*Received: 14 August 2018; Revised: 17 December 2018; Accepted: 07 January 2019*

# EARNING QUALITY AND POTENTIAL BANKRUPTCY OF ISLAMIC BANKS: INDONESIA VERSUS MALAYSIA

**Grandis Imama Hendra**
Sekolah Tinggi Ekonomi Islam Tazkia
Email: grandis@tazkia.ac.id

**ABSTRACT -** This study aims to analyze the difference in earning quality and potential bankruptcy of Islamic banks before and after the adoption of IFRS and to analyze the relationship of earnings quality and potential bankruptcy to the operating cash flow of Islamic bank. Data obtained from the financial statements of 12 Islamic banks in Indonesia and 17 Islamic banks in Malaysia with financial reporting period from 2010 to 2016. Earning quality is measured by discretion of loan loss provision and the potential bankruptcy of Islamic banks is measured using the Altman z score model. The results show that the earning quality of Islamic banks did not have significant differences between before and after IFRS adoption. While Islamic banks in Malaysia have significant differences between before and after the adoption of IFRS. Islamic banks in both countries do not have the potential bankruptcy difference between before and after IFRS adoption. The earnings quality decreased when the potential bankruptcy at high levels.
**Keywords:** Earning Quality, Potential Bankruptcy, Altman Z Score, Islamic Bank

**ABSTRAK -** ***Kualitas Laba Dan Potensi Kebangkrutan Bank Syariah: Indonesia Versus Malaysia.*** *Penelitian ini bertujuan untuk menganalisis perbedaan kualitas laba dan potensi kebangkrutan bank syariah sebelum dan sesudah adopsi IFRS dan untuk menganalisis hubungan kualitas laba dan potensi kebangkrutan dengan arus kas operasi bank syariah. Data diperoleh dari laporan keuangan 12 bank syariah di Indonesia dan 17 bank syariah di Malaysia dengan periode pelaporan keuangan dari 2010 hingga 2016. Kualitas laba diukur dengan diskresi cadangan kerugian pembiayaan dan potensi kebangkrutan bank syariah diukur dengan menggunakan model Altman z skor. Hasil penelitian menunjukkan bahwa kualitas laba bank syariah tidak memiliki perbedaan yang signifikan antara sebelum dan sesudah adopsi IFRS. Sementara bank syariah di Malaysia memiliki perbedaan signifikan antara sebelum dan sesudah adopsi IFRS. Bank syariah di kedua negara tidak memiliki perbedaan potensi kebangkrutan antara sebelum dan sesudah adopsi IFRS. Kualitas laba menurun ketika potensi kebangkrutan di level tinggi.*
***Kata Kunci:*** *Kualitas Laba, Potensi Kebangkrutan, Altman Z Score, Bank Syariah*

## INTRODUCTION

Transparency of information within an organization or company is very important for stakeholders in the framework of decision making. Therefore, it takes a rule that can be accepted by all stakeholders. So they are able to understand and evaluate to be taken into consideration in decision making. The more qualified the applied rules, the higher the level of information quality. In a company, quality financial reports will provide significant benefits to all stakeholders, especially for investors and managers. They need rules or standards that can be understood by stakeholders so as not to cause errors in decision making. Accounting standards can also be used as a means of protecting investors from misunderstanding the financial statements in order to be mistaken in decision making.

Since the economic crisis caused by accounting scandals in large companies such as Xerox, Enron and WorldCom, the rules in the process of preparing financial reports was getting tightened. The Sarbanes Oxley Act established July 30, 2002, was one of the rules issued by the United States government as a regulation to be followed and implemented by all companies in the capital market, Securities and Exchange Commission (SEC). Then in 2008, the financial accounting standard board (FASB) issued Generally Accepted Accounting Principle (GAAP). GAAP is deemed to be irrelevant, an accounting standard issued by the International Accounting Standard Board (IASB) which is the International Financial Reporting Standard (IFRS). This accounting standard becomes an alternative that gets responses from several countries especially related to the concept of fair value in the presentation and disclosure in financial reports. IFRS standards emerge with the main objective to harmonize the accounting concepts in preparing financial statements in Europe Union countries. It then penetrated to more than 100 countries in the world including Indonesia and Malaysia which as shown in Figure 1.

At the end of this decade, Islamic banking in Indonesia experienced a decline in performance, especially Bank Muamalat Indonesia as the first Islamic bank in Indonesia. In addition, Bank Victoria Syariah also decreased its profitability. And other Islamic banks as written by Daud and Setyowati (2016) in one of online media that there are five Islamic banks bear heavy burden financing problems. The phenomenon becames concern among economists to investigate the cause behind it.



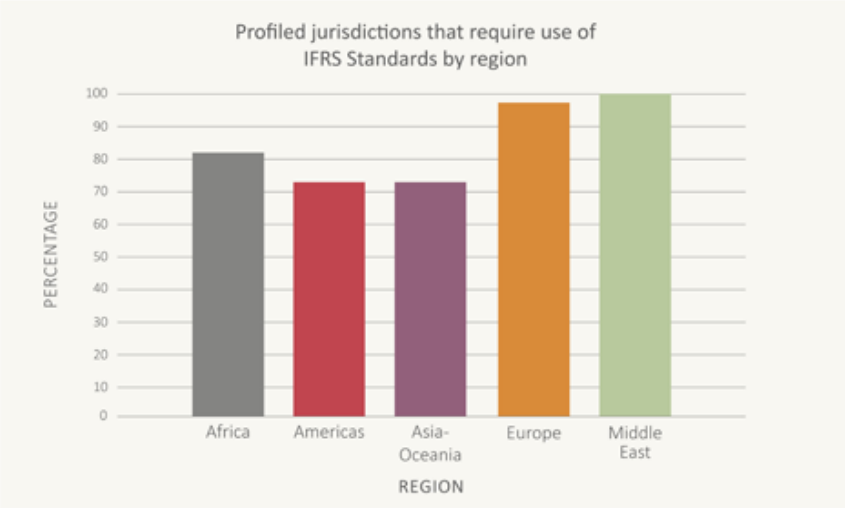


Figure 1: Graph of Countries adopting IFRS Standard
Source: www.ifrs.org

Indonesia and Malaysia are part of Southeast Asian countries that previously adopted GAAP accounting standards, then began to adopt IFRS accounting standards since 2012. IFRS accounting standards have several advantages over GAAP. Asset revaluation with the concept of measurement using fair value to be one that distinguishes with GAAP. Because GAAP uses historical cost measurement concepts that are no longer relevant to their value. Intangible assets, Property, Plant and Equipment and also biological assets can be evaluated using fair value. Measurement using fair value is more relevant than historical cost (Ibrahim, 2010).

By adopting IFRS, the financial statements prepared are expected to improve the quality of earnings in a company. The earning quality is the level of quality information on profits generated by the company. The level of profit to be considered by investors in making investment decisions. Moreover, in Islamic banking, profit becomes the main foundation in profit and loss sharing. Therefore, the higher the quality level of corporate earnings the higher the quality of financial statements. The more qualified the financial statements, the lower the probability of bankruptcy. Companies that have a high level of earnings quality will get a higher investor response.

In this research, future operating cash flow proposed as the main factor influenced by earnings quality and potential bankruptcy of Islamic bank. This is because of the higher the operating cash flow the higher the level of health of Islamic banks operations.

Indonesia and Malaysia are the two countries that become the hub of the economy in Southeast Asia which is dominated by Muslim. Both countries are competing to become the centre of the world's Islamic banking. Islamic banking in Malaysia has grown since 1983 and in Indonesia since 1992. The market share of Islamic banks in Malaysia is 28% (New Straits Times, 2017) higher than Islamic banks in Indonesia with 5.32% of market share (Republika, 2017).

This study aims to investigate the impact of adopting IFRS accounting standards on earning quality and potential bankruptcy of Islamic banking in Indonesia and Malaysia. Previous research was conducted by Rizki and Rosyidiana (2017) to find out whether the implementation of IFRS has considerable implications by examining the factors that affect the quality of earnings. Hassan, (2015) investigates corporate attributes from the perspective of structures, monitoring, performance elements and earnings quality of deposit banks registered in Nigeria. In addition, Wan Ismail et al., (2013) investigated to find out the difference in earning quality of manufacturing company in Malaysia after the adoption of IFRS-based accounting standards. Houqe and Law (2010) examined the impact of mandatory IFRS adoption and investor protection on the earning quality in 46 countries. This research is conducted in Islamic banking industry in Indonesia and Malaysia. From some of the above research proves that IFRS accounting standard has a significant impact on the quality of financial statements. This study aims to analyze the difference in earning quality and potential bankruptcy of Islamic banks before and after the adoption of IFRS and to analyze the relationship of earnings quality and potential bankruptcy on the cash flow of Islamic bank operations.

## LITERATURE REVIEW

### Signalling Theory

Signalling theory is basically aimed at reducing information asymmetry between one party and other. According to Bird and Smith (2005) signalling theory provides an opportunity to symbolically integrate communication and provide social benefits from individual activities. This theory is very useful in an organization where conditions between the two parties do not have access to the same information. The manager / CEO plays a role to find ways how to convey information can be received by the receiver of the signal, i.e. potential investors. Information is made as detailed as possible so that no error occurs



in interpreting the information. If the information can be understood and accepted easily, it will increase the interest of potential investors to invest in the company.

Connelly et al. (2011) provides a succinct synthesis of key theories and concepts, review their use in the management literature, and propose a direction for further research that will encourage scientists to use the theory of signalling in new ways and to develop more complex formulations and nuances of theoretical variations. The study found that the use of signalling theory has been used since 1989. Signalling theory is widely used in entrepreneurship to analyze the characteristics of boards of directors, Top management and investors. In addition, the theory can also be used by human resource development (HRD) in the process of employee recruitment.

Leventis et al (2012) conducted a study to investigate whether bank managers of countries within the EU were involved in signalling, especially after the adoption of international financial reporting standards (IFRS). The results of this study indicate insufficient evidence that financially sound banks are engaged in signalling behavior. However, banks facing financial difficulties appear to be engaged in aggressive signals relative to healthy banks. Finally, the tendency to engage in signalling behavior is more pronounced for banks that are experiencing financial difficulties in the post-IFRS regime. While IFRS, under IAS 39 sorting through discretionary components of LLP, it may be due to the weakness of IFRS accounting standards.

**Income Determination from Islamic Perspective**

Islam is a religion that has been perfected by Allah SWT and the most favored among other religions. Islam not only regulates vertical worship to Allah SWT (hablum minallah), but also horizontally to fellow human beings (hablum minannas). Islam also regulates the daily activities of human beings that have been described in the Qur'an and Hadith. Including in terms of transactions or business activities. In Islamic teachings, profit-taking from business activities is permissible. To gain these benefits must be done in a manner consistent with Islamic values. Hasan (1983) states that the Islamic concept of obtaining profit must be legitimate, not just to maximize wealth. In carrying out trade business activities must be absolutely honest, not falsify goods, and disclose the condition of goods clearly there is a defect or not.

A Muslim who trades should receive benefits derived from halal even if only slightly. Wealth in Islam is a spiritual test for individual Muslim, because the wealth of this world is absolute belongs to Allah SWT. Humans are only given the opportunity to use them in the way that Allah is pleased with. Man is tested to the extent to follow what Allah has commanded in obtaining wealth and will be held accountable in the Hereafter. Islam teaches how to transact properly, profitably and nobody gets tyrannized. The agreed contract must be ascertained clear and does not cause *gharar* (uncertainty). Islam forbids selling fruit which is still on the trees or selling animals which is still in their mother's womb. It because the transactions will create uncertainty, that lead to loss on one of the parties.

In Islamic banking, the preferred product is the profit-sharing based transaction. Then the profits must show the true value of the business activities undertaken (Ibrahim, 2015). Not generated from manipulation activities that will affect the losses of related parties, such as customers or investors.

**Earning Quality**

The measurement of earnings quality and or earnings management has been modelled much by previous researchers. Among them is a model developed by Jones (1991) which was later modified by Mcnichols (2002). In addition, Dechow and Dichev (2002) also modelled earnings management measures using accrual discretion. The earning quality is defined as the rate of profit determination that is free from profit manipulation. Managers have the freedom to behave in preparing financial statements. The purpose of the behavior is to achieve the desired profit target in order to get the compensation bonus that has been set. In addition, earnings management is also purposed to attract investors to invest in the company. Manipulated earnings are inferior in quality compared to earnings free from manipulation. This is because profit has a role and a very important function in a company, especially in Islamic banks that use the principle of profit-sharing. Chang, Shen and Fang (2008) proposed a model to measure earnings quality for the banking industry. They assume that the banking industry has a characteristic difference with the industry engaged in manufacturing. The banking industry is strictly regulated by the central bank and gained intensive scrutiny from the government.



According to Abdelghany (2005), he stated that measuring earnings quality of a company cannot be done with one method or approach only, because different approaches will produce different values. Therefore, stakeholders should use some approach in measuring the earning quality to make a decision. This is supported by the Srivastava (2014) study, the method of measuring the earnings quality constantly changing over the last 40 years. The decline in the quality of earnings may be affected by changes in real economic conditions or may also be affected by differences or changes in accounting standards used by firms. The study concludes that the tendency to decrease the quality of earnings is more due to changes in company samples, not due to changes in accounting standards.

Kanagaretnam, Lobo and Mathieu (2004) found that bank managers used loan loss provision (LLP) to reduce the rate of fluctuation or variability in bank earnings. It aims to attract investor interest and increase stock value. Chang, Shen and Fang (2008) also found that earnings before the allowance for loan losses and earnings in the following year have a significant relationship to the quality of profits proxied by loan loss provision discretion. Misman and Ahmad (2011) conducted research on conventional banks and Islamic banks in Malaysia using loan loss provision. The study concludes that both systems use loan loss provision in determining earnings and capital management but differ in capital ratios when dealing with loan loss provision management. Packer and Zhu (2012) examined the impact of loan loss provision on the crisis in ASIA. The result shows that the cause of banking crisis in developing countries in ASIA is dominated by loan loss provision factor. This is supported by Abaoub, Homrani and Gamra (2013) conclude that there is a significant relationship between loan loss provision allocation to earnings management. In addition, Othman and Mersni (2014) found that conventional banks and Islamic banks in Middle Eastern countries have no significant difference in using loan loss provision to manipulate accounting earnings. This is supported by Kanagaretnam, Lim and Lobo (2014) studies that examine the relationship between the four dimensions of national culture and the quality of earnings to banks from 39 countries. The study concludes that banks in high individualism, high power distance and community avoidance of low uncertainties tend to involve in earnings management.

However, Podder and Mamun (2004) concludes that banks do not use loan loss provision to manipulate earnings, since bad debts are directly removed from equity due to capital losses, just as the decline in the value of the shares

has an impact on the decline in the value of capital. In addition, Quttainah, Song and Wu (2013) found that Islamic banks tend not to make earnings management using abnormal loan loss provision and the loss as a proxy of profit manipulation. This is supported by Taktak (2014) who concludes that Islamic banks do not smooth earnings using loan loss provision, but using Profit Equalization Reserve (PER) and Investment Risk Reserve (IRR).

Factors affecting the level of earnings quality include a good level of governance, as research conducted by Leventis, (2012); Laela (2012) found that firms with good governance mechanisms tend to avoid earnings management practices through loan loss provision. What is unique in Islamic banking is the existence of the Islamic Supervisory Board within the corporate governance structure. As in Hendra (2017) found that the size of the Islamic Supervisory Board has an effect on the earning quality of Islamic banks. In addition, estimates of loan loss provision allocations (Dhar and Bakshi, 2015), investor protection, disclosure, regulation and oversight, financial structure, and financial development (Fonseca, Gonz and May, 2005) are also determinants of bank earnings quality. Then Parte-Esteban and García (2014) concluded that the factors of internationalization, location, ownership structure and audit function affect the corporate earning quality.

**Measuring the Potential Bankruptcy of Islamic Bank**

A lot of studies are related to the model of measuring the potential bankruptcy of a company. Corporate bankruptcy is defined as a situation where total debt exceeds total assets. This is due to lower sales and increased operating expenses and losses of the company (Sajjan, 2016). Corporate bankruptcy is also defined as the company's inability to repay debt. Potential Bankruptcy of banks can be predicted with the model developed by Altman. It can also use Charitou et al. (2004) which is using capital ratio measurement.

Al-Attar, Hussain and Zuo (2008) predicted the potential corporate bankruptcy one year ahead by using abnormal accruals as a proxy of earnings quality. The results of the study concluded that abnormal accruals have significant explanatory power over the next year. To measure the potential for bankruptcy using a model developed by Charitou et al. (2004). Chazi and Syed (2010) use capital ratios to predict future bankruptcies. The results show that Islamic banks are able to maintain better capital ratios than conventional banks. This is supported by Mat Rahim, Mohd Hassan and Zakaria (2012)



who conducted a study with the aim to find out whether there is a difference in the level of financial stability of Islamic banks compared with conventional banks using Z-score and NPL as a proxy for financial stability. The findings show that Islamic banks are more stable than commercial banks in terms of stability. Zulaikah and Laila (2016) also conducted a study to find out the comparison between the predicted financial distress of Islamic Bank in Indonesia and Malaysia before and after the global crisis in 2008. Prediction of financial distress is conducted by using Altman Z-score measurement. The technique used to examine financial difficulties is Mann-Whitney. The results show that there are significant differences between Islamic banks in Indonesia Malaysia before or after the global crisis in 2008. Islamic banks in Indonesia are in safe zones before or after the crisis. However, Islamic banks in Malaysia are in a grey area that can not be sure bankrupt either before or after the crisis.

Li, Abeysekera and Ma (2011) concluded from his research that stressed / bankrupt companies prefer opportunistic earning management; while not stressed / not bankrupt companies are more likely to choose earnings management more efficient than are stressed / not bankrupt companies. In addition, they found that earnings management went better than the quality of earnings in predicting future profitability. The quality of earnings has deteriorated over the sample period; the number of companies that are stressed / bankrupt increases and the number of non-stress / non-bankrupt companies declines.

According to Ali and Abbas (2015) there are five main types of models for predicting corporate bankruptcy: one-way variance analysis, multiple discriminant analysis, logarithmic analysis, repeatable algorithmic analysis, and recent neural network analysis, which is the last predicted method of bankruptcy. This method does not produce similar results. Most bankruptcy prediction research uses multiple discriminant analysis (MDA) and statistical methods for model development. The study discusses the Altman Model in detail and explains the changes already known by the original Z-Score equations. The research problem lies in the preparation of the Altman model for predicting the bankruptcy of commercial firms in Iraq according to the importance of each model. In addition, Sajjan (2016) conducted a study to predict bankruptcy using Altman's Z-Score Model. The company is selected from the manufacturing and non-manufacturing sectors. The study revealed that none of these companies are fully included in the safe zone except for a

few years. The most companies are in a distress zone that clearly shows that these companies may go bankrupt in the future.

**Earning Quality, Potential Bankruptcy and IFRS**

Houqe and Law (2010) found that there is an improvement in the earnings quality of post-application of IFRS. This shows that the quality of earnings is influenced by state-level macro variables. So the government plays an important role in making regulations in order to protect investors to avoid the practice of earnings management. Wan Ismail et al. (2013) conducted a study of differences in earnings quality before and after the implementation of IFRS in Malaysia. The results show that the quality of corporate earnings in Malaysia after the implementation of IFRS is higher than before the implementation of IFRS. Dimitropoulos et al., (2013) also conducted research on the impact of IFRS implementation on the quality of corporate profits in Greece. The results conclude that the implementation of IFRS tends to reduce the level of corporate earnings management practices. Ugbede et al. (2013) conducted research on earning quality of bank in Malaysia and Nigeria. The result shows that the earning quality of Islamic banking is higher than conventional banking in Malaysia. This is because accounting standard factors in Malaysia have adopted IFRS, while accounting standards in Nigeria have not adopted IFRS yet.

Leventis, Dimitropoulos and Anandarajan (2014) found that after the implementation of IFRS, banks experiencing financial difficulties were more aggressive in signalling to investors. This is because of IFRS limits in tight loan loss provision discretion. Hassan (2015) showed that the company's attributes (leverage, profitability, liquidity, bank size and bank growth) had a significant effect on the earnings quality of deposit banks registered in Nigeria after the implementation of IFRS, whereas the previous period indicated that the selected corporate attributes had no significant impact to earnings quality

However, Rizki and Rosyidiana (2017) did not find the impact of IFRS implementation on earnings quality. This is because the improvement of earnings quality is not only influenced by the application of IFRS, but much influenced by other factors.

*Conceptual Framework*



Figure 2 shows the frame of mind of this study. This study aims to see changes in earnings quality and potential bankruptcy of Islamic banks in Indonesia and Malaysia before and after IFRS adoption. The conceptual framework is shown on figure 2:

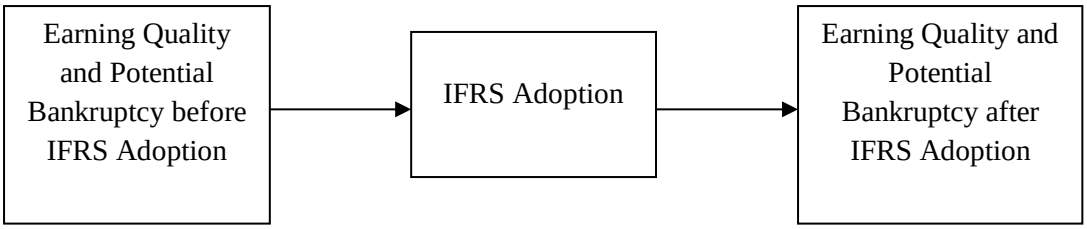


Figure 2: Conceptual Framework

## HYPOTHESIS DEVELOPMENT

### Differences in Earning Quality in Islamic Banking Before and After IFRS adoption.

From the description of the literature review above, there are several studies related to the measurement of earnings quality and its relation to the adoption of IFRS. Houqe and Law (2010) conclude that there is an increase in earnings quality after the application of IFRS. This is supported by Wan Ismail et al. (2013) which states that the quality of earning in Malaysia after IFRS adoption is higher than before the implementation of IFRS. Likewise, Dimitropoulos et al., (2013) state that the application of IFRS tends to reduce the practice of corporate earnings management in Greece. Ugbede et al. (2013) compare the earning quality of Islamic banks in Malaysia is higher than the earning quality of Islamic banks in Nigeria. This is due to the adoption of IFRS conducted in Malaysia. From the exposure of the above research, the hypothesis used in this study are as follows:

*H1: There is a significant difference of earning quality in Islamic Bank Before and After IFRS adoption.*

### Difference in Potential Bankruptcy in Islamic Banks Before and After IFRS adoption.

In postulate going concern, the company must be able to maintain its financial stability. As the research conducted by Al-Attar, Hussain and Zuo (2008) use a model developed by Charitou et al. (2004) to predict the potential

bankruptcy one year ahead. Chazi and Syed (2010) concluded that by using the capital ratio model, Islamic banks are more able to survive than conventional banks. In addition, Mat Rahim, Mohd Hassan and Zakaria (2012) using the Altman Z score model concluded that Islamic banks are more stable than conventional banks. Just like the previous research, Zulaikah and Laila (2016) which also use the Altman Z score model, Islamic banks in Indonesia occupy a safe Zone compared to Islamic banks in Malaysia which occupy the majority of grey zones. From several studies above, by adding conditions before and after IFRS adoption, the expected hypothesis is as follows:

*H2: There is a Significant Potential Bankruptcy Difference of Islamic Banks Before and After IFRS adoption.*

**Effect of earnings quality on the future operating cash flow of Islamic bank**

Companies that have an upward trend in earnings quality from year to year can protect investors from concerns over losses in investing. The higher the level of earnings quality, the higher the level of investor confidence in the company. High- earnings quality are able to predict operating cash flows next year. Likewise, companies with high potential bankruptcy can predict future operating cash flows. So by predicting earlier potential bankruptcy, the company is able to provide information as a signal for investors. On the other hand, company managers will do everything possible to provide a positive information signal to attract investors. As the research conducted by Al-Attar, Hussain and Zuo (2008), the quality of accruals (earnings quality) is able to predict future bankruptcy. Therefore, the expected hypothesis is as follows:

*H3a: There is a significant effect of earnings quality on the future operating cash flow of Islamic bank*

*H3b: There is a significant effect of potential bankruptcy on the future operating cash flows of Islamic banks.*

**The effect of potential bankruptcy on the relationship between earnings quality and future operating cash flow of Islamic banks.**

Companies that have high earnings quality are able to provide a positive signal to the future operating cash flow. However, if the company's potential



bankruptcy is high, then the earning quality relationship with the future operating cash flow will lower. So the quality of earnings is not able to predict operating cash flow in the future. This is due to the negative signal generated from the predicted potential bankruptcy of the company. As Al-Attar, Hussain and Zuo (2008) found that the ability of earnings quality to predict future operating cash flow weakened under conditions of high levels of potential bankruptcy. From the above explanation then the hypothesis used is as follows:

*H4: The potential bankruptcy weakens the relationship between earnings quality and future operating cash flow of Islamic banks.*

## METHODOLOGY

This research is a type of quantitative descriptive research, which is conducted by conducting data analysis utilizing statistical tools. The object of this research is full-fledged Islamic banks in Indonesia and Malaysia. Islamic Bank is a sharia-based bank and runs its operations independently. Islamic Banks in Indonesia consist of 12 banks and in Malaysia consist of 17 banks. The criteria of Islamic banks used in this study are as follows:

a. Islamic (Full fledge Islamic Banks) operating in Indonesia and Malaysia.
b. Having annual financial statements of six periods, from 2009 to 2016.

Data collection is conducted by taking data from the annual financial report of each Islamic bank. The data is obtained from the website of each bank.

### Variable Measurement

*Earning Quality*

The model of loan loss provision is used by Chang et al (2008). Based on research by Othman and Mersni (2014), Loan loss provision (LLP) is a combination of Non Discretion and LLP Diskresi, so to get the result of LLP Discretion through subtracting LLP with Non LLP Discretion.

$$\text{LLP} = \text{Non-discretionary LLP} + \text{Discretionary LLP}$$

$$\text{Discretionary LLP (DLLP)} = \text{LLP} - \text{Non-discretionary LLP}$$

Diskresi LLP diperoleh dari estimasi residual dari regresi dibawah ini:

$$LLP_{it} = \beta_0 + \beta_1 NPF_{it-1} + \beta_2 \Delta NPF_{it} + \beta_3 \Delta TF_{it} + \varepsilon_{it.....}\text{Model 1}$$

LLP : Loan Loss Provision
NPF : Non Performing Financing
ΔNPF : Change of Non Performing Financing
ΔTF : Change of Total Financing

With the absolute value approach, the measurement of earning quality variable is done by omitting the negative sign (-). This is because if the value more than the zero (0), then the lower the earning quality. The smaller the value of residual estimate the higher the level of earning quality of Islamic banks.

*Potential Bankruptcy*

Measurement of potential bankruptcy in this study is conducted using Z-Score developed by Altman (2000). Altman modifies the Z-Scorenya formula by changing the market value of equity to book value of equity to total liability. Previous research was conducted by Zulaikah and Laila (2016) and Gebreslassie and Nidu (2015). Here is the modified Z-Score equation:

$$Z'' = 6.56X1 + 3.26X2 + 6.72X3 + 1.05X4 \text{ ….Model 2}$$

Z " = Bankruptcy
X1 =Working Capital to Total Asset
X2 = Retained Earning to Total Asset
X3 = Earning Before Interest and Taxes to Total Asset
X4= Book Value of Equity to Total Liability

The classification of healthy and bankrupt companies is based on the Altman Z-Score model modification that is:

a. If the Z value <1.23 includes the bankrupt company.
b. If the Z value is between 1.23 and 2.90, then it is gray area (it can not be determined whether the company is healthy or bankrupt).
c. If the Z value "> 2.90 includes companies that are not bankrupt.



**Research Model**

$$CFO_{it} = \beta_0 + \beta_1 EQ_{it-1} + \beta_2 PB_{it-1} + \beta_3 EQ_{it-1}*PB_{it-1} + P_{it-1} + \varepsilon_{it.....} \text{ Model 3}$$

CFO = Cash Flow fron Operation
EQ = Earning Quality
PB = Potential Bankruptcy
EQ*PB= Potensi kebangkrutan memoderasi hubungan antara kualitas laba dan arus kas operasional
P = Variabel Dummy Periode Laporan Keuangan, 0 jika periode sebelum adopsi IFRS, 1 jika periode setelah adopsi IFRS.
β = Koefisien
ε = Error

**Data Analysis**

To determine the difference between earning quality (Model 1) and potential bankruptcy (Model 2) in the period before and after IFRS adoption, the data were analyzed using an independent t test. While to analyze Model 3, the data obtained from the annual financial statements are analyzed using panel data regression. Then the results are described by supporting the results based on previous studies. Descriptive statistics are described and classical assumptions such as normality, multicollinearity, heteroscedasticity and autocorrelation. In addition, the best model selection tests in panel data regression are using Chow test, Hausman test and Lagrange multiplier.

**RESULT AND DISCUSSION**

**Profile of Islamic Banking in Indonesia and Malaysia**

*Islamic Banking in Indonesia*

The first Islamic bank in Indonesia was Bank Muamalat Indonesia, established in 1999. It is well received by the Indonesian people who are predominantly Muslim. Although there are still emerged issues related to the implementation of Islamic contracts in Islamic banking. the development of Islamic banks is quite rapidly recorded from 1999 to 2010, has stood 10 Islamic ful-fledged commercial banks. This number does not include Islamic business unit in some conventional banks. As of December 31, 2017, the numbers of Islamic banks are 14 Islamic banks with the successful conversion

of Bank Aceh and Bank NTB becomes full-fledged Islamic banks. However, the market share of Islamic banks in Indonesia is still in the range of 5% lagging behind compared to conventional banks.

*Islamic Banking in Malaysia*

The first Islamic bank in Malaysia was Bank Islam Malaysia Berhad, established in 1983 earlier than Islamic banking in Indonesia. The contribution of Malaysian government is very dominant in the development of Islamic banking. It is different from Islamic banking in Indonesia which is initiated by society then supported by the government. Currently, Malaysia has 17 Islamic banks, both state-owned and private. Although the Muslim population is 50%, Islamic banks in Malaysia have a market share of 25% higher than the market share of Islamic banks in Indonesia which has a Muslim population of 90%.

**Statistic Descriptive**

*Earning Quality*

Table 1 shows that the average LLP of 10,625 is the lowest of 5,810 and the highest is 13,810. NPF of all banks in Indonesia and Malaysia have an average of 0.032 or equivalent 3.2%, meaning still below 5% is still low count. there are some banks have 0% NPF and the highest NPF of 0.660 or 66% equivalent.

Table 1. Statistic Descriptive of Earning Quality (All Sample)

| Variable | Obs | Mean | Std. Dev. | Min | Max |
|---|---|---|---|---|---|
| LLP | 162 | 10.625 | 1.486 | 5.810 | 13.810 |
| NPF | 162 | 0.032 | 0.060 | 0.000 | 0.660 |
| ΔNPF | 162 | 0.007 | 0.082 | -0.540 | 0.610 |
| ΔTF | 162 | 14.230 | 3.879 | 6.910 | 17.390 |

Table 2. shows that the average LLP of 10.787 is the lowest of 7,970 and the highest is 13,810. This shows that the LLP of Islamic banks in Indonesia exceeds the average LLP of all banks in Indonesia and Malaysia. The NPF of all banks in Indonesia has an average of 0.037 or equivalent to 3.7%, meaning it is still below 5% which is still low. there are some banks have 0% NPF and the highest NPF of 0.350 or equivalent 3.5%.



Table 2. Statistic Descriptive of Earning Quality (Indonesia)

| Variable | Obs | Mean | Std. Dev. | Min | Max |
|---|---|---|---|---|---|
| LLP | 62 | 10.787 | 1.618 | 7.970 | 13.810 |
| NPF | 62 | 0.037 | 0.045 | 0.000 | 0.350 |
| ΔNPF | 62 | 0.019 | 0.080 | -0.060 | 0.550 |
| ΔTF | 62 | 9.334 | 0.421 | 6.910 | 9.690 |

Table 3. shows that the lowest average LLP 10,525 is 5,810 and the highest is 13,590. This shows that the LLP of Islamic banks in Malaysia is below the average LLP of all banks in Indonesia and Malaysia. NPF of all banks in Malaysia has an average lower than the NPF of Islamic banks in Indonesia, which is 0.030 or equivalent 3.0%, meaning still below 5% is still low. There are some banks also have 0% NPF and NPF, but the highest NPF is in one of the Islamic banks in Malaysia that is equal to 0.660 or equivalent to 6.6%.

Table 3. Statistic Descriptive of Earning Quality (Malaysia)

| Variable | Obs | Mean | Std. Dev. | Min | Max |
|---|---|---|---|---|---|
| LLP | 100 | 10.525 | 1.397 | 5.810 | 13.590 |
| NPF | 100 | 0.030 | 0.067 | 0.000 | 0.660 |
| ΔNPF | 100 | 0.000 | 0.083 | -0.540 | 0.610 |
| ΔTF | 100 | 17.266 | 0.199 | 16.120 | 17.390 |

*Potential Bankruptcy*

Table 4. shows that the average working capital of Islamic banks in Indonesia and Malaysia is still low at -0.053, meaning that current debt tends to be larger than current assets. The highest working capital reached 0.450 or equivalent to 45% of total assets. The highest retained earnings reached 0.150 or equivalent to 15%. However, the highest pre-tax income only reached 0.040 or 4% of total assets. The average share capital is 0.115 or 11.5% of total debt. This shows that the debt of Islamic banks in Indonesia and Malaysia is quite high.

Table 4. Statistic Descriptive of Potential Bankruptcy (All Sample)

| Variable | Obs | Mean | Std. Dev. | Min | Max |
|---|---|---|---|---|---|
| WC/TA | 162 | -0.053 | 0.290 | -1.270 | 0.450 |
| RE/TA | 162 | 0.037 | 0.025 | 0.000 | 0.150 |

| | | | | | |
|---|---|---|---|---|---|
| EBIT/TA | 162 | 0.007 | 0.021 | -0.220 | 0.040 |
| BVE/TL | 162 | 0.115 | 0.081 | 0.040 | 0.460 |

Table 5. shows that the average working capital of Islamic banks in Indonesia is calculated above the average of the entire syariah bank, which is 0.188, meaning that current assets tend to be larger than current debt. The highest working capital reached 0.450 or equivalent to 45% of total assets. The highest retained earnings only reached 0.090 or equivalent to 9%. However, the highest pre-tax income only reached 0.040 or 4% of total assets. The capital stock average of 0149 or 14.9% and the highest 46% of total debt. This shows that the debt of Islamic banks in Indonesia is quite high.

Table 5. Statistic Descriptive of Potential Bankruptcy (Indonesia)

| Variable | Obs | Mean | Std. Dev. | Min | Max |
|---|---|---|---|---|---|
| WC/TA | 62 | 0.188 | 0.069 | 0.050 | 0.450 |
| RE/TA | 62 | 0.025 | 0.022 | 0.000 | 0.090 |
| EBIT/TA | 62 | 0.006 | 0.031 | -0.220 | 0.040 |
| BVE/TL | 62 | 0.149 | 0.105 | 0.050 | 0.460 |

Table 6. shows that the average working capital of Islamic banks in Malaysia is below the average of the entire Islamic bank, which is -0.202, meaning that current assets tend to be smaller than current debt. The highest working capital reached 0.230 or equivalent to 23% of total assets, lower than the average Islamic bank in Indonesia The highest retained earnings only reached 0.150 or equivalent to 15%. However, the highest pre-tax income only reached 0.020 or 2% of total assets, higher than the Islamic bank in Indonesia. The capital stock average of 0.094 or 9.4% of total debt, lower than Islamic bank in Indonesia. This shows that the debt of Islamic banks in Malaysia is higher than the average Islamic bank in Indonesia.

Table 6. Statistic Descriptive of Potential Bankruptcy (Malaysia)

| Variable | Obs | Mean | Std. Dev. | Min | Max |
|---|---|---|---|---|---|
| WC/TA | 100 | -0.202 | 0.274 | -1.270 | 0.230 |
| RE/TA | 100 | 0.044 | 0.024 | 0.010 | 0.150 |
| EBIT/TA | 100 | 0.008 | 0.012 | -0.070 | 0.020 |
| BVE/TL | 100 | 0.094 | 0.052 | 0.040 | 0.390 |



*The Difference of Islamic bank's Earning Quality in Indonesia and Malaysia*

Table 7 shows the results of the different test of earning quality of Islamic banks in Indonesia and Malaysia before and after the adoption of IFRS. There is no difference in the earning quality of Islamic banks in Indonesia. It is indicated by the P value exceeding 0.05. However, these results indicate that there are differences in the earning quality of Islamic banks in Malaysia before and after the adoption of IFRS as indicated by the P value less than 0.05.

Table 7. The Difference of Islamic bank's Earning Quality in Indonesia and Malaysia

| Variabel | P Value | |
|---|---|---|
| | **Indonesia** | **Malaysia** |
| Earning Quality | 0.132 | 0.003 |

Table 8 shows the results of the different test of potential bankruptcy of Islamic banks in Indonesia and Malaysia before and after the adoption of IFRS. These results show that there is no difference in potential bankruptcy of Islamic banks in Indonesia and Malaysia. It is shown by the value of P value less than 0.05.

Table 8. The Difference of Islamic bank's Potential bankruptcy in Indonesia and Malaysia

| Variabel | P Value | |
|---|---|---|
| | **Indonesia** | **Malaysia** |
| Potential Bankruptcy | 0.255 | 0.139 |

## Classical Assumption

*Normality*

Table 9. Normality Test (Before IFRS Adoption)

| Variable | Pr(Skewness) | Pr(Kurtosis) | adj chi2(2) | Prob>chi2 |
|---|---|---|---|---|
| CFO | 0.5858 | 0.0452 | 4.4000 | 0.1109 |
| EQ | 0.5117 | 0.1565 | 2.5400 | 0.2810 |
| PB | 0.2177 | 0.3268 | 2.5800 | 0.2748 |
| EQ*PB | 0.7922 | 0.5201 | 0.4900 | 0.7819 |

Table 10. Normality Test (After IFRS Adoption)

| Variable | Pr(Skewness) | Pr(Kurtosis) | adj chi2(2) | Prob>chi2 |
|---|---|---|---|---|
| CFO | 0.0069 | 0.0214 | 10.3100 | 0.0558 |
| EQ | 0.8122 | 0.6636 | 0.2500 | 0.8844 |
| PB | 0.2507 | 0.4963 | 1.9000 | 0.3858 |
| EQ*PB | 0.3697 | 0.0259 | 5.5100 | 0.0637 |

In tables 9 and 10, the data show normally distributed data for either prior to IFRS adoption or after IFRS adoption. It can be seen from its probability value (Prob> chi2) more than 0.05.

*Heteroskedasticity*

Table 11. Heteroskedasticity Test

| **Heteroscedasticity** | **Chi** | **Prob** |
|---|---|---|
| Before IFRS Adoption | 0.070 | 0.791 |
| After IFRS Adoption | 4.510 | 0.538 |

Table 11 shows that the data does not experience heteroscedasticity problems. It can be seen from a probability value more than 0.05. if the probability value is less than 0.05 then the data experience heteroscedasticity problem.

*Autocorrelation*

At the autocorrelation test, the result shows an error. Actually, in the panel data is not required classical autocorrelation assumption test, because autocorrelation test is needed in time series data. While panel data consist of cross section and time series data. So there is no possible autocorrelation.

*Multicolliniearity*

Multicollinearity test results show that the data does not experience multicollinearity problems. It can be seen from the mean value of VIF less than 10. If the VIF value is more than 10

Table 12. Multicollinearity Test

| Variable | Before IFRS Adoption | After IFRS Adoption |
|---|---|---|



| | VIF | 1/VIF | VIF | 1/VIF |
|---|---|---|---|---|
| EQ*PB | 1.43 | 0.6997 | 1.49 | 0.670194 |
| PB | 1.41 | 0.7084 | 1.36 | 0.737504 |
| EQ | 1.03 | 0.9754 | 1.28 | 0.779073 |
| Mean VIF | 1.29 | | 1.38 | |

## Model Selection

*Chow Test*

Table 13. Chow Test

| | **Chi** | **Prob** |
|---|---|---|
| Before IFRS Adoption | 11.540 | 0.000 |
| After IFRS Adoption | 0.490 | 0.694 |

Chow test is a test to select the model between pooled least square model (PLS) and fixed effect model (FEM). Table 13 shows a better model for data prior to IFRS adoption is is FEM. As for the data after the adoption of IFRS is PLS. It can be seen from the probability value, if the value is less than 0.05 then the selected is FEM, and vice versa.

*Hausman Test*

Table 14. Hausman Test

| | **Chi** | **Prob** |
|---|---|---|
| Before IFRS Adoption | 3.170 | 3.667 |
| After IFRS Adoption | 2.930 | 0.403 |

The Hausman test is a test for selecting a model between the model of the random effect model (REM) and the fixed effect model (FEM). Table 14 shows a better model for the data before and the data after the adoption of IFRS is REM. It can be seen from the probability value, if the value is less than 0.05 then the selected is FEM, and vice versa.

*Lagrange Multiplier Test (LM)*

Lagrange multiplier test (LM) is a test to select the model between pooled least square (PLS) model and random effect model (REM). Table 15 shows a

better model for data before is REM. As for data after IFRS adoption, the best model is PLS. It can be seen from the probability value, if the value is less than 0.05 then the selected is REM, and vice versa.

Table 15. LM Test

| | **Chi** | **Prob** |
|---|---|---|
| Before IFRS Adoption | 9.040 | 0.001 |
| After IFRS Adoption | 1.630 | 0.101 |

From the model selection test above, it can be concluded that the best data panel regression model is REM for data before the adoption of IFRS and PLS for data after IFRS adoption.

**Hypothesis Test**

*Differences of Earning Quality of Islamic Banking Before and After IFRS adoption*

The earning quality of Islamic banks in Indonesia does not differ between before and after the adoption of IFRS. While Islamic banks in Malaysia, the earning quality of Islamic banks have significant differences between before and after the adoption of IFRS. The adoption of IFRS adoption applies only to companies listed on the stock exchange. This is due to the lack of Islamic banks listed on the stock exchange. In Indonesia, Islamic banks listed on the stock exchange are only one bank, namely Panin Islamic Bank. Similarly, in Malaysia, Islamic banks listed on the stock exchange are only Bank Islam Malaysia (BIMB). However, if viewed from the market share, Islamic banks in Malaysia are larger than Islamic banks in Indonesia. From the above result, H1 hypothesis is accepted.

*Differences of Potential Bankruptcy of Islamic Banking Before and After IFRS adoption.*

The potential bankruptcy of Islamic banks in Indonesia and Malaysia does not have a significant difference between before and after the adoption of IFRS. This is due to the low market share of Islamic banks that lags far behind conventional banks. If viewed from P value result from the different test above, the value of significant difference of potential bankruptcy of Islamic bank in Malaysia is smaller than Islamic bank in Indonesia. This means that



Malaysian Islamic banks tend to have more differences in potential bankruptcy between before and after the adoption of IFRS than Islamic banks in Indonesia. From the result above, H2 hypothesis is rejected.

*T Test*

Table 16. Regression Result

| AKO | Coef. | Std. Err. | t | P>t |
|---|---|---|---|---|
| C | 15.854 | 0.059 | 266.870 | 0.000 |
| EQ | -0.073 | 0.195 | -0.370 | 0.710 |
| PB | -0.088 | 0.020 | -4.320 | 0.000 |
| EQ*PB | -0.214 | 0.092 | 2.330 | 0.021 |
| P | -0.052 | 0.082 | -0.630 | 0.528 |

*Effect of earnings quality on the future operating cash flow of Islamic bank*

Based on the result of panel data regression in table 16, it can be concluded that the influence of earnings quality is not significant to future operating cash flow. It can be seen from the value of p value of variable earning quality (EQ) is more than 0.05. This may be due to the absence of full conversion to IFRS accounting standards. In addition, other factors such as corporate governance may be factors that can improve the earnings quality. From the results of the above regression, the hypothesis H3a is rejected.

*Effect of Potential bankruptcy on the future operating cash flow of Islamic bank*

Based on the result of panel data regression in table 16, it can be concluded that there is significant negative effect of potential bankruptcy to future operating cash flow. It can be seen from the p value of the potential bankruptcy variable (PB) is less than 0.05. The higher the potential bankruptcy the lower the future operating cash flow. This is due to the high level of risk of Islamic banks that affect the rate of cash acquisition from the operating activities of Islamic banks. From the results of the above regression, the hypothesis H3b is accepted.

*The effect of potential bankruptcy on the relationship between earnings quality and future operating cash flow of Islamic banks.*

Islamic banks with high earnings quality are able to predict future operating cash flow (Al-Attar, Hussain and Zuo, 2008). From panel data regression result, potential bankruptcy has significant negative effect to future operating cash flow. The result of panel data regression shows that the potential bankruptcy weakens the effect of earnings quality on future operating cash flow. It can be seen from the value of the coefficient of variable EQ*PB negative and larger than the variable EQ. From the above results, the hypothesis H4 in this study is acceptable.

## CONCLUSIONS

This study integrates the earning quality and potential bankruptcy of Islamic banks between before and after the adoption of IFRS. The earning quality of Islamic banks in this study is measured by the residuals of the model developed by Chang et al (2008). While the potential bankruptcy follows the model used by Gebreslassie and Nidu (2015).

The earning quality of Islamic banks in Indonesia has no difference between before and after the adoption of IFRS. While in Malaysia, there is a significant difference between the earning quality of Islamic banks before and after the adoption of IFRS.

The potential bankruptcy of Islamic banks in Indonesia and Malaysia does not have a significant difference between before and after the adoption of IFRS. Islamic banks in Indonesia have a lower potential bankruptcy than Islamic banks in Malaysia. Almost all Islamic Banks in Malaysia are in the distress zone., while the majority of Islamic banks in Indonesia are in a gray zone.

The effect of earning quality and potential bankruptcy of Islamic bank to future operating cash flow after the adoption of IFRS is lower than before IFRS adoption. In addition, the ability of earnings quality in explaining operating cash flow decreases when the potential bankruptcy of Islamic banks at a high level.

### Limitation

This study is limited to Islamic banks in Indonesia and Malaysia in the period 2010 to 2016. Variables used to explain the operating cash flow are only the quality of earnings and the potential bankruptcy. The analytical motion used is only the regression of the data panel.



## Recommendation

For further research, the 2016 and 2017 periods may be included as the research period. In addition, there may be many other variables are able to explain operating cash flow. Other analytical methods can be added in subsequent research.

## REFERENCES

Abaoub, E., Homrani, K. and Gamra, S. Ben (2013) 'The Determinants of Earnings Management : Empirical Evidence in the Tunisian Banking Industry', *Journal of Business Studies Quarterly*, 4(3), pp. 62–72.

Abdelghany, K. E. (2005) 'Measuring the quality of earnings', *Managerial Auditing Journal*, 20(9), pp. 1001–1015. doi: 10.1108/02686900510625334.

Al-Attar, A., Hussain, S. and Zuo, L. Y. (2008) 'Earnings quality, bankruptcy risk and future cash flows', *Accounting and Business Research*, 38(1), pp. 5–20. doi: 10.1080/00014788.2008.9663317.

Ali, M. F. A. and Abbas, A. A. (2015) 'Companies Bankruptcy Prediction by Using Altman Models and Comparing Them', *Research Journal of Finance and Accounting*, 6(14), pp. 154–170. doi: 10.13140/RG.2.1.1605.0320.

Altman, E. I. (2000) 'Predicting Financial Distress of Companies: Revisiting Z score and ZETA Model', *Journal of Banking and Finance*, p. pp 7-36.

Bird, R. B. and Smith, E. A. (2005) 'Signalling theory, strategic interaction, and symbolic capital', *Current Anthropology*, 46(2), pp. 221–248. doi: 10.1086/427115.

Chang, R., Shen, W. and Fang, C. (2008) 'Discretionary Loan Loss Provisions And Earnings Management For The Banking Industry', *International Business & Economic Research Journal*, 7(3), pp. 9–20.

Chazi, A. and Syed, L. A. . (2010) 'Risk exposure during the global financial crisis : the case of Islamic banks', *International Journal of Islamic and Middle Eastern Finance and Management*, 3(4), pp. 321–333. doi: 10.1108/17538391011093261.

Connelly, B. L., Certo, S. T., Ireland, R. D. and Reutzel, C. R. (2011) 'Signalling Theory: A Review and Assessment', *Journal of Management*, 37(1), pp. 39–67. doi: 10.1177/0149206310388419.

Dechow, P. M. and Dichev, I. D. (2002) 'The quality of accruals and earnings: The role of accrual estimation errors', *Accounting Review*, 77(SUPPL.), pp. 35–59. doi: 10.2308/accr.2002.77.s-1.61.

Dhar, S. and Bakshi, A. (2015) 'Determinants of loan losses of Indian Banks : a panel study', *Journal of Asia Business Studies*, 9(1), p. pp 17-32. doi: 10.1108/JABS-04-2012-0017.

Dimitropoulos, P. E., Asteriou, D., Kousenidis, D. and Leventis, S. (2013) 'The impact of IFRS on accounting quality: Evidence from Greece', *Advances in Accounting*, 29(1). doi: 10.1016/j.adiac.2013.03.004.

Fonseca, A. R., Gonz, B. F. and May, B. (2005) 'Cross-country determinants of bank income smoothing by managing loan loss provisions', *Business*, pp. 1–33. doi: 10.1016/j.jbankfin.2007.02.012.

Gebreslassie, E. and Nidu, G. (2015) 'Assessment of Financial Distress Conditions of Commercial Banks in Ethiopia : A Case Study of Selected Private Commercial Banks', *Journal of Poverty, Investment and Development*, 12, pp. 38–51.

Hasan, Z. (1983) 'Theory of Profit: The Islamic Viewpoint', *Journal of Research in Islamic Economics*, 1(1), pp. 3–14. doi: 10.1227/01.NEU.0000349921.14519.2A.

Hassan, S. U. (2015) 'Adoption of International Financial Reporting Standards and Earnings Quality in Listed Deposit Money Banks in Nigeria', *Procedia Economics and Finance*. Elsevier B.V., 28(April), pp. 92–101. doi: 10.1016/S2212-5671(15)01086-2.

Hendra, G. I. (2017) 'Analysis of the Effect of Islamich Supervisory Board ( SSB ) Function on Earning Quality of Islamic Banks', *Tazkia Islamic Finance and Business Review*, 10(2), pp. 143–161.

Houqe, M. N. and Law, C. (2010) 'The effect of IFRS Adoption and Investor Protection on Earnings Quality around the World', *Working paper series*, (70), pp. 1–36.

Ibrahim, A. (2010). Income Smoothing dan Implikasinya terhadap Laporan Keuangan Perusahaan dalam Etika Ekonomi Islam. *Media Syariah, 12*(24).



Ibrahim, A. (2015). *The Influence of Islamic Work Ethics on Organizational Performance at the Islamic Banking Institutions in Aceh.* (Ph.D. Thesis), University of Malaya, Kuala Lumpur.

Jones, J. J. (1991) 'Earnings Management During Import Relief Investigations', *Journal of Accounting Research*, 29(2), pp. 193–228. doi: 10.2307/2491047.

Kanagaretnam, K., Lim, C. Y. and Lobo, G. J. (2014) 'Effects of international institutional factors on earnings quality of banks', *Journal of Banking and Finance*. Nature Publishing Group, 39(1), pp. 87–106. doi: 10.1016/j.jbankfin.2013.11.005.

Kanagaretnam, K., Lobo, G. J. and Mathieu, R. (2004) 'Earnings Management to Reduce Earnings Variability: Evidence from Bank Loan Loss Provisions', *Review of Accounting and Finance*, 3(1), pp. 128–148. doi: 10.1108/eb043399.

Laela, S. F. (2012) 'Kualitas Laba dan Corporate Governance : Benarkah Kualitas Laba Bank Syariah Lebih Rendah dari Bank Konvensional?', *Jurnal Akuntansi dan Keuangan Indonesia*, 9(1), p. 2012.

Leventis, S. (2012) 'Signalling by banks using loan loss provisions: the case of the European Union', *Journal of Economic Studies*, 39(5), pp. 604–618. doi: 10.1108/01443581211259509.

Leventis, S., Dimitropoulos, P. E. and Anandarajan, A. (2014) 'Signalling by banks using loan loss provisions : the case of the European Union', *Journal of Economic Studies*, 39(5), pp. 604–618. doi: 10.1108/01443581211259509.

Li, F., Abeysekera, I. and Ma, S. (2011) 'Earnings management and the effect of earnings quality in relation to stress level and bankruptcy level of Chinese listed firms', *Corporate Ownership and Control*, 9(1 D), pp. 366–391.

Maria, Ş., Dima, B. and Megan, O. (2014) 'A discussion over IFRS ' adoption in Islamic countries', *Accounting and Management Information Systems*, 13(1), pp. 35–49.

Mat Rahim, S. R., Mohd Hassan, N. and Zakaria, R. H. (2012) 'Islamic Vs . Conventional Bank Stability : " A Case Study Of Malaysia "', *Prosiding Perkem VII*, 2, pp. 839–850.

Misman, N. F. and Ahmad, W. (2011) 'Loan Loss Provisions : Evidence from

Malaysian Islamic and Conventional Banks', *International Review of Business Research Papers*, 7(4), pp. 94–103.

Mohammed, N. F., Fahmi, F. M. and Ahmad, A. E. (2015) 'The Influence of AAOIFI Accounting Standards in Reporting Islamic Financial Institutions in Malaysia', *Procedia Economics and Finance*. Elsevier B.V., 31(15), pp. 418–424. doi: 10.1016/S2212-5671(15)01216-2.

Othman, H. Ben and Mersni, H. (2014) 'The Use of Discretionary Loan Loss Provision by Islamic Banks and Conventional Banks in the Middle East Region : A Comparative Ttudy', *Studies in Economics and Finance*, 31(2), pp. 1–17. doi: 10.1108/SEF-02-2013-0017.

Packer, F. and Zhu, H. (2012) 'Loan Loss Provisioning Practices of Asian banks', *BIS papers*, (375), pp. 1–31.

Parte-Esteban, L. and Ferrer García, C. (2014) 'The influence of firm characteristics on earnings quality', *International Journal of Hospitality Management*, 42. doi: 10.1016/j.ijhm.2014.06.008.

Podder, J. and Mamun, A. Al (2004) 'Loan loss provisioning system in Bangladesh banking: A critical analysis', *Managerial Auditing Journal*, 19(6), pp. 729–740. doi: 10.1108/02686900410543859.

Quttainah, M. A., Song, L. and Wu, Q. (2013) 'Do Islamic Banks Employ Less Earnings Management ?', *Journal of International Financial Management & Accounting*, 24(3), pp. 203–233. doi: 10.2139/ssrn.2283968.

Rizki, A. and Rosyidiana, R. N. (2017) 'Earning quality after IFRS adoption', *Asia Pasific Journal of Advanced Business and Social Studies*, 3(2), p. pp 90-107. doi: 10.25275/apjabssv3i2bus9.

Sajjan, P. R. (2016) 'Predicting Bankruptcy of Selected Firms By Applying Altman ' s Z -Score Model', *International Journal of Research-Granthaalayah*, 4(4), p. pp 152-158.

Srivastava, A. (2014) 'Why have measures of earnings quality changed over time?', *Journal of Accounting and Economics*, 57(2–3), pp. 196–217. doi: 10.1016/j.jacceco.2014.04.001.

Taktak, N. B., Zouari, S. B. S. and Boudriga, A. (2014) 'Do Islamic banks use loan loss provisions to smooth their results ?', *Journal of Islamic Accounting and Business Research*, 1(2), p. pp 114-127. doi: 10.1108/17590811011086714.



Trabelsi, N. S. and Trabelsi, M. (2014) 'The Value Relevance of IFRS in the UAE Banking Industry : Empirical Evidence from Dubai Financial Market , 2008-2013', *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 4(4), pp. 60–71. doi: 10.6007/IJARAFMS/v4-i4/1241.

Ugbede, O., Lizam, M., Kaseri, A. and Lame, S. M. (2013) 'Do Malaysian and Nigerian Accounting Standards Produce Similar Earnings Quality for Banks?', *International Journal of Management Sciences and Business Research*, 2(7), pp. 1–16.

Wan Ismail, W. A., Kamarudin, K. A., Zijl, T. Van and Dunstan, K. (2013) 'Earnings quality and the adoption of IFRS-based accounting standards: Evidence from an emerging market', *Asian Review of Accounting*, 21(1). doi: 10.1108/13217341311316940.

Zulaikah, S. and Laila, N. (2016) 'Perbandingan Financial Distress Bank Syariah Di Indonesia Dan Bank Islam Di Malaysia Sebelum Dan Sesudah Krisis Global 2008 Menggunakan Model Altman Z-Score', *Jurnal Ekonomi Syariah Teori dan Terapan*, 3(11), pp. 900–914.

Appendix 1

## List of Islamic Banks

| No | Name of Banks |
|---|---|
| **Indonesia** | |
| 1 | PT. Bank BNI Syariah (2009) |
| 2 | PT. Bank Muamalat Indonesia (1992) |
| 3 | PT. Bank Syariah Mandiri (1999) |
| 4 | PT. Bank Syariah Mega Indonesia (2005) |
| 5 | PT. Bank BCA Syariah (2010) |
| 6 | PT. Bank BRI Syariah (2009) |
| 7 | PT. Bank Jabar Banten Syariah (2010) |
| 8 | PT. Bank Panin Syariah (2009) |
| 9 | PT. Bank Syariah Bukopin (2008) |
| 10 | PT. Bank Victoria Syariah (2010) |
| 11 | PT. Bank Maybank Syariah Indonesia (2010) |
| 12 | PT. BTPN Syariah |
| **Malaysia** | |
| 13 | Affin Islamic Bank Berhad (2006) |
| 14 | Al Rajhi Banking & Investment Corporation (Malaysia) Berhad (2007) |
| 15 | Alkhair International Islamic Bank Berhad (2008) |
| 16 | Alliance Islamic Bank Berhad (2006) |
| 17 | AmIslamic Bank Berhad (2006) |
| 18 | Asian Finance Bank Berhad (2006) |
| 19 | Bank Islam Malaysia Berhad |
| 20 | HSBC Amanah Malaysia Berhad (2008) |
| 21 | Hong Leong Islamic Bank Berhad (2005) |
| 22 | CIMB Islamic Bank Berhad (2008) |
| 23 | Bank Muamalat Malaysia Berhad |
| 24 | Kuwait Finance House (Malaysia) Berhad (2006) |
| 25 | Maybank Islamic Berhad (2008) |
| 26 | OCBC Al-Amin Bank Berhad (2008) |
| 27 | Public Islamic Bank Berhad (2008) |
| 28 | RHB Islamic Bank Berhad (2005) |
| 29 | Standard Chartered Saadiq Berhad (2008) |