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# The Moderating Role of Corporate Social Responsibility in Determining Islamic Bank Margin

## *(Peranan Tanggung Jawab Sosial Korporat sebagai Pemboleh Ubah Moderasi dalam Menentukan Margin Bank Islam)*

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*ABSTRACT*

*The ability to generate profit is the most important factor for a bank. One of the indicators to asses bank profitability is Bank Margin which is influenced by internal and external factors. However, the survival of a bank does not only depend on the profitability, but also depends on its responsibility to the stakeholders including the community. Islamics bank are obliged to distribute some of their profits to support Corporate Social Responsibility (CSR) and disclose those activities in the bank annual report. This study aims to analyze internal factors that determining Islamic Bank Margin in Malaysia. The internal factors include capital, assets quality, management, earning and liquidity. This study further investigates the moderating role of CSR on the relationship between capital, asset quality, management, earning, liquidity and bank margins. The sample used are 10 Malaysian Islamic Banks. The method used is multiple regression. The findings show that 75.8% of Islamics Bank Margin is influenced by capital, asset quality, management, earning and liquidity. Partially, assets quality and earning significantly influence on Islamic Bank Margin, while capital, management and liquidity have no effect on bank margins. In addition, CSR is the potential variable to moderate the influence of capital, asset quality, management, and liquidity on Bank Margins.*

*Keywords: Bank Margins; Corporate Social Responsibility; Islamic Social Reporting; Islamic Banks.*

*ABSTRAK*

*Keupayaan untuk mendapatkan keuntungan adalah faktor yang paling penting bagi sebuah bank. Salah satu penunjuk untuk menilai keuntungan bank adalah Margin Bank yang dipengaruhi oleh faktor dalaman dan luaran. Walau bagaimanapun, kemandirian sebuah bank tidak hanya bergantung kepada keuntungan yang diperoleh, tetapi juga bergantung kepada tanggungjawabnya kepada pemegang taruh termasuk masyarakat. Bank Islam berkewajipan untuk mengagihkan sebahagian keuntungan mereka untuk menyokong aktiviti Tanggungjawab Sosial Korporat (CSR) dan mendedahkan aktiviti CSR dalam laporan tahunan bank. Kajian ini bermatlamat untuk menganalisis faktor dalaman yang menentukan Margin Bank Islam di Malaysia. Faktor dalaman termasuk modal, kualiti aset, pengurusan, pendapatan dan kecairan. Seterusnya kajian ini bermatlamat untuk menyiasat peranan moderasi CSR dalam hubungan antara modal, kualiti aset, pengurusan, pendapatan, kecairan dan margin bank. Sampel yang digunakan dalam kajian ini sebanyak 10 buah bank Islam di Malaysia. Kaedah yang digunakan adalah regresi berganda. Penemuan kajian menunjukkan bahawa 75.8% Margin Bank Islam dipengaruhi oleh modal, kualiti aset, pengurusan, pendapatan dan kecairan. Secara separa, kualiti aset dan pendapatan mempengaruhi secara signifikan Margin Bank Islam, sementara pengurusan dan kecairan tidak memberi kesan kepada Margin Bank. Di samping itu, CSR adalah pemboleh ubah yang berpotensi untuk memoderasi pengaruh modal, kualiti aset, pengurusan, pendapatan dan kecairan terhadap Margin Bank.*

*Kata kunci: Margin Bank; Tanggungjawab Sosial Korporat; Pelaporan Sosial Islam; Bank Islam*

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## INTRODUCTION

Islamic banking currently has very good prospects, especially in countries that are predominantly Muslims, such as Saudi Arabia, United Arab Emirates (UAE), Kuwait, Qatar, Turkey, Bahrain, Indonesia, and Malaysia. In 2016, Malaysia had 16 Islamic bank institutions with an office network of 2197 (Annual Report of Bank Negara Malaysia, 2016). Board, I. F. S. (2018) reported that market share of Malaysia Islamic Banking Industry account for 24.9% of the country bank assets and market share of Malaysian Islamic banking were ranked fourth after Iran, Saudi Arabia and UAE.

Bank Negara Malaysia (BNM) reported that the average pre-tax profit achieved by Malaysian Islamic banking was RM4.530 billion and the average percentage increase was 11.16% (Annual Report of Bank Negara Malaysia, 2016). The ability to generate profits is one of the indicators to assess banking performance. Studies of Islamic banking profitability have been carried out by several researchers. Haron (1996) stated that interest rate and inflation significantly influenced the profitability of Islamic banks in Malaysia. Bashir (2003) conducted a study on conventional and Islamic banks in Indonesia, which showed that there was a relationship between profitability, bank characteristic factors, and macroeconomic indicators. Hutapea and Kasri (2010) found that the capital ratio had a positive relationship in Islamic Bank Margin while liquidity risk and interest rate volatility had a negative relationship with Islamic Bank Margin. Khrawish et al. (2011) stated that the provision loan losses, the ratio of total equity to total assets, and the ratio of total income to total assets significantly affected the Return of Assets (ROA) of Islamic banks in Jordan. Arif and Anees (2012) found that deposit and cash had a positive correlation with banks' earning. In addition, Wibowo and Syaichu (2013), and Puspitasari (2014) concluded that the operational income and operational cost ratio significantly had a negative influence on ROA, while other factors such as inflation, interest rate, Capital Adequacy Ratio (CAR) and Non Performance Loan (NPL) had not. Raharjo et al. (2014) conducted a study on 30 commercial banks, and he found that size, CAR, Loan-to-Deposit Ratio (LDR), NPL, ROA, and inflation had an influence on Net Invest Margin (NIM). In addition, Ramlan and Adnan (2015) found that the ratio of total equity to total assets (TE/TA) had a significant effect on the ROA and ROE of the Islamic banks, and also a significant effect on the ROE of conventional banks. Those studies mostly used the ROA or ROE as an indicator of profitability, while the study that used Bank Margin as an indicator of profitability is still very limited.

The CAR shows the ability of the bank to bear all the possible risks (financial risk, security, and investment). The higher the CAR is, the better the ability of the bank to risk each of the productive asset at risk. Non-Performing financing (NPF) shows the quality of financing in which the higher the value of NPF reflects the worse quality of financing. A high NPF will have an impact on the loss of opportunity to make a profit from the provided financing. The ability of banks to generate profits depends on the banks' ability to manage their funds. The efficiency of fund management is reflected in the ratio of operating costs and operating income. The more efficient the bank manages its funds, the greater the profit that can be achieved. Financing-to-Deposit Ratio (FDR) is one of the indicators to measure the level of bank liquidity. The higher FDR indicates that the greater the fund is disbursed to financing. Therefore it provides opportunities for the banks to obtain greater profits. The level of liquidity can be measured by the Cash Ratio (CR). CR is a ratio to measure cash availability to pay for withdrawal of savings or checking accounts, or to meet a new financing request. If a bank does not have a sufficient cash, then the CR will encourage the bank to seek an emergency funds with higher cost of funds. This situation encourages the bank to increase its financing margins as well so that its margin income will also increase.

Economic institutions like banks are not only required to seek benefits but also to carry out social responsibilities in order to create prosperity and justice in society. Corporate Social Responsibility (CSR) has recently become an important issue in the world of business. Yusuf (2017) stated that the survival of a company depended on the form of corporate responsibility towards the community as a part of the company's business activities. In Islam, social responsibility is not something new. The concept of social responsibility and justice have been realized since the prophetic period. The Prophet Muhammad SAW carried out social responsibility based on instructions from the Qur'an. CSR practices have been carried out by Islamic banks in Malaysia, but so far, the CSR framework or guidelines has not been standardized yet. Jusoh and Ibrahim (2016) found that Islamic banking practitioners were still waiting for a standard and comprehensive CSR based on shari'ah principles. Rahman et al. (2010) argued that the disclosure of CSR in the company's financial statements was not yet fully an obligation of the bank but voluntary. Some studies showed that there was a positive correlation between CSR and financial performance. Othman et al. (2009) conducted a research on 56 companies in Malaysia, and they found that the size, profitability, and Muslim directors have the influence on the extent of Islamic Social Reporting (ISR). Arsyad et al. (2012), conducted on 16 Islamic banks in Malaysia, and stated that the extent of Islamic CSR disclosure had a significant effect on ROA and ROE.

The result of previous studies is still inconsistent. Therefore, a future study is still needed. This study will investigate the determinants of Islamic Banks' Margin

in Malaysia. The aims of this study are: (1) to examine the determinants of Islamic Banks' Margin in Malaysia, and (2) to explain the moderating role in determining Islamic Banks' Margin. Previous studies mostly used ROA or ROE as an indicator of profitability, while the study that uses Bank Margin as an indicator of profitability is still very limited. The significance in using Bank Margin is that Bank Margin reflects more of the level of profit achievement by a bank because it measures the income earned by the bank from total productive assets. As explained in the previous section, CSR disclosure has a positive relationship with financial performance. Therefore, this study will investigate the impact of moderating CSR on Bank Margin.

## LITERATURE REVIEW

### ISLAMIC BANK

Islamic bank or interest free bank is a bank which operates on a profit and loss sharing basis. Usman (2009) emphasized that there were three prohibitions in Islamic banking i.e, riba (interest), gharar (uncertainty), masyir (speculation). The first Islamic bank was Mit Ghamir Bank. It was established in Egypt in 1967. Malaysia has been practicing Dual Banking System since 1983. The first Islamic bank in Malaysia was Bank Islam Malaysia Berhad (BIMB) which was established in 1983. The second full-fledged Islamic bank was Bank Muamalat Malaysia Berhad (BMMB). In 2004, Bank Negara Malaysia introduced provisions for establishment of Islamic banks subsidiaries. Stapah et al. (2018) found that until 2005 there were eleven Islamic subsidiaries of conventional banks. The growth of Islamic banking in Malaysia was dominated by Islamic subsidiaries of conventional banks. The total assets of Islamic subsidiaries was RM430.68 billion and the full-fledged Islamic Banks were only 92.89. This statement supported by Furqani and Mulyany (2009), they stated that in 2005 Government of Malaysia issued licences for foreign Islamic bank to operates in Malaysia and transforms the Islamic windows in conventional bank to Islamic subsidiaries.

### BANK PROFITABILITY

Profitability is a bank ability to generate the profit. Some indicators used to measure the profitability of commercial banks are Return on Assets (ROA) and Return on Equity (ROE). ROA is used to measure the bank's ability to generate income (earnings) from the total owned assets. ROE is used to measure the bank's ability to generate income of the owned total equity. Profitability can also be measured by Net Interest Margin (NIM) and Net Financing Margin (NFM). Raharjo et al. (2014) explained that NIM is the ratio of the interest income earned by bank and the interest paid to depositors and creditors divided by the average earning assets. According to Malim et al. (2017) NFM is calculated as the difference between financing income and income paid to depositors over the average earning assets. Stapah et al. (2018) measured Net Profit Margin (NPM) by the ratio of net financing income to average earning assets.

Bank financial performance is influenced by many factors. In this study, several factors will be discussed, among others:

1. Capital Adequacy Ratio (CAR)
   Bank capital plays an important role on the development and progress of the bank. Banks that have sufficient capital will be trusted by the community. Latumaerissa (2014) stated that banks that have sufficient capital will be able to save money owned by depositors if business liquidity is forced or business solvency problems arise. Regulation of the Bank of International Settlement (BIS) stated that CAR that must be obeyed by banks throughout the world is 8% of capital to risk assets (Muhamad 2014).
2. Non Performing Financing (NPF)
   One of the risks faced by banks in their business activities is the possibility of credit or financing problems. NPF are financing that is given to customers who cannot be billed again. NPF is calculated by comparing the amount of non performing financing with the amount of disbursed financing.
3. Financing to Deposit Ratio (FDR).
   FDR is a comparison between demand deposits, savings and others used to meet financing requests. This ratio shows the extent to which deposits are used for lending. Large banks tend to have high FDR even reaching 100% although it does not rule out the possibility that small banks can also have a high FDR rate. The FDR also shows the ability of banks to channel credit or financing from funds obtained from third parties.
4. Operation Cost to Operation Revenue Ratio (OCOR)
   Ratio of operating costs to operating income is called the efficiency ratio. This ratio is used to measure how effective bank management controls the operating costs.
5. Cash Ratio
   Cash ratio is used to measure the bank's ability to meet its short-term obligations that is the withdrawal of funds from time to time made by the depositors. Cash ratio shows the level of bank liquidity. The bank is said to be liquid if the bank can pay the withdrawal of savings and current accounts whenever the owner of the fund is needed. Banks that are illiquid will affect the performance and reputation of the bank.

## THEORY OF BANK MARGIN

The literature on Bank Margin for Islamic banks are very limited. Hutapea and Kasri (2010) stated that original model of Bank Margin was introduced by Ho and Saunders in 1981. They developed the dealership approach to study Bank Margin. His study was focused on US commercial banks. Ho and Saunders (1981) found that the pure interest spread or margin depended on four factors, they are the degree of managerial risk aversion, the size of transaction, the bank market structure and the variance of interest rate.

Haron and Shanmugam (1995) used autoregressive models to examine the relationship between the rates of return and the level of deposit in Islamic banks in Malaysia. Malim et al. (2017) found that bank size, default risk, capital, overhead cost and inflation have a positive and significant effect on Islamic Bank Margin in Asian countries. In contrast, market concentration and GDP growth have a negative and significant effect on Islamic Bank Margin.

## THEORY OF CORPORATE SOCIAL RESPONSIBILITY (CSR)

Retno and Priatinah (2012) argued that some theories behind the implementation of CSR are (1) Milton Friedman's Capitalism Theory, (2) Theory of Social Contact, (3) Instrument Theory, (4) Legitimacy Theory, and (5) Stakeholder Theory. Theory of capitalism explains that companies may carry out CSR activities as long as they do not conflict with the interests of shareholders and the CSR activities provide benefits for the company. Based on social contact theory, the company can run its business activities if it is supported by the surrounding community. Instrument theory has the view that CSR can be used as a strategy tool to achieve corporate goals such as creating a positive image. Meanwhile, according to theory of legitimacy, companies carry out CSR activities because of political, social and economic pressures from outside the company. Therefore, the company will do CSR to meet the demands of the community. The next theory is the theory of stakeholders that considers that CSR activities are carried out to fulfill the wants and needs of the stakeholders. From several theories, it can be concluded that CSR activities provide not only benefits to the community, but also provide benefits to the company which is creating a positive reputation and the company is better known by the public.

Concept of CSR developed in the western word is different from the Islamic CSR (I-CSR). Yusuf (2017) stated that CSR based on western point of view only relay on logic and reason. In contrast, I-CSR is based on the relationship to God (Allah), to human and to surrounding environment. I-CSR in the Islamic financial institution such as Islamic banks should seek not only profit or to fulfill obligations mandated in the law, but it must reach the basic needs of the community to strengthen the community's economy towards a better and preserve natural environment for future generation.

Nor (2016) stated that most Islamic banks have implemented CSR activities and disclosed these activities in their annual report. However, the CSR activities carried out are still limited to distribution of zakat and charitable activities rather than developing systematic strategies to resolve social problem.

## PREVIOUS EMPIRICAL RESEARCH

Bashir (2003) examined the determinants of profitability in Islamic banks in Middle Eastern countries between the period of 1993-1998. The results showed that the banks characteristic variables are the ratio of equity to total assets, and ratio of profit loss sharing loans to total assets. Non-interest expense on total assets had a positive correlation with bank profitability as measured by ROA (Return on Assets), ROE (Return on Equity) and the ratio of income before tax to total assets.

The results by Hutapea and Kasri (2010) on Islamic banks and conventional banks showed different results. In Islamic banks, the default risk, the capital ratio, implicit cost, and opportunity cost of bank reserve have a positive correlation with the margins of Islamic banks, while the interest rate volatility and liquidity risk have a negative correlation with the margins of Islamic banks. In conventional banks, there is a positive relationship between Bank Margin with the default risk, liquidity risk, capital ratio, implicit return, bank reserve and quality management. While Bank Margin and interest rate volatility show a negative relationship.

Khrawish et al. (2011) study of banks listed on the Amman Stock Exchange stated loan loss reserves (provision for loan losses), the ratio of total equity to total assets (TE/TA), and the ratio of total income to total assets (TI / TA) have a positive correlation of ROA, While the bank size, the ratio of total loans to total assets (TL / TA), GDP growth (GDPGR), inflation rate (annual inflation rate), foreign exchange rate (exchange rate) negatively correlates with ROA.

Arif and Ahmed (2012) conducted a study on the relationship between liquidity risk to the performance of the banking system in Pakistan. The study concluded that the amount of deposits and cash positively correlated to earnings before taxes, while the liquidity gap and Non Performing Financing (NPL) were negatively correlated with the earnings before taxes. Wibowo and Syaichu (2013) concluded that BOPO has a significant effect on ROA, while CAR, NPF, inflation and interest rates have no effect on ROA.

Raharjo et al. (2014) conducted a study on the factors that determine the bank interest rate (banks interest margin) of commercial banks in Indonesia. The conclusion of this study stated that the growth of bank assets, ROA and CAR have a positive effect on Net

Interest Margin (NIM). While the minimum statutory reserve (GWM) and Non-Performing Loans (NPL) negatively affect the Net Interest Margin (NIM). Loan market power and inflation have a positive effect on the NIM while the interest rate has a negative effect on the NIM.

Furthermore, Puspitasari (2014) examined NPL, the ratio of operating costs to operating income, the capital adequacy ratio and the volume of transactions against Net Interest Margins of commercial banks listed on the Indonesia Effect Exchange (IDX). The results of the study concluded that the ratio of operating costs to operating income and transaction volume have a significant positive effect on NIMs while NPLs and CAR did not affect the NIM.

Study on NPM determinants at subsidiaries of conventional banks in Malaysia conducted by Stapah et al. (2018) found that operating cost has a positive impact on NPM, while credit risk has a negative impacts on the NPM. In addition, liquidity was found insignificant on NPM. Malim et al. (2017) studied on Islamic banks in Asia Countries. The result of the study showed that Net Profit Margin was influenced by bank size, default risk, capitalization, overhead cost and inflation.

Othman et al. (2009) examined the relationship between firm size, profitability of the composition of the board of commissioners, and type of industry against ISR (*Islamic Social Reporting*) disclosure. The results of the study concluded that the size of the company, profitability, composition of the board of directors had a significant effect on ISR disclosure, while the type of industry had no significant effect on ISR disclosure. Similar research was carried out by Lestari (2013). Which supported the results of Othman's research that firm size, profitability has a significant effect on ISR disclosure, while the company age and the proportion of independent board of directors do not affect the ISR disclosure.

Rahman et al. (2010), examined the trend of ISR disclosure themes which are widely expressed in the annual report of Bank Islam Malaysia Berhad (BIMB). He concluded that theme of employees (labour) was more frequent disclosed compare with the product and services, community involvement, investment and finance and shariah supervisory councils. This study also examined which parts of the annual report were more often used to report on BIMB social activities. The results showed that the chairman statement, financial statement and director report are part of the annual report that is often used to report BIMB social activities.

Othman and Thani (2010) examined the extent to which companies with shariah systems conduct ISR disclosures. The results of this study indicated that the level of ISR disclosure in the annual report is still very low, this indicates a lack of transparency in disclosure. Arshad et al (2012) who studied at Islamic banks in Malaysia, concluded that the disclosure of Islamic CSR had a positive effect on the company's reputation. Furthermore, i-CSR disclosure has a significant positive effect on the performance of Islamic banks in Malaysia as measured by profit before tax.

Jusoh and Ibrahim (2016) carried out a study of CSR in Islamic banks in Malaysia, the study concluded that nearly 60% of the respondents agreed that CSR was an institutional obligation and more than 70% of respondents stated that Islamic banks must have a specific CSR framework to serve as guidelines. Although many of Islamic banks are still follow the conventional framework. Jusoh and Ibrahim (2016) continued the study of CSR at Bank Islam Malaysia Berhad (BIMB). They found that BIMB has been practicing CSR, that is not only limited to the distribution of zakat and charity, but also to programs of public service (community service) and environmental project.

## METHODOLOGY

This study uses secondary data obtained from annual reports and financial reports of selected banks for the period of 2012 to 2017, the website of Bank Negara Malaysia (BNM), as well as articles relevant to this research. The samples in this study consist of 10 full-fledge Islamic banks and subsidiaries. These banks selected based on some considerations as follows:

1. Banks that issued annual reports or financial statement continuously.
2. The Bank whose annual reporting period ends on 31 December.
3. Banks that have a complete data required in the analysis.
4. Banks that published CSR reports on their websites or annual reports.

TABLE 1. Bank Samples

| No | Name | Code |
|---|---|---|
| 1 | Affin Islamic Bank Berhad | AFFIN |
| 2 | Al Rajhi Banking & Investment Corporation Berhad | ARB |
| 3 | Bank Islam Malaysia Berhad | BIMB |
| 4 | CIMB Islamic Malaysia Berhad | CIMB |
| 5 | Kuwait Finance House | KFH |
| 6 | Maybank Islamic Bank Berhad | MIBB |
| 7 | OCBC Al- Amin Bank Berhad | OCBC |
| 8 | Public Islamic Bank Berhad | PIBB |
| 9 | RHB Islamic Bank Berhad | RIBB |
| 10 | Standard Saadiq | SCS |

*Source:* Bank Negara Malaysia (BNM), 2016

## VARIABLES' DEFINITION

The dependent variable is Bank Margin. The word Bank Margin is taken from Hutapea and Kasri (2010). Bank Margin is the ratio of net financing income and average earning assets. Another researcher, Stapah et al. (2018) used the word Net Profit Margin.

On the other hand, the independent variables are:

1. Capital measured by capital adequacy ratio (CAR)
2. Asset Quality measured by non performing financing (NPF)
3. Management measured by financing to deposit ratio (FDR)
4. Earning measured by operating cost to operating revenue ratio (OCOR)
5. Liquidity measured by cash ratio (CR)

Next, moderation variable is CSR disclosure. It is measured by ISR Items adopted from Othman (2009), as disclosed in appendix 1.

## METHOD OF ANALYSIS

The first objective of the research is to answer the research question related to the determinant factors of Malaysia Islamic Bank Margin. It uses panel data equation model as follows:

$$BM_{it} = \beta_{it} + \beta_1 CAR_{it} + \beta_2 NPF_{it} + \beta_3 FDR_{it} + \beta_4 OCOR_{it} + \beta_5 CR_{it} + e_{it} \quad (1)$$

Where:

$BM_{it}$ : Bank Margin of Islamic bank.
$CAR_{it}$ : Capital Adequacy Ratio.
$NPF_{it}$ : Non Performing Financing
$FDR_{it}$ : Financing To Deposits Ratio
$OCOR_{it}$ : Operating Cost to Operational Revenue
$CR_i$ : Cash Ratio
i dan t : *i* represents bank and *t* represents time period.
$\beta_i$ : intercept
$\beta_1 - \beta_5$ : estimated parameter.
$e_{it}$ : random variable

To examine the role of moderating variables (ISR) whether to strengthen or weaken the influence of

TABLE 2. Definition of Operational Variable and Measurement

| Variable/Indicators | Definition | Measurement | Scale |
|---|---|---|---|
| Bank Margins (BM) | The ability of bank to generate income from borrowed fund | (Net Financing Income : Average Earning Assets) x 100% | Ratio |
| Capital Adequacy Ratio (CAR) | The ability of bank to meet its capital adequacy | Core capital : Weighted Assets by Risk) | Ratio |
| Non Performing Financing (NPF) | The risk of financing indicated by the amount of bad financing. | Non performing financing : Total financing | Ratio |
| Financing to Deposits ratio (FDR) | The ability of bank to distribute third party fund | Total financing provided : third party fund | Ratio |
| Ratio of Oprating Cost to Operating Revenue (OCOR) | OCOR reflect bank efficiency to conduct its operational activity. | Operting Cost : operating revenue | Ratio |
| Cash Ratio | The availability of cash and other current assets to pay for withdrawals of savings current account and new financing | Cash and other short term fund : customers deposits | Ratio |
| Corporate Social Responsibilty | Disclosure of index ISR in the company annual report | Number of items disclosed : all items | Ratio |

TABLE 3. Descriptive Statistics of Research Variables

| Statistic | BM | CAR | NPF | FDR | OCOR | CR | ISR |
|---|---|---|---|---|---|---|---|
| Mean | 0.0277 | 0.1640 | 0.0139 | 0.9607 | 0.8075 | 0.1942 | 0.3312 |
| Max | 0.0700 | 0.2916 | 0.0713 | 1.9700 | 1.1000 | 0.6400 | 0.7200 |
| Min | 0.0100 | 0.1148 | 0.0012 | 0.1100 | 0.6200 | 0.0100 | 0.0900 |
| Std.Dev | 0.0117 | 0.0378 | 0.0013 | 0.2919 | 0,1021 | 0.1529 | 0.1796 |
| Skewness | 1.5512 | 0.0152 | 0.0254 | 0.2973 | 0.9081 | 1.2972 | 0.7546 |
| Kurtosis | 5.2015 | 0.0493 | 0.1049 | 6.1797 | 3.3239 | 3.7700 | 2.4738 |
| Jarque-Bera | 36.1805 | 0.3254 | 204.629 | 26.1601 | 8.5099 | 18.3099 | 6.3874 |
| Probability | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0142 | 0.0001 | 0.0410 |

each independent variable on the dependent variable presented as follow:

$$MB_{it} = \alpha + \beta_1 CAR.ISR + \beta_2 NPF.ISR + \beta_3 FDR.ISR + \beta_4 OCOR.ISR + \beta_5 CR.ISR + e \quad (2)$$

## RESULT AND DISCUSSION

### DESCRIPTIVE STATISTICS

Summary of descriptive statistics of each variable can be seen in the Table 3.

The table shows that average BM of Islamic banks in Malaysia is 2.76%, the lowest BM is 1% and the highest is 7%. The average CAR is 16.4%, moreover the lowest CAR is 11.48%, and the highest CAR is 29.16%. Based on the regulation from BIS, banks should have minimum CAR of 8%. The average NPF is between 0.12%-7.13% and the average of NPF is 1.39%. It can be concluded that Islamic banks in Malaysia have very low NPF. FDR reflects the ability of banks to distribute third party fund in the form of financing. The average FDR is 96.06%. The figure indicates that the Islamic banks have run a good intermediary function. Furthermore, the ratio of operating cost to operating revenue ranging from 62% to 110% and its average is 80.75%. Cash ratio (CR) reflects bank liquidity, it measures by comparing total cash and deposits from the customers. The average CR is 19.42%. the lowest of CR is 15.29% and the highest CR is 65%.

Islamic banks in Malaysia have been disclosing their social activities through their annual reports. This study identifies the social activity of the Islamic banks which based on ISR Index developed by Othman et al. (2009). The average ISR disclosure (ISRD) of Islamic banks in Malaysia is 33.12%, the highest ISRD is 70% and the lowest ISRD is 9%.

### DETERMINING FACTORS OF BANK MARGIN

The first objective in this study is to answer whether the variables CAR, NPF, FDR, OCOR, and CR are determinants of MB. Panel data regression analyses were done in order to answer the research question. The analysis process is done by firstly determine the right model of three models, namely Common Effect Model (CEM) or Pooled Least Square, Fixed Effect Model (FEM) and Random Effect Model.

The steps are as follows:

1. Common Effect Model (CEM)
   Results of CEM (in Appendix 3) show that the probability value (F) = 0.094322 ( > 0.05), then it is concluded that this model is not significant. The next step is analysis with FEM.
2. Fixed Effects Model (FEM) .
   A dummy variable technique known as least squares dummy variable (LSDV) is used in order to estimate the FEM. The hypothesis used is that H0: Common Effect Model; H1: Fixed Effect Model. with the criteria:

   If Chi Square > 0.05 then H0 is accepted (the model used is CEM)

   If Chi Square <0 .05 then H0 is rejected (the model used is FEM)

   The results of FEM testing are presented in appendix 5, then to determine the most appropriate model between CEM and FEM is done by using Chow Test through Redundant-Likelihood Ratio. The analysis shows that Chi-Square value 0.0000 is smaller than $\alpha$ (alpha) 0.05. According to the criteria, the FEM model is selected. The next step is to compare the FEM with the Random Effect Model (REM).

TABLE 4. Estimation Result of Effect of CAR, NPF, FDR, OCOR,CR on Bank Margin

| Variable | FEM | | |
|---|---|---|---|
| | Coefficient | t-Statistic | Probability |
| Capital (CAR) | -0.000504 | -1.287464 | 0.2045 |
| Asset Quality (NPF) | 0.003056 | 1.893103 | 0.0648 |
| Management (FDR) | -0.002736 | -0.669660 | 0.5065 |
| Earning (OCOR) | -0.069505 | -4.313449 | 0.0001 |
| Liquidity (CR) | 0.012615 | 1.289887 | 02037 |
| Constant | 0.087961 | 0,014812 | 0.0000 |
| | | | |
| R-Squared | 0.757600 | | |
| Adjusted R-Squared | 0.682187 | | |
| F-Statistic | 10.04600 | | |
| Prob (F-Statistic) | 0.000000 | | |

*Source:* Appendix 4

3. Random effect Model (REM)
   There are two residual components in REM. Firstly, overall residual which is a combination of cross section and time series. Secondly, residual is an individual residual which is a random characteristic of the observation unit i and remains constant all the time. Then the test is conducted by using the Hausman test. The result of the Hausman test (appendix 5) shows that the probability value 0.000. It is smaller than $\alpha$ (alpha) 0.05. Therefore, the right model is FEM.

The next step is to explain the determinant of the determinant variables of MB with FEM. Based on the regression model and the analysis result on Table 4, we can be formed equation model as follow:

$$MB_{it} = 0.087961 - 0.000504\ CAR_{it} + 0.003056\ NPF_{it} - 0.002736_3\ FDR_{it} - 0.002736\ OCOR_{it} + 0.012615 CR_{it} + e_{it} \quad (3)$$

Table 4 shows that F-statistic value is 10.04600 with a probability of 0.000. It is smaller than the level of significance (α) 0.05, so that it can be concluded that the simultaneously independent variables (CAR, NPF, FDR, OCOR and CR) have an effect on BM. The magnitude of the effect is 75.8% ($R^2 = 0.757600$), while 24.2% is influenced by other variables outside studied the variables.

Coefficient of the capital is -0.000504 with a probability of 0.2045. It means that CAR does not affect Bank Margin of Malaysia Islamic banks. CAR does not have any effect on BM because the CAR value of Islamic banks is quite high with an average of 16.15% above the minimum CAR requirement of 8%.

Asset quality is measured by NPF. The lower NPF indicates the better asset quality. NPF coefficient is 0.003056 with a probability of 0.0648, which indicates that NPF has a significant effect on the Bank Margin at a significance level of 10%. NPF increases as a result of an increase in the amount of financing greater than the increase in the amount of third-party funds collected by banks. This condition causes the Bank Margin income to be greater than the margin fee that must be paid by the bank. If the amount of financing increases, banks must also increase the reserve fund to anticipate potential losses caused by bad loans. This condition encourages banks to increase their margin income by increasing financing margins.

FDR shows the ability of banks to distribute third-party funds in the form of financing. The analysis shows that coefficient of FDR is -0.002736 with a probability of 0.5065 which means that FDR does not have any effect on the Bank Margin. As shown in Table 4, the average FDR of Islamic banks in Malaysia is 0.9607, which means that 96.07% of the third-party funds are distributed to financing.

Coefficient of Earning (OCOR) is -0.069505 with a probability of 0.0001. Its means that the earning which is measured by the ratio of operating cost to operating revenue is significantly influence the Bank Margin at significance level of 1%. Negative coefficient values

TABLE 5. Estimation Results of Moderation Regression

| Equation | Explanation |
|---|---|
| MB = α + β1 CAR<br>MB = α + β1 CAR + β2 ISR + β3CAR.ISR | To determine the effect of CAR on MB with ISR as moderation |
| MB = α + β1 NPF<br>MB = α + β1 NPF + β2 ISR + β3NPF.ISR | To determine the effect of NPF on MB with ISR as moderation |
| MB = α + β1 FDR<br>MB = α + β1 FDR + β2 ISR + β3 FDR.ISR | To determine the effect of FDR on MB with ISR as moderation |
| MB = α + β1 OCOR<br>MB = α + β1 OCOR + β2 ISR + β3 OCOR.ISR | To determine the effect of OCOR on MB with ISR as moderation |
| MB = α + β1 CR<br>MB = α + β1 CR + β2 ISR + β3 CR.ISR | To find out the effect of CR on MB with ISR as moderation |

TABLE 6. Regression Analysis Results Moderation

| Variables | $R^2$ (X → Y) | $R^2$ Moderating | Coefficient (X * Z) | Probability (sig) * | | | Moderation Criteria |
|---|---|---|---|---|---|---|---|
| | | | | (X → Y) | Z → Y | Moderating effect | |
| CAR | 0.556773 | 0.560492 | 0.002478 | 0.0053 | 0.6074 | 0.5419 | potential moderation |
| NPF | 0.630291 | 0.641308 | 0.014725 | 0.0000 | 0.7392 | 0.2788 | potential moderating |
| FDR | 0, 526212 | 0.527992 | -0.022090 | 0, 0332 | 0.8305 | 0.7444 | potential moderation |
| OCOR | 0.688383 | 0.706057 | 0.189870 | 0.0000 | 0.0999 | 0.1122 | predictor moderation |
| CR | Predictor 0.487768 | 0.488328 | -0, 031093 | 0.3860 | 0.8528 | 0.8245 | potential moderation |

indicates that any increase in the ratio of operating costs to operating income will reduce BM.

Liquidity is measured by the ratio of available cash and other short-term funds to the amount of customers deposits (Cash Ratio). Coefficient of liquidity is -0.012615 with a probability of 0.2037. It means that the cash ratio has no effect on BM.

### EFFECT OF ISR MODERATION VARIABLES

Moderating regression analysis is done in order to find out whether the ISR is a moderating variable or not. The equation model is formed as Table 5.

Based on the analysis obtained the following results on Table 6. From Table 6, it can be explained that ISR disclosure is potential to be a moderating variable that strengthen that the effect of independent variables (capital adequacy ratio, non performing financing, financing to deposit ratio, and liquidity) and dependent variable (Bank Margin). This means that the increase in the level of ISR disclosure will also increase Bank Margin.

## CONCLUSION

Bank Margin (BM) of Malaysia Islamic banks is determined by several factors. All the variables used in this study, namely Capital Adequacy Ratio (CAR), Non Performing Financing (NPF), Financing to Deposit Ratio (FDR), Operating Cost to Operating Revenue (OCOR), and Cash Ratio (CR) are simultaneously affecting on Bank Margin (BM). The magnitude of the effect is 75.8% ($R^2 = 0.757600$), while the other 24.2% is influenced by variables outside of the variables studied in this research. Partially, NPF has a significant effect on Bank Margin at 10% level, earning measured by ratio of operating cost and operating revenue has a significant effect at 1% level, meanwhile the CAR, FDR, and CR have no any effect on BM.

In general, Islamic banks in Malaysia have been disclosing their social activities in their annual reports, eventhough the average level of disclosure is only 33.12%. The analysis shows that ISR disclosure is potential to be a moderating variable. It means that ISR disclosure will strengthen the effect of independent variables (capital adequacy ratio, non performing financing, financing to deposit ratio, and liquidity) on the dependent variable (Bank Margin). Therefore, Islamic banks Malaysia should increase their social activities since increasing the ISR disclosure will increase their Bank Margin.

### REFERENCES


Arif, Ahmed & Anees, Ahmed Nauman. 2012. Liquidity Risk and Performance of Banking System. *Journal of Financial Regulation and Compliance* 20 (2):182-195.

Arsyad, Roshayani., Othman, Suaini & Othman, Rohana. 2012. Islamic Corporate Social Responsibility, Corporate Reputation and Performance. *International Journal of Social, Behavior, Educational, Economic, Business and Industrial Engineering* 6(4): 643-647.

Bank Negara Malaysia. 2016. Financial Stability and Payment System Report 2015. Retrieved from http://www.bnm.gov.my/files/publication/fsps/en/2015/fs2015_book.pdf%0Awww.bnm.gov.my

Bashir, Abdel Hamid M. 2003. Determinants of Profitability In Islamic Banks: Some Evidence From The Middle East. *Islamic Economic Studies* 11(1): 32-57.

Board, I. F. S. 2018. *Islamic Financial Services Industry Stability Report 2018*. Retrieved from https://www.ifsb.org/

Furqani, Hafas and Mulyani, Ratna. 2009. Islamic Banking and Economic Growth: Empirical Evidence From Malaysia. *Journal of Economic Cooperation and Development* 30(2): 59-74.

Haron, S and Shanmugen, B. 1995. The Effect of rate of Profit On Islamic Bank'Deposits: A Note. *Journal of Islamic Bankingh and Fiance* 12(2): 18-28.

Haron, Sudin. 1996. Competition and Other External Determinants of the Profitability of Islamic Banks. *Islamic Economic Studies* 4(1): 49-64.

Ho, Thomas S.Y & Saunders, Anthony. 1981. The Determinants of Banks interest Margins: Theory and Empirical Evidence. *Journal of Financial and Quantitative Analysis* XVI (4): 581-600.

Hutapea, Erwin G & Kasri, Rahmatina A. 2010. Bank Margin Determination: Comparison between Islamic and Conventional Banks in Indonesia. *International Journal of Islamic and Middle Eastern Finance and Management* 3(1): 65-82.

Khrawish, Husni Ali; Siam, Walid Zakaria & Khrawish, Ali Husni. 2011. Determination of Islamic Banks Profitability: Evidence from Jordan. *Middle Eastern Finance and economics* 13: 44-57.

Lestari, Puji. 2013. Determinants Of Islamic Social Reporting in Syariah Banks: Case of Indonesia. International Journal of Business and Management Invention 2(10) 28-34.

Latumaerissa, Julius R. 2014. *Manajemen Bank Umum.* Jakarta: Penerbit Mitra Wacana Media.

Malim, Nurhafiza Abdul Kadir., Masron, Tajul Arifin & Pitchay, Anwar Allah. 2017. Determination Of Islamic Banks' Margins In Asia Countries. *Journal of Islamic Finance* (Special Issue): 46-53.

Muhamad. 2014. *Manajemen Dana Bank Syari'ah.* Jakarta: Penerbit PT Radja Grafindo Persada.

Nor, Shifa Mohd. 2016. Islamic Social Bank: An Adaptation of Islamic Banking. *Jurnal Pengurusan* 46: 1-14

Jusoh, Wan Noor Hazlina & Ibrahim, Uzaimah. 2016. Corporate Social Responsibility of Islamic Bank's Practices: An Explorator Study. *International Jurnal of Islamic Business Ethics* 1(2): 95-109

Lestari, Puji. 2013. Determinant Of Islamic Social Reporting in Syariah Banks: Case Study of Indonesia. International Journal of Business and Management Invention 2(10): 28-34.

Othman, Rohana; Thani, Azlan Md & Ghani, Erlane K. 2009. Determinant of Islamic Social Reporting Among Top Shariah-Approaved Companies in Bursa Malaysia. *Research Journal of International Studies* 12 (October):4-20

Othman, Rohana & Thani, Azlan Md. 2010. Islamic Social Reporting of Listed Companies in Malaysia. *The International Business and Economics Research Journal,* April: 135-144.

Puspitasari, Elisa. 2014. Analisis Faktor Yang Mempengaruhi Net Interest Margin Pada Bank-Bank Umum di Indonesia. *Jurnal Ilmu Manajemen* 2(4):1630-1641.

Rahardjo, Pamuji Gesang; Hakim, Dedi Budiman; Manurung, Adler Hayman & Maulana, Tubagus NA. 2014. The Determination of Commercial Banks Interest Margin in Indonesia: An Analysis Effect Panel Regression. *International Journal of Economics and Financial Issues* 4(2): 295-308.

Rahman, Azhar Abdul; Bakar, Fathiyyah Abu & Hasyim, Mohd Farid Asraf Md. 2010. Corporate Social Reporting: A Preliminary Study of Bank Islam Malaysia Berhad (BIMB). *Issues in Social and Environmental Accounting* 4(1): 18-39.

Ramlan, Hamidah and Adnan, Mod Sharrizat. 2016. The Probability of Islamic and Conventional Bank: Case Study in Malaysia. *Procedia Economics and Finance* 35: 359-367.

Retno M, Reny Diah & Priatinah, Denies. 2012. Pengaruh Good Corporate Governance Dan Pengungkapan Corporate Social Responsibility Terhadap Nilai Perusahaan (Studi empiris Pada Perusahaan Yang Terdaftar di Bursa Efek Indonesia Periode 2007-2010). *Jurnal Nominal.* 1(1): 84-103.

Stapah, Maisyarah., Possumah, Bayu Taufiq & Ahmat, Nizam. 2018. Net Profit Margin of Islamic Subsidiaries of Conventional Banks in Malaysia. *Jurnal Ekonomi Malaysia* 52(2): 163-173.

Usman S.H.M.H, Rahmadi. 2009. *Produk dan Akad Perbankan Syariah di Indonesia*. Bandung: Penerbit PT Citra Aditya Bakti.

Wibowo, Edhi Satriyo & Syaichu, Muhammad. 2013. Analisis Pengaruh Suku Bunga, Inflasi, CAR, BOPO, NPF terhadap profitabilitas Bank Syariah. *Diponegoro Journal of Manajemen.* Vol 2. No 2.

Yusuf, Muhammad Yasir, 2017. *Islamic Corporate Social Responsibility (I-CSR) pada Lembaga Keuangan Syariah.* Depok: Penerbit Kencana.

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APPENDIX 1. Disclosure of Islamic Social Reporting

Disclosure of Islamic Social Reporting

| No | Keywords | No | Keywords |
|---|---|---|---|
| *A* | *Finance And Investments Theme* | *D* | *Society Theme* |
| 1 | Riba Activities | 21 | Saddaqa/Donation |
| 2 | Gharar | 22 | Waqf |
| 3 | Zakat: method used, zakatable amount, beneficiaries | 23 | Qard Hasan |
| 4 | Policy on Late Repayments and Insolvent Clients/Bad Debts written-off | 24 | Employee Volunteerism |
| 5 | Current Value Balance Sheet (CVBS) | 25 | Education School Adoption Scheme: Scholarship |
| 6 | Value Added Statement (VAS) | 26 | Graduate Employment |
| *B* | *Product And Service Theme* | 27 | Youth development |
| 7 | Green product | 28 | Underprivileged community |
| 8 | Halal status of the product | 29 | Children care |
| 9 | Product safety and quality | 30 | Charities/Gifts/Social activities |
| 10 | Customer Complaints/incidents of non-compliance with regulation and voluntary codes (if any) | 31 | Sponsoring public health/recreational project/sports/ cultural events |
| *C* | *Employees Theme* | *E* | *Environment Theme* |
| 12 | Education and training/human capital development | 33 | Endangered wildlife |
| 13 | Equal Opportunities | 34 | Environmental pollution |
| 14 | Employee involvement | 35 | Environmental education |
| 15 | Health and safety | 36 | Environmental products/process related |
| 16 | Working environment | 37 | Environmental audit/independent verification statement/ governance |
| 17 | Employment of other special interest group (i.e. Handicapped, ex-convicts, former drug-addicts) | 38 | Environmental management system/policy. |
| 18 | Higher echelons in the company perform their congregational prayers with lower and middle level managers. | *F* | *Corporate Governance Theme* |
| | | 39 | Shariah compliance status |
| 19 | Muslim employees are allowed to perform their obligatory prayers during specific times and fasting during Ramadhan on their working day | 40 | Ownership structure: Number of muslim shareholders and its shareholdings |
| | | 41 | Board structure-muslim vs non-muslim . |
| 20 | Proper place of worship for the employees. | 42 | Forbidden activities: monopolistic practice, hoarding necessary goods, price manipulation, fraudulent business practice, gambling. |
| | | 43 | Anti-corruption policies |

*Sources*: Othman dan Thani, 2010

APPENDIX 2a. CAR, NPF, FDR, BOPO, CR, BM, ISRD 2012-2017

| No | Name of Bank | Period | CAR (%) | NPF (%) | FDR (%) | BOPO (%) | CR (%) | BM (%) | ISRD (%) |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Alfin Islamic BB | 2012 | 15.15 | 2.49 | 0.57 | 0.79 | 0.45 | 0.03 | 0.37 |
| 2 | Al Rajhi Banking & ICB | 2012 | 13.46 | 1.74 | 0.94 | 0.99 | 0.32 | 0.07 | 0.28 |
| 3 | Bank Islam Malaysia Berhad | 2012 | 13.86 | 1.55 | 0.60 | 0.84 | 0.05 | 0.04 | 0.58 |
| 4 | CIMB Islamic Bank Berhad | 2012 | 13.27 | 0.91 | 0.94 | 0.75 | 0.18 | 0.02 | 0.63 |
| 5 | Kuwait Finance House (Malaysia) | 2012 | 18.89 | 7.13 | 0.98 | 0.81 | 0.25 | 0.05 | 0.35 |
| 6 | Maybank Islamic Bank Berhad | 2012 | 12.59 | 0.54 | 0.86 | 0.69 | 0.18 | 0.03 | 0.35 |
| 7 | OCBC Al-Amin Bank Berhad | 2012 | 15.24 | 0.51 | 0.96 | 0.83 | 0.01 | 0.02 | 0.12 |
| 8 | Public Islamic Bank Berhad | 2012 | 12.07 | 0.86 | 0.85 | 0.62 | 0.20 | 0.03 | 0.16 |
| 9 | RHB Islamic Bank Berhad | 2012 | 14.74 | 2.51 | 0.92 | 0.81 | 0.17 | 0.02 | 0.14 |
| 10 | Standard Chatered Saadiq | 2012 | 11.48 | 0.76 | 0.86 | 0.76 | 0.40 | 0.04 | 0.21 |
| 11 | Alfin Islamic BB | 2013 | 14.28 | 2.15 | 0.65 | 0.81 | 0.49 | 0.03 | 0.26 |
| 12 | Al Rajhi Banking & ICB | 2013 | 14.43 | 1.17 | 1.09 | 0.98 | 0.10 | 0.05 | 0.28 |
| 13 | Bank Islam Malaysia Berhad | 2013 | 13.97 | 1.18 | 0.64 | 0.69 | 0.10 | 0.04 | 0.67 |
| 14 | CIMB Islamic Bank Berhad | 2013 | 14.02 | 0.88 | 0.91 | 0.77 | 0.18 | 0.02 | 0.63 |
| 15 | Kuwait Finance House (Malaysia) | 2013 | 21.20 | 6.04 | 1.13 | 0.74 | 0.27 | 0.05 | 0.28 |
| 16 | Maybank Islamic Bank Berhad | 2013 | 13.71 | 0.59 | 1.04 | 0.69 | 0.21 | 0.02 | 0.37 |
| 17 | OCBC Al-Amin Bank Berhad | 2013 | 14.13 | 0.90 | 1.01 | 0.71 | 0.14 | 0.04 | 0.12 |
| 18 | Public Islamic Bank Berhad | 2013 | 12.36 | 0.90 | 0.81 | 0.67 | 0.24 | 0.03 | 0.16 |
| 19 | RHB Islamic Bank Berhad | 2013 | 14.42 | 2.30 | 0.88 | 0.81 | 0.16 | 0.02 | 0.14 |
| 20 | Standard Chatered Saadiq | 2013 | 13.72 | 0.48 | 1.04 | 0.85 | 0.47 | 0.03 | 0.28 |
| 21 | Alfin Islamic BB | 2014 | 13.67 | 1.79 | 0.73 | 0.82 | 0.19 | 0.02 | 0.23 |
| 22 | Al Rajhi Banking & ICB | 2014 | 20.17 | 0.66 | 0.87 | 0.97 | 0.07 | 0.05 | 0.28 |
| 23 | Bank Islam Malaysia Berhad | 2014 | 13.32 | 1.14 | 0.72 | 0.70 | 0.08 | 0.04 | 0.67 |
| 24 | CIMB Islamic Bank Berhad | 2014 | 15.49 | 1.25 | 0.87 | 0.77 | 0.12 | 0.02 | 0.63 |
| 25 | Kuwait Finance House (Malaysia) | 2014 | 24.63 | 3.79 | 1.69 | 0.75 | 0.39 | 0.04 | 0.26 |
| 26 | Maybank Islamic Bank Berhad | 2014 | 16.09 | 0.47 | 1.08 | 0.71 | 0.13 | 0.02 | 0.40 |
| 27 | OCBC Al-Amin Bank Berhad | 2014 | 15.46 | 1.41 | 0.92 | 0.85 | 0.12 | 0.02 | 0.09 |
| 28 | Public Islamic Bank Berhad | 2014 | 13.86 | 0.90 | 0.83 | 0.71 | 0.09 | 0.02 | 0.16 |
| 29 | RHB Islamic Bank Berhad | 2014 | 16.34 | 1.30 | 1.04 | 0.79 | 0.17 | 0.02 | 0.14 |
| 30 | Standard Chatered Saadiq | 2014 | 13.76 | 0.20 | 1.08 | 0.96 | 0.32 | 0.02 | 0.23 |

APPENDIX 2b. CAR, NPF, FDR, BOPO, CR, BM, ISRD 2012-2017

| No | Name of Bank | Period | CAR (%) | NPF (%) | FDR (%) | BOPO (%) | CR (%) | BM (%) | ISRD (%) |
|---|---|---|---|---|---|---|---|---|---|
| 31 | Alfin Islamic BB | 2015 | 14.42 | 1.88 | 0.92 | 0.80 | 0.19 | 0.02 | 0.30 |
| 32 | Al Rajhi Banking & ICB | 2015 | 22.39 | 0.46 | 0.97 | 0.94 | 0.03 | 0.06 | 0.28 |
| 33 | Bank Islam Malaysia Berhad | 2015 | 15.28 | 1.09 | 0.79 | 0.73 | 0.07 | 0.03 | 0.70 |
| 34 | CIMB Islamic Bank Berhad | 2015 | 16.27 | 1.05 | 0.91 | 0.79 | 0.13 | 0.02 | 0.65 |
| 35 | Kuwait Finance House (Malaysia) | 2015 | 24.95 | 3.25 | 1.97 | 1.10 | 0.44 | 0.01 | 0.26 |
| 36 | Maybank Islamic Bank Berhad | 2015 | 16.49 | 0.65 | 1.23 | 0.74 | 0.08 | 0.02 | 0.40 |
| 37 | OCBC Al-Amin Bank Berhad | 2015 | 14.75 | 1.96 | 0.97 | 0.77 | 0.11 | 0.03 | 0.12 |
| 38 | Public Islamic Bank Berhad | 2015 | 13.48 | 0.66 | 0.81 | 0.75 | 0.08 | 0.02 | 0.16 |
| 39 | RHB Islamic Bank Berhad | 2015 | 14.61 | 1.17 | 0.11 | 0.81 | 0.22 | 0.02 | 0.26 |
| 40 | Standard Chatered Saadiq | 2015 | 15.71 | 0.12 | 0.12 | 0.95 | 0.51 | 0.02 | 0.33 |
| 41 | Alfin Islamic BB | 2016 | 13.60 | 0.99 | 1.13 | 0.80 | 0.1 | 0.02 | 0.47 |
| 42 | Al Rajhi Banking & ICB | 2016 | 17.36 | 0.59 | 0.99 | 0.98 | 0.02 | 0.02 | 0.28 |
| 43 | Bank Islam Malaysia Berhad | 2016 | 15.48 | 0.98 | 0.85 | 0.72 | 0.09 | 0.03 | 0.56 |
| 44 | CIMB Islamic Bank Berhad | 2016 | 18.03 | 0.98 | 0.89 | 0.75 | 0.16 | 0.02 | 0.56 |
| 45 | Kuwait Finance House (Malaysia) | 2016 | 26.97 | 3.74 | 1.51 | 1.07 | 0.55 | 0.02 | 0.26 |
| 46 | Maybank Islamic Bank Berhad | 2016 | 18.55 | 0.79 | 1.39 | 0.75 | 0.15 | 0.02 | 0.40 |
| 47 | OCBC Al-Amin Bank Berhad | 2016 | 18.43 | 2.16 | 0.85 | 0.76 | 0.17 | 0.03 | 0.12 |
| 48 | Public Islamic Bank Berhad | 2016 | 13.53 | 0.60 | 0.88 | 0.76 | 0.02 | 0.02 | 0.16 |
| 49 | RHB Islamic Bank Berhad | 2016 | 14.00 | 1.15 | 1.15 | 0.80 | 0.12 | 0.02 | 0.14 |
| 50 | Standard Chatered Saadiq | 2016 | 18.74 | 0.46 | 1.39 | 0.90 | 0.58 | 0.02 | 0.28 |
| 51 | Alfin Islamic BB | 2017 | 16.25 | 1.12 | 1.08 | 0.85 | 0.10 | 0.02 | 0.40 |
| 52 | Al Rajhi Banking & ICB | 2017 | 18.44 | 0.39 | 0.82 | 0.97 | 0.09 | 0.03 | 0.28 |
| 53 | Bank Islam Malaysia Berhad | 2017 | 16.41 | 0.93 | 0.91 | 0.73 | 0.09 | 0.03 | 0.72 |
| 54 | CIMB Islamic Bank Berhad | 2017 | 16.29 | 0.66 | 0.89 | 0.76 | 0.22 | 0.02 | 0.67 |
| 55 | Kuwait Finance House (Malaysia) | 2017 | 29.16 | 2.70 | 1.27 | 0.91 | 0.10 | 0.03 | 0.33 |
| 56 | Maybank Islamic Bank Berhad | 2017 | 20.78 | 0.80 | 1.25 | 0.72 | 0.13 | 0.02 | 0.40 |
| 57 | OCBC Al-Amin Bank Berhad | 2017 | 19.82 | 2.52 | 0.86 | 0.70 | 0.09 | 0.03 | 0.12 |
| 58 | Public Islamic Bank Berhad | 2017 | 15.98 | 0.58 | 0.84 | 0.78 | 0.07 | 0.02 | 0.16 |
| 59 | RHB Islamic Bank Berhad | 2017 | 14.13 | 0.80 | 1.13 | 0.80 | 0.05 | 0.02 | 0.33 |
| 60 | Standard Chatered Saadiq | 2017 | 24.50 | 0.20 | 1.25 | 0.92 | 0.64 | 0.02 | 0.30 |

APPENDIX 3. Output of CEM

Common Effect Model (CEM)

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C | 0.018735 | 0.012046 | 1.555318 | 0.1257 |
| CAR (X1) | -0.000119 | 0.000551 | -0.216180 | 0.8297 |
| NPF (X2) | 0.003489 | 0.001279 | 2.727053 | 0.0086 |
| FDR (X3) | -0.008224 | 0.006129 | -1.341718 | 0.1853 |
| BOPO (X4) | 0.019584 | 0.016948 | 1.155511 | 0.2530 |
| CR (X5) | -0.009828 | 0.010378 | -0.946963 | 0.3479 |
| R-squared | 0.155817 | Mean dependent var | | 0.027667 |
| Adjusted R-squared | 0.077651 | S.D. dependent var | | 0.011698 |
| S.E. of regression | 0.011234 | Akaike info criterion | | -6.045042 |
| Sum squared resid | 0.006815 | Schwarz criterion | | -5.835607 |
| Log likelihood | 187.3513 | Hannan-Quinn criter. | | -5.963120 |
| F-statistic | 1.993428 | Durbin-Watson stat | | 1.010701 |
| Prob(F-statistic) | 0.094322 | | | |

APPENDIX 4. Output of FEM

Fixed Effect Model (FEM)

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C | 0.087961 | 0.014812 | 5.938314 | 0.0000 |
| CAR (X1) | -0.000504 | 0.000391 | -1.287464 | 0.2045 |
| NPF (X2) | 0.003056 | 0.001614 | 1.893103 | 0.0648 |
| FDR (X3) | -0.002736 | 0.004086 | -0.669660 | 0.5065 |
| BOPO (X4) | -0.069505 | 0.016114 | -4.313449 | 0.0001 |
| CR (X5) | 0.012615 | 0.009780 | 1.289887 | 0.2037 |
| R-squared | 0.757600 | Mean dependent var | | 0.027667 |
| Adjusted R-squared | 0.682187 | S.D. dependent var | | 0.011698 |
| S.E. of regression | 0.006595 | Akaike info criterion | | -6.992824 |
| Sum squared resid | 0.001957 | Schwarz criterion | | -6.469238 |
| Log likelihood | 224.7847 | Hannan-Quinn criter. | | -6.788021 |
| F-statistic | 10.04600 | Durbin-Watson stat | | 1.682257 |
| Prob(F-statistic) | 0.000000 | | | |