa terlibat aktif dalam proses GREGED mulai dari pengumpulan, penyaluran uang sedekah, dan terlibat langsung dalam proses pemberian uang sedekah yang dikumpulkan melalui GREGED.

GREGED kegiatan di luar kelas yang sangat bermanfaat bagi siswa kelas VI SD Muhammadiyah (Plus) Salatiga, siswa mempunyai motivasi untuk bersedekah dalam berlomba-lomba dalam melakukan kebaikan. Dan siswa memiliki empati yang tinggi saat berada di lokasi penyaluran uang sedekah. Siswa juga merasakan rasa syukur kepada Allah

---

SWT, karena siswa kelas VI lebih beruntung dapat bersekolah dan menikmati pendidikan unggulan di Salatiga.\textsuperscript{43}

**Problematika dalam Program GREGED**

Dari hasil observasi dan wawancara dengan tim guru kelas VI tidak ada problem yang serius dalam menjalankan program GREGED ini. Karena program ini sudah disetujui dari pihak sekolah dengan orang tua siswa dan melibatkan siswa sekaligus dalam sosialisasi program akademik dan non akademik yang dilakukan di awal tahun ajaran baru. Tentunya pihak orang tua mampu bekerja sama untuk mewujudkan program ini. Karena gerakan GREGED ini merupakan gerakan pengumpulan dana dengan menyesihkan uang saku dari siswa. Hal ini diperkuat dari pernyataan salah satu tim guru kelas VI Oktaviana Safitri, S.Pd sebagai berikut:

Selama pengumpulan uang sedekah berjalan dengan baik, karena memang orangtua siswa mendukung penuh program ini. Siswa kami sangat antusias ketika pengumpulan uang. Apalagi ketika proses perhitungan dan penyaluran dana yang langsung terjun ke masyarakat, siswa sangat antusias dan menunjukkan sikap empati yang membuat kami tim guru kelas VI khususnya bangga. Mudah-mudahan tujuan dari program GREGED ini yaitu membentuk kecerdasan emotional dan spiritual akan terbentuk melalui proses yang dilalui siswa kami. Ini berpengaruh sekali dalam semangat siswa dalam membantu sesama, dan memunculkan rasa bersyukur kepada Allah, karena ternyata siswa kami lebih beruntung memiliki ekonomi yang mampu.\textsuperscript{44}

Sedekah sebagai upaya untuk menyelesaikan masalah yang dihadapi seseorang yang merasakan dengan cara lain dan gagal. Upaya menyelesaikan dengan sedekah ini merupakan upaya mengajak manusia untuk peduli dengan orang lain serta mengajak untuk ber-\textit{ammar ma’ruf} sehingga kemudian strategi sedekah digunakan untuk mencapai tujuan dakwah. Manfaat dari sedekah yang dikembangkan dalam program GREGED bisa dirasakan oleh banyak masyarakat luas. Dana sedekah di alokasikan ke berbagai bidang, yaitu: bidang pendidikan, kesehatan, pengembangan dakwah Islam, serta diberikan kepada yang memerlukan bantuan seperti fakir miskin, korban bencana alam dll.

\textsuperscript{43}Hasil wawancara ketua kelas VI Al-Khindi Zulfikar, pada hari Selasa, 31 Maret 2015.

\textsuperscript{44}Hasil wawancara dengan wali kelas VI Al-Farabi ibu Oktaviana Safitri, S.Pd, pada hari Selasa, 31 Maret 2015.

Semua bentuk sedekah yang ditafsirkan diatas selalu diikuti dengan keikhlasan yang mendalam, sehingga apa yang dilakukan mendapatkan tempat yang terpuji disisi Allah SWT. Sedekah dapat dilihat dari banyak versi dan semuanya berpangkal dari pemberian sesuatu kepada orang lain. Tujuan ibadah dalam Islam bukanlah menyembah, tetapi mendekatkan diri kepada Tuhan, agar dengan demikian roh manusia senantiasa diingatkan kepada halhal yang bersih lagi suci, sehingga akhirnya rasa kesucian seseorang menjadi kuat dan tajam. Roh yang suci membawa kepada budi pekerti baik dan luhurst, oleh karena itu ibadah disamping merupakan latihan spiritual, juga merupakan latihan moral. Demikian juga dengan sedekah yang mempunyai arti sangat luas ia mencakupi senyuman kepada manusia, seruan kepada perbuatan baik dan larangan dari berbuat jahat, memberi petunjuk kepada manusia, menjauhkan dari jalan, memberi air yang ada digayung kepada orang yang berhajat dan menuntun orang yang lemah penglihatannya.45

Masyarakat musli adalah masyarakat yang memiliki ciri secara organis dinamis, kuat dasar-dasar teori serta dasar-dasar organisatorisnya, kuat ikatan hubungannya, dan kepaduan jalinannya. Prinsip teorinya bersumber dari syahadat, yang berarti tidaklah ada suatu gerakan yang terjadi dan dijadikan, kecuali yang bersumber dari Allah SWT. Setiap pribadi bergerak dalam dinamika kehidupan tuntunan sistem-NYA yang dicontohkan Rasulullah SAW. Masyarakat muslim juga mendasarkan dinamikanya pada etika berprestasi kerja. Setiap orang diharuskan bekerja dan berkelana di muka bumi dalam rangka mencari rezeki dan karunia-NYA. Islam memberikan spirit, motivasi, dan pemikiran-pemikiran prakits guna mendorong gairah kerja dan berusaha, yang tidak melalaikan shalat, zakat, dan zikir kepada-Nya.

Program Gerakan Gemar Sedekah di SD Muhammadiyah (Plus) Kota Salatiga melibatkan unsur sekolah diantaranya Sutomo, M.Ag selaku kepala sekolah, wakil kepala sekolah (Ainul Huri, S.Pd.I, kepala tata usaha (Triyono, S.Pd.I), Kaur Kurikulum (Marijo, S.Pd.I), Kaur Sapras (Buhtari, S.Pd.I), serta team guru kelas VI Rifa Asqowi, S.Pd.I, Dwi Wuryandari,

---

GREGED merupakan gerakan penggalangan dana yang dilakukan oleh siswa-siswi kelas 6 SD Muhammadiyah (Plus) Kota Salatiga yang dilakukan setiap hari Jum’at sebesar 500 rupiah. Dana ini digunakan untuk membantu korban bencana alam dan kegiatan sosial. Dalam program ini siswa dilibatkan secara langsung, dari proses pengumpulan sampai penyaluran dana yang dibimbing oleh walikelas. Program ini dimulai sejak tahun 2011, sebelumnya nama program ini adalah GJL (Gerakan Jum’at Lima Ratus). Kemudian berubah nama menjadi GREGED (Gerakan Gemar Sedekah), program tersebut merupakan bagian dari pendidikan sosial (kecerdasan sosial) dan melatih anak agar berempati terhadap bencana yang terjadi. Sekaligus melatih anak melaksanakan pendidikan agama dengan praktik langsung dalam bentuk infaq/shadaqah dan diharapkan nantinya siswa memiliki empati yang tinggi dan mampu berinisiatif, untuk membantu warga yang membutuhkan bila terjadi bencana. Sebagaimana data telah dikutip pada pelaksanaan program.

Dalam sedekah ada makna sosial yang hendak menyelamatkan kehidupan orang miskin, anak yatim, para pengemis, pemulung dan peminta-minta. Maka, agar orang yang nasibnya kurang beruntung bisa hidup layak, orang yang mampu dituntun untuk bersikap dermawan dan mau membantu yang kurang beruntung. Siswa SD Muhammadiyah (Plus) Kota Salatiga dari hasil observasi sebagian besar merupakan siswa mampu, untuk itu perilaku sedekah yang memunculkan empati akan meruntuhkan kesenjangan sosial yang dialami siswa di lingkungannya dan akan mendekatkan diri siswa dengan masyarakat. Sebab, sedekah merepresentasikan adanya kepedulian dan keinginan untuk terus menjalin komunikasi. Sedekah dalam fungsi ini bisa ditafsirkan sebagai alat komunikasi dan perekat hubungan sosial.

Kedamaian dan ketentraman adalah dambaan setiap orang. Dengan gemar bersedekah, menyambung tali persaudaraan/bersilaturahmi kedamaian dan ketentraman hidup akan bisa didapatkan. Sebagaimana penjelasan pada BAB. II, terdapat nilai-nilai sosial yang terkandung. Penulis dapat menyimpulkan diimplementasikan nilai-nilai sedekah dalam pendidikan bisa dilakukan cara sebagai berikut:

Penanaman dasar-dasar kejiwaan yang mulia, ketakwaan, ukhuwah islamiyah, kasih sayang, memenangkan orang lain daripada diri sendiri, memaafkan, berani karena benar. Pemeliharaan hak orang lain. Membiasakan anak untuk menghargai dan menghormati hak-
hak orang di luar dirinya, seperti hak terhadap orang tua, hak terhadap teman, hak terhadap tetangga, hak terhadap guru, hak terhadap orang yang lebih dewasa. Tujuan yang ingin dicapai adalah kecerdasan emotional dan spiritual setiap siswa menjadi lebih sempurna dan bermakna, sehingga masyarakat tumbuh di atas dasar saling menolong, produktivitas, keterikatan yang kuat, akhlaq yang luhur, serta saling mencintai. Anak dibiasakan sejak dini untuk menjalankan etika sosial secara umum, dibentuk atas dasar-dasar pendidikan yang sebenarnya. Tujuannya, bila sudah dewasa dan dapat menangkap inti segala masalah, ia dapat bergaul dengan sesamanya di tengah-tengah masyarakat dengan kebaikan yang empatik, dengan cinta yang utuh, dan budi pekerti yang luhur.

KESIMPULAN DAN SARAN

Berdasarkan penelitian yang telah dilakukan, maka dapat diambil kesimpulan bahwa implementasi program gerakan gemar sedekah (GREGED) di SD Muhammadiyah (Plus) kota Salatiga merupakan gerakan penggalangan dana yang dilakukan oleh siswa-siswi kelas VI SD Muhammadiyah (Plus) Kota Salatiga yang dilakukan setiap hari sebesar 500 rupiah. Dana ini digunakan untuk membantu korban bencana alam dan kegiatan sosial. Dalam program ini siswa dilibatkan secara langsung, dari proses pengumpulan sampai penyaluran dana yang dibimbing oleh wali kelas. Program ini dimulai sejak tahun 2011, sebelumnya nama program ini adalah GJL (Gerakan Jum’at Lima Ratus). Kemudian berubah nama menjadi GREGED (Gerakan Gemar Sedekah).

GREGED merupakan bagian dari pendidikan sosial (kecerdasan sosial) dan melatih anak agar berempati terhadap bencana yang terjadi. Sekaligus melatih anak melaksanakan pendidikan agama dengan praktik langsung dalam bentuk infaq/shadaqah dan diharapkan nantinya siswa memiliki empati yang tinggi dan mampu berinisiatif, untuk membantu warga yang membutuhkan bila terjadi bencana. GREGED dalam perspektif psikologi yang akan memunculkan kecerdasan emosional dan spiritual.
DAFTAR PUSTAKA


Amirin, Tatang M., Menyusun Rencana Penelitian, Jakarta: Rajawali Pers, 1990, Cet. II.


Dokumen SD Muhammadiyah (Plus) Kota Salatiga.


Fatah, Abu Ahmad Abdul, Hidup Susah Tak Lupa, Solo: A ~ "010.


Syafii, Muhammad Masykur, *Keajaiban Sedekah*, Yogyakarta: Genius Publisher.


*Sdmpsalamata.sch.id*, diakses 8 September 2014, pukul 10.00 WIB.
THE ROLE OF CUSTOMERS’ CULTURAL VALUES IN DEVELOPING E-LOYALTY
(EMPIRICAL STUDY ON BSM KUDUS BRANCH)

Ekawati Rahayu Ningsih
STAIN KUDUS
JL. Conge Ngembalrejo Po Box 51 Kudus
safarajuara@gmail.com.

Abstract

Objective of the study this paper is to discuss result of the study which examines effects of customers’ cultural values in developing e-loyalty (Elektronik Loyalty) in globalization era and integrative model which based on Relationship Marketing theory (Morgan dan Hunt, 1994). These customers’ cultural values include personal relationship, long-term relationship, credibility among organizations (Hofstede, 1991), and English capability (Tetiwat dan Huff, 2003). Design/Methodology/Approach in this study is using triangulation approach consisted of survey on 17 customers, interview with manager, and instrument data processing of 200 respondents based on Structural Equation Modeling (SEM), its result shows that there is significant relation among customers’ cultural values in developing e-loyalty of sharia banking especially in BSM Kudus Branch. Knowledge provided in this paper is expected to be able to help bank manager in handling issues of decreasing customers’ e-loyalty of sharia banking by cultural approach.

Keywords: Cultural Value, Customer, e-loyalty, Relationship Marketing
1. INTRODUCTION
This study is motivated by the existence of phenomenon and gap between theoretical claim and practice of sharia banking in reality. The phenomenon in reality shows that after appearing globalization era, society’s need toward advancement of information technology especially in banking is greater. Therefore, a developed country, such as Indonesia, has a high expectation to adopt that advancement of information technology to create satisfaction and customer loyalty in the context of relationship marketing. There are many benefits got from applying modern information technology (Humphrey et al 2003; Kraemer et al, 2002; Pare 2002, 2003 and Tregurtha Vink 2002), among of them are to build long-term relationship between customer and banking.

However, empirical study shows that developed country, such as Indonesia, has a low adoption level of information technology (Wahid dan Iswari, 2007). This is effected by many things, they are cultural values of society which are inappropriate or less support to adoption and development of information technology (Vatanasakdakul, 2007). It will give bad effect on satisfaction and customer loyalty level. In interaction process of culture and globalization, on one side gives a chance to sharia banking to access global market and advancement of information technology (such as: internet banking, sms banking e-loyalty) which can possibly make sharia banking to broaden its products and distribution channel of service. On the other hand, globalization on products and services to customers throughout the world can not be equalized because there are cultural difference, geopolitics, and many more which finally affect some differences significantly in taking decision, habit, and their long-term relationship with company.

In term of cognitive, the meaning of culture is “collective programming from one’s thinking which differ between member of one group and anoher” (Hofstede, 1991). Culture consists of mindset (Kluckhohn, 1954). It is viewed as a system set of gathering meaning (Shweder & LeVine, 1984) and as an effort of dividing knowledge structure which leads to decreasing variability in individual interpretation toward stimulus (Erez & Earley, 1993). Because implementation of cultural content is very selective and adaptive, a differently ecological environment will make cultural modification also different (Berry, 1979, Kagitcibasi & Berry, 1989). Culture will form basic values and norms from its members. They will be divided and transmitted from one generation to another through social learning, modelling process and observation, and also effect from action itself (Bandura, 1986).

Vitkauskaite (2009) stated that interaction of internet will not be optimal if design system used is inappropriate with user perception. Noted that customers from many countries
use different interface, graphic template, and their attitude in e-commerce is also different. Thus, if a company is intended to have business in global market should consider the effects of cultural values and know every change of its in marketing communication. Knowledge about this cultural specification is important, especially in marketing campaign, to affect decision, satisfaction, and customer loyalty. Moreover, this knowledge should be arranged well and adjusted to job analysis (Marcus, 2004).

Related to e-loyalty, some literatures are intended to broaden the meaning of loyalty to strengthen relationship marketing theory. Loyalty has been identified as antecedent of competitive strategy, customer retention, and getting long-term profitability of company (Gronroos, 1996; Gummesson, 1994; Krisdayanti, et al, 2012; Morgan & Hunt, 1994; Nguyen & Liem, 2012). That proportion is called valid because customer loyalty, actually, is the greatest asset of company (Berry & Parasuraman, 1991; Ehigie, 2006; Abdulateef, Mohktar & Yusoff, 2010), thus the purpose of every bussiness is to make and maintain customers by creating loyalty (Maiyaki & Mokhtar, 2012). Coming from basic thought about that loyalty, e-loyalty is developed, according to Anderson and Srinivasan (2003) in Hur et al (2011) is beneficial attitude for customers to an e-business system which is potential to cause an action of buying repeatedly. Meanwhile, Hur et al (2011) defines e loyalty as intention of customers to visit website again with or without online transaction.

Besides those backgounds above, this study is conducted to solve the gap, either theory or gap of the previous study. Theory gap raises because there is not a clear consensus (multifacet) between the previous researcher about how to measure the effects of all practices of Relationship Marketing (Guo, Duff dan Hair, 2008). On the other hand, study gap raises because some opinions state that satisfaction and loyalty variables can be affected by culture (Hofstede, 2001: Guo dan Duff, 2007; Vatanasakdakul, Ramburuth, D’ambra 2010). Nevertheless, Avery, Baradwaj, Singer (2008) pointed that not all of factors from those, only culture, Hofstede (1991), affects understanding, satisfaction, loyalty, and taking attributes from various designs of certain web bank online situs. Therefore, this study will re-examine the effects of cultural values as well as those which were conducted by Vatanasakdakul, Ramburuth, D’ambra (2010). It is like what was suggested by Webster (1992) and Achrol (1997) that the next researchers review and re-analyze deeply about design and practice of Relationship Marketing on banking bussiness to create customer loyalty from different culture background, especially in developed countries such as Indonesia.

The important objectives of this study are first, to solve theory gap by developing and strengthening basic theory of Marketing Relationship, especially on bussiness of sharia
banking. **Second**, shaping theoretically basic strategy to build *e-loyalty* by knowing what kinds of customers’ cultural values which really affect on improving relation quality between sharia banking and customers. This study intends to show that there is interdependence among variables in building customer *e-loyalty*.

Suggestion from Cáceres and Paparoidamis (2005) to the next researchers, to notice the difference of customers from various social background and is used as measurement variable which affects customers’ loyalty in giving service. It is also firmed by Webster (1992) and Achrol (1997) who state that cultural difference can cause the high or low level of customer loyalty.

According to background, an identified gap, objective of the study and suggestion of the previous researcher, this study is conducted to solve the gap by reviewing theory and basic concept of *Relationship Marketing* and identifying customers’ cultural values which affect *e-loyalty* on sharia banking as well as done by Savanik, John and Prem (2010) to build conceptual framework and aim to unite various relational variables which are related in literature of marketing relationship. Then, it is conducted investigation empirically for the formulated model. Because the objective of this study is investigating theoretical-basis model, so this study uses an analysis technique of *Structural Equation Modelling* (SEM). This SEM usage is also expected to solve the gap either theory or an identified gap of the study.

2. **Theoretical Review**

2.1 **Cultural Values**

This study is more directed to how individuals and Indonesian cultural values have an adaptive perspective and attitude toward the development of information technology to support banking loyalty programs. Why culture is the focus of discussion, because culture includes various setting of social behavior and interaction. This setting that causes anthropologists and researcher succeed to develop several cultural models that illustrate the differences between cultures with each other. Hewett et al. (2006) stated that national culture is an important factor in maintaining long-term relationships between customers and companies.

One of the most widely quoted anthropologists is Geert Hofstede (1980, 1983, and 1984). Hofstede successfully undertook cultural studies from 1970 to 1980 on IBM companies, in 72 national subsidiaries, 38 jobs, 20 languages, and 116,000 individuals. Based on these studies, Hofstede identifies four cultural dimensions consisting of dimensions: individualism vs. collectivism, avoidance of uncertainty, masculinity, and distance of power.
This understanding has dominated the literature in the last two decades (Geletkanycz, 1997; Hickson, 1996; Vitell et al, 1993).

Power Distance is the level of public acceptance of uneven distribution in a power. The power distance scores in Indonesian society are very high at 78 compared to the Thai state is 64 (Hofstede, 2016). Hofstede claims that high-powered countries have centralized and hierarchical political structures, developed with status differences, while low-power countries consider individuals as normal and status differences among them are not very strong.

The fundamental issue of Individualism vs. collectivism is the degree of individual dependence in society. In a collectivist culture the interests of the group take precedence over the interests of the individual, on the contrary in the individualist culture, the interests of the individual are greater than the interests of the group. So in a cultured society of high collectivism, the feeling of dependence on each individual is very high. Indonesia has a low individualism score is 14, indicating that Indonesia is cultured by high collectivism.

The culture of masculinity vs. femininity is related to the effort of separating traditional gender roles or not doing it. In a masculine culture the role of gender is more detached than that of feminism and manifests itself through the tenacity, competitiveness, violence and femininity of the home-oriented, the children, the parents and the tenderness. The cultural score of masculinity for Indonesia is 46, this shows the characteristic of Indonesian culture is lower than Malaysia with score 50.

The culture of avoidance of uncertainty is the cultural dimension that addresses its role in accepting uncertainty. Individuals in a society whose avoidance of high uncertainty seek to avoid personal risk, they are more opposed to innovation and respect for rules. Indonesia's uncertainty avoidance score is 48, which means that Indonesians have an awareness of the low uncertainty situation. Ravichandran (2001) argues that innovation and the adoption of complex technologies always involve a certain degree of risk. In the diffusion process, innovators are more willing to take risks and they are more tolerant of risk than other groups.

A long-term orientation culture describes how people behave when faced with present and future challenges. Character of society with long-term orientation more maintain stability, prudence, make long-term agreement and have tremendous value. Countries in Asia are more focused on wise behavior compared to Western countries whose focus is more focused on finding their own truth. The long-term orientation score of Indonesia is 62, indicating that Indonesia has a pragmatic culture. In a pragmatic culture, people believe that the truth
depends on the situation, context and time. Society shows its ability to adapt more easily to rapidly changing situations. People have a tendency to save and invest for the future.

Differences in the results of cultural suitability research (Culture + IT adaptation) started from the influence of each national culture's ability in adapting to the progress of information technology. In general, cultural studies (Harvey, 1997, Straub, 1994, Watson, Teck and Raman, 1994) and IT adoption suggest Hofstede's work relevance for IT adoption. Other studies have also examined the implications of national culture for certain technologies such as SPKK, E-mail, and fax, etc., but the analysis is usually limited in one particular country, and cannot be generalized to other countries (Vatanasakdakul, D’ambra, Ramburuth, 2010). Therefore it is necessary further research in this field.

Because there are differences in the level of acceptance of each culture towards the advancement of banking information technology, the cultural values used as independent variables as ever done by (Vatanasakdakul, D’ambra, Ramburuth, 2010) are as follows: personal relationship, long relationship Length, inter-organizational trust (Hofstede, 1991), and English ability (Tetiwat and Huff, 2003).

2.2 E loyalty

In the marketing literature, loyalty has been widely recognized as the most important (Oliver, 1999; Samuelsen and Sandvik, 1997; Howard and Sheth, 1969). Reichheld (1996) studied the positive effect of profits when having loyal customers. Aaker (1991) also discusses loyalty programs very important, especially with regard to brand equity. Fornell and Wernerfelt (1987) note that customer retention costs substantially, can reduce customer acquisition rates.

E-loyalty is an extension of the concept of conventional loyalty applied on line (Ghane et al, 2011). E-loyalty is the intention to visit the website again with or without the occurrence of online transactions (Hur et al, 2011). Therefore, because the company website is non ecommerce which means not serving the transaction, in this study e-loyalty is measured by using three of four indicators without including action that is: cognitive, affective and conative with each indicator is preference, positive attitude and revisit (Hur et al, 2011).

Based on the various opinions above, if on the understanding of customer loyalty explained about how loyal customers means to make repeat purchases in e-loyalty. This repeat purchase turns into a repeat visit. This visit may mean customer interest in the company, or the potential to make a purchase or transaction.
3. Conceptual Framework Model and Hypothesis

From the understanding of the cultural values and e-loyalty above, the conceptual scheme and the hypothesis proposed in this study are as follows:

**Figure 1. Conceptual Framework Model and Hypothesis**

![Conceptual Framework Model](image)


From the above conceptual framework, the Researcher proposed a hypothesis to be tested in this study as follows:

H1 : There is effect of customer relationships on e-loyalty of sharia banking
H2 : There is effect of long-term customer relationship orientation on e-loyalty of sharia banking
H3 : There is effect of trust between organizations from customers on e-loyalty of sharia banking
H4 : There is effect of the customer’s English ability on e-loyalty of sharia banking

4. Methodology of The Study

The research design adopted in this study uses a triangulation approach that includes a combination of qualitative and quantitative approaches. A preliminary survey was conducted on 17 sharia bank customers to ensure the development of e-loyalty, the key word for the sharia bank and the third step was a questionnaire customer in 200 respondents as BSM bank customers taken by accidental sampling. Table descriptions of the respondents is as follows
Table 1. Description of Respondents

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status</td>
<td>Government Institution</td>
<td>17</td>
<td>8.5%</td>
</tr>
<tr>
<td></td>
<td>Private</td>
<td>74</td>
<td>37%</td>
</tr>
<tr>
<td></td>
<td>individual</td>
<td>109</td>
<td>54.5%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>200</strong></td>
<td><strong>100%</strong></td>
</tr>
<tr>
<td>The duration of relationship with bank</td>
<td>0-1 year</td>
<td>67</td>
<td>33.5%</td>
</tr>
<tr>
<td></td>
<td>1-5 years</td>
<td>117</td>
<td>58.5%</td>
</tr>
<tr>
<td></td>
<td>5-10 years</td>
<td>16</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td>10 years above</td>
<td>-</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>200</strong></td>
<td><strong>100%</strong></td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
<td>112</td>
<td>56%</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>88</td>
<td>44%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>200</strong></td>
<td><strong>100%</strong></td>
</tr>
<tr>
<td>Age of respondent</td>
<td>20-40 years</td>
<td>129</td>
<td>64.5%</td>
</tr>
<tr>
<td></td>
<td>41-60 years</td>
<td>60</td>
<td>30%</td>
</tr>
<tr>
<td></td>
<td>61 years above</td>
<td>11</td>
<td>5.5%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>200</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Source: Research Data (2015)

Based on the type of electronic banking transactions ever conducted, from 200 respondents obtained data in the following table 4.2:

Table 2. Types of Electronic Transactions of Sharia Banking Ever Been Conducted

<table>
<thead>
<tr>
<th>Types of Electronic Transaction of Sharia Banking</th>
<th>Total of Respondents N = 200</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Giro</td>
<td>108</td>
<td>54%</td>
</tr>
<tr>
<td>Saving Account</td>
<td>187</td>
<td>93.5%</td>
</tr>
<tr>
<td>Deposit Account</td>
<td>84</td>
<td>42%</td>
</tr>
<tr>
<td>Transfer/RTGS</td>
<td>183</td>
<td>91.5%</td>
</tr>
<tr>
<td>Other services</td>
<td>105</td>
<td>52.5%</td>
</tr>
</tbody>
</table>

Source: Research Data (2015)

Researcher takes research setting in Bank Syariah Mandiri (BSM) Branch Kudus and Pati. Each measured by using five question items. Measurement of variables uses Likert scale ladder 5 points with the following criteria:

- 1: strongly dislike
- 2: dislike
- 3: neutral
- 4: agree
- 5: strongly agree

After all the data is complete, the next step testing the validity and reliability of the instrument using Confirmatory Factor Analysis with the aid programs AMOS 6. Loading
factor. As the result, each culture item is valid because of loading factor > 0.50. While the results of reliability testing of all instruments in say reliable because CR > 0.6.

5. **Result and Discussion**

5.1. **Hypothesis Testing**

5.1.1 **Analysis of Appropriate Model (Goodness of Fit Model)**

Evaluation of goodness-of-fit value of the proposed research model shows that in the CMIN column, the default model is 2764.995 and the result P column is 0.072 or above 0.05. In table CMIN / DF the result of 2.406 or show more than 2. So it can be said the model is fit. RMR, GFI, shows the default model of 0.920. Because the result is above 0.9 then it is said to be fit. Overall measurement of goodness of fit indicates that the model proposed in this research is acceptable. Whereas In the Baseline Comparison table, the TLI column, Rho2 of 0.988 and the CFI column of 0.989. Because the result is above or more than 0.9 then the result is good. The result is not too sensitive to the sample. In the RMSEA table, the result is 0.016 because the result is less than 0.08 then it says the result has been fulfilled

<table>
<thead>
<tr>
<th>Goodness of fit indices</th>
<th>Cut off Value</th>
<th>Result</th>
<th>Model Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-Square (χ²)</td>
<td>Expected small</td>
<td>1980.709</td>
<td></td>
</tr>
<tr>
<td>Significance Probability (p)</td>
<td>≥ 0.05</td>
<td>0.054</td>
<td>Good</td>
</tr>
<tr>
<td>CMIN/DF</td>
<td>≤ 2.0</td>
<td>1.053</td>
<td>Good</td>
</tr>
<tr>
<td>GFI</td>
<td>≥ 0.9</td>
<td>0.791</td>
<td>Marginal</td>
</tr>
<tr>
<td>AGFI</td>
<td>≥ 0.9</td>
<td>0.762</td>
<td>Marginal</td>
</tr>
<tr>
<td>TLI</td>
<td>≥ 0.9</td>
<td>0.988</td>
<td>Good</td>
</tr>
<tr>
<td>CFI</td>
<td>≥ 0.9</td>
<td>0.989</td>
<td>Good</td>
</tr>
<tr>
<td>RMSEA</td>
<td>≤ 0.08</td>
<td>0.016</td>
<td>Good</td>
</tr>
</tbody>
</table>

Source: The processed primary data (2015)

5.1.2 **Analysis of Line Coefficient**

The test results indicate that several lines analyzed have significant relationship, that is seen from the level of significance (p) hypothesis test <5%. This analysis also shows there are 4 direct line influences. For direct influence, which has the greatest influence is the influence of long-term orientation relationship on e-loyalty, which is 4,146. This indicates that long-term orientation relationships have a greater direct effect on e-loyalty than other cultural values.

5.2. **Hypothesis Discussion**
Test results using SEM, seen in table 2 as follows

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Esti mate</th>
<th>S.E.</th>
<th>C.R.</th>
<th>P</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>e-loyalty</td>
<td>Personal Relationship</td>
<td>.160</td>
<td>.056</td>
<td>2.874</td>
<td>.004</td>
</tr>
<tr>
<td>e-loyalty</td>
<td>Long-term Orientation</td>
<td>.251</td>
<td>.061</td>
<td>4.146</td>
<td>***</td>
</tr>
<tr>
<td>e-loyalty</td>
<td>Credibility</td>
<td>.250</td>
<td>.069</td>
<td>3.646</td>
<td>***</td>
</tr>
<tr>
<td>e-loyalty</td>
<td>English Capability</td>
<td>.204</td>
<td>.086</td>
<td>2.379</td>
<td>.017</td>
</tr>
</tbody>
</table>

Source: The processed primary data (2015)

Based on the calculation result in Table 2, got the value of C.R customer relationship of 2.874 with significance level 0.008 or p <0.05. The result shows that hypothesis 1 is supported, it means statistically it can be concluded that the better personal relationship between customer and sharia banking, it will have positive effect on e-loyalty. If the sharia bank has an account manager specializing in customer needs based on electronic banking (such as internet banking, ATM machine, sms banking, RTGS and others), it can be assured that customers will keep their loyalty. The results of this study support the theory Hofstede (1991) and Morgan & Hunt (1994). So also supports the research findings of Vatanasakdakul, D'ambra, Ramburuth (2010) on the cultural values of Thailand.

Hypothesis 2 is supported with CR value of long-term orientation relationship of 4.146 with significance level 0.0008 or p <0.05 explain statistically that customer motivation to establish long-term oriented relationship with sharia bank have significant effect on e-loyalty. This result is in accordance with Hofstede's (1991) and supports the research findings of Vatanasakdakul research, D’ambra, Ramburuth (2010)

Hypothesis 3 is supported with the value of C.R customer confidence on the banks of 3,646 with a significance level of 0.0008 or p <0.05 describes statistically that the variable of customer confidence significantly affects the e-loyalty of sharia banking. These results are consistent with the theory of Hofstede (1991) and support the research findings of Vatanasakdakul, D'ambra, Ramburuth (2010)

Hypothesis 4 is supported with the C.R value of English adaptability of 2,379 with a significance level of 0.0008 or p <0.05 describes statistically that the ability to adapt using English has a significant effect on e-loyalty of syari'ah banking. These results are consistent with the theory Tetiwat and Huff (2003) and support the research findings of Vatanasakdakul, D'Ambra, Ramburuth (2010)

6. CONCLUSION
From the result of testing hypothesis as has been explained above, we can conclude that Indonesian customers’ cultural values based on Hofstede theory (1991), especially motivation to build long-term-oriented relationship, affect greater on e-loyalty of sharia banking. A society which has long-term perspective tends to emphasize future relation. In this case, bank should maintain quality of its electronic service so customers will be more satisfied, credible, and committed to sustain the relationship.

As we can see on the result of hypothesis testing 3, customers’ cultural values based on Hofstede theory (1991), especially maintaining credibility on bank, affect as the second after long-term orientation. As well as statement of Hofstede (1991) which stated that the real condition of Indonesia culture which is collective culture tends to keep credibility and integrity of one to another so finally it leads to loyalty.

In personal relationship significantly affects 2.874, it is caused on service of electronic banking, role of human service is smaller than machine service. Banking officers only work to control service and maintenance behind the scene. Nonetheless, personal relationship still has significant effect because it can be separated from Indonesia background which is characterized by collective culture and emphasized on personal relationship.

Meanwhile, English capability affects significantly small that is 2.379, it is because foreign language capability has been taught since elementary school so when facing web design or electronic service which uses English does not become problem to keep continuing e-loyalty relationship of sharia banking. Nevertheless, it is better for bank to provide foreign language facilities, not only English, to broaden service for all users throughout the world.

7. **Study Limitation and Suggestion for The Next Researchers**

This study has some limitations which can be reviewed by the next researchers, they are:

a. Time allotment in the study is only 4.5 months, thus it affects your data depth which should be got during survey. Therefore, the next researchers are suggested to conduct longitudinal study.

b. Broaden the review of cultural values of Hofstede (1991), such as power distance, masculinity-feminity, also avoid uncertainty and investigate its effect on e-loyalty of sharia banking. Reminding that measuring cultural values is really affected.
c. Re-review the findings of this study on other study objects beyond sharia banking, such as government institution, MLM, or private company


AUTOBIOGRAPHY

1. Name : Ekawati Rahayu Ningsih, SH, MM.
2. Place and Date of Birth: Blora, January 9th, 1974
3. Position : Head of Lektor /IVa
4. Office Address : Jl. Conge Ngembalrejo Kotak Pos 51 Kudus
5. Phone/Fax/E-mail : (0291) 438818 Fax. 441613
6. Education Background : Master Degree of Marketing Management
7. Experiences in managing periodically scientific publication:
   a. Chief Editor of Addin Journal (2013 - now)
   b. Chief Editor of Iqtishadia Journal (2007 - 2013)
   c. Editor Team of Iqtishadia Journal (2013 - now)
   d. Managing Editor of Empirik Journal (2013 - now)
   e. Editor Team of QIJIS Journal (2014 - now)
8. Languages : Indonesia and English (active)
9. List of Publication during last 3 years:
   c. Mainstreaming Isu Disabilitas Di Masyarakat Dalam Kegiatan Penelitian Maupun Pengabdian Pada Masyarakat Di STAIN KUDUS ( Research Journal Vol 8 (1)2014)
   d. Pendekatan Cultural Fit Dalam Meningkatkan Motivasi Wirausaha Mahasiswa (Studi Kasus: Kelompok Usaha Bersama (KUB) Mahasiswa STAIN Kudus)Badan Penerbit Universitas Muria Kudus (UMK Proceeding 2014)

Thus, this biography is made truly and considerably.

Kudus, Agustus 26th, 2017
Ekawati Rahayu Ningsih, SH, MM.
RAPOR KURIKULUM (2013) TINGKAT MADRASAH IBTIDAIYAH BERBASIS WEB

Endah Tri Fatmawati, Pascasarjana IAIN Salatiga, fatmawatiendah3@gmail.com

Abstrak

 Salah satu masalah yang ada dalam kurikulum 2013 adalah pembuatan rapor/penilaian akhir belajar anak. Berdasarkan permasalahan yang terjadi, peneliti melakukan penelitian yang bertujuan untuk mengembangkan aplikasi sistem penilaian akhir rapor kurikulum 2013 yang lebih menarik, dengan desain yang efisien dan mampu mempermudah dalam pembuatannya. Metode penelitian ini adalah penelitian pengembangan (Research and Development). Pengumpulan data menggunakan teknik dokumentasi, wawancara dan kuesioner. Objek penelitian ini adalah aplikasi SPARKS dengan menggunakan bahasa pemrograman PHP dan didukung database MySQL. Variabel yang menjadi tolok ukur adalah kelayakan produk. Penelitian ini menghasilkan aplikasi SPARKS dengan susunan format : A) Sikap; B) Pengetahuan dan keterampilan (khusus angka); C) Ekstrakurikuluer; D) Saran-saran; E) Tinggi dan berat badan; F) Kondisi kesehatan; G) Prestasi; H) Ketidakhadiran; I) Deskripsi pengetahuan dan keterampilan. Yang paling utama adalah kelayakan aplikasi SPARKS ini diuji berdasarkan : (1) Penilaian ahli teknologi yang dinilai berdasarkan 3 aspek yaitu kaidah media, tata laksana, dan kaidah software mendapatkan skor 88,64 atau termasuk “sangat layak” digunakan; (2) Penilaian ahli pendidikan dinilai berdasarkan relevansi media kurikulum 2013 mendapatkan 93,75 atau termasuk” sangat baik” untuk digunakan. (3) Penilaian uji coba lapangan dinilai berdasarkan 4 aspek yaitu kaidah media, tata laksana, kaidah software, dan relevans media dibagi menjadi 2 yaitu uji coba terbatas menghasilkan skor 88,89 termasuk “sangat layak” dan uji coba diperluas menghasilkan 87,93 termasuk “sangat layak” digunakan.

Kata kunci : Aplikasi SPARKS, Website

Abstract

One of the problem that appeared in 2013 curriculum is making a raport/student’s final assessment. Based on the problem, observer did an observation which aimed to develop application system of student’s final assessment in 2013 curriculum which was more interesting, by using an efficient design and it was able to make it easier. The procedure of data analysis is Research and Development. The data collection used documentation, interview and questioner. The object of observation is SPARKS application by using language programmer PHP an it was supported by database MySQL. The variable measured was the feasibility of the product. The observation produced SPARKS application and has the generic structure below : A)Attitude; B)Skill and Knowledge (for the number); C)Extracurricular; D)Suggestions; E)Heigh and Weight; F) Health Condition; G)Achievement; H)Absence; I) Skill and Knowledge Description. The most important thing was feasibility of SPARKS application which was tested based on : (1) Assessment of technology expert which was assessed based on 3 aspects such as the principle of
media, the system of quality and principle of software which gained 88.64 score or included “very suitable” to be used. (2) Assessment of Education expert which was assessed based on relevance of curriculum 2013 media which gained 93.75 or included “very good” to be used. (3) Assessment of field trial which was assessed based on 4 aspects such as principle of media, the system of quality, principle of software and relevance of media which was divided into 2 such as limitation trial which gained 88.89 score included “very suitable” and expanding trial which gained 87.93 score included “very suitable” to be used.

Keywords: SPARKS Application, Website

PENDAHULUAN


---

“Penilaian Hasil Belajar oleh Pendidik adalah proses pengumpulan informasi/data tentang capaian pembelajaran peserta didik dalam aspek sikap, aspek pengetahuan, dan aspek keterampilan yang dilakukan secara terencana dan sistematis yang dilakukan untuk memantau proses, kemajuan belajar, dan perbaikan hasil belajar melalui penugasan dan evaluasi hasil belajar”

Pada tahun 2014-2015 pemerintah sudah mendistribusikan contoh raport berupa file dalam bentuk ms-word atau ms-excel. Pada kenyataannya banyak guru yang masih mengeluh kurang praktisnya menggunakan file raport tersebut. Beberapa guru yang penulis temui, menyatakan bahwa mereka masih menggunakan cara manual dalam inputing data yang akhirnya menjadi sebuah rapor. Padahal aspek penilaian yang dituliskan tidaklah sedikit, banyak yang harus dimasukkan yaitu aspek sikap secara deskripsi yang meliputi sikap spiritual dan sosial, kemudian untuk aspek pengetahuan dan ketrampilan tidak hanya deskripsi saja melainkan juga ada nilai dan predikat dari rata-rata hasil belajar selama satu semester.


Peraturan Menteri Pendidikan dan Kebudayaan Republik Indonesia Nomor 53 Tahun 2015 tentang Penilaian Hasil Belajar oleh Pendidik dan Satuan Pendidikan Dasar dan Pendidikan Menengah Pasal 1
Penelitian dengan topik sistem aplikasi rapor berbasis web yang hampir sama sudah dilakukan oleh Tony Kurniawan dkk dengan judul perancangan pengolahan nilai rapor berbasis web (studi kasus pada SMA Kebon Dalem)\(^49\) yang menghasilkan sebuah sistem pengolahan nilai rapor berbasis web yang dapat mempercepat proses perhitungan, pengarsipan nilai, dan pembuatan laporan. Ulfah Rahmawati dkk dengan judul Aplikasi Berbasis WEB Pengolahan Nilai Akademik (Studi Kasus: SMP Negeri 34 Bandung)\(^50\) menghasilkan aplikasi yang memberikan fasilitas kepada guru mata pelajaran untuk melakukan input nilai siswa, selain itu jurnal penelitian sejenis yaitu dilakukan oleh Nursahid dkk menghasilkan kesimpulan bahwa komputerisasi dapat mempermudah proses dalam kegiatan penelitian hasil belajar siswa yang dikerjakan oleh bapak atau ibu guru pengajar terutama dalam penghitungan nilai, waktu rekap nilai, serta pembuatan laporan.\(^51\)

Berdasarkan pernyataan Scott W. Bonham dkk menyatakan bahkan akhir-akhir ini banyak yang sudah melakukan tes dan penilaian yang berbasis website.\(^52\) Perbedaan penelitian-penelitian di atas dengan penelitian ini adalah bahwa penelitian lain membuat software dengan daftar menu yang meliputi banyak hal. Sedangkan dalam penelitian ini hanya terkonsentrasi pada pembuatan rapor kurikulum 2013 tingkat madrasah ibtidaiyah yang dilakukan dalam pembuatan menggunakan PHP dan database MySQL dengan fitur dan menu yang dibutuhkan dalam format

\(^{49}\) Tony Kurniawan dkk, "Perancangan Sistem Pengolahan Nilai Rapor Berbasis WEB (Studi Kasus pada SMA Kebon Dalem)", Jurnal Teknologi Informasi dan Komunikasi, Volume 4, Nomor 2 (Agustus 2013), 1-6.

\(^{50}\) Ulfah Rahmawati, dkk, Aplikasi Berbasis WEB Pengolahan Nilai Akademik (Studi Kasus SMP Negeri 34 Bandung), Jurnal eproc 16.06.516, Bandung: 2016, 1-7.


rapor saja sehingga lebih cepat dan mudah dalam pembuatannya serta lebih efisien dalam hasil output rapor.

METODOLOGI

Metode yang digunakan dalam penelitian ini adalah penelitian pengembangan (Research and Development). Menurut Sugiyono, metode research and development merupakan proses atau metode yang digunakan untuk memvalidasi dan mengembangkan produk.53

Dengan definisi tersebut maka penelitian dan pengembangan merupakan metode penelitian yang digunakan untuk menghasilkan produk tertentu dan menguji keefektifan produk tersebut. Untuk level meneliti dan menguji untuk menciptakan produk yang belum ada tersebut, langkah-langkah yang dilakukan mengacu langkah-langkah R&D model Sugiyono yang disederhanakan dan digambarkan sebagai berikut:

Gambar 2.1 Posisi analisis data dalam penelitian dan pengembangan level menciptakan produk baru.54

Berdasarkan prosedur penelitian yang ditempuh dan langkah-langkah di atas, analisis data penulisan dilakukan pada tiga tahapan yaitu setelah validasi desain, setelah uji coba terbatas dan setelah ujicoba lapangan.

1. Langkah-langkah Penelitian

Berdasarkan langkah-langkah yang dikemukakan Sugiyono di atas maka prosedur yang dilakukan dalam membangun aplikasi sistem rapor adalah:

a. Identifikasi potensi dan masalah

Identifikasi masalah dalam penelitian ini yaitu mengidentifikasi potensi dan masalah yang dialami oleh para guru terkait dengan pembuatan rapor kurikulum 2013 yang masih manual.

b. Analisis kebutuhan dan pengumpulan data

Dalam pengembangan perangkat lunak dimulai dengan analisis kebutuhan pengguna. Analisis ini secara formal disajikan dalam sebuah laporan kebutuhan sistem yang merupakan dasar memiliki abatar berbagai alternatif yang ada.55

Sedangkan pengumpulan data dalam tahap ini selain dilakukan dengan melakukan wawancara langsung terhadap pengawas, kepala sekolah dan guru-guru kurikulum 2013.

c. Perancangan desain produk

Kegiatan pada tahap ini adalah perancangan isi dari aplikasi sistem rapor. Langkah-langkah yang dilakukan tahap desain produk adalah:

1) Perancangan pemodelan aplikasi sistem rapor

2) Pemodelan (Modelling) sesungguhnya digunakan untuk penyederhanaan permasalahan.\(^5^6\) Adapun tujuan pemodelan (dalam rangka pengembangan sistem/perangkat lunak aplikasi) adalah sebagai sarana visualisasi dokumentasi yang bermanfaat untuk menelaah perilaku sistem yang akan dikembangkan. Dalam pemodelan sistem ini, penulis menggunakan use case (user berinteraksi dengan sebuah sistem), activity diagram (perilaku prosedural dan pararel) dan sequence diagram (proses interaksi).

3) Perancangan database

Database adalah sekumpulan data yang terdiri dari satu atau lebih tabel yang saling berhubungan.\(^5^7\) Database ini berfungsi untuk menyimpan sejumlah data yang diinput dan sekaligus nantinya akan dibutuhkan sebagai informasi bagi pengguna. Pembuatan database dalam perancangan aplikasi ini menggunakan MySQL. MySQL (My Structured Query Language) adalah

---


sebuah program pembuat dan pengelola database atau yang sering disebut dengan DBMS (Database Management System).\(^{58}\)

4) Perancangan desain antarmuka

Perancangan desain adalah kegiatan membuat tampilan aplikasi yang direncanakan. Desain antar muka menjadi penting sebagai tampilan dari sistem yang dirancang. Dalam perancangan sistem informasi ini, desain antar muka dibuat dengan menggunakan aplikasi *macromedia dreamweaver* dan dibantu dengan *adobe photoshop* sebagai pengolah image yang menjadi bagian desain antarmuka.

d. Validasi desain

Validasi dilakukan sebelum melakukan uji coba produk di lapangan.\(^{59}\) Validasi desain merupakan tahapan pengujian rancangan sistem oleh pakar. Di dalam kegiatan ini desain yang telah direncanakan oleh peneliti diajukan kepada pakar untuk mendapatkan penilaian dan masukan.

e. Revisi desain dan analisis data

Data dan masukan dari para ahli kemudian dianalisis untuk memperbaiki desain yang dirancang sebelumnya. Dalam tahapan ini penulis melakukan analisis data yang telah didapatkan berupa penilaian dan masukan para pakar. Hasil analisis


data selanjutnya digunakan untuk melakukan revisi desain sebelumnya sehingga
didapatkan desain yang lebih baik.  

f. Pembuatan produk

Berdasarkan desain produk yang telah direvisi tersebut, penulis tuangkan dalam tahapan pembuatan produk. Dalam tahap ini penulis sebagai perancang produk menuangkan desain-desain yang telah direvisi sehingga menjadi produk yang siap digunakan.

g. Ujicoba terbatas


h. Revisi produk dan analisis data 2

Hasil dari Alpha Testing dalam tahapan pengujian terbatas dianalisis untuk mendapatkan data kelayakan produk. Dalam analisis tersebut, peneliti melakukan revisi produk sebelumnya.

i. Final produk

---

60 Sugiyono, *Metode Penelitian Kuantitatif, Kualitatif dan R&D*, ... 409.
Hasil pengujian analisis dalam tahap pengujian terbatas digunakan sebagai perbaikan terakhir. Kritik dan saran dari responden menjadi dasar perbaikan ini. Setelah perbaikan ulang, jadilah produk akhir sistem informasi.

ej. Uji coba lapangan

Uji coba lapangan dilakukan untuk mendapatkan gambaran mengenai kualitas produk akhir yang telah dihasilkan.

2. Objek Penelitian

Objek yang diteliti pada penelitian ini adalah sistem aplikasi rapor berbasis web dengan menggunakan bahasa pemrograman PHP dan didukung database MySQL.

3. Definisi Operasional Variabel

Variabel yang menjadi tolok ukur adalah kelayakan produk.

4. Subjek Penelitian

Suharsimi Arikunto mendefinisikan populasi sebagai semua subjek penelitian. Subjek penelitian terkait dengan data merupakan sumber informasi untuk dianalisis sehingga didapatkan hasil penelitian yang representatif.

5. Teknik Pengumpulan Data

Pengumpulan data dalam penelitian dan pengembangan ini menggunakan teknik dokumentasi, wawancara dan kuesioner.

---


a. Dokumentasi

Teknik dokumentasi adalah teknik mencari data mengenai hal-hal atau variabel yang berupa catatan, transkip, buku, surat kabar, majalah, prasasti, notulen, dan sebagainya.\(^{64}\)

b. Wawancara

Menurut Sugiyono mengutip pendapat Esterberg menjelaskan yang disebut dengan wawancara adalah pertemuan dua orang untuk bertukar informasi dan ide melalui tanya jawab, sehingga dapat dikonstruksikan makna dalam suatu topik tertentu.\(^{65}\)

Hal ini sesuai dengan pendapat Sugiyono yang menyatakan bahwa wawancara dengan teknik semistructured interview, diharapkan dapat ditemukan permasalahan lebih terbuka, dimana pihak yang diajak wawancara diminta pendapat dan ide-idenya.\(^{66}\)

c. Kuesioner

Sugiyono mengutip pendapat Creswell menyatakan:

"Questionnaires are dorms used in a survey design that participant in a study complete and return to teh researcher. (Kuesioner merupakan teknik pengumpulan data dimana partisipan/responden mengisi pertanyaan atau pernyataan kemudian setelah diisi dengan lengkap mengembalikan kepeada peneliti)."\(^{67}\)


\(^{66}\) Sugiyono. *Metode Penelitian dan Pengembangan*, ... 233.

\(^{67}\) Sugiyono. *Metode Penelitian dan Pengembangan*, ... 216.
Teknik kuesioner ini diambil untuk melakukan pengambilan data atas kelayakan sistem yang telah dibuat.

6. **Instrumen Penelitian**

Instrumen penelitian adalah alat untuk mengumpulkan data, tanpa alat tersebut tidak mungkin data dapat diambil.\(^{68}\) Instrumen penelitian selalu terkait dengan metode pengumpulan data, maka instrumen yang digunakan antara lain berbentuk pedoman wawancara dan kuesioner.

7. **Analisis Data**

Tahap analisis data dalam sebuah penelitian pada umumnya dilakukan setelah proses pengumpulan data selesai dilakukan. Di dalam penelitian pengembangan yang penulis lakukan. Analisis data dilakukan tiga kali mengacu pada tahapan-tahapan perancangan sistem informasi yang dilakukan.

---

\(^{68}\) Sugiyono. *Metode Penelitian dan Pengembangan* ..., 156.
HASIL DAN PEMBAHASAN

Problematika yang Dihadapi Guru dalam Pembuatan Penilaian Akhir Rapor Kurikulum 2013 Tingkat Madrasah Ibtidaiyah


Akan tetapi didalam kurikulum 2013 guru harus memiliki rincian setiap anak dengan rata-rata setiap kompetensi dasar, sehingga guru bisa menuliskan deskripsi tertinggi sampai terendah kompetensi dasar yang dimiliki anak dalam satu semester, dikarenakan setiap anak pastilah berbeda kelebihan dan kekurangannya.

Sehingga bagi guru, pembuatan rapor sangatlah lama. Walaupun pada tahun pelajaran 2014/2015 pihak pemerintah telah memberikan sosialisasi tentang pembuatan rapor dan memberikan aplikasi untuk pengolahan nilai dan rapor, nyatanya aplikasi tersebut tidak berjalan dengan baik. Melalui kelompok kerja guru, aplikasi tersebut banyak dikeluhkan guru karena setelah memasukkan semua data dan nilai, tiba-tiba aplikasi tersebut mengalami eror dan data-
data semua hilang, padahal telah disimpan sebelumnya. Dari hal tersebut, guru-guru kemudian mengulangi pembuatan rapor dengan cara manual (mengetik), sehingga waktu yang dibutuhkan semakin lama.

Sedangkan pendapat kepala sekolah pelaksana kurikulum 2013 yaitu pembuatan rapor kurikulum 2013 memang membuat para guru bekerja keras dalam pembuatannya, tetapi sebagai guru pelaksana kurikulum 2013 tidak boleh sering terkejut dikarenakan rapor kurikulum 2013 akan selalu berubah.


Senada dengan pendapat orangtua siswa yang anaknya bersekolah di sekolah berbasis kurikulum 2013, mengatakan bahwa rapor kurikulum 2013 terlalu banyak lembarnya. Setelah melakukan beberapa wawancara kepada orangtua siswa, ternyata kebanyakan orang tua hanya melihat nilainya saja dibawah KKM atau tidak tanpa membaca deskripsinya, karena mereka kurang paham akan deskripsinya dan malas membaca tulisan yang terlalu panjang.

Sedangkan berdasarkan pendapat masyarakat dari berbagai macam profesi yang melihat rapor kurikulum 2013 menyatakan bahwa bentuk rapor kurang bagus karena berbentuk lebaran
serta banyak. Sebagai orang awam ketika membaca deskripsi, ya hanya sekedar membaca saja tanpa memahami, yang dilihat hanyalah nilai yang tertera dalam rapor tersebut.

**Pengembangan Aplikasi SPARKS (Sistem Penilaian Akhir Rapor Kurikulum 2013)**

**Tingkat Madrasah Ibtidaiyah Berbasis WEB**

**Kekurangan Rapor Kurikulum 2013**

Berdasarkan pengamatan yang dilakukan peneliti selama hampir 4 tahun terakhir sejak dimulainya kurikulum 2013, banyak problem yang terjadi dalam penilaian dan pembuatan rapor. Dari awal tahun pelajaran 2013/2014 pembuatan rapor dilakukan secara manual, artinya guru mengetik sendiri capaian setiap anak di program word ataupun exel. Dari pemerintah hanya memberikan format-format yang harus dibuat, jadi guru secara mandiri mengedit atau bahkan membuat sendiri.


Seiring dengan aplikasi yang kurang efisien, kritik-kritikpun disampaikan guru kepada pemangku kebijakan terutama Dinas yang menangani tentang kurikulum 2013 pada saat kelompok kerja guru (KKG) kurikulum 2013 ataupun saat ada pelatihan kurikulum 2013 dari LPMP (Lembaga Pengendali Mutu Pendidikan). Seharusnya guru dimudahkan dalam penilaian
dan pembuatan rapor karena guru sudah disibukkan dalam mengajar serta berbagai macam administrasi yang harus dikerjakan dalam penerapan kurikulum 2013.

Sampai tahun 2016 aplikasi tersebut belum ada perubahan yang signifikan, masih ada kekurangan-kekurangan dalam pendeskripsian yang tidak sesuai dengan harapan, sehingga guru harus membuat ulang, karena setiap anak memiliki kelebihan dan kekurangan dalam masing-masing kompetensi dasar yang berbeda-beda tidak bisa disamakan semuanya. Dalam aplikasi tersebut hampir semua deskripsi keluar sama, sehingga saat pengecekan ulang oleh guru harus merubah deskripsi secara manual. Walaupun kita sadari dalam proses pembuatan aplikasi seperti itu memang membutuhkan waktu yang tidak sebentar. Tetapi dalam kurun waktu hampir 5 tahun berjalan penerapan kurikulum 2013 seharusnya sudah tidak mengalami kendala yang berarti. Sehingga pembuatan rapor bisa berjalan lancar sesuai jadwal yang ditentukan tanpa guru harus lembur berhari-hari dalam pembuatannya.

**Kelebihan Rapor Kurikulum 2013**

Ketika ada kekurangan yang terlihat pada rapor kurikulum 2013, pastinya juga ada kelebihannya. Rapor kurikulum 2013 secara konten sangatlah bagus, karena didalam rapor tersebut kita bisa melihat kemampuan anak tidak hanya berdasarkan pengetahuannya saja, melainkan ketrampilan bahkan sikapnya. Dengan adanya seperti itu, sekarang kita bisa melihat kelebihan kemampuan anak dari 3 aspek, yaitu sikap, pengetahuan dan keterampilan. Mungkin kemampuan anak yang satu dan yang lainnya berbeda, maka dari itu dengan adanya rapor kurikulum 2013 ini bisa mengetahui setiap potensi anak. Ada anak yang lebih dalam
pengetahuannya, ada anak yang unggul dalam keterampilannya, bahkan mungkin pada sikapnya. Sehingga kita bisa menilai anak tidak berdasarkan pengetahuannya saja.

**Pengembangan Aplikasi SPARKS (Sistem Penilaian Akhir Rapor Kurikulum 2013) Tingkat Madrasah Ibtidaiyah Berbasis WEB.**

Berawal dari berbagai masalah yang terjadi mengenai rapor kurikulum 2013 yang telah dideskripsikan di atas, peneliti mencurigai bahwasannya untuk aplikasi dari pemerintah sering terjadi eror dan kurang efien yang dilihat dari formatnya dikarenakan tergabung dengan penilaian yang terlalu banyak komponen, maka peneliti membuat inovasi untuk rapor kurikulum 2013 agar lebih mudah dan memiliki bentuk format yang diminati oleh banyak orang.

Selain guru kelas, guru muatan pelajaran diberi akses juga untuk memasukkan data ke dalam aplikasi sehingga tidak terlalu membebani guru kelas. Jadi guru yang mengajar muatan pelajaran yang mereka ampu disetiap kelasnya bisa langsung memasukkan ke aplikasi ini dari akunnya masing-masing. Guru kelas hanya memasukkan nilai yang diampu saja. Tetapi selain itu guru kelas juga diberi akses untuk melihat semua input data dari guru muatan pelajaran, sehingga guru bisa mengetahui siapa saja yang sudah lengkap dan yang belum dalam input data. Format rapor dari aplikasi ini tentunya di desain setelah peneliti melakukan pengamatan dan mencari alternatif format rapor yang terbaik, yang dilihat dari segi efisiensi dan yang terpenting bermanfaat untuk semuanya.

Format rapor yang dihasilkan dari aplikasi ini mengalami perubahan dari raport sebelumnya yang terlihat pada lembar setelah cover dan identitas sekolah. Pada lembar tersebut terdapat tabel penilaian sikap yang terbagi ke dalam 2 kolom yaitu kolom aspek dan kolom deskripsi. Kolom aspek terdiri dari sikap spiritual dan sikap sosial. Deskripsi menjelaskan kalimat positif, yang berisi perkembangan sikap atau perilaku siswa berisi perkembangan sikap/perilaku siswa yang sangat baik dan/atau baik dan yang mulai/sedang berkembang berdasarkan kumpulan hasil observasi (catatan) selama satu semester.

Pada lembar selanjutnya, penilaian pengetahuan dan keterampilan di bagi menjadi 2 tabel yang berbeda yaitu 1) penilaian pengetahuan dan keterampilan untuk kolom KKM, Nilai dan Predikat; 2) penilaian pengetahuan dan keterampilan untuk deskripsi. Tetapi untuk tabel yang kedua mengenai deskripsi pengetahuan dan keterampilan diberikan pada lembar tersendiri. Sehingga sesuai dengan asumsi masyarakat yang menyatakan bahwa saat melihat rapor
kurikulum 2013 yang dilihat hanya nilai angka saja. Menjadikan peneliti membuat format tabel dibagi menjadi seperti diatas sehingga struktur kurikulum mengenai kurikulum 2013 tetap ada, namun hanya peletakan atau penempatannya yang berubah demi efisiensi dari format tersebut. Bentuk tampilan dari rapor juga menjadi lebih rajin karena deskripsi yang panjang sudah dipisahkan ke dalam tabel sendiri sehingga lebih rapi jika dilihat.

Sehingga susunan komponen pada rapor SPARKS yaitu: A) Sikap; B) Pengetahuan dan keterampilan (khusus angka); C) Ekstrakurikuluer; D) Saran-saran; E) Tinggi dan berat badan; F) Kondisi kesehatan; G) Prestasi; H) Ketidakhadiran; I) Deskripsi pengetahuan dan keterampilan.

Kelayakan Pengembangan Aplikasi SPARKS (Sistem Penilaian Akhir Rapor Kurikulum 2013) Tingkat Madrasah Ibtidaiyah Berbasis WEB.

Kelebihan Sistem Aplikasi SPARKS

Kelebihan SPARKS yaitu (1) hasil output atau printout dari rapor kurikulum 2013 yang dilihat dari segi tampilan lebih efisien sesuai yang diinginkan masyarakat tetapi tidak menghilangkan unsur kurikulum yang ada di dalamnya; (2) selain itu kelebihan dari sistem aplikasi ini sangatlah kompleks mulai dari cara pembuatan yang dimudahkan karena aplikasi ini khusus untuk rapor saja tanpa adanya gabungan dari aplikasi lainnya; (3) menu yang ada di aplikasi ini dibuat mudah sesuai dengan komponen yang ada di rapor saja; (4) guru bisa mengakses aplikasi ini dengan memasukkan akun masing-masing; (5) aplikasi ini menyediakan menu untuk guru memasukkan data nilai dan deskripsi menggunakan cara upload data ataupun
manual mengetik pada kolom yang sudah disediakan; (6) data nilai bisa disimpan dalam bentuk pdf atau exel untuk pengadministrasian guru.

**Kekurangan Sistem Aplikasi SPARKS**

Kekurangan aplikasi SPARKS ini yaitu akan mengalami kendala jika berada di daerah yang tidak memiliki fasilitas internet yang memadahi, aplikasi ini harus dibuat offline dulu, padahal aplikasi ini berdasarkan web berjalan di atas server, sehingga membutuhkan *database*. Selain itu lembar untuk pindah sekolah ataupun lembar lulus belum ada, sehingga ke depannya bisa dijadikan pengembangan selanjutnya.

**Hasil Uji Kelayakan Aplikasi oleh Pakar**

Dalam uji kelayakan SPARKS ini ada 2 pakar yang menilai yaitu dari segi ilmu teknologi dan dari segi pendidikan kurikulum 2013. Pakar ilmu teknologi dalam aplikasi SPARKS ini Dr. Sri Yulianto Joko Prasetyo, S.Si, M.Kom. Sedangkan untuk pakar pendidikan kurikulum 2013 yaitu Tri Maryani, M.Pd.

Berdasarkan hasil uji pakar teknologi untuk aplikasi SPARKS (sistem penilaian akhir rapor kurikulum 2013) yang dilakukan oleh Dr. Sri Yulianto Joko Prasetyo, S.Si, M.Kom. menyatakan bahwa aplikasi SPARKS ini sudah baik, berjalan sesuai dengan fungsinya, fitur sangat lengkap sesuai dengan kebutuhan, secara umum sudah memenuhi kebutuhan. Untuk penggunaan aplikasi SPARKS (sistem penilaian akhir rapor kurikulum 2013) secara baik harus belajar secara mendalam melalui pelatihan-pelatihan lanjutan.
Berdasarkan rincian butir-butir pertanyaan kuesioner dapat diketahui bahwa Skor Maksimum Ideal (SMI) dari uji pakar teknologi adalah 88. Kemudian skor-skor mentah setelah diubah (dikonversi) menjadi nilai standar dengan menggunakan standar mutlak (penilaian beracuan kriterium). Dengan menggunakan rumus \( \text{Nilai} = \frac{\text{Skor mentah}}{\text{Skor Maksimum Ideal}} \times 100 \), sehingga menghasilkan \( \text{Nilai} = \frac{78}{88} \times 100 = 88,64 \). Sedangkan apabila dirinci setiap aspeknya menjadi seperti berikut: (1) Kaidah Media \( \text{Nilai} = \frac{31}{36} \times 100 = 86,11 \); (2) Tata Laksana \( \text{Nilai} = \frac{14}{16} \times 100 = 87,50 \); (3) Kaidah Software \( \text{Nilai} = \frac{33}{36} \times 100 = 91,67 \).

Berdasarkan rincian butir-butir pertanyaan kuesioner dapat diketahui bahwa Skor Maksimum Ideal (SMI) dari uji pakar pendidikan adalah 32. Kemudian skor-skor mentah setelah diubah (dikonversi) menjadi nilai standar dengan menggunakan standar mutlak (penilaian beracuan kriterium). Dengan menggunakan rumus \( \text{Nilai} = \frac{\text{Skor mentah}}{\text{Skor Maksimum Ideal}} \times 100 \), sehingga relevansi media menghasilkan \( \text{Nilai} = \frac{30}{32} \times 100 = 93,75 \).

**Hasil Uji Lapangan**

**Uji coba terbatas**

Sedangkan untuk hasil output rapor sudah baik, disamping rapor lebih singkat, tidak berlembar-lembar banyaknya halaman. Rapor ini juga memperlihatkan bagian tabel yang hanya dicantumkan kkm, nilai dan predikat, sehingga sekali melihat rapor ini menjadikan orang tertarik. Sedangkangkan deskripsi tetap ada tetapi hanya peletakannya saja yang dipisah untuk memperlihatkan tampilan yang baik.

Berdasarkan rincian butir-butir pertanyaan kuesioner dapat diketahui bahwa Skor Maksimum Ideal (SMI) dari uji coba terbatas adalah 120. Kemudian skor-skor mentah setelah diubah (dikonversi) menjadi nilai standar dengan menggunakan standar mutlak (penilaian beracuan kriterium). Dengan menggunakan rumus \( \text{Nilai} = \frac{\text{skor mentah}}{\text{skor Maksimum Ideal}} \times 100 \), dengan 6 orang responden sehingga menghasilkan \( \text{Nilai} = \frac{640}{6 \times 120} \times 100 = 88,89 \), dengan rincian sebagai berikut:

<table>
<thead>
<tr>
<th>NO</th>
<th>Skor Mentah</th>
<th>Nilai</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>109</td>
<td>( \frac{109}{120} \times 100 = 90,83 )</td>
</tr>
<tr>
<td>2.</td>
<td>103</td>
<td>( \frac{103}{120} \times 100 = 85,83 )</td>
</tr>
<tr>
<td>3.</td>
<td>103</td>
<td>( \frac{103}{120} \times 100 = 85,83 )</td>
</tr>
<tr>
<td>4.</td>
<td>106</td>
<td>( \frac{106}{120} \times 100 = 88,33 )</td>
</tr>
<tr>
<td>5.</td>
<td>110</td>
<td>( \frac{110}{120} \times 100 = 91,67 )</td>
</tr>
<tr>
<td>6.</td>
<td>109</td>
<td>( \frac{109}{120} \times 100 = 90,83 )</td>
</tr>
</tbody>
</table>

Uji coba diperluas
Uji coba diperluas kali ini diluar ruang lingkup MI Ma’arif Pulutan. Uji coba ini dilakukan oleh 21 dari berbagai instansi, yang bertujuan untuk menunjukkan aplikasi SPARKS kepada guru, pengamat pendidikan, bahkan masyarakat yang berkecimpung dalam bidang pendidikan dan mengerti tentang kurikulum 2013.

Berdasarkan rincian butir-butir pertanyaan kuesioner dapat diketahui bahwa Skor Maksimum Ideal (SMI) dari uji coba diperluas adalah 120. Kemudian skor-skor mentah setelah diubah (dikonversi) menjadi nilai standar dengan menggunakan standar mutlak (penilaian beracuan kriterium). Dengan menggunakan rumus $\text{Nilai} = \frac{\text{Skor mentah}}{\text{Skor Maksimum ideal}} \times 100$, dengan 21 orang responden sehingga menghasilkan $\text{Nilai} = \frac{2216}{21 \times 120} \times 100 = 87,93$, dengan rincian sebagai berikut:

<table>
<thead>
<tr>
<th>NO</th>
<th>Skor Mentah</th>
<th>Nilai</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>104</td>
<td>$\frac{104}{120} \times 100 = 86,67$</td>
</tr>
<tr>
<td>2.</td>
<td>102</td>
<td>$\frac{102}{120} \times 100 = 85,00$</td>
</tr>
<tr>
<td>3.</td>
<td>104</td>
<td>$\frac{104}{120} \times 100 = 86,67$</td>
</tr>
<tr>
<td>4.</td>
<td>101</td>
<td>$\frac{101}{120} \times 100 = 84,17$</td>
</tr>
<tr>
<td>5.</td>
<td>109</td>
<td>$\frac{109}{120} \times 100 = 91,67$</td>
</tr>
<tr>
<td>6.</td>
<td>101</td>
<td>$\frac{101}{120} \times 100 = 84,17$</td>
</tr>
<tr>
<td>7.</td>
<td>103</td>
<td>$\frac{103}{120} \times 100 = 85,83$</td>
</tr>
<tr>
<td>8.</td>
<td>102</td>
<td>$\frac{102}{120} \times 100 = 85,00$</td>
</tr>
<tr>
<td>No.</td>
<td>Nilai</td>
<td>Rataan (%)</td>
</tr>
<tr>
<td>-----</td>
<td>-------</td>
<td>------------</td>
</tr>
<tr>
<td>9.</td>
<td>110</td>
<td>$\frac{110}{120} \times 100 = 90.83$</td>
</tr>
<tr>
<td>10.</td>
<td>102</td>
<td>$\frac{102}{120} \times 100 = 85.00$</td>
</tr>
<tr>
<td>11.</td>
<td>112</td>
<td>$\frac{112}{120} \times 100 = 93.33$</td>
</tr>
<tr>
<td>12.</td>
<td>109</td>
<td>$\frac{109}{120} \times 100 = 90.83$</td>
</tr>
<tr>
<td>13.</td>
<td>102</td>
<td>$\frac{102}{120} \times 100 = 85.00$</td>
</tr>
<tr>
<td>14.</td>
<td>102</td>
<td>$\frac{102}{120} \times 100 = 85.00$</td>
</tr>
<tr>
<td>15.</td>
<td>111</td>
<td>$\frac{111}{120} \times 100 = 92.50$</td>
</tr>
<tr>
<td>16.</td>
<td>109</td>
<td>$\frac{109}{120} \times 100 = 90.83$</td>
</tr>
<tr>
<td>17.</td>
<td>108</td>
<td>$\frac{108}{120} \times 100 = 90.00$</td>
</tr>
<tr>
<td>18.</td>
<td>106</td>
<td>$\frac{106}{120} \times 100 = 88.33$</td>
</tr>
<tr>
<td>19.</td>
<td>109</td>
<td>$\frac{109}{120} \times 100 = 90.83$</td>
</tr>
<tr>
<td>20.</td>
<td>102</td>
<td>$\frac{102}{120} \times 100 = 85.00$</td>
</tr>
<tr>
<td>21.</td>
<td>108</td>
<td>$\frac{108}{120} \times 100 = 90.00$</td>
</tr>
</tbody>
</table>

**SIMPULAN**

Problem yang dialami oleh para guru dan pihak pendidikan terkait dengan rapor kurikulum 2013 yang selalu menyusahkan yaitu proses saat membuat rapor yang rumit dan hasil dari printout rapor juga kurang baik. Sehingga penelitian ini menghasilkan jawaban dari problematika yang terjadi yaitu aplikasi SPARKS dengan urutan sistematika rapor: A) Sikap; B) Pengetahuan dan...
keterampilan (khusus angka); C) Ekstrakurikuluer; D) Saran-saran; E) Tinggi dan berat badan; F) Kondisi kesehatan; G) Prestasi; H) Ketidakhadiran; I) Deskripsi pengetahuan dan keterampilan.

Aplikasi ini sudah dilakukan uji kelayakan dari penilaai ahli teknologi dinilai berdasarkan 3 aspek yaitu kaidah media, tata laksana, dan kaidah software mendapatkan skor 88,64 atau termasuk “sangat layak” digunakan. Kemudian penilaai ahli pendidikan dinilai berdasarkan relevansi media kurikulum 2013 mendapatkan 93,75 atau termasuk” sangat baik” untuk digunakan. Serta penilaai uji coba lapangan dinilai berdasarkan 4 aspek yaitu kaidah media, tata laksana, kaidah software, dan relevansi media dibagi menjadi 2 yaitu uji coba terbatas menghasilkan skor 88,89 termasuk “sangat layak” dan uji coba diperluas menghasilkan 87,93 termasuk “sangat layak” digunakan.

Aplikasi ini perlu dilakukan penelitian lebih lanjut mengenai keefektifan penggunaan aplikasi SPARKS (sistem penilaai aplikasi rapor kurikulum 2013). Selain itu aplikasi ini juga bisa dilakukan tindak lanjut untuk mengembangkan format rapor kurikulum 2013 yang lebih baik.
DAFTAR PUSTAKA


Peraturan Menteri Pendidikan dan Kebudayaan Republik Indonesia Nomor 53 Tahun 2015 tentang Penilaian Hasil Belajar oleh Pendidik dan Satuan Pendidikan Dasar dan Pendidikan Menengah Pasal 1


INTERNATIONAL TERTIARY ENROLMENTS IN MALAYSIA: TWO PROPOSED VARIABLES FOR MACRO ANALYSIS

*1Fadli Fizari Abu Hassan Asari & 2Suriyani Muhamad

1Faculty of Business Management, Universiti Teknologi MARA, Perlis Branch, Arau Campus, 02600 Arau, Perlis, Malaysia.
2School of Social and Economic Development, Universiti Malaysia Terengganu, 21030 Kuala Terengganu, Terengganu, Malaysia.

*Corresponding e-mail: fizari754@yahoo.com

Abstract
Higher education industry promises substantial economic returns. Hence, more countries are interested in exporting this commodity to international market, including Malaysia. Various plans have been drawn up and steps have been taken in realizing this dream. In measuring the achievement, monitoring is a must. Analysis on international demand for Malaysian higher education is one of them. Hence, this paper analyses selected literatures in producing a solid empirical basis. Also proposed, are two macro variables that are capable in replacing the initial base in this field of study. It is a hope that this paper provides an idea on empirical macro-researches in exploring international demand for higher education in Malaysia.

Keywords: higher education, international student, student movement, Malaysia

2.0 INTRODUCTION

Higher education is a sustainable economic growth engine. With an estimated growth of 8% per year, it is expected that 8.3 million students will be existed in 2020 (Hearps, 2016). This opportunity is equally taken by Malaysia. Malaysia, which was ranked at the 11th (Nga, 2009), has now risen to the 9th position, as a major destination country for international students, as highlighted in "Malaysia di ranking (Malaysia ranked)," (2015). More importantly, Malaysia has set a target of 200,000 international enrolments in 2020, in becoming the sixth largest country in the global higher education market (ICEF, 2012). Hence, various steps have been taken including establishment of the higher education ministry, provision of long-term plans and official reports,
improvements at the institutional level and development of more public and private institutions of higher learning in Malaysia.

At the same time, there is a continuous need in monitoring the progress through on-going researches. For example, studies on international demand for Malaysian higher education. For the record, numerous empirical studies have been made in exploring this type of demand, beginning as early as 2003. However, most are limited to micro data collection and primary data analysis. Hence, more macro-studies which focus on direct impact of macro variables on demand in Malaysian higher education need to be done. For this reason, this paper lists relevant literature studies that are suitable for the macro field. Beginning with studies on local demand, this paper will later discuss international demand on the Malaysian higher education. This paper also recommends two suitable macro variables that can be applied to empirical models in studying this trans-border education.

3.0 DEMAND FOR MALAYSIAN HIGHER EDUCATION

A study by Sidin, Hussin, & Soon (2003) was probably the first in analysing the tertiary enrolments by locals in Malaysian higher education institutions. Questionnaires were answered by 210 local respondents from four PbHEIs and four PrHEIs in Klang Valley. These resulted in significance of three hypotheses involving academic qualifications, institutional environment and student characteristics. In Munisamy, Jaafar, & Nagaraj (2014), two separate conclusions have been achieved. Development of career and personal were the reasons for furthering studies, while university reputation and employability were the pulling factors in choosing the higher education institutions.

Earlier, Tin, Ismail, Othman, & Sulaiman (2012) came with a new idea of sampling by choosing households. Male respondents were two third of the samples, while almost half of them with secondary education background and the highest portion earned monthly income of
RM1,001 – RM2,500. These conditions reflected when financial aid was the biggest consideration as compared to others. Jaafar (2016) revealed that the motivations of furthering studies were varied for different genders and different programs, in term of intrinsic and extrinsic factors. Out of six main factors, only two were common for respondents from various faculties; namely learning and employability.

In measuring the foreign demand for Malaysian tertiary education, Padlee, Kamaruddin, & Baharun (2010) and Baharun, Awang, & Padlee (2011) emphasized on the importance of facilities and customer focus. Customer focus for example, was in a significant range of 1% to 5% for four different sample sets. For facilities, it was more significant for African students than the majority of Asian students. For Migin, Falahat, Yajid, & Khatibi (2015), academic reputation, program and facilities, all were significant at 1%. Meanwhile, the low cost of higher education in Malaysia as compared to other traditional countries, has made it less significant.

Foo, Ismail, & Lim (2016) took a different approach by comparing between two different motives. It was concluded that consumptive motive was more motivating than investment motive in enrolling more postgraduate students in Malaysia. Specifically, this motive was represented by four different items, where university environment had the greatest marginal impact. For a specific study in northern Malaysia, seven hypotheses had been listed. However, only four were not rejected. At the same time, all these variables succeeded in representing nearly 50% of the total variation of the study by Yusuf, Ghazali, & Abdullah (2017).

There were also studies that placed qualitative as a basis. Rahman & Islam (2016) was an instance. Six indicators had been used where three of them referred to the characteristics of the students, two associated with the institution and the latter related to Malaysia's attraction as host country. Rapid development of international branch campuses in Malaysia attracted Zamberi Ahmad & Buchanan (2016). The pull factor was the basis of this study, which was heavily
influenced by the country's positive image and the reputation of a tertiary institution. Malaysia's strengths in demographic and geographic areas were also emphasized.

4.0 THE PROPOSED MACRO VARIABLES

The earliest study in estimating demand for higher education was initiated by Campbell and Siegel (1967). The undergraduate aggregate enrolment data was used as a sample in studying the demand for higher education in the US for the period of 1919-1964. Income linked in a positive way with the enrolments, while price worked negatively. This study was inspired by human capital investment theory, discussed thoroughly in Schultz (1961) and Becker (1964). Schultz (1961) for example, highlighted that formal education (including the tertiary level) as one of five requirements in improving human capabilities. At the same time, there is a need for higher education in avoiding the recurrence of a vicious cycle of poverty as stressed out by Childress, Hand, Pullins, Rutherford, & Tye (2017).

In general, the study by Campbell & Siegel (1967) becomes a benchmark for the majority of studies in this field. Their success in explaining 87% of the total demand by using only two independent variables is amazing. However, the analysis is limited to local students. The reality today, the presence of international students has become a phenomenon and is now one of the most awaited economy commodities. Hence, in taking this study as a base, two macro variables are proposed. In replacing 'income', per capita income is proposed. In order to replace the price, the holistic concept of cost is needed. Hence, the exchange rate is proposed in illustrating the burden that has to be paid by every international student.

4.1 Per Capita Income

A paper by Agarwal (1983), was based on the theory of migration where better educational opportunities is one of migration factors (Sjaastad, 1962). The per capita income (calculated
based on Gross Domestic Product over population), was used in capturing macro factors, determined by the home country rather than the student itself. In other words, a person's tendency to pursue overseas studies was directly proportional to the country's wealth. The same idea was agreed upon by Lee & Tan (1984). Per capita income positively influenced the massive flow of tertiary students, from developing countries to developed countries.

Naidoo (2007) proposed three possible reasons for the flow of foreign students to the UK, namely social/cultural, economic and political. In measuring the economic reason, per capita income was explored. In addition to the positive relationship with the flow, there was no significant difference between high and medium income countries. Hence, in attracting more students to the UK, the focus should be given equally to all potential countries. This model was then augmented in Chadee & Naidoo (2009). It was concluded that four (Malaysia, Singapore, South Korea and Thailand) out of seven countries experienced significant impacts. Additional change in per capita income boosted up number of their students to the UK.

In the African continent, more students went overseas, especially to North America, Europe and the same continental countries (Kritz, 2015). Per capita income of the home country was used in the four different models. All models successfully recorded significant positive relationships. Furthermore, the elasticity values were in line with the outbound rate. Something that reverses happened in Germany. The home country per capita income was inversely related to the international student enrolments there (Bessey, 2012). Based on six different individual regressions and a panel data analysis, negative relationships at weak significant rates were recorded. This can be expected, as Germany offers free education to its international students (Matthews, 2017).

Perkins & Neumayer (2011) however used per capita income for both origin and destination countries. Increase in the per capita income of the destination country, attracted more international enrolments. At the same time, reduction in per capita income for the country of
origin forced more locals to foreign countries. Dozens of countries were the samples. Yang & Wang (2016) however restricted the service exporting countries to only six European countries. The results obtained differ completely from what was reported in Perkins & Neumayer (2011). The influx of international students in these six countries was inversely proportional to their per capita income, while per capita income in the home country reacted the other way.

Still using per capita income for both countries, different approach however was used in Whei (2013). Gap between the per capita income of the original country and the destination country was made as one of the independent variables. As a result, migration of students from developing countries to developed countries was more influenced by this factor, than the students from the same developed region. The same idea was applied in Ramos & Royuela (2017). Per capita income gap between Spain and country of destination entered the model, in positive way. This caused an increase in migration of graduates from Spain to other countries, especially those who took semi-technical courses at higher institutions throughout Spain.

In combining both per capita incomes, a ratio was used as shown in Dreher & Poutvaara (2011). In detail, GDP per capita of the home country was placed at the top, while GDP per capita of the USA was put at the bottom. As a result, half of the six models built, have shown a significant negative correlation between this variable with international student enrolments in the US. Not limited to actual per capita income, use of disposable income per capita was recommended in Brown, McClary, & Bellingar (2012). The main purpose of this study was to analyse the demand for higher education in Florida. Though both cohorts received a positive impact from rise in disposable income per capita, the impact was experienced more by Florida students.

In addition to per capita income, GDP itself is used in explaining the economic capability of respective country. McMahon (1992) for example, divided her samples into four categories; high-income, middle income, low-income and oil producing developing countries, based on
Gross National Product (GNP) per capita. However, in measuring the economic strength of home countries and host country (the USA), the GDP was used. In Zheng (2014), three types of GDP counted, i.e. total, growth and per capita. The results were mixed as the per capita income recorded a negative relationship with tertiary flows, the economic growth made a positive result, while the total GDP was less significant, as reported.

In a different view, Gross National Product (GNP) per capita was proposed as an economy proxy by Cummings (1984). It was hypothesized that the GNP per capita was able in explaining total outbound among the Asian students. This may give advantage for oil exporting countries in sending their students abroad. This pattern may then be followed by newly industrialized countries (NICs) which experienced a dynamic growth rate at that time. In 2000s, data set from the 64 most active countries in student exchange was analysed by Chen & Barnett (2000). One of the key findings was a positive correlation that increased over time, for the period of 1985-1995, between GNP per capita and international enrolments.

4.2 Exchange Rate

Naidoo (2007) recommended the use of exchange rate in measuring student enrolments in the United Kingdom. This selection was based on its extensive use in studies on international trade. Since higher education is also a commodity of trade, this factor must be taken into account. In the same study, the exchange rate was one of the items under economic reason that catalysed the trans-border higher education. The same concept was later applied in Chadee & Naidoo (2009). Of the six home-country samples, four of them were highly sensitive to exchange rate, in a reverse proportion. The four were significant at the 1% significance level.

However, two different situations were reported in Zheng (2014). Tertiary students from developed countries were unaware of the UK pound sterling fluctuation. On the other hand, students from developing countries argued that currency rate affected their presence in the UK.
Not limited to international student enrolments, exchange rate was also used in assessing the amount of student visa applied in the UK (Jena & Reilly, 2013). Given all the samples were from developing countries, once again the exchange rate became an important parameter. An appreciation in home country currency increased its citizens’ financial capacity. Thus, allowed them to apply for more student visas in the UK.

For students from China in the UK, they were differentiated by financial aid reform (Machin & Murphy, 2014). For pre-reform students, they were not influenced by the Yuan/Pound Sterling ratio as they were sponsored by the Chinese government. Instead, students in post-reforms were more affected, as most of them were self-sponsored. The same burden was felt by those who came from other developing countries. A huge difference between the Iranian Rial and the US Dollar, forced some of the students to change their direction to other European countries such as Italy (Holden, 2017). Students of short-term courses and exchange programs also faced the similar problem.

In Lee (2015), exchange rate was the main reason why Malaysian parents were more willing to send their children to study only in the final year in the UK. For them, over-exchanging cost restricted the study duration of franchise programme in the UK. More extreme, the exchange rate was a major priority in determining the choice of place of study, as emphasized in Verbik & Lasanowski (2007). Despite being the top choice, the high rates of UK Pound Sterling and US Dollar provided a nuisance to potential students, especially from Africa and Southeast Asia. This caused them to move to other English speaking destination countries (MESDC) such as Canada, Australia and New Zealand (Hearps, 2016).

Issues related to exchange rate were not limited to the UK and the US markets. The exchange rate was examined as the pulling factor for higher education in Australia and New Zealand (Abbott & Ali, 2009). It was concluded that exchange rate was less sensitive to Asian students. This was great news as the majority of their foreign students came from this region. In
Lawrence & Yoon (2016), a reasonable value of the New Zealand Dollar successfully attracted tertiary students from OECD countries such as South Korea. This explained why group of students from this country was the fourth largest contributor to international student enrolments in New Zealand, as highlighted in the same study.

In Canada, more local parents complained about expensive local tuition fees (Liu, 2016). This did not happen to parents of Chinese students although Renminbi’s exchange rate against Canadian Dollar was up to five times higher. The nature of Chinese people who love to save for the purpose of education of children is the key to this ability. In India, a major depreciation in Indian Rupee against the world's major currencies, led to a drop of 20% in demand for foreign education. Additionally, with limited local educational opportunities, this undermined the human capital development in India. Sadly, financial loans received in local currency no more sufficient, in which forced students to work part-time.

The exchange rate recorded an average value of 4.19 as compared to the full-scale-six in Padlee, Kamaruddin, & Baharun (2010). Nevertheless, it was ranked at 12th out of the 20 indicators studied in determining the reasons why Malaysia was the preferred destination for higher education. Though it had an impact on the selection, entry requirement and medium of instruction were more important. At the same time, Malaysian students abroad, for example in Australia increased due to depreciation in the host county currency (Ilieva & Goh, 2011). Simultaneously, Australia's lower dollar value as compared to US dollar and UK pound sterling, partially explained why this country was a top choice for Malaysians.

The economic downturn in 1997 changed the landscape of Malaysia's higher education. The fall of Malaysian Ringgit against the US dollar prevents more students overseas. Alternatively, more local students continued their studies at private institutions of higher learning (Aziz & Abdullah, 2014). The rise in world's major currencies like the UK pound sterling forced the Malaysian government to change its approach. Through one of its agencies, outstanding
students were asked to choose non-tradition countries such as Norway, Sweden and Spain (Yahaya, 2014). In comparison, the costs incurred in sponsoring a student in the UK, were able to sponsor up to two or three students in Sweden.

5.0 CONCLUSION

This paper presents relevant literatures in reviewing the international demand for higher education in Malaysia. At the same time, two macro variables, namely GNI per capita and exchange rate have been proposed. GNI per capita represents the element of income required by a student in continuing study at the tertiary level. Meanwhile, the exchange rate is an indicator of the burden they must incur during the study period. Thus, it is hoped that this paper will be useful to those who are interested in expanding this field of study; from a macro perspective. International student movement is an interesting topic and needs to be explored continuously in studying its impact on the economy of a country.
REFERENCES


Foo, C. C., Ismail, R., & Lim, H. E. (2016). Retaining international students for advanced degree...


231


232


COLLECTIVE-INTEGRATIVE IJTIHAD:
AN ATTEMPT OF DEVELOPING CONTEXTUAL FIQH MU’AMALAH
AS THE FOUNDATION OF SHARI’A BUSINESS PRODUCT
DEVELOPMENT

AUTHOR: IMAM MUSTOFA, SHI., M.S.I.
INSTITUT AGAMA ISLAM NEGERI (IAIN) METRO, LAMPUNG, INDONESIA
Imam Mustofa

Correspondence Author: imammustofa472@yahoo.co.id

Institut Agama Islam Negeri (IAIN) Metro, Lampung, Indonesia

Abstrak


Kata kunci: ijtihad kolektif-integratif, fiqh mu’amalah kontekstual, istislah, ma’ṣūla syari’ah dan produk Lembaga Bisnis Syai’ah.

Abstract

Islamic law, including the law of economy or Islamic or fiqh mu'amalah is not always able to answer contemporary problem of mu'amalah in the modern era. This paper presents the integrative and collective ijtihad of the contextual and relevant issues of fiqh mu'amalah. This paper also describes the basic concepts, instruments and models of contemporary ijtihad and reveals the the patterns of invalid constructs, technical and operational excellence to produce a contextual fiqh mu'amalah as an Islamic legal basis to develop Syari'ah-based Business institution. This paper is the result of a qualitative library research. The Data was collected through the documentation. The Data was qualitative and was analyzed with descriptive-analytical methods. Data analysis techniques used in this research is content analysis and critical paradigms. While the approach used in this study is the approach usul fiqh. The result of the analysis shows that nowadays the ijtihad to produce a contextual fiqh mu'amalah is greatly needed. Ijtihad to build the economic foundation of Shariah economy should be systematic, directional,
and contextual and applicable Ijtihad is done by involving a wide range of experts from different background disciplines by using models of istisla{h fiqh and synergize the methods us} u l fiqh classics with modern scientific methods. Thus the resulting legal products can really answer the legal problem of the modern, particularly mu'amalah associated with Business Agencies Syai'ah products, so take kemashlahatan for the people.

**Keywords:** collective and integrative ijtihad, contextual fiqh mu'amalah, istisla{h fiqh}, maqa sa'id al-syari'a'h, and Syari'ah Business Institution’s products.

A. INTRODUCTION

Globalization with its products has a significant impact on economic activities, both micro and macro. Economic activity as one of the most important aspects in human life develops quite dynamic and so fast. The development of economic activity, especially banking activities are accelerating along with the times, especially with the development of tools and devices of communication and information. This makes the economic activities more varied and more intense. Creative development of transaction and product model get much higher.

The globalization process is expected to accelerate in the future, Colin Rose as cited by Nur Kholish said that the world is changing at an unprecedented pace. The lives of people, including their legal and economic lives, are becoming increasingly complex. Legal issues in various aspects that had never been imagined emerged, in this globalization era emerged and developed rapidly. Yet the revelation will not come down again because the Messenger of Allah as the last apostle has died and the Quran has graduated. While not all contemporary legal issues that arise in the era of globalization are answered explicitly by the verses of the Qur’an and the hadith of the Prophet Muhammad.

The Muslim community, as part of the global community, is not free from the impact of globalization with the development of its products. Increasingly various and intense economic

---


70 (Hasan al-Turabi>, Qadja>ya> al-Taji>d, (Khartum: Ma’had al-Buhus wa al-Dirasa>t al-Ijtima>i’yah, 1990), pp. 50-51.

71 Regarding the changing times and their effect on the life of Muslims, Abdullah Saeed explains......The epoch making changes in the world over the past 150 years have affected muslims as well as non muslim and
activity, on the one hand, provides an opportunity for Muslims to play an active role, especially in the economic field, and on the one hand a challenge. Can Islamic economies compete and answer economic problems in the global era? Because of all the activities of Muslims, especially important activities such as in economic activities, Muslims are bound by the divine (ilahiyyah) norms contained in Islamic teachings that are derived from fiqh. In the context of economic activity, these norms are *fiqh mu'amalah*. That is, facing the development and intensity of economic activity in this global era, Islamic economy is not only required to accelerate, but also must stick to the divine norm in form of *fiqh mu'amalah* that becomes the basis of the legality of these activities. So, on the one hand, Sharia Business Unit products are required to accelerate with the development of conventional economic activities, or even a pioneer of economic development. On the other hand there are demands, the development of such products must adhere to the aspect of legality or legitimacy of Islamic law.

Islamic law will not be able to deal with and answer the problems and challenges, especially in the modern world, except for the harmonization of text with the context, between the text and the development of the times and socio-cultural society. Muttahari states:

“A legal system cannot meet the challenges of time and location unless it is in full harmony with the human intellect (‘aql); the human primordial nature (fitrah); human rights; and human physical, mental, psychological, and spiritual needs of the individuals and society. I believe that the Islamic legal system is able to meet these challenges provided Islamic legal thought and approaches are reconstructed and revised according to new challenges and requirements. This is how the Islamic legal system can and may keep its dynamic character in the future as it has done in the past.”

---

72 Contemporary Fiqih Mu'amalah at least includes two main activities, namely, first, ahkam Mu'awadat, which is mu'amalah done with the aim to seek profit, exchange goods with value or goods with services and so on such as buying and selling, *rental*, *shirkah* and so on. Secondly, al-Ahkam al-Tabarru'at, ie mu'amalah with the aim of charity or good deeds, such as grants, *wakaf*, testament and so forth. (Read more on Kholid bin ‘Ali, *al-Mu‘amalah al-Mašliyah al-Mašliyah al-Mu‘asirah*, [Madinah: Tp, 2005], p. 3).

The most fundamental problems of Islamic law, including Islamic economic law, are the many contemporary problems that are not answered by Islamic law because of the ineffective and intense process of harmonizing and contextualizing Islamic law through *ijtihad*. This problem is almost uniform in Islamic law as a whole, in family law (*al-Ahwal al-Shakhshiyyah*), Islamic criminal law (*Fiqh al-Jinayah*), Islamic political law (*Fiqh al-Siyasah*), inheritance law (*Fiqh al-Mawarits*), not least in the field of Economic law such as *wakaf* (*Fiqh al-Waqf*) and *Fiqh Mu’alah*. The number of contemporary problems that arise, especially in the field of Islamic economic law, should not be confronted with the norms and rules contained in the text or religious texts. Contemporary problems must be sought through the *ijtihad* activity. *IJtihad* as the product of human reasoning against revelation on the one hand, and social reality on the other hand, has shown the elasticity and dynamics of *fiqh*. *Ushul fiqh* and *fiqh* should have evolved in the face of the reality of modern life. Economic problems and activities that do not yet have clear and comprehensive legal basis should be sought through integrative collective *ijtihad*.

---

74 The fact that the law must be found is also related to the changes and development of human civilization. Often there are many events that are not clearly addressed in the text. This is in accordance with the expression of the jurists, *al-nusus mutanahiyyah wa al-waqi’i ghair mutanahiyyah*. (Fikriya Najama, Ijtihad Umar Bin Khathab and Its Influence on the Study of Sociological Islamic Law, [Paper not published]). (Read Muhammad Iqbal, *Pembangunan Kembali Alam Pikiran Islam*, terj. Osman Raliby, (Jakarta: Bulan Bintang, 1983), p. 204).

75 Problems in the field of marriage law are, for example, about the legality of marriage or divorce via teleconference or even through social networking on the internet such as Facebook, Twitter, Yahoo Massanger or other social networking.

76 Issues in the field of *fiqh al-jinayah* among others about the relevance and legality in Muslim countries. How the relevance of hand law law to proven corruptors is one such example.

77 The example of Issues in *fiqh siyasah* legitimate are about the relevance of democratic systems with Islamic politics, how assurances plurality of beliefs and Human Rights in the perspective of *fiqh siyasah*.

78 Issues in *fiqh al-mawa> ris*, such as how the law of inheritance of Islam can accommodate the inheritance of children of adultery that is determined as a child lawful according to positive law.

79 Problems and areas of *fiqh al-waqf* for example how the law of cash waqf, move unproductive wakaf land and so on.


81 Hasan al-Turabi>, *Fiqh Demokratis; dari Tradisionalisme Kollektif Menuju Modernisme Populis*, (Bandung: Arasy, 2003), p. 50. Hasan al-Turabi is one of the Muslim intellectuals who voiced the urgency of reform of *Fiqh* and *Ushul al-Fiqh*, other figures are Abdul Hamid Abu Sulayman, Muhammad Shahrur, Muhammad Arkoun and Fazlur Rahman (Nirwan Syarfin. “Konstruksi Epistemologi Islam: Telaah Bidang Fiqih dan Ushul Fiqih” dalam...
Sharia financial institutions have various forms, namely: syariah bank, syariah financing bank (BPRS), shari’a insurance (Takaful), sharia financing company, syariah capital market, Sharia pawnshare, sharia pension fund, Baitul Mal wat Tamwil (BMT) capital market shariah, zakat amil institutions and waqf institutions. Of the various business institutions, the most intensive product development is in sharia banking. Sharia banking products are broadly distributed products, product collection and service products. Fund distribution products consist of profit sharing agreement, sale and purchase and qard hasan. A profit-sharing agreement that includes musyarakah and mudarabah. While the sale and purchase agreement covers murabahah, bai 'al-salam, bai' al-istisna', ijarah and ijarah wa iqtina. While the fundraising product is wadiah, savings account, general investment account and special investment account. The product of service consists of rahn, wakalah, kafalah, hawalah, ju'alah and sharf.

The development of bank and financial products and activities in sharia banks is basically supervised by the Sharia Supervisory Board (DPS) in order not to deviate from the provisions of sharia. In this context, even contemporary fiqh mu'a can be a reference for members of the DPS.

Moreover, collective-integrative ijtihad is not only in the context of answering the problems that have arisen, but in order to provide a complete foundation and building of epistemological structure, thus becoming the foundation of Islamic legal framework in the development of Islamic economy through the development and innovation of products services and financial syar'i. The development of the times and the progress of science should increase the

---


motivation for doing *ijtihad*, this will bring the progress of Muslims, not only on Islamic law but on other aspects.\(^\text{84}\)

This paper is intended to provide a review of the importance of *ijtihad* collective integrative or fresh *ijtihad*\(^\text{85}\) in the heresy of fiqh *mu'amalah* to provide a clear legality in the perspective of Islamic law. This collective-integrative intent is carried out with a variety of approaches, not just the fiqh approach, but also using social, political, and economic approaches. This discussion is important for several reasons, firstly, to open the horizon to think that the changing times with all its products have implications for the social life of the community, including the development of the system and economic activities with all its products. This certainly requires a comprehensive answer from the perspective of Islamic law or fiqh. Second, it provides an understanding that integrative collective *ijtihad* does not mean *ijtihad* which sees only the reality of social context and situations without the basis of religious or texts. An integrative collective *ijtihad* must be grounded in text by dialogue with the context of the times and situations and social realities.\(^\text{86}\) Third, to inspire and motivate intellectuals and ulama to always do contextual and actual *ijtihad*, as their intellectual responsibility to solve the problems that arise in the midst of people's life, especially problems in the field of Islamic economic law to provide legality of product development services and sharia finance.

\(^{84}\) Muslims must learn from past experiences. In the medieval century, at the time of advancement of Islamic culture, science developed rapidly which gave birth to scientists and imams of schools spread throughout the region, so that in the next development came the sense of fanaticism of the school, which tends to bring down the spirit of *ijtihad*, kejumudan and ketertutupan *ijtihad*. This condition has implications for the difference in the law because of the variety of schools they use.. (Jumni Nelli, Perkembangan Hukum Islam pada Masa Turki Usmani, *Jurnal Hukum Islam*, Vol VI, No. 4 Desember 2006, p. 439).

\(^{85}\) Fresh *ijtihad* is a term proposed by Abdullah Saeed (Lihat Abdullah Saeed, *Islamic Thought An Introduction*, [London and New York: Routledge, 2006], hlm. 150.151), sementara *ijtihad* Kontemporer (al-*ijtihad* al-Mu’a>s’sir) adalah istilah yang digunakan Yu>suf Qarad’a>wi> dan Ahmad Bu’u>d. Lihat Yu>suf Qarad’a>wi>, al-*ijtiha>d f>i> al-Syari>’ah al-Is>la>miyah ma’a Naz>jarat tah>li>iyah f>i> al-*ijtiha>d al-Mu’a>s’sir. ([www.al-mostafa.com]/ (Kuwait: Da>r al-Qalam li-al-Nasr wa al-Tauzi’), cet. III, 1999), lihat juga Ah>mad Bu’u>d, al-*ijtiha>d baina Ha>qa>q al-Ta>ri>kh wa Mu>t’a>li>bor al-Wa>q’i>, (Kairo: Da>r al-Sala>m, 2005).

B. THE URGENCY OF COLLECTIVE-INTEGRATIVE IJTIHAD IN THE FIELD OF FIQH MU'AMALAH

In principle, Islam provides opportunities and freedom to its people to innovate and be creative in mu'amalah and develop economic activities. This can be seen from the rule of ushul fiqh which is very famous and agreed by scholars of four schools:

الأصل في المعاملات الإباحة حتى يدل دليلًا على خلافه.

"The basic law of mu'amalah is permissible, until there is a proposition that forbids it"

In line with the above rule, Fakhruddin 'Uthman bin' Ali al-Zaila'iin the Tabyin al-Haqaiq says:

الأصل في المعاملات دفعًا للضرر عن العباد فلا يشترط في الإباح أن مأذون له بل يكتفی بظاهر خالیه فإذا ثبت أن مأذون له بظاهر خالیه صحت تصرُّفاتة حتى بظهر خلاف ذلك.

"Mu'amalah is basically to dispel the damage for mankind, it is not required the existence of the proposition which permits it, but it is enough to see the physics only, when visible it is allowed, then it means that, until there is an excuse that annulled, or prohibition against it."

Mu'amalah is more activity at the level of human relationships with other humans are different from pure worship which is a pure vertical relationship with God. Mu'amalah as social activities more loosely to be developed through innovation of transactions and products, then reasonable if al-Syathibi says:

"إذا وجدنا الشارع قاصدا لمصالح العباد والأحكام العادية تدور معه حيثما دار فتدبر الشيء الواحد يمنع في حال لا تكون فيه مصلحة فإذا كان فيه مصلحة جاز كالدارهم بالدرهم إلى أجل..."

87 Syaikh Abdurrahmaan bin Naasir As Sa'di>, al-Qawa'id wal Ushul, (Digital Library, al-Maktabah al-Sya>milah al-Is>da>r al-S>ählen>, 2005), I/204. The dalil is surat al-Maidah ayat 1, al-Isra’ ayat 34, al-An'a>m ayat 145, al-Nisa’ ayat 29, dan hadis|:


يمتنع في المبايعة ويجوز في القرض وبيع الرطب يمتنع حيث يكون مجرد غرر وربا من غير مصلحة ويجوز إذا كان فيه مصلحة راجحة  

The implication of freedom in mu'amalah is freedom in product development innovation. Although there is legitimacy in the development of mu'amalah, the steps of developing the transaction and product model in the Islamic economic context must still have a clear legal basis and basis from the fiqh perspective. This legal basis is required for the development of Islamic economics with all its products do not grow wild and out of the Islamic Codidor or even contrary to the principles of sharia economy that is thick with the ilahiyah moral nuances.  

The most important goal in Islamic economics is to avoid injustice in the acquisition and distribution of material resources in order to give human satisfaction to enable humans to carry out their responsibilities to God and society. Islamic economics not only put forward the humanity dimension, but also the divine dimension. Therefore all economic activities must adhere to the rule of Islamic law. In this context, an collective-integrative ijtihad can be used as a reference and legal reference in the development of contemporary muamalah.

Yusuf al-Qaradawi in the book of *al-Ijtihad fi al-Shari 'ah al-Islamiyah* asserted that there are two domains that are quite open and urgent to do ijtihad in the modern era to find answers and legal basis. First, in the realm of economic and business activities (*al-Majal al-Mali wa al-Iqtisadi*), both in the field of science and health (*al-Majal al-'Imiwa al-Tibbi*). Regarding to the first field or domain (economic and business sphere) or contemporary mu'amalah, al-Qaradlawi explains:

---

89 Abu> Ish}a>q al-Sya>at\{bi>, al-Muwafaqa>t fì I> Us\j>l al-Fiqh, (Digital Library, al-Maktabah al-Sya>milah al-Is\da>r al-S{a\ni>}, 2005), II/305.
90 Islamic economics is held to hold on to divine morals, then in Islamic Economics apply the principles of divinity. According to Sayed Nawab Haider Naqvi principles in Islamic economics there are five, namely the principle of divinity (ilahiyat / unity), the principle of equilibrium (equilibrium), the principle of freedom, the principle of responsibility, the principle of truth. Read Sayed Nawab Haider Naqvi, *Etika dan Imu Ekonomi: Suatu Sintesis Islami*, (Bandung: Mizan, 1993), p. 77-82.
92 Yu>sf Qarad\a>wi\{a> al-Ijtiha>d fì al-Syar\i‘ah ..., p. 57.
There is no doubt that in the present era there have been various models of economic and financial institution activity that did not exist in the previous era. Form of modern companies with various variants, such as companies engaged in the field of stock or capital markets, limited liability companies and so on. There are insurance companies with various variants, such as life insurance, property insurance and so on. Various kinds of banking with various products, industry, trade, investment and the like. Various banking activities ranging from deposits, borrowings, transfers, foreign exchange, credit opening, stock issuance, securities, bonds, discounts on bill notes and various activities and other banking products that are not yet legal, halal or haram. There are several variants of existing banking products that are 100% new or previously unknown, some are similar to or similar to the previous model, there is also a modification of the transaction model and conventional products with new models. Does anyone know the legal transactions and the financial companies? Some people take shortcuts by rejecting and forbidding them. If such a step is taken, it will make it difficult for Muslims and distances religion from such economic activities. Whereas Imam al-Tsauri once said 'In fact, fiqih is a dispensation of difficulties' While on the other hand there are people who take shortcuts by placing religion, accommodating all models of banking activities with all its products being punished lawfully and allowed for reasons of piety or emergency reasons. There is a third group that deals with contemporary mu'amalah models with the old theory contained in books or classic books to search for and find conformity to their lans and, if no match is found and foundation, then the mu'amalah model is mu'amalah should be rejected. The wisest step is to discuss models of financial transactions and financial products and models of contemporary mu'amalah diligently and profoundly, the figh experts exert all their ability to do isinbat relevant laws under the auspices of syar'i arguments. The problematic is the domain to implement itijihad which will produce objective legal product with

93 Ibid., pp. 57-58.
"scientific approach, either for forbidden, justifying or allowing. Such activity is really a mujtahid activity."

Further al-Qaradawi gives critical questions about precious paper or stocks that are the cornerstone of the economy in today's era. Does such valuable paper have provisions such as conventional money? Zakat like zakat gold and silver? How in the context of prohibited usury? Does the paper apply the conditions of usury as gold and silver? In the context of the obligation of zakat, is the obligatory obligatory zakat, while in the context of ribawi, does not apply to it usury? Or vice versa, apply the provisions of ribawi but does not apply zakat obligations? This is only a small part of contemporary mu'amalah legal problems, there are many other issues that require answers from the perspective of law and the legality of halalism or prohibition, especially in the field of mu'amalah banking, insurance and zakat-zakat wealth in today's contemporary era.

Fiqh, especially fiqh mu'amalah has long been undeveloped, whereas economic and financial activity developed significantly. Therefore Fiqh mu'amalah contemporary is needed to answer and solve various problems mu'amalah contemporary. Related to this Umar Chapra states:

“Fiqhi verdicts related to the financial system have remained dormant for more than two centuries, over which period the conventional financial system has made tremendous advances. Revival of the Islamic financial system is, therefore, taking place in an environment which is entirely different from that of the classical fuqaha>. Even though a great deal of progress has been made over the last two decades in facing the new challenges, there are still certain crucial issues that remain unresolved. This is but natural because the issues are difficult and require an expertise in both the fiqh and the complexities of modern finance, which is not easy to find. However, since, it may not even be possible to prepare an agreed legal framework and capital adequacy standards for Islamic banks until a consensus or near-consensus has been reached on these fundamental fiqhi issues, they need the special attention of the fuqaha>. This may not necessarily lead to a change in the classical verdicts. There will, nevertheless, be a satisfaction that, in spite of taking into account the changed realities, it was not considered desirable to change the age-old verdicts because of the strong rationale behind them. In that case it would be necessary for the fuqaha> and financial experts to join their hands to find practical Shari>ah compatible solutions for the problems faced by Islamic financial institutions. In the absence of such solutions, the risks faced by banks may be higher and the need for capital greater. Capital
standards which are significantly higher than those for conventional banks may reduce the profitability of these banks and make them less competitive.”

Contemporary Islamic economic law issues are not only about the legal status of transactions and modern financial services and products, but also on the obligations of zakat for corporations or legal entities of new financial institutions and commodities. Zakat legal entity became one of the points that became the theme of discussion and study among contemporary scholars. In this case Habib Ahmed explains:

“There are diverse opinions and views on the zakat ability of some other new items/entities. The new items of wealth and income that have been discussed by contemporary scholars include stocks and shares of companies, economic enterprises that are either wholly or partly owned by the government, mineral resources, including petroleum and income from the services sector business. The latter type of business are normally labor intensive no or very little capital and inventory investments (like travel agencies, law firms and real estate agents). Another contemporary economic reality is the existence of legal entities/person or other than natural person.”

Departing from the above, it is clear that the urgency of collective-integrative ijtihad with various approaches to answering contemporary matters from a legal perspective. Although some contemporary issues have been discussed by earlier scholars, the cases and conditions are not exactly identical, so there is a need for further review. Not only that, a very urgent need not only on the level of reform of Islamic legal thought, but concrete steps and methods.

Collective-integrative ijtihad collectively carried out by involving various circles, especially the economists, sociologists, anthropologists, and certainly Islamic jurists or mujtahids. Ijtihad is done collectively done with various approaches are expected to produce the right rule of law and can answer the substance of contemporary mu'amalah problem.

---

97 Saiful Jazil, Qat’j) dalam Perspektif Ibrahim Husen, in Jurnal al-'Ada>lah, (Jember, STAIN Jember Press, Volume 11, Nomor 1, April 2008), p. 79.
C. THE BASIC CONCEPTS, MODELS DAN INSTRUMENTS OF COLLECTIVE-INTEGRATIVE IJTIHAD

1. Basic Concept of Collective-Integrative Ijihad

Ijihad etymologically means exerting ability.\(^{98}\) Exerting all ability to get something.\(^{99}\) Abu Zakariya al-Ansari mentions that etymologically ijihad (اجتهاد) is wazan ifti‘al (افتعال) of al-juhdu, ie exert all efforts to get out of trouble.\(^{100}\) Meanwhile, in terms of ijihad terminology in the work of classical scholars in general can be deduced as an attempt to exert all the ability of science to get a conclusion, knowledge, or prejudice about a law from the actions of the mukallaf (proficient law). Meanwhile, according to contemporary scholars, ijihad is a concept that also contains methodological, methodical and functional implications. Fazlur Rahman, for example, defines ijihad as an attempt to understand the meaning of a text or precedent in the past that contains a rule, and to change the rule by extending or limiting or modifying it in other ways such that a new situation can be included in it.\(^{101}\) According to Abdullah Ahmed An-Na‘im, the use of ijihad in the general sense is relevant to the interpretation of the Qur’an and al-Sunnah. When a principle or rule of shari‘ah is based on the general meaning or the widespread implications of a text of the Qur’an and the Sunnah is different from the direct rule of clear and detailed text, the text and principles of shari‘ah should be linked through legal reasoning.\(^{102}\)

Referring to the explanation above, then collective-integrative *ijihad* can be interpreted as an effort made by several people collectively who have the feasibility and scientific competence to get the formulation of the right law by synergizing the method of ushul fiqh with scientific method and using various discipline based on legal sources by considering the social

reality and the context of time and situation to achieve the benefit. This ijtihad is not only done by a person, but collectively, because it uses various perspectives and approaches.

2. Ijtihad Model

*Ijtihad* in today's modern era has several types. Yusuf al-Qaradawi offers three alternatives in implementing ijtihad in the present contemporary era, ie *ijtihad intiqa'i*, *ijtihad insyai*, and *ijtihad integration between the two*. *Ijtihad intiqa'i* is to choose an opinion from some of the strongest opinions contained in Islamic jurisprudence which is full of fatwas and legal decisions. While *ijtihad* is taking the conclusion of the law from an issue that has not been raised by the previous scholars. The third bid is to integrate *ijtihad intiqa'i* and *insyai*, choosing the opinions of previous scholars considered more relevant and strong, then in that opinion plus the new *ijtihad* elements. On another occasion, Qardhawi describes three models of *ijtihad* in the contemporary era, namely Taqnin (legislation), fatwas and al-bahs.

Meanwhile, the other contemporary ulama, Wahbah al-Zuhaili in his book *al-Fiqh al-Islami wa Adillatuh* states:

"إذا وقعت حادثة جديدة، أو أراد إنسان استخلاص رأي راجح من بين آراء الأئمة، استجمع العالم المجتهد كل ما يتصل بنواحي الموضوع من لغة وأيات قرآنية وأحاديث نبوية وأقاويل السلف وأوجه القياس الممكنة، أي لا بد من توافر شروط الإجتهاد في تلك الحادثة، ثم ينظر فيها بدون تعصب لمذهب معين على النحو التالى: ينظر أولاً في نصوص كتاب الله تعالى، فإن وجد فيه نصاً أو ظاهراً، تمسك به، وحكم في الحادثة بمقتضاه. فإن لم يجد فيه ذلك، نظر في السنة، فإن وجد فيها نصاً أو ظاهراً، تمسك به، وحكم في الحادثة بمقتضاه. فإن لم يجد فيه ذلك، نظر في السنن، فإن وجد فيها خبراً أو سنة عملية أو تقريرية، أخذ بها، ثم ينظر في إجماع العلماء،

103 Social reality becomes one of the factors of difference of method and pattern of *ijtihad* ulama madhzhab and the result. Imam Syafi‘i for example, at first when in Hijaz and Iraq has issued the results of his *ijtihad* which he often called qaul qadim. Qaul qadim is influenced by the socio-cultural conditions of the land of Hijaz and Iraq. Then when he moved to Egypt, he found that the socio-cultural realities of Egyptian society differed from that of Hijaz and Iraq, since Egypt was influenced by European and Roman cultures. So he issued a new *ijtihad* commonly called qaul jadid. (Further read Ahmad Nahrawi Abdus Salam al-Indunisi, *Ensiklopedia Imam Syafi‘i*, (Jakarta: Hikmah, 2008), pp. 381-384.


106 Ibid., hlm. 53-54.

Based on the above phrase, it can be understood that a method of ijtihad (legal reasoning) itself can generally be divided into three models, firstly, through legal reasoning which depart from all activities related to language studies (semantics). This method is directed against sharia texts in the form of Al-Quran and Hadith to know how the two sources refers to the laws of fiqh it means. Secondly, the qiyasi (analogy) pattern, that is, attempts to establish Islamic law which is not specifically contained in the text by way of analyzing it with the legal cases contained in the nash because of the similarity of the law. Third, the pattern Istislahi, which is a method of legal reasoning that collects general passages to create universal principles to protect or bring about the benefit. Istislah or al-Maslahah al-Mursalah is a benefit of goodness or benefit judged by logical reasoning and in accordance with the purpose of syara’, but there is no indication in nash that supports or reduces it. The development of Fiqh Mu'amalah Contemporary by using the istislahi model aims to achieve the benefit in the life of a society by


109 Regarding with the definition of Qiyas, further read Muhammad bin Abi Sahal al-Sarkhasi, al-Sjuyul al-Sarkhasi, [Digital Library, al-Maktabah al-Syaamilah al-Islaam; Tariikh wa Manhaaj, cet. V, (Cairo: Maktabah Wahbah, 2001), p. 331-376. Second, Maslahah al-Mursalah can be made hujjah absolutely. This opinion is held by Imam Malik and Imam Haramain, also some scholars of Hana‘i blades like Sulaiman al-Mahdij, (Beirut: Dar al-Kutub al-Ilmiyah, 1999), II / 501.

110 As far as the difference of opinion among scholars in the matter of the blessings of the maslahah mursalah, then in this case can be put forward several different views: (Muhammad Roy, Philosophy of Law al-Tufi and Dynamism of Islamic Law (Yogyakarta: Pondok Pesantren ULI, 2007), pp. 58-59). First, Maslahah can not be a legal argument (hujaah) absolutely in Islamic law. This opinion is held by Sya‘fi‘i, anafiyyah, Zj ahiriyyah, and Shi‘i. The Sya‘fi‘i and Hana‘i schools did not include masjalah mursalah into the hierarchy of their madhhab teachings. See Manna‘ al-Qat, al-Tasyri‘, wa al-Fiqh fi al-Isla‘, m; Ta‘riikh wa Manhaaj, jan, cet. V, (Cairo: Maktabah Wahbah, 2001), p. 331-376. Second, Maslahah al-Mursalah can be made hujjah absolutely. This opinion is held by Imam Malik and Imam Hana‘i blades like Sulaiman al-Mahdij, (Beirut: Dar al-Kutub al-Ilmiyah, 1999), II / 501. Also read Ali Hasballah, Usul al-Tasyri‘, al-Isla‘, m; (Cairo: Dar al-Fikr al-‘Arabi‘, 1997, pp. 151). Thirdly, Maslahah al-Mursalah can be hujjah in Islamic law as long as it fulfills three conditions, that is d) aru‘ riyaa‘ t, qat‘iyya‘ t, and kulliya‘ t. This opinion is held by al-Ghazali. (Abu Hamid al-Ghaza‘i, li‘ah, al-Mustahal, fa‘ah, (Beirut: Dar al-Kutub al-Ilmiyah, 1993), pp. 181).
combining the size of nash or text with a view of logic or reason.\textsuperscript{111} The integration of the two aims to achieve the benefit that is not wild, apart from the corridor syara' and only use the consideration of reason and social reality alone. In addition, the integration of and reason is done so that ijtihad is not only dogmatically textual without the use of realistic and practical considerations of benefit.

Based on the above exposure, the most appropriate model used for integrative collective ijtihad (jama'i) in order to produce contemporary mq'eh fiqh is the third method, ie the istislahi model. This model is used by friends, tabi'in, and imam mazhab in every time and time. This method seeks to realize authenticity and modernity at once. The model also brings together two things: first, sticking to the passage, and secondly, maintaining and reconciling the facets of benefit and necessity after making a deep understanding of naṣ and explaining its illat.\textsuperscript{112} This model can be accepted syari 'as well as reason, because first, this model keep everything that has been fixed in the shari'ah; secondly, it takes into consideration the developmental demands on the basis of maslahah mursalah, including the general 'urf', as a form of practicing the spirit of shari'ah without "bumping into"

\textsuperscript{111} Maslahat as the method continues to develop, until in the end now conical into two big trends. First, the deep trend of using the maslahat method is tied to the 'rule of the game' as it has always been practiced by salaf scholars. By following the first trend of thinking, the use of maslahah as a method of legislation as Islamic law can be guaranteed from the development of the 'wild', because he is fenced by various rules of the game. The biggest problem is the rule of the game offered by this model is still too abstract, in the sense, too general so not so clear and multi interpretative. This will certainly provide a great space for subjectivism. In addition, the 'rules of the game' offered by him is also unlikely to be played by the recognized or not-recognized Indonesian scholars much of the knowledge of fiqh from the ushul fiqih as well as the original sources of Islamic law. The 'rules of the game' offered by this first trend may only be played by 'international caliber' scholars, or else in a collective ijtihad (djama'ī). The argument is very simple, for how can they test whether a maslahat contradicts or not with maqasid, book, sunnah, or ijma ', while their knowledge is more to jurisprudence 'that their knowledge of the Qur'an and Sunnah is not possible all the knowledge of scholars who sparked this 'rule of the game'. Ultimately, under these circumstances, existing 'rules of the game’ cannot be followed properly and keep the development opportunities out of the fence. Second, the deep trend of using the maslahah method tends to be more free. The second method does not make clear and clear 'rules of the game'. The determination of the returns to the 'sense of justice', 'general opinion', 'merit', and the like, will obviously be very subjective. Justice according to A is not necessarily fair according to B. It is not always appropriate according to C. So on, until there is no clear limit again about what is maslahat, what is fair, and what is commonly desired

\textsuperscript{112} Mukhtar Zamzami, Pembaruan Hukum, Makalah tidak diterbitkan, Jakarta, 12 Agustus 2010, hlm. 6.
Bagian ini pada dasarnya sudah penulis kutip di tulisan Ijtihad Kontemporer ..., hlm. 211.
3. **The Instrument of Ijtihad**

The instrument of ijtihad is the science and experience possessed by Mujtahid, individually or collectively. Collective-integrative Ijtihad not only requires the device, but also requires other tools that can be used to support the activities of ijtihad. This device may be a relevant modern technological device, such as a telecommunications device or an information technology tool.

The most important ijtihad device is the various sciences that must be mastered by mujtahid. A Mujtahid dominates (1) Nasṣ al-Quran and al-Sunnah, (2) Issues of ijma (3) Arabic, (4) Ushul Fiqh Science, (5) Nasakh and mansukh. While al-Syatibi as "Father of maslahat" requires two things: (1) Can understand the purpose of the Shari'ah perfectly, (2) Can dig a law on the basis of the understanding of a Mujtahid.

The scientific instrument that the author thinks is quite relevant to the collective-integrative ijtihad activity is the ijtihad device offered by Yusuf al-Qaradawi. According to him a mujtahid must meet the criteria: (1) Mastering the Quran and related sciences, (2) Mastering al-Sunnah and related science, (3) Mastering Arabic, (4) Mastering the problems of Ijma'. This requirement according to al-Qaradawi is applicable to Mujtahid Muthlaq. Moreover, according to Yusuf Qardhawi, a mujtahid must know the sciences of humanities, know civilization in his time in the field of health, chemistry and sports. This is so that the result of ijtihad is relevant.

More firmly, Ahmad Bu'ud explains the ijtihad device in the First Contemporary era, Fiqh al-Nassi and the things related to it. The first thing done by a mujtahid when conducting ijtihad is to find the foundation of the legal arguments contained in al-Quran and al-Sunah. To achieve the benefit of the people and the accuracy of ijtihad, cooperation is required of all components related to the problem, so that the legal product becomes strong and wise. In addition, some rules in understanding the text that must be possessed by a Mujtahid among them; (1) Having capability in Arabic knowledge, (2) Knowing the reason for the descent of a verse or

---

hadith (asbab al-nuzul wa al-wurud), (3) knowing the purpose or purpose of the descending verse (Maqashid al-Shari‘ah).

Secondly, the fiqh of reality (al-fiqh al-waqi‘i), is a deep and integral understanding of an object or reality faced by man in the realm of his life. The things that include fiqh al-waqi‘ are: (2) Understanding and knowing the natural influences that arise in the surrounding environment, especially the geographical conditions of the particular region in which the mujtahid live and live. (2) To know the social condition of society and its transformation in various forms which have social attachment, that is everything related between one person to another whatever kind of relationship, whether in religion, culture, economy, politics or military. (3) In addition to understanding the social reality that surrounds a problem, a mujtahid is also required to study the human psychological conditions surrounding it.¹¹⁷

Third, collective ijtihad (jama‘i). Ijtihad in the contemporary era can only be done by realizing collective ijtihad (ijtihad jamai‘), except when circumstances are really urgent. The existence of an institution or institution that accommodates the mujtahid from various fields of science, is absolutely necessary in this contemporary era.¹¹⁸

IJtihad jama‘i is a new trend that is essentially almost the same as ijma’, in this case B. Schabler as quoted by Illias Bantekas said:

“Currently, there is a new trend of thinking about the procedures for instituting Ijtihad, as well as for ways in which it can secure legitimacy. Th is is known as Ijtihad jama‘i, or ‘group ijtihad’. Th is characterised in its substance on a collective decision by a group of Muslim scholars, as opposed to a contemporary individual opinion that may lack legitimacy, and which is opposed or confl icts with a ruling by a scholar of the classic period of Islam. Obviously, a collective decision by respected scholars is easier to accept, although it may appear prima facie that collective ijtihad is nothing more than a disguised version of ijma’. The difference between the two, however, is obvious; whereas ijma‘ requires the agreement of most of the scholars of its time, group ijtihad only needs the agreement of a group of scholars. Th e difference, therefore, is principally of a quantitative nature, but this flexibility is also the measure of its success, if any.”¹¹⁹

¹¹⁸ Ibid.
Regarding with the collective-integrative *ijtiad*, al-Qaradawi states:

وينبغي أن يكون الاجتهاد في عصرنا اجتهادا جماعيا في صورة مجمع علمي يضم الكفايات الفقهية العالية، ويصدر أحكامه في شجاعة وحرية بعيدا عن كل المؤثرات والضغوط الاجتماعية والسياسية، ومع هذا لا غنى عن الاجتهاد الفردي، فهو الذي ينير الطريق أمام الاجتهاد الجماعي، بما يقدم من دراسات عميقة، وبحوث أصيلة مخدومية، بل إن عملية الاجتهاد في حد ذاتها عملية فردية قبل كل شيء.120

In addition to the various scholars mentioned above, in the context of collective-integrative *ijtiad* in the fiqh mu'amalah is contemporary, it takes a variety of other sciences, especially those related to the fields of economics, management banking and related sciences. It also required the social sciences of humaniroa, such as sociology, anthropology, history, politics and also required the science of modern science.

A *mujtahid* must have multi-talent to the surrounding environment (microcosm and microcosmic), human individuals and their customs, sociological conditions and domestic and foreign politics so as not to be conservative exclusively on something new.121 According to Syamsuddin, a *mujtahid* must master various sciences, and not only the science of the text, but also the social sciences of humanities, such as history.122 Among the mujtahid jamai there must be master of the science of sociology and anthropology and the most important is the mastery of modern science, so that the resulting *ijtiad* is really relevant and answer the contemporary issue.123

Various scientific tools as described above can be simplified by a scheme that synergizes with methodological tools and operational tools of integrative collective *ijtiad* in the field of *fiqih mu'amalah* as follows:

120 Yusuf al-Qaradawi, *IJtihad fi al-Syari'ah*, h. 63.
121 Lihat Muhammied bin Ibrahi'm, *IJtiha'd wa al-'Urf*, (Kairo: Da'r al-Sala'am, 2009), pp. 40.
123 Imam Mustofa, *IJtihad Kontemporer ...*, pp. 213.

252
The elaboration above is related to the instrument of knowledge, meanwhile the relation with ijtihad methodology, collective-integrative is not enough only by implementing classic ushul fiqh method, but also it should be combined with modern method:

**Figure 1:** The synergistic scheme between methodological instrument and operational instrument of collective-integrative ijtihad in the field of contemporary fiqh mu'amalah

**Figure 2:** The synergistic scheme between our classical method of ushul fiqh and the modern scientific method of collective-integrative ijtihad activity to produce contemporary fiqh mu’amalah

Based on the two schemes above, ijtihad is done in an integrative manner. Integrative ijtihad by combining and synergizing various fields of science. Ijtihad is carried out by various
approaches, not only through the normative juridical approach through fiqh, using the classical method of fiqh, but also through contemporary scientific approaches and methods, especially the economic approach. This is done so that the product ijtihad can produce fiqih mu'amalah which is completely compatible with the needs of economic development. Integrative Ijtihad requires the cooperation of various experts from various backgrounds of science. Thus integrative ijtihad is done collectively with full seriousness to mobilize their respective knowledge. It will be easier to produce contextual laws. Especially now the media and devices to explore knowledge and knowledge is quite representative. So it is natural that al-Suyuthi states:

الاجتهاد في هذا الزمان أسهل منه في الزمن الأول لأن الآلات من الأحاديث وغيرها قد دونت
وسهل مراجعتها بخلاف الزمن الأول فلم يكن فيه شيء من آلات الاجتهاد مدون

D. INTEGRATIVE-COLLECTIVE IJTIHAD AS AN ATTEMPT TO BUILD BASIC CONSTRUCTS OF CONTEXTUAL FIQIH MU’AMALAH

1. Ijtihad to realize maslahah sebagai Maqashid asy-syari’ah

Ijtihad as an activity to find the law of any problem the method used, basically is in order to realize maqashid asy-syari’ah (aim of syaria Islam) \(125\), that is the realization of the

\[\text{124 Imam al-Suyu}>\text{t}, Tqir al-Istina>d fi> Tafsir al-Ijtihad, (Digital Library, al-Maktabah al-Sya>milah al-Is)\text{da>r al-S}a>ni>, 2005, 1/3.\]

\[\text{125 There are different classes of opinion about the determination of maqasid al-syari ‘ah especially relating to the worldly mashlahat associated with naşh: First, the group that only holds the} \text{}} \text{and takes the dhahiriyah and does not see to a goodness implied in the nas} \text{s} \text{it. Such is the presence of the Zahiriyah, the group that rejects qiyas. They say "There is no piety but that is brought in syara ",} \text{" Second, groups seeking to find mashlahat from nas to know illa> t-illat nas, their aims and objectives. This group makes qiyas all that there is mashlahat to nas that contain mashlahat it. It’s just that they do not appreciate mashlahat unless there is syahid (testimony). So the mashlahat they intend is only the mashlahat witnessed by a or the proposition. And this is what they made illat qiyas. Third, the group that sets every mashlahat that enter into the kind of mashlahat set by syara ‘. So although not witnessed by a certain proposition but mashlahat it is taken and held as an independent proposition and they call Maslah Mursalah ah. (Al-Shatibi, al-l’} \text{tisam (Beirut: Dar al-Kutub al-‘Ilmiyah, Tt), II / .307). In the case of the determination of mashlahat, the circles of us} \text{uliyun agree to refer to the Quran, Hadith, } \text{ijma} ‘ \text{and qiyas. Among the scholars who hold such views, among others, Izzuddin Abdussalam said that mashlahat can not be known except with syara ‘. If mashlahat is unclear then it must be sought through the Quran, al-Sunnah, } \text{ijma ‘Qiyas. (‘Izzuddi} \text{r n’ Abdul ‘Aziz, "Qawa> id al-Ahкам fi Masalih al-Anam" [Beirut: Da} \text{> r al-Kutub al-‘Ilmiyah, Tt] p. 11]. Al-Ghazali explicitly says "Maqa> s} \text{ id al-Shari> ah can only be exposed through the understanding of al-kitab al-hadis and concensus ulama. (Abu Hamid al-Ghazali, al-Mustasfa, p 179).} \text{124 Imam al-Suyu}>\text{t}, Tqir al-Istina>d fi> Tafsir al-Ijtihad, (Digital Library, al-Maktabah al-Sya>milah al-Is)\text{da>r al-S}a>ni>, 2005, 1/3.\]
benefit. Maqashid asy-syari’ah in the form of goodness (maslahat) and dispels this is the ultimate goal of Islamic Shari’a.\textsuperscript{126} Religion is a means to create goodness for humans on earth. In connection with this, Ibn al-Qoyyim, in his book I’lam al-Muwaqqi’in says that the shari’a is based on the principle of wisdom and goodness man in the world and the hereafter. This goodness is others in the form of universal values of shari’a such as justice, compassion, unity, tolerance, peace and so forth.

\begin{equation}
\text{إبnu ضرية مبناها وأساسها الحكم ومصالح العباد في المعاش والمعاد، وهي عدل كلها، ومصالح كلها، وتراضية كلها، وحكمكة كلها.}
\end{equation}

Maqashid asy-syari’ah is the main goal of the establishment of Islamic law that is to create goodness for mankind.\textsuperscript{127} Maslahah is a term that can be most popular when talking about Islamic law.\textsuperscript{128} Maslahah here means \textit{jalbul manfa’ah wa daf’ul mafsadah} (attracting benefit and denying harm).\textsuperscript{129} However, the existence of maslahah as an inseparable part of Islamic law still presents many polemics and disagreements among scholars’, both since ushul fiqh still in the days of companions, the time of the imam of the schools, contemporary at this time.

\begin{itemize}
    \item \textsuperscript{126} Maqasid al-Syari’ah consists of three level. Daruriyat (essential needs), hajiyat (primary needs), and tahsiniyat (luxury needs). These principles are deduced to the issues to be solved. Abdul Wahhab Khallaf, Ilmu Usul Al-Fiqh, (Beirut: Dar al-kutub al-ilmiyah, 2007), pp. 160-164.
    \item \textsuperscript{127} Ibnul Qoyyim al-Jauziyah, I’lam al-Muwaqqi’in, (Digital Library, al-Maktabah al-Syamilah al-Islamiya, 2005), III/14.
    \item \textsuperscript{128} Abu Ishaq al-Syatibi, al-Muwafaqat ..., IV/106.
    \item \textsuperscript{129} Etymologically maslahah similar to the word manfaah, both size and meaning. The word mashlahah is masdar which means the word al-salah as the word manfa’ah which means al-naf’. The word mashlahah is a mufrad form of the word masaf, as the author of al-’Arab’s oral author describes everything that benefits both by bringing in something useful and by rejecting something harmful. While in terminology maslahah is the benefit that became the goal of Shari’ for his servants. Manfat in the sense of a favor or that bring pleasure. (Ramadan al-Buti, Dawabit al-Mas) lah> ah fi al-Shari’ah al-Isla> miyah, [Beirut: Muassasah al-Risalah, 1986] , 23); (’Izzuddin’ Abdul ’Aziz, Qowaid al-Ahkam fi Mashalih al-Anam, [Beirut: Dar al-Kutub al-’Ilmiyah, Tt. P.7-8]. The term Maslahah Mursalah is popular with the term al-Istis> lah) or al-Istidla> I al-mursal. Despite having a fundamental similarity, that is to get goodness with the exit of a law of a particular case, in the definition of the three terms are not essentially different. Istishlah in language is demanding a goodness (talabul al-islah). Whereas in term, istislah is defined as "a method of taking law against an event which has no basis both from nas and ijma 'ulumah in order to realize a convincing goodness although there is no certain guarantee of syar". More complete, read: Abdul Azis Abdul Rahman ibn Ali Rabi’ah, Adillah al-Tasryi’ : al-Mukhtalif fial-lihtijaj bihaal-Qiyas, al-Istsan, al-Istislah, al-Istishab, Jamii’ah al imam ibn Su’ud al Islami, no publisher, 1986], pp. 221-222).
    \item \textsuperscript{130} Hasbi Ash-Shididiqy, Falsafah Hukum Islam, (Semarang: Pustaka Rizki Putra, 2001), pp. 171-182.
\end{itemize}
According to Imam al-Syatibi, a *mujtahid* should not apply the law he has exalted from the Qur’an or Sunna as it is. He is obliged to give consideration based on the circumstances surrounding the object of the law. If the law resulting from ijtihad is not suitable for the object of the law because the application of the law brings harm, then the *Mujtahid* must find another law that is more appropriate, so that the harm can be eliminated and the benefit can be achieved. This theory is known as *nazariyyah i’tibar al-ma’al*.\(^{131}\) Al-Syatibi also explicitly says that God’s ultimate purpose of establishing His laws is to realize the welfare of human life, both in the world and in the hereafter. Therefore, *taklif* in the field of law should lead to and realize the realization of the objectives of the law.\(^{132}\)

Imam al-Qarafi, one of the Maliki adherents in his book *al-Ih\(\dot{\text{a}}\) m* asserted that the rule that the *fiqh* and fatwas should pay attention to is the development that takes place from day to day, taking into account traditions and customs, with time and the place. In line with al-Qarafi, Yusuf Qaradawi in his book *Sharia’ul Islam Shalihah lith- Thaqiq fi Kulli Zaman wa Makan* also explained that between the law -the result of *ijtihad* there is a law on which the temporal basis of existence, which may change according to the changing of time and circumstances, means that there must be an amendment to the law that accompanies it.\(^{133}\)

The theory of *maslahah* (*istislah*) itself is often used in collective-integrative *ijtihad*, as is often used by liberal Muslims if it is restored to the concept of *dawabit al-maslahah* that Ramad expressed an al-Buti must meet five criteria: (1) Prioritize the aim of the syara’; (2) Not contrary to the Qur’an; (3) Not contrary to al-Sunnah; (4) Not contrary to the principle of *qiyas*; (5) Taking into account the more important (big) benefits. Meanwhile, al-Syatibi limiting *dawabit al-maslahah* (*maslahah criteria*) into two. First, maslahat it is absolute and not

---


subjective. Second, goodness (maslahat) is universal (kulliyah) and not contrary to some juziyat it.¹³⁴

The journey of maslahat in the modern era, tends to establish maslahat as a method that can be used as a basis to overcome the rigor of Islamic law, and support the Islamic law that is adaptive to change. Therefore, maslahat is often an infinite value that is often made as the basis for arguing contemporary legal solutions. Even in the hands of Najmuddin al-Tufi, maslahat made the strongest foundation (hujjah) which can independently be the basis of law.¹³⁵

Mashlahah which is the goal of Islamic law (Maqashid al-Shari’ah) here is intended as a blade of analysis or glasses to read the reality and the phenomena that occur around us.¹³⁶ The above mashlahat theory must be a collective-integrative act.

2. Collective-Integrative Ijtihad: Building the Basic Constructs of Law of Product Development of Syai’a Business

Business activities and products issued by Sharia Business Institution, especially sharia banking are basically supervised by DPS selected by National Sharia Council (DSN). To not deviate from the value of sharia, this supervision has been determined by the Islamic Shariah whose application has been issued through the Fatwa MUI. Each syariah bank is required to have at least three DPS to oversee its business activities.¹³⁷

DPS itself is the person chosen by the MUI with the following provisions: having akhlaqul karimah, have the competence of expertise in the field of muamalah and knowledge in the field of banking and or finance in general, have a commitment to develop finance based on sharia, have the feasibility of sharia supervisors as evidenced by certification letter from DSN.¹³⁸

¹³⁸ Ibid., p. 11.
The task of DPS in sharia banking is to conduct periodic supervision on the LKS under its supervision, to propose the proposed LKS development to the head of the concerned institution and to the DSN, to report on the product development and operational of the LKS supervised to the DSN at least 2) times within 1 (one) budget year, and formulate issues that require discussion of DSN. Thus it is expected that Sharia Business Institution can really maintain the trust of the people to manage their funds in the way of getting blessings and blessings from Allah SWT. Collective-integrative *ijtihad* of legal products in the form of *fiqh* *mu'amalah* contemporary can be a guide for members of DPS in order to carry out such supervision can run optimally and in accordance with the foundation and legality of Islamic law. The author offers constructive thinking in collective-integrative *ijtihad* to produce contemporary *fiqh* *mu'amalah* as follows:

![Diagram](image)

**Figure 3: The Proposed Framework Scheme of Construct Formation of Law Foundation of Syaria Business Product Development in Era Modern**

The scheme above can be explained as follows:
First, the texts in the form of verses of the Qur'an and al-Sunnah associated with the economic law contain the values of morality as spirit (ruh) to create goodness for human life, both as individuals and social beings. Nash applies to mankind (Muslims) universally, not limited space and time. That is, changing times will not be able to change the rules that exist in the nash, and the spirit to create goodness always stick with the nash. Nash deals with the changes and the development of phenomena and problems along with the times. It is worth the effort of the competent person (mujtahid) to communicate the text with the change, so that the goodness becoming its soul will always be compatible with the changing times.

Nash's verse and al-Sunnah are still global. The mutaqaddimin scholars have essentially derived Nash's ijmali (global) in the general rules set forth in our usuliyyah. The rules of usuliyyah are the rules of usul fiqh which are still globally applicable to all parts and objects. This rule can be used as a mujtahid in doing istinbath law, although the rule is also still global. More specifically, the fiqh scholars detail the rules of usuliyyah in the form of more specific fiqhiyyah rules. The rules of fiqhiyyah are the fiqh principles of a global nature that are arranged in the form of a brief phrase that covers and oversees the laws of syar'i in general. According to the author, the rules of usuliyyah basically can also be a foundation in the development of fiqh mu'amalah, if there is no nash a firm or offensive an economic activity. Even some scholars, such as Najmuddin al-Tufi make the rule of usuliyyah as an independent proposition (al-Adillah al-Mustaqillah) to establish the worldly benefit.

Second, change and development. Islamic law basically develops interrelated with other disciplines, with history, influenced by other sciences such as ethics, theology, philosophy and

139 In the treasury of Islamic religious thought, especially in the Uṣul Fiqh approach, it is known that the term al-Sawabit (things that are believed or considered “fixed”, unchanged) wa al-Mutaghayyirât (things that are believed or considered “fickle”, not fixed). Some call it “al-Tsabit” wa “al-Mutawîl”. (Adonis as quoted by M. Amin Abdullah, Reactualization of Islam that 'Progress' Muhammadiyah Strategic Agenda Amid Contemporary Religious Movement, Paper presented in Ramadlan Study Center Muhammadiyah 1432 H, Muhammadiyah University Campus Yogyakarta, 7 Ramadlan / August 2011, 3)

140 Imam Mustofa, Ijtihad Kontemporer ..., p. 214.


logic, not least the humanities. Therefore, changes in change and development on other aspects should have received feedback from Islamic law.

Socio-cultural changes in society due to the development of the times bring significant influence on community behavior and cause new phenomena in their lives. These changes and developments are sunnatullah. Progress in the most tangible economic context is the emergence of various types and types of transactions and the development of modern services and financial products. Such developments are a logical consequence of the invention in other fields, such as the invention of devices and communications and information media. Developing phenomena such as the development of transactions and services and financial products are not always regulated and covered by the text, therefore ijtihad is necessary.

Third, collective-integrative ijtihad, a business of various circles who have sufficient scientific competence to communicate and contextualize texts or texts related to economic law with the development of the times with all its products. As a means of assisting the contextualization of texts, scholars have made the rules, both the rules of usuliyyah, as well as the rules of fiqhiyyah. These collective-integrative intentions are carried out with the models, methods, approaches and tools described in the above sub-chapters, to achieve and create the benefit, only the benefit achieved does not conflict with the nash itself.

Fifth, contemporary Fiqh Mu'amalah, is the result of ijtihad by departing from nash and its spirit to uphold moral norms and guidance related to sharia economic law. Norms and morality are then standardized in a binding and applicable legal rule to develop the products of the Sharia Business Institutions in the modern era. It must therefore accommodate the culture and plurality of the local community. In addition, this contemporary Fiqh should accommodate the demands of human values or aspects of humanity and the development of the global economy.

Sixth, goodness becomes the purpose of the text of the Qur’an and al-Sunnah. The law must be able to create goodness for humans, whether goodness will be achieved through a

---


144 Imam Mustofa, Ijtihad Kontemporar ..., p. 214.
definite calculation, as well as with a strong assumption\textsuperscript{145}. This goodness will be created with contemporary *ijtihad* activities that result in the rule of law that is actual and contextual.\textsuperscript{146}

Construction of the above can be realized collectively and will be more effectively structured in an institution that specifically provides a fatwa or legal foundation of Islamic economic activity in the modern era. Basically there are already institutions that have given special attention and produce contemporary *mu'amalah fiqh* as a legal foundation for Islamic financial products namely Islamic Research and Training Institute of Islamic Development Bank and Center for Research in Islamic Economic King Abdul Aziz University. These two institutions have recorded the results of economic law studies in the form of monographs. However, the institution's legal products have not been maximally accessed and are limited to three languages, Arabic, English and French.\textsuperscript{147}

Institutions that are very possible to produce contemporary *fiqh muamalah* in Indonesia according to the authors is the MUI working together National Sharia Council. Both of these institutions must involve more experts from various fields of science in order to maximally prepare for contemporary *fiqh muamalah*.

The above constructions when implemented by DSN, will produce contemporary *fiqh mu'amalah* as the foundation of the development of Islamic banking and finance products based on rules and basic principles that include rules and principles of *syar'iyyah* (*al-qawa'id wa al-Mabadi 'al-Syar'iyyah*), the rules and basics of banking (*al-qawa'id wa al-Mabadi 'al-Masrifiyyah*), rules and economic foundations (*al-qawa'id wa al-Mabadi 'al-Iqtisadiyyah*) and the rules and foundations of society and civilization (*al-qawa'id wa al-Mabadi 'al-Ijtima'yyah wa al-Saqafah*)\textsuperscript{148}. *Ijtihad* must produce sharia economic laws that can facilitate Muslims in developing transactions, service products and sharia finance. The benefit which is not only in harmony and realization of *maqashid* al-syari’ah in the economic context, that is *hifz al-mal*

\textsuperscript{145} According to 'Izzuddîn bin Abdussalam establishing or maintaining goodness based on strong assumptions or prejudices justified in Islamic law (Izzuddîn ibn Abdussalam, *Qawa'idul Ahkam ..., II / 18*).

\textsuperscript{146} Imam Mustofa, *Ijtihad Kontemporer ..., p. 214*.


(wealth protect), but also realize *maqashid al-syariah* others, namely *hifz ad-din*, *hifzan-nafs*, *hifz an-nasl*, and *hifz al-’aql*.

**E. CONCLUSION**

The variety of economic activities and products of Sharia financial institutions that emerged in the modern era and there is no provision of *fiqh* comprehensively in need of answers and legality of Islamic *fiqh*. Therefore, efforts should be made to fulfill and prepare a comprehensive and relevant Islamic legal product, through collective-integrative *ijtihad*. Collective-integrative Ijtihad done in order to meet and prepare *fiqih mu’amalah* which can be used as legal foundation of product development of sharia financial institution. Collective-integrative Ijtihad needs to be done so that the development of Islamic economics, especially related to transactions and products of financial institutions are not constrained by the legality of *fiqih*.

Collective-integrative *Ijihad* is done in order to produce *dawabith* and *fiqih mu’amalah* done integrally. Integrative *Ijihad* is ijtihad by combining and synergizing various fields of science. This integrative *Ijihad* requires the cooperation of various experts from various scientific backgrounds. *Ijihad* is also carried out by various approaches, not only through the normative juridical approach through *fiqh*, by the classical method of *ushul fiqh*, but also through contemporary scientific approaches and methods, especially the economic approach. While the model used is model *istasahi*. These collective-integrative collectives are carried out collectively by experts from different fields of science incorporated in an institution. This is done so that the product *ijtihad* can produce *fiqih mu’amalah* which is completely compatible with the needs of economic development. Produce *fiqih mu'amalah* a contextual that can realize the benefit for Muslims in various fields, especially in the economic field.
REFERENCE

Book:


------, al-Muwafaq>qa>t Fi Us}l al-Syari>a>t, (Digital Library, al-Maktabah al-Sya>milah al-Is}da>r al-S|a>ni>, 2005).

------, al-I’tis}a>m Beirut: Dar al-Kutub al-‘Ilmiyah, Tt.


Aḥmad Bu’u>d, al-Ijtihada>b baina Ḥaqqa>iq al-Ta>ri>kh wa Mutja>liba>t al-Wa>qi’, Kairo: Dar al-Sala>m, 2005.


'Izzuddin 'Abdul ‘Azi>z, ”Qawa>id al-Ah]ka>m fi> Mas]a>lih] al-Ana>m” Beirut: Da>r al-Kutub al-‘Ilmiyah, tt.


Wah}ba}h al-Zu}hhai}li>, *al-Fiqh al-Isla}mi > wa Adillatu}h*, Beirut: Dar Al-Fikr, 2005.


------, *al-Ijti}ha>d fi}h al-Syari>’ah al-Isla}mi>yah ma’a Na}jara>t tah}li>iyah fi}h al-Ijti}ha>d al-Mu’a>s}ir*, Kuwait: Da>r al-Qalam li al-Nasr wa al-Tauzi’, cet. III, 1999.


------, *G}aya>h al-Wus}u<l fi Syarh} Lubb al-Us}u>l*, (Digital Library, al-Maktabah al-S|a}ni>, 2005).

Journal and Paper:


Mukhtar Zamzami, Pembaruan Hukum, Makalah tidak diterbitkan, Jakarta.


Saiful Jazil, Qat’i Zanni> dalam Perspektif Ibrahim Husen, dalam Jurnal al-

ADalah, Jember, STAIN Jember Press, Volume 11, Nomor 1, April 2008.


ABOUT THE WRITER

Mam Mustofa, born in Pringsewu, April 12, 1982. Since attending primary school in Madrasah Ibtidaiyah Hidayatul Mubtadiin Srikaton Village, Adiluwih Sub-district, Pringsewu Regency, the writer also studied at Pondok Pesantren Hidayatul Mubtadiin (PPHM) founded and raised by his father, KH. Rohani Uthman. After graduating from Madrasah Ibtidaiyah (1995), the writer continued his education at Madrasah Tsanawiyah al-Hidayah in Tunggul Pawenang Village with scholarship from al-Hidayah Foundation, while also nyantri at PPHM until finished in 1998. That same year he continued his education to Madrasah Aliyah Religious Negeri (MAKN) Bandar Lampung, graduated in 2001 with a scholarship from the Ministry of Religious Affairs and Islamic Development Bank (IDB). Strata 1 Education was pursued at the Faculty of Islamic Studies of the Islamic University of Indonesia (FIAI-UII) Yogyakarta with a scholarship from UII Waqf Board graduated in 2005. In 2006 the writer continued his Strata 2 education at Postgraduate Program of State Islamic University Sunan Kalijaga Yogyakarta took the Family Law Concentration Department Islamic law, graduated 2008 with a scholarship from the Ministry of Religious Affairs of the Republic of Indonesia. During the education of Strata 1 to Strata 2, the writer nyantri in Pondok Pesantren Mahasiswa Unggulan Universitas Islam Indonesia Yogyakarta. In 2006 the author was appointed a lecturer of Islamic Law at the Faculty of Law University of Pekalongan, Central Java. Since 2009 he was appointed Lecturer at the State Islamic High School of Jurai Siwo Metro, Lampung.
During his time as a student of FIAI UII, the writer was active in the Student Press Institute (LPM) Pillar of Democracy, and was also active as the Editorial Secretary of Millah Journal of Religious Studies Master of Islamic Studies UII until 2008. That same year he became Chief Editor of Al-Mustawa Journal Directorate of Education and Islamic Religion Development until 2009. The year 2007 was active as Trainer at Directorate of Islamic Religious University Development and Development (DPPAI-UII) until 2009. In 2008, Husband of Imroatul Munawaroh became research assistant at Center for Local Law Development Studies CLDS) Faculty of Law UII until 2009. The author is active in writing articles in various journals of Islamic Studies in Indonesia. To date, more than 25 articles have been published in various national journals, whether or not they have been cultivated. Around 75 articles are published in newspapers, both locally and nationally. While actively conducting research and writing, starting in 2011, the father of Mahera Mumtazatul Mushthava served as secretary of Center for Research and Community Service (P3M) STAIN Jurai Siwo Metro. It is also active in scientific periodical publishing, becoming editorial secretary of AKADEMIKA Journal of Islamic Thought, editorial secretary of TAPIS Journal of Scientific Research and editorial secretary of Nizham Jurnal Pascasarjana STAIN Jurai Siwo Metro.