

Efficiency, Asset Quality and Stability: Comparative Study of Conventional Banks and Islamic Banks in Southeast Asia

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Abstract

This study aims to analyze the differences in efficiency, asset quality, and stability in Islamic banks (Ib) and conventional banks (Cb) in Southeast Asia. To measure the efficiency, it uses DEA analyzing of input and output of Ib and Cb, namely input (total deposits, personnel expense, and fixed assets) and output (loans and non-interest income). Then, to test the quality of assets, this study uses Loan Loss provisions and Loan Loss Reserve. The stability is measured by calculating the Z-Score. This study aims to look at the level of efficiency, asset quality and stability in Islamic banks and conventional banks. Furthermore, this study investigates the differences of those factors to see the extent of which Islamic banks can compete with conventional banks in the Southeast Asia context. The population in this study are conventional banks and Islamic banks in Southeast Asia, namely Indonesia, Malaysia, Brunei Darussalam, the Philippines and Thailand. The type of data is secondary data obtained by Annual Report of each bank. There were 31 conventional banks and 17 Islamic banks, years 2013 – 2017, in Southeast Asia included in this study. The results showed that there were differences in efficiency, asset quality and stability between conventional banks and Islamic banks. Islamic banks were more efficient than conventional banks. Whereas conventional banks were better in terms of Asset quality and stability compared to Islamic banks.

Keywords: *efficiency, asset quality, stability, conventional banks, Islamic banks*

Introduction

The awareness of Moslem society toward Islamic banking is growing among Muslim countries and also being welcomed in minority Moslem countries (Wahid & Dar, 2016). Most of Moslem countries already have Islamic financial institution; nevertheless it is still not yet dominated. Conventional Banks are still booming and primarily used for financial transactions. Thus, the discourse to strengthen the Islamic banking has been attracting the attention of the researchers, policymakers and customers (Rashid & Jabeen, 2016). Scholars are specially supported to look for the added value of Islamic banking, so it can serve the needs of Muslim majority countries better. The study of investigating the comparative outlook of Islamic and conventional bank is needed to intensify the efforts in leading Islamic financial institution (Aman, Sharif, & Arif, 2016). Moreover, the public awakening of the Sharia enforcement makes research on improving Islamic banks become noteworthy (Abdul-Majid, Saal, & Battisti, 2010; Alghfais, 2017).

The industry of Islamic finance in Asia, particularly in Southeast Asia is increasing substantially over the last 2 decades. The Rapid Muslim population and awareness to comply with Islamic law makes people interested in switching to Islamic finance. Malaysia and Indonesia, the Southeast Asia countries, showed the increasing of aggregate assets in Islamic bank, where Malaysia rose 9.3% between 2Q2016 and 2Q2017 or contributed 1.1% increase in the domestic market. Meanwhile, Indonesia experienced an increasing in aggregate assets of 23.5%, while financing and deposits registered 19.4% and 25.1% growth rates escalation. In Southeast Asia and even in Asia, Malaysia has won as a global leader who can provide the service improvement in Islamic finance (Komijane & F., 2018). The competitiveness of Islamic banking (Ib) and conventional banking (Cb) lead to international study to analyze of how, respectively, the performance of both banks from various countries (Abdul-Majid, Saal, & Battisti, 2010). Hence, this study would potentially

provide the findings how the outlook of Ib and Cb in cross countries as an attempt to fill the gap in Islamic Banking literature (Cihak & Hesse, 2010).

This paper is driven by the fact of the staying power of Islamic banks to the financial crisis. The financial crisis in Indonesia in 1998 showed the resilience of Islamic banks that were still standing firm while many other conventional banks collapsed. Likewise, the recent worldwide financial meltdown that was triggered by the US subprime mortgage crises affected the financial shocks in banks in America (Miah & Uddin, 2017). Furthermore, the crises attacked global finance in 2007-2009 recorded that Islamic Banks survived well, while the conventional banking was suffering because of the financial crisis in MENA countries (Kassim & Majid, 2010). The Risk Indicator by (Alghfais, 2017) shows that conventional banks are more susceptible to accept the risk by 50% than Islamic banks. Thus, Islamic banks become the choice which is considered an alternative to the fall of conventional financial mechanisms.

The strengths and weaknesses possessed by Ib and Cb become interesting things to study. Rashid & Jabeen (2016) stated that there were several factors contributing to the structure and performance of banks, including: bank-specific, industry-specific, financial, and macroeconomic factors. Furthermore, it will be a concern to look at the factors that influence the opportunities of Islamic banks in the midst of conventional banks that dominate. In this research, there are three financial factors to compare the Ib versus Cb, namely efficiency, stability and asset quality. This research is needed to look at the position of Islamic banks in a more global perspective, namely in Southeast Asian countries. The countries of Indonesia, Malaysia and Brunei Darussalam which have a Muslim majority and Muslim minority countries, namely Thailand and the Philippines, are alluring to study the performance of Islamic banks and conventional banks.

The Bank's ability to convert resources into revenue shows the efficiency of the bank. Banks are efficient if they produce higher levels of output than their input. Islamic banks are less efficient due to the necessity to maintain the level of demand-deposit, so they have smaller capital for investment. In contrary, the conventional banks do not have the mandatory obligation to maintain a number of deposits; therefore the funds can be more invested and free to use (Miah & Uddin, 2017). Alghfais, (2017) noted that efficiency for conventional banks were 20% better than Islamic banks. It may happen due to the complexity of the standardization of Islamic bank products. Products in Islamic banks are required to comply with Sharia, so as products that contain high risk or forbidden (such as alcohol and gambling) will be an ethical concern for investors (Komijane & F., 2018). The complexity of banking products that comply in Sharia law has an impact on rising operational costs (Beck, Kunt, & Merrouche, 2013).

Bank Stability was defined by (Miah & Uddin, 2017) as the ability to stand firm in facing both internal and external economic problems and financial turmoil or the ability to continue to fulfill all obligations in the midst of a whopping problem. In fact, financial stability in the bank sector is very important for a country's economic development (Abrar, Ahmed, & Kashif, 2018). Some scholars find the character in Islamic banks that makes them more stable than conventional banks (Aman, Sharif, & Arif, 2016). Beck, Kunt, & Merrouche (2013) relates Ib stability as a result of not involving in risky trading securities and interest rate. While Miah & Uddin (2017) differentiate stability of Ib and Cb through the balance of assets and liabilities. The bank obtains from short-term depositors and then lends funds for long-term investment. It will increase conventional bank instability where there is a gap between funding sources and the use of funds. In contrast, Islamic banks are more stable than the conventional part because the funds obtained come from two deposits, namely demand deposits and investment deposits. Funds channeled come from sources with the same goal. Therefore, Islamic banks allow for more stability because they reserve 100% of demand deposits and are not used.

Analyzing the quality of productive assets is very important to know how well the bank manages the assets to avoid some risks. If the quality of productive assets is poor, it will impact on capital conditions such as the formation of reserves, asset valuation, and lending. The measurement of asset quality can be seen from the ratio of loan loss reserves, loan loss provision and non-performing loans (Beck, Kunt, & Merrouche, 2013). The conventional banks may have better assets quality since abundance of financing resources and professional management as the time passed. While Islamic banks make serious efforts to manage the

advances, investment, liquidity and capital which conventional banks are one step ahead developed (Aziz & Md. Husin, 2016). Furthermore, the diversification portfolio of financing sources owned by conventional banks enforced Islamic banks to be more creative to diversify their investment portfolio to keep them more liquid (Alghfais, 2017).. Those factors impact to the quality of assets which Islamic banks must catch up all the lags.

Several studies have been conducted and showed different results related to efficiency, stability and quality of assets between Ib and Cb. Islamic bank was found to be more efficient than conventional bank (Alghfais, 2017). In other side, conventional banks were more efficient in managing costs than Islamic banks (Beck, Kunt, & Merrouche, 2013; Aman, Sharif, & Arif, 2016; Miah & Uddin, 2017). To measure efficiency, this study uses DEA analysis by comparing two inputs, namely loans and interest income and three inputs, namely total deposits, personnel expense and fixed asset (Said, 2013) (Rosman, Wahab, & Zainol, 2014; Sakti & Mohamad, 2018). Furthermore, Islamic bank was found to be more stable than Conventional bank (Beck, Kunt, & Merrouche, 2013). In contrast, Wahid & Dar (2016) found that Islamic bank was less stable than conventional bank. In this study, Z-score is used to calculate the stability of Ib and Cb as proposed by (Cihak & Hesse, 2010), (Beck, Kunt, & Merrouche, 2013), (Miah & Uddin, 2017) (Sakti & Mohamad, 2018). Related to asset quality, Islamic banks were found to have superior asset quality than conventional bank (Beck, Kunt, & Merrouche, 2013; Alghfais, 2017; Aziz & Md. Husin, 2016; Aman, Sharif, & Arif, 2016). This research uses the measurement of asset quality used by Beck, Kunt, & Merrouche (2013) by calculating Loan Loss Reserves and Loss Loan Preserves.

Financial factors such as stability, efficiency and asset quality are interesting things to study in Southeast Asia since the collapse of global financial institutions and awareness of Sharia enforcement by Muslim society. Furthermore, this study wants to look at the differences of these factors to see how far Islamic banks can compete with conventional banks in the Southeast Asia context.

The hypotheses proposed in this study are:

H_1: There is a difference in efficiency between Islamic banks and Conventional banks

H_2: There is a difference in stability between Islamic banks and Conventional banks

H_3: There is a difference in asset quality between Islamic banks and Conventional banks

The rest of this paper is structured as follows. The second section discusses the methodology. Then, the third section presents the results and discussion. The last section is a conclusion of the study.

Methodology

The type of this study is a comparative descriptive study. Comparative is aimed to compare similarities and differences between two or more specific phenomena or populations that can be individual, industrial organization or other perspectives. The population used in this study are Conventional banks and Islamic banks in Southeast Asia, namely Indonesia, Malaysia, Brunei Darussalam, the Philippines and Thailand in 2013-2017. The sampling technique of this study was purposive sampling which the samples criteria are created by researchers. The data in this study uses annual reports from those two kinds of banks. There are 47 banks, include 30 conventional banks and 17 Islamic banks in Southeast Asia to be analyzed in this research. Moreover, this study uses the Mann-Whitney statistical test that is non-parametric test to compare two population means originating from the same population.

There are three variables analyzed in this study, they are: efficiency, stability and asset quality. To measure the efficiency, this study uses DEA analysis by comparing two inputs, namely loans and interest income and three inputs, namely total deposits, personnel expense and fixed asset (Said, 2013; Rosman, Wahab, & Zainol, 2014; Sakti & Mohamad, 2018). Then, to check the stability, it uses Z-score as proposed by Cihak & Hesse (2010), Beck, Kunt, & Merrouche (2013), Miah & Uddin (2017), Sakti & Mohamad (2018). Related to asset quality, this study calculates the Loan Loss Reserves and Loan Loss Preserves used by Beck, Kunt, & Merrouche (2013) dan Sakti & Mohamad (2018).

Results and Discussion

This study differentiate the performance of the bank from three factors, namely: efficiency, stability, and asset quality. It provides information from international countries of Southeast Asia. There are five countries seek in the research, they are 30 conventional banks and 17 Islamic banks. However, there are no sample of Islamic bank in Thailand and Philippine because of data limitation. Therefore, it is showed with not available /N/A. The descriptive study of the comparative variable is showed in the following table:

Table 1. Comparing Ib and Cb, testing from cross countries in Southeast Asia

	Brunei Darussalam		Philiphine		Malaysia		Thailand		Indonesia	
	Cb	Ib	Cb	Ib	Cb	Ib	Cb	Ib	Cb	Ib
Efficiency										
<i>DEA</i>										
Mean	0,464	0,474	0,809	N/A	0,567	0,807	0,716	N/A	0,468	0,818
Max	0,617	0,974	1,000	N/A	1,000	1,000	1,000	N/A	0,754	1,000
Min	0,366	0,288	0,552	N/A	0,000	0,307	0,087	N/A	0,229	0,223
Stability										
<i>Z_Score</i>										
Mean	15,435	11,406	15,144	N/A	24,459	3,688	14,408	N/A	17,600	5,851
Max	17,052	19,384	20,384	N/A	121,782	7,006	31,412	N/A	25,988	26,062
Min	13,860	4,690	13,076	N/A	9,325	2,330	7,771	N/A	7,817	2,349
Asset Quality										
<i>LLR</i>										
Mean	0,007	0,047	0,016	N/A	0,009	0,015	0,083	N/A	2,275	0,054
Max	0,009	0,135	0,022	N/A	0,064	0,033	1,221	N/A	20,999	0,700
Min	0,004	0,004	0,014	N/A	0,000	0,001	0,006	N/A	0,008	0,005
<i>LLP</i>										
Mean	0,056	0,123	0,045	N/A	0,032	0,034	0,106	N/A	2,310	0,030
Max	0,073	0,251	0,059	N/A	0,880	0,072	1,494	N/A	21,006	0,445
Min	0,050	0,051	0,032	N/A	0,004	0,014	-0,004	N/A	0,032	-0,883

Source: Data Processed (2019)

Table 2. Descriptive Analysis Results of Cb and Ib in Southeast Asia

	Cb	Ib		Cb	Ib		Cb	Ib		Cb	Ib
Efficiency			Stability			Asset Quality			Asset Quality		
<i>DEA</i>			<i>Z_Score</i>			<i>LLR</i>			<i>LLP</i>		
mean	0,5882	0,7733	Mean	19,7627	5,7411	Mean	0,6312	0,0395	mean	0,6583	0,0425
max	1,0000	1,0000	Max	121,7800	2,3300	Max	21,0000	0,7000	max	21,0100	0,4440
Min	0,0000	0,2200	Min	4,7700	26,0600	Min	0,0000	0,0000	min	0,0000	-0,8800
Std. Dev.	0,2226	0,2443	Std. Dev.	18,0695	4,5400	Std. Dev.	3,2577	0,0904	Std. Dev.	3,2548	0,1206

Source: Data Processed (2019)

Based on the descriptive statistical test results (Table 2), it presents the average efficiency value of conventional banks is 0.59%. It shows that Islamic banks are more effective than conventional banks at 0.58% of total operating income. The higher the DEA efficiency analysis, the higher the efficiency will be. Then, the average value of conventional bank asset quality measured by LLR is 0.63%. This result is smaller than the average value of Islamic banks at 0.039%. It shows that conventional banks have better asset quality than Islamic banks. The average value of stability in Z_score in conventional banks is 19.76%, greater than the average Z_score in Islamic banks 5.74%. It indicates that conventional banks are more stable than Islamic banks.

This study conducted normality test to determine whether the data of efficiency, stability and asset quality are normally distributed or not. Kolmogorov Smirnov test was used and resulted that the significance value was below < 0.05. It can be concluded that the data were not normally distributed. Thus, the test was continued to the Mann-Whitney test. The Whitney test is an alternative from the t-test for two independent populations when assuming population normality is not fulfilled.

The non-parametric test aims to complete the results of the study which has abnormally distributed data. The Mann-Whitney test is carried out by using SPSS version 16. The goal of this test is to find out there are or not the difference between conventional banks and Islamic banks. Based on the test, it was found out some results have asymp. Sig below 0,005. Firstly, there is a difference in efficiency between conventional banks and Islamic banks in Southeast Asia. Islamic banks are more efficient than conventional banks. Secondly, there is a difference in stability between conventional banks and Islamic banks in Southeast Asia. Conventional banks are more stable than Islamic banks. Then, there is a difference in asset quality between conventional banks and Islamic banks in Southeast Asia. It is presented by the asymp. Sig below 0,005 of LLP. The conventional banks have better asset quality than Islamic banks.

Table 3. Mann-Whitney Statistical Test

	Cb	Ib	Asymp.sig (2 tailed)
Efficiency			
<i>DEA</i>			
Mean Rank	100,140	149,520	0,000
Stability			
<i>Z-Score</i>			
Mean Rank	154,790	53,080	0,000
Asset Quality			
<i>LLR</i>			
Mean Rank	114,720	123,780	0,326
<i>LLP</i>			
Mean Rank	127,500	101,200	0,004

Source: Data Processed (2019)

The research done by Alghfais (2017) found that Islamic banks are less efficient than conventional banks in UEA. Aman, Sharif, & Arif (2016) stated that Islamic Banks are less efficient than conventional banks. It is probably due to the complexity of standardized products within the Islamic banks Beck, Kunt, & Merrouche (2013). Meanwhile, the results in this research showed that Islamic banks are more effective than conventional bank in Southeast Asia countries (table 3). The similar results revealed by Aziz & Md. Husin (2016) stated that Islamic banks performance has been better in efficiency in Pakistan. Yudistira (2004) stated that Islamic banks

are more efficient than conventional banks. However in Asian case, Islamic banks were more relatively efficient than conventional banks in MENA countries (Wahid & Dar, 2016).

The results revealed that Islamic banks are less stable than conventional banks in Southeast Asia. The research done by Wahid & Dar (2016) also found that Islamic banks are less stable than conventional banks in Malaysia. Abrar, Ahmed, & Kashif (2018) confessed that conventional banks are more stable in financial than Islamic banks. It is different with some scholars who argued that Islamic banks were more stable than Conventional one (Aman, Sharif, & Arif, 2016). The conventional banks have potential of absorbing financial stability shocks than Islamic banks based on Z_Score. Likewise, the crises of global finance on 2007-2009 proved that the Islamic banks kept survived, while the conventional banks were suffering in Mena countries (Kassim & Majid, 2010). Alghfais (2017) also argued that those conventional banks are more susceptible to accept the risk by 50% than Islamic banks due to the risky characteristics owned by Cbs. Thus, Miah & Uddin (2017) found that highly capitalized banks are more stable but cost inefficient since the banks have failed to capitalize on the leverage effect. In this research, the results indicate that conventional banks are less efficient but more stable than Islamic banks in Southeast Asia countries.

Related to asset quality, this research resulted that conventional banks have better asset quality than Islamic banks. The similar results were also noted by Nafla & Hammas (2016) that asset quality has remarkable impact on conventional banks on the period of before and during crisis. In the other side, (Aziz & Md. Husin, 2016) and Aman, Sharif, & Arif (2016) showed that Islamic banks have superior asset quality. Sakti & Mohamad (2018) also found that Islamic banks seem to have better asset quality in Indonesia. The conventional banks may have better assets quality since abundance of financing resources and professional management as the time passed. While Islamic banks make serious efforts to manage the advances, investment, liquidity and capital which conventional banks are better priory (Aziz & Md. Husin, 2016). To generate better asset quality, the Islamic bank need to diversify the investment through financing the micro entity or small-medium enterprises (SMEs) as massive financing than corporate financing (Alghfais, 2017).

Overall, the Islamic banking in Southeast Asia apparently seems bright, given as the countries as the home for biggest Muslim population. As well as Southeast Asia increasing in economy, government alignments with Islamic finance and the need to comply with sharia, support Islamic banking to grow continuously. An international study about Islamic banks versus conventional bank is required to allow analysis of how Islamic banks from various countries perform relative different to other countries. Thus, this research analyzed the efficiency, stability and asset quality in Southeast Asia countries. Therefore, this study would potentially provide relevant policy for policy makers in banking sector for diverse countries.

Conclusion

The international study about the difference of Islamic bank and conventional bank from various countries is required to seek the superiority performance of the banks. This study investigates the financial performance factors; they are efficiency, stability, and asset quality in Southeast Asia. There are five countries included in this study, they are: Indonesia, Malaysia, Brunei Darussalam, Thailand and Philippine. The findings found that there is significant difference in terms of efficiency, stability and asset quality. The Islamic banks are efficient than conventional banks; while Islamic banks have less stability than conventional banks. Conventional banks appear to have greater asset quality than Islamic banks. This result shows the position of Islamic banks compared with conventional banks in Southeast Asia which Ibs are more efficient but have less stability and asset quality than Cbs. To generate better asset quality, the Islamic banks are required to find alternative of financing, particularly for SMEs Financing that is more massive than corporate financing. Then, some study found that Islamic banks are more stable in crisis. While, this study noted that the stability of Islamic banks are questioned when there is no crisis. The conventional banks are still dominated and priority of financing in many countries. Therefore, Islamic banks need to improve their performance to compete with conventional banks, especially for Muslim-majority countries in Southeast Asia.

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