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ASEAN BANKING EFFICIENCY REVIEW FACING FINANCIAL SERVICES LIBERALIZATION: THE INDONESIAN PERSPECTIVE



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ABSTRACT

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One of the challenges facing banks in the ASEAN region is the plan to establish the ASEAN Banking Integration Framework (ABIF). The main objective of ABIF is to prepare market access and operational flexibility in ASEAN countries to create Qualified ASEAN Banks (QAB), ie ASEAN banks that meet certain requirements agreed by ASEAN. This paper analyzes the level of bank efficiency in ASEAN member countries, taking samples of banks in Indonesia, Malaysia, Singapore, Thailand, Philippines, and Vietnam, using Data Envelopment Analysis (DEA) method, analysis of financial ratios and comparison of research results with different approaches. The results of the analysis show that although the approach of financial ratios and DEA of Indonesian banks appear efficient, but when analyzed from NIM, the Indonesian banking system is inefficient.

JEL Classification:

G21; G15; C29; G1; F22; F02.

Contribution/ Originality: This paper contributes to the policy-making authority of banks in Indonesia. Banking in the ASEAN region will face the ASEAN Banking Integration Framework (ABIF). This paper reviews the efficiency of Indonesian banking as a form of readiness to face ABIF.

1. INTRODUCTION

One of the challenges facing banks in the ASEAN region is the plan to establish the ASEAN Banking Integration Framework (ABIF). ABIF is one of the concrete steps towards the ASEAN Economic Community (MEA) 2015. The reason is clear, economic unity is inseparable and must be supported by banking unity. The main objective of ABIF is to prepare market access and operational flexibility in ASEAN member countries to create Qualified ASEAN Banks (QAB), ie ASEAN banks that meet certain requirements agreed upon by ASEAN. The requirements of banks to become candidates for QAB include ASEAN banks with the strong capital base, running well, and meeting prudential requirements in accordance with applicable international standards. The bank is expected to be a driver of trade and investment in ASEAN (Suryasnia *et al.*, 2016). The initiative to establish ASEAN's financial unity is not a new issue. In 2003, all ASEAN finance ministers agreed to establish a Roadmap for Monetary and Financial Integration of ASEAN (RIA-fin). RIA-fin includes four initiatives: liberalizing capital flows, liberalizing financial services, developing capital markets, and currency cooperation.

Meanwhile, internal challenges that may be faced by banks may be management issues, such as maintaining prudential principles in providing credit to customers, or good corporate governance. While external challenges began to be faced by banks since the introduction of the ASEAN Economic Community (MEA) program in 2015. Banks are challenged to have a relatively higher level of efficiency. The efficiency of banks is important in the bank's health assessment. Failure in this competition can potentially cause national banks to be marginalized from their own markets, while the existence of national banking institutions has a very important meaning in carrying out the function of national economic development (Muljawan *et al.*, 2014).

Studies regarding the banking efficiency have been carried out using various approaches. Be Chen *et al.* (2005) conducts studies on cost efficiency, technical and allocation. Mester (1996) used the stochastic cost frontier approach to examine the efficiency levels of banks operating in the Third Federal Reserve District. Andrieş and Silviu (2016) also used frontier techniques to examine differences in the impact of the global financial crisis on commercial banks from the EU. Sharma *et al.* (2013) conducted a comprehensive literature survey of studies focusing on the efficiency and productivity of the banking sector using parametric and non-parametric techniques.

Based on the above background, this paper will analyze the level of banking efficiency in ASEAN member countries, by taking a sample of banks in Indonesia, Malaysia, Singapore, Thailand, the Philippines, and Vietnam, in order to deal with the planned formation of ABIF. This study is focused on an Indonesian perspective.

2. LITERATURE STUDIES

2.1. ASEAN Banking Integration Framework

The initiative to establish the ASEAN Banking Integration Framework (ABIF) is the central bank governor of ASEAN member countries. In 2003 all finance ministers of ASEAN member countries agreed to establish Roadmap for Monetary and Financial Integration of ASEAN (RIA-fin). ABIF is one of the concrete steps towards the ASEAN Economic Community (MEA) 2015. ABIF is one of the concrete steps towards the ASEAN Economic Community (MEA) 2015.

RIA-fin includes four initiatives, namely liberalization of capital flows, liberalization of financial services, capital market development, and currency cooperation. On the way, discussions of currency cooperation do not continue because they are considered unfeasible. However, the negotiations of three other initiatives are ongoing.

In the context of financial services, integration requires the opening of market access and non-discriminatory national treatment to foreign investors. To that end, ASEAN already has a Framework of Service Agreement of ASEAN/Liberalization of Financial Services (AFAS/FSL). Through this AFAS/FSL, all ASEAN members place their liberalization commitments on four modes of service supply: transboundary supply (mode 1), overseas consumption (modes 2), commercial presence (mode 3), and labor movement (mode 4).

ABIF aims to prepare market access and operational flexibility in ASEAN member countries for ASEAN Qualified Bank (QAB), ie ASEAN banks that meet certain requirements agreed upon by ASEAN. The requirements of banks to become candidates for QAB include ASEAN banks with strong, strong and well-established capital base, and meet prudent requirements in accordance with applicable international standards. The bank is expected to be a driver of trade and investment in ASEAN.

Liberalization is a necessary step in the integration process. ASEAN wants stable, sustainable banking integration, and positively contributes to the economy. Therefore, sufficient conditions are needed to ensure that the integration process runs unsteadily. ABIF completes sufficient conditions through four preconditions, namely harmonization of prudential regulations, availability of financial stability infrastructure, capacity equality of all ASEAN members, and ASEAN bank criteria agreement.

According to Siswanto (2012) the diversity and depth of the level of development of the financial sector in ASEAN is quite a contrast, even between ASEAN-5 (Malaysia and Singapore on the one hand with Indonesia,

Thailand and the Philippines on the other). Especially between ASEAN-5 with BCMLV (Brunei, Cambodia, Myanmar, Laos, and Vietnam).

ABIF is an implementation of ASEAN 2 + X concept on Banking services. It aims to facilitate deeper financial integration to foster regional growth and prosperity while maintaining financial stability in the region. In its application, ABIF considers the readiness of each country, for that it is declared the deepening of banking integration in 2020.

ABIF emphasizes reprisal principles, namely the expansion of market access to a committed banking system that can benefit all participating countries. While the banking integration framework is limited to Qualified ASEAN Banking (QAB) that meets certain qualification standards.

Guidelines ABIF contains guidelines on ABIF principles, elements, and implementation processes that are not legally binding. There is no commitment submission in the ABIF Guidelines document. If the two ASEAN countries involved in the agreement do not have any bank in another country, it is expected to exchange QAB. However, if between the two countries in the ABIF agreement, one of them already has a bank in another country, applies the principle of equality.

ABIF will open opportunities and a potential framework for banking businessmen and the people of Indonesia to develop into the ASEAN market. With an emphasis on the principle of reciprocity and agreement on mechanisms to mitigate significant differences in market access and operational flexibility in the ASEAN banking integration process, it will open up greater opportunities for Indonesian banks to gain access to markets and broader business activities in the ASEAN region.

2.2. Basic Concepts of Banking Efficiency

In banking, efficiency is one of the most popular performance parameters, widely used because it is the answer to difficulties in calculating performance measures. Often, the calculation of the rate of return shows a good performance, not included in the criteria of "healthy" or achievers in terms of regulations (Hadad *et al.*, 2003).

Banking competitiveness is reflected in the level of operational efficiency. However, this level of efficiency will depend on many factors, both micro and macro. These factors include market interest rates, economic growth, market volatility, labor prices, energy costs, and other factors. Among the determinants of efficiency, the interest rate of funds in the market is one of the factors that determine the level of operational efficiency of the bank because it determines the amount of cost of funds of the bank.

In addition, the level of credit supply competition that determines the pattern of credit market formation also affects the operational efficiency of banking. In a market experiencing supply rigidity, supply of credit will tend to be dominated by several banks so that banking institutions will be able to maximize short-term profits. However, in the long term, these banks will lose their competitive power to compete efficiently. The broader impact is that the community as the users of the fund will find it difficult to obtain a cheap source of funds to run its business and will ultimately determine the competitiveness of domestic industries (Muljawan *et al.*, 2014).

Qualitatively, other factors affecting efficiency are aspects of uncertainty. One source of this uncertainty aspect is the high rate of inflation and the interest rates set by the bank (Demirguc-Kunt and Huizinga, 1999). According to Ho and Saunders (1981) this uncertainty will trigger volatility in interest rates and can increase the interest rate spread and increase bank inefficiency.

Measurement of efficiency in banking can be focused on two alternative approaches, namely operational efficiency analysis and scale and scope efficiency analysis. A bank is said to achieve efficiency on a scale when the bank is able to operate on a constant return to scale, while coverage efficiency is achieved when the bank is able to operate at different locations. The allocation efficiency is achieved when the bank is able to determine the maximizing outputs, while the technical efficiency basically states the relationship between input and output in a production process. A production process is said to be efficient if on the use of a certain number of inputs can be

produced maximum output or to produce a certain amount of output is used the most minimum input (Rogowski in Siudek (2008)).

2.3. Previous Research

Various studies related to the efficiency of banks conducted by Chen *et al.* (2005) conducted a study of cost efficiency, technical and allocation of 43 Chinese banks during the period 1993 to 2000. The purpose of this analysis is to identify changes in the efficiency of banks in China after a government-initiated deregulation program in 1995. The results show that large state-owned banks and small banks are more efficient than medium-sized Chinese banks. In addition, technical efficiency consistently dominates the allocative efficiency of Chinese banks. Financial deregulation of 1995 was found to improve the level of cost efficiency including technical efficiency and allocation.

Andrieş and Silviu (2016) examined the differences in the impact of the global financial crisis on 783 commercial banks from the EU during the period 2004-2010. The study emphasizes the differences between large and small banks, commercial banks and private banks, as well as the status of the bank's home country, especially in the year in which they joined the EU and retained eurozone membership. The results show that the crisis has a positive and significant impact on the inefficiencies of costs and profits of commercial banks, and this impact is higher on eurozone banks. In terms of cost efficiency, the most affected by the crisis are large public banks operating in old EU members. With regard to profit inefficiency, the global financial crisis seems to have a lower impact on large commercial banks.

Sharma *et al.* (2013) conducted a comprehensive literature survey of studies focusing on the efficiency and productivity of the banking sector using parametric and non-parametric techniques. The study used 106 studies published worldwide from 1994 to 2011. The study developed a conceptual framework for assessing the efficiency and productivity of the banking industry using a non-parametric DEA approach. - Both frontier, parametric and non-parametric approaches. In nonparametric approaches, data envelopment analysis (DEA) is widely applied to measure the efficiency and productivity of a bank.

The results of the study Muljawan *et al.* (2014) show that the efficiency and resilience of the banking industry has an important role in supporting the Indonesian economy. In fact, the continuity of banking operations depends on its ability to maintain competitiveness that is reflected in operational efficiency. Several external factors that can increase competition to improve the efficiency of the Indonesian banking system include the implementation plan of the ASEAN Economic Community (MEA) in 2015 and the ASEAN Banking Integration Framework (ABIF).

Mesa *et al.* (2014) measures the key determinants affecting bank efficiency. Mesa suggested that the bank's efficiency ratio derived from the income statement, positively related to the size of the bank in terms of total assets. However, such relationships can not be sustained for banks of a certain size. Using the regression analysis method, the relationship between bank efficiency and bank size, using a sample of 3,952 banks in the EU, showed that the efficiency ratio stopped improving for banks with total assets above \$ 25 billion. The previous literature, using different analytical techniques, did not reach agreement on this matter. Mesa also identifies further variables that negatively impact bank efficiencies, such as competition and loan diversification, or positively affect them, such as wholesale funding ratios and income diversification. Our findings imply the need for different bank policies depending on total assets, to limit the size and activity of the bank.

Repkova (2015) examines the determinants of efficiency in the banking sector in Czech over the period 2001-2012, using Data Envelopment Analysis (DEA). Determinants of bank efficiency are estimated by using data analysis panels. The level of capitalization, liquidity risk, and portfolio risk have a positive effect on banking efficiency. ROA, interest rate and GDP have a negative impact on efficiency.

Batir *et al.* (2017) also analyzes technical efficiency, allocation, and cost efficiency in conventional banks and the participation of banks in Turkey under the DEA method. Besides, regression analysis is also done to find out the factors that influence the efficiency. The main objective of this paper is to analyze the efficiency of the banking

system in Turkey and compare the efficiency of the participation of conventional banks and banks. DEA results show that the average bank participation efficiency is higher than the average efficiency of conventional banks each year. While from the result of regression analysis indicate that cost and quality of loan have significant negative relation with conventional bank efficiency, but the significant positive relationship with the efficiency of bank participation. While total loans have a significant positive relationship, external variables have a significantly negative relationship with the efficiency of both types of banks.

2.4. Research Methodology

This paper uses the DEA approach with the Constant Return to Scale (CRS) model. DEA method is a nonparametric frontier method that uses a linear programming model to calculate the ratio of output and input ratios for all units compared in a population. The purpose of the DEA method is to measure the efficiency level of the decision-making unit (DMU) relative to similar banks. So this method is used to evaluate the relative efficiency of some objects (performance benchmarking). Excess DEA is able to provide more detailed analysis results than financial ratios (Mulyadi, 2015).

The DEA model assumes constant returns-to-scale (Charnes *et al.*, 1978) or return-to-scale variables (Banker *et al.*, 1984). A constant return-to-scale (CRS) assumption is acceptable if all the banks in the sample operate at the optimum scale (a minimum point on long-run average cost function). This means that proportional increase in input causes an increase in proportional output. This shows that all banks, small and large, are able to produce the same input-output ratio. The DEA model uses linear programming to generalize single output and Farrell (1957) measures the efficiency of multiple outputs and input sizes.

DEA begins with a fractional programming formulation. It is assumed that n DMU will be evaluated. Each consumes a different number of i and produces a different output, ie DMU $_j$ consumes the number of x_{ji} inputs to produce the y_{rj} output amount. It is assumed that these inputs, x_{ji} , and outputs are y_{rj} , not negative, and each DMU has at least one positive input and output value. DMU productivity can be written as:

$$h_j = \frac{\sum_{r=1}^s u_r y_{rj}}{\sum_{i=1}^m v_i x_{ij}}$$

In this equation, u and v are the weights assigned for each input and output. Using mathematical programming techniques, DEA optimally assigns weights that match the following limits. The weight for each efficiency of Decision-Making Units (DMUs) is given depending on the constraint that no other DMUs have an efficiency greater than 1 if using the same weight, implying that the efficient DMUs will have a ratio value of 1. The DMUs purpose function is the ratio of the total weighted output divided by the total weighted input:

$$\begin{aligned} \max h_0(u, v) &= \frac{\sum_{r=1}^s u_r y_{r0}}{\sum_{i=1}^m v_i x_{i0}}, \\ \text{subject to} \quad &\frac{\sum_{r=1}^s u_r y_{rj}}{\sum_{i=1}^m v_i x_{ij}} \leq 1, j = 1, 2, \dots, j_0, \dots, n, \\ &u_r \geq 0, r = 1, 2, \dots, s, \\ &v_i \geq 0, i = 1, 2, \dots, m, \end{aligned}$$

Where h_0 is the technical efficiency of DMU $_0$ to be estimated, u_r and v_i are the weights that must be optimized, y_{rj} is observed the number of outputs of the r th type for the DMU j th, x_{ij} is the observed number of inputs of the i th type for j th DMU, r denotes the output different, i show different inputs, and j denotes a different DMU n .

In this study, sample data were taken from six countries namely Indonesia, Singapore, Malaysia, Thailand, Philippines, and Vietnam. Each country has three banks with the largest assets, assuming that these banks operate at the optimum scale.

Besides using the DEA approach, this paper also uses the banking ratio approach. To conclude the efficiency of banking in this study also used comparison of other relevant research results.

3. DATA AND DISCUSSION

3.1. ASEAN Banking Efficiency

In this paper, two approaches are used: First, proxy input from total assets, total deposits, total credit and investment in securities, while output is proxied from net interest income. While in the second approach, input is proxied from total assets, total deposits, and investment in securities, while output is proxied from net income and total credit.

Based on the results of data processing with DEA approach, Table 1 shows that with the first approach, Public Bank (Malaysia), DBS (Singapore) and Bank Rakyat Indonesia (Indonesia) are relatively the most efficient banks in ASEAN with 100% relative efficiency. While the Central Bank of Asia and Bank Mandiri (Indonesia) level of efficiency approached the most efficient banks with a score of 95% and 85% respectively. Meanwhile, other banks have relatively less than 60% efficiency compared to the most efficient banks.

While with the second approach, Table 1 shows that the most efficient banks are Public Bank, DBS Bank, BRI, BID of Vietnam, Siam Commercial Bank, Bangkok Bank, Far Eastern Bank and Maybank are relatively most efficient. As in the first approach, Bank Mandiri and BCA are also relatively efficient compared to other banks.

Table-1. Level of Banking Efficiency in ASEAN Countries 2016

No	Bank	Country	Efficiency 1	Efficiency 2
1	Public Bank	Malaysia	1,00	1,00
2	DBS	Singapore	1,00	1,00
3	BRI	Indonesia	1,00	1,00
4	BCA	Indonesia	0,95	0,99
5	Mandiri Bank	Indonesia	0,85	0,94
6	Metropolitan Bank	Philippine	0,53	1,00
7	BPI Bank of The Philippine Island	Philippine	0,51	0,77
8	Krungthain Bank	Thailand	0,48	0,98
9	BDO Banco de Oro Unibank	Philippine	0,45	0,88
10	BID of Vietnam	Vietnam	0,45	1,00
11	Siam Commercial Bank	Thailand	0,45	1,00
12	Vietcom Bank	Vietnam	0,39	0,88
13	Vietin Bank	Vietnam	0,35	0,96
14	CIMB Group	Malaysia	0,32	0,94
15	Bangkok Bank	Thailand	0,32	1,00
16	OCBC Bank	Singapore	0,21	0,91
17	Far Eastern Bank	Singapore	0,15	1,00
18	Maybank	Malaysia	0,15	1,00

Source: Annual Report 2016, processed

Relatively efficient banks also have high ROE and ROA. Unless there are some banks that have high ROE and ROA, but the efficiency level is low. This is due to differences in the concept of return used to measure efficiency and in calculating ROE and ROA. In this paper to calculate the return is net interest income because the input used is credit and deposit. Meanwhile, in the calculation of ROE and ROA using total net income approach.

The above findings are in line with Kurniati (2016) which shows that banking ROA in Indonesia is the highest (2.3%), followed by Malaysia (1.3%), Philippine (1.2%), Thailand (1.1%) and Singapore's smallest (1%). Similarly, the net interest margin (NIM) of banks in Indonesia is also the highest (5.2%), followed by Philippine (3.3%), Thailand (2.5%), Malaysia (2%) and Singapore's smallest (1.6%). Another study, conducted by Berger *et al.* (1993) Another

study, conducted by Berger *et al.* (1993); Akhavein *et al.* (1997); DeYoung and Nole (1996) and Rogers (1998) which refers to the banking sector in the United States have also found that most inefficiencies are caused by low incomes.

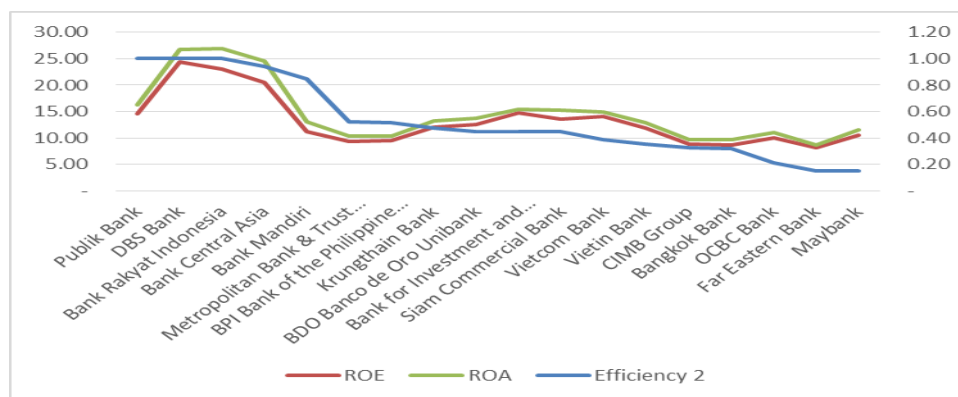


Figure-1. Comparison of Efficiency, ROE, and ROA of ASEAN Banking in 2016

Source: Annual Report 2016, processed

The striking difference between banking performance in Indonesia and banking in other ASEAN countries is the NIM problem. The high NIM of Indonesian banking actually shows that banks are inefficient (Ariyanto, 2011). On the one hand, the high NIM signifies an additional burden beyond the operational costs of the financial institution to its customers, one of which is due to high-cost economic practices and other risks beyond the pure risk of business. As a result, the real sector in Indonesia also has a low global competitiveness. On the other hand, the high indicator of inefficiency seems to be a blessing for banks, because it affects the achievement of profit, so ROA and ROE are also high.

The above findings are in line with Soedarmono *et al.* (2015) which shows that Indonesia's banking system is relatively fragile in ASEAN-5. Viewed from the side of the financial deepening ratio of both credit and deposit markets, Indonesia's position is at the lowest level in ASEAN-5. Indonesian banking is also seen as relatively inefficient in ASEAN-5 in intermediary costs, evident from high net interest margins. As a result, the impact of bank credit on economic growth in Indonesia needs to be studied more deeply. intermediation is seen from high net interest margin. As a result, the impact of bank credit on economic growth in Indonesia needs to be studied more deeply.

The most important findings in this research are: Firstly, there is a straight line relationship between the net income to loan ratio and the efficiency level. The greater the ratio of net interest income to loan banks will be the higher the efficiency level (see Figure 5). In accordance with the function of banking as an intermediary institution, then the biggest advantage is from lending.

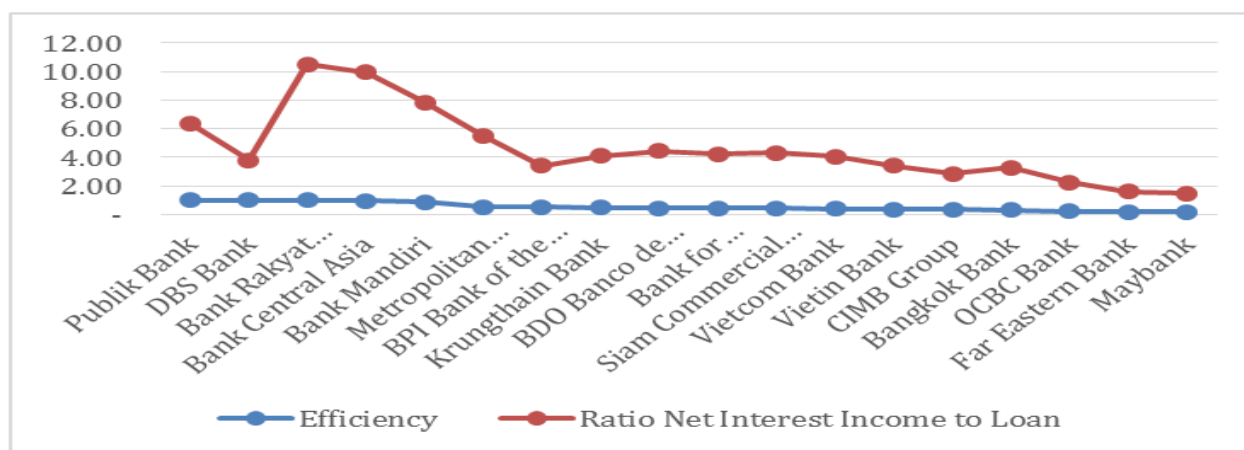


Figure-2. Ratio Net Interest Income to Loan and Efficiency of ASEAN Banking in 2016 (in%)

Source: Annual Report 2016, processed

This paper not studied the influence on efficiency costs, but studies show that the costs are not correlated with efficiency. Another interesting result from the study is that profit efficiency is not positively correlated with cost efficiency, which suggests the possibility that cost and revenue inefficiencies may be negatively correlated. These results suggest that higher-cost banks can compensate for these inefficiencies by achieving higher revenues than their competitors.

In contrast to Berger and Mester's findings, the higher costs compensated by higher revenues indicate inefficiency, since the revenue is not optimal. The high cost of banking will have an impact on lending rates so that lending will be hampered and economic growth will be hampered.

3.2. Join ABIF

ABIF will encourage the financial sector to become more integrated and enable certain qualified banks to operate freely in the ASEAN region. Global Finance Database (2012) in Ariyanto (2011) shows that Singapore and Indonesia are the countries with the highest proportion of foreign banks, reaching 55% and 52%, respectively. The Philippines is the country with the lowest proportion of foreign banks (13%), below Thailand (19%) and Malaysia (33%).

For Indonesia, historically the liberalization policy or the opening up of the Indonesian financial services sector to foreigners has been long, long before the WTO GATS Uruguay round was agreed in 1995 - where the liberalization of the multilateral financial services sector is included. The WTO negotiations round Uruguay (1986-1994) opened up a new phase of Indonesia's liberalization policy - including the service sector and the financial services sector regulated in GATS - from previously unilateral commitments increased to multilateral commitments. In this round of Uruguay Indonesia is committed to liberalization to all WTO member countries in the banking and nonbanking services sector which became effective from 1 January 1995. The liberalization of Indonesia's financial services sector is also inseparable from the IMF's bailout requirements for the completion of the economic crisis. shook Indonesia in 1998 and Indonesia's enormous need for foreign investment. Considering the history of the liberalization of the financial sector, Indonesia's participation in ABIF is not contrary to banking policy.

Foreign banks facilitate host countries' access to new products and technologies and improve the efficiency of financial markets. Foreign banks that enter Indonesia, in general, are the major banks of the world, such as HSBC, ANZ, Standard Chartered, Bank of Tokyo, Citibank, JP Morgan. These banks have a competitive advantage in the form of a source of funds in strong foreign currency, the implementation of sophisticated technology, knowledge of broad financial products, and strong risk management. These competitive advantages directly put pressure on state banks and private national banks to continuously improve service quality, develop human resources and upgrade their technology so as not to be left behind by foreign banks. These conditions ultimately enhance the competitiveness of local banks and provide added value to local bank services to the people of Indonesia.

It should be realized that the presence of foreign banks in Indonesia will increase competition for national banks. Consequently, the profits of national banks can be depressed as many players of major banks play in them. Foreign banks can certainly bring the best systems and business strategies that have been implemented in their country. Therefore, national banks should be able to compete more competitive.

The survey results of independent institutions, The Finance, in South Sulawesi, Bali, Medan, Solo and Palembang indicate that a number of foreign banks owned by Singapore and Malaysia intend to take over a number of export credit from state-owned banks and large private foreign exchange provided by exporters national, amid the volatility of the rupiah and high-interest rates in the country, the foreign banks offer lower interest rates (Baderi, 2014).

This will certainly make the state-owned banks and private banks that has been more to finance exporters Indonesia will get more pressure, let alone a number of SOE borrowers are now many "taken over" by foreign

banks. Not only that, foreign financial institutions also have entered the level of local debtors who scale smaller through the distribution of credit without collateral.

In order to compete with foreign banks, both in the country itself and in other countries, for national banks that will open branches in the country, then some strategies that can be taken include: First, the national banking should be able to provide quality services to customers. Good service quality is essential to improve customer satisfaction and loyalty. If the services provided are not good, it is feared that their customers will be taken by foreign banks.

Secondly, national banks already listed in the stock market should improve their financial performance in order to increase the value of Market Capitalization (Market Capitalization). The greater the value of a company's open Market Capitalization this a good indication. In addition to the financial performance and reputation of the company, high outstanding market capitalization can make it difficult for other parties to buy the company.

Third, national banks must not only focus on increasing NIMs but also to increase their Fee-Based Income portfolio and have to dare to invest and distribute financing in high return businesses such as to Micro, Small and Medium Enterprises.

Fourth, national banks, which act as intermediation in the development process, are required to be more transparent and accountable to the public, especially to their customers. With the existence of transparency, people can know the activities of the bank. From the bank side, it is expected to be more careful not to commit violations because they are supervised by the public.

Based on transparency and accountability research conducted by Bank Indonesia (Rini, 2015) from 11 banks that became the object of research, the results showed Citibank Indonesia scored highest (6.8), followed by Bank of Tokyo-Mitsubishi UFJ (4.4). The major national banks such as BNI, Danamon, BRI, Mandiri, and BCA obtained a score of 0.3 to 2.8.

The participation of Indonesia in ABIF is expected to contribute to the development of Indonesia's financial services sector and encourage efficiency and good governance that will provide the effect transmitted by foreign banks to domestic banks. Participation in the ABIF is in line with the Indonesian banking services industry that wants to expand into ASEAN markets such as Malaysia and Singapore, and Bank Indonesia as the banking regulator has submitted a request that both countries accept the reciprocal principle (Setiawam, 2013).

As a follow up to realize the wishes of Indonesian banking above, the Financial Services Authority and Bank Negara Malaysia have agreed on bilateral cooperation agreement under The ASEAN Banking Integration Framework on August 1, 2016. In point 3 (v) both parties agreed to provide flexibility to Indonesian banking to comply with the minimum QAB capital requirement to start a business in Malaysia for five years and may be renewed if conditions warrant and in point (vi) both parties agree that no regulatory measures impede to limit market access and national treatment / operational flexibility of each - QABs.

While some requirements to open branch offices of banks in Singapore, Thailand and the Philippines that need to be negotiated, among others related to the following requirements:

Table-2. Some Requirements for Opening a Branch Office in some ASEAN Countries that need to be negotiated

No	Country	Requirements that need to be negotiated
1	Singapura ¹⁾	<p>9.—(1) Subject to this Act, a bank shall not be granted or hold a license unless —</p> <p>in the case of a bank incorporated in Singapore, its paid-up capital is</p> <p>(a) not less than \$1,500 million or such other amount as may be prescribed, and its capital funds are not less than that amount; or</p> <p>in the case of a bank incorporated outside Singapore, its head office capital funds are not less than the equivalent of \$200 million.</p> <p>[28/93; 21/96; 23/2001; 1/2007]</p> <p>(b)</p> <p>10,—(2) A bank incorporated in Singapore shall not, at any time, have a capital adequacy ratio of less than 12%, or such other percentage as may be determined by the Authority from time to time, as calculated</p>

		in accordance with such form, content and manner as may be determined by the Authority by notice in writing. [28/93]
2	Thailand ²⁾	<p>Section 5 bis. No person shall hold more than five percent of the total amount of a commercial bank s shares sold except in the case where shareholders are governmental agencies, state enterprises under the law on budget procedures, the Financial Institutions Development Fund under the law on the Bank of Thailand, or juristic persons established under a specific law. In the event that it is necessary to rectify the condition or operation of a commercial bank, the Minister, with the advice of the Bank of Thailand, shall have the power to permit the holding of shares as otherwise. Such permission may be granted with any condition.</p> <p>Section 5 ter. No commercial bank shall transfer its shares to any person if such transfer will cause such person or any other person to hold shares in a percentage greater than that prescribed under Section 5 bis.</p>
3	Philippina ³⁾	<p>The FBLA provides for the different modes of entry by foreign banks into the Philippines. Under this Act, foreign banks which are among the top 150 in the world or the top five in their country of origin are allowed to invest in up to 60% of the voting stock of a Philippine bank or to establish branches with full banking authority, provided they can only opt for one mode of entry, and provided that only 14 foreign banks may establish branches with full banking authority. At present, entry through the establishment of branches is not available, at least until one of the 14 foreign bank branches gives up its branching license. Capital requirements and own fund rules. Depending on which type of banking license is obtained, different capital levels are required. The minimum capital requirements of banks are as follows:</p> <p>a) Universal Bank – PhP5.4 billion b) Commercial Bank – PhP2.8 billion c) Branch – Permanently assigned capital of PhP210 million (with a maximum “net due to” of four times the permanently assigned capital, with a requirement of PhP35 million per additional branch d) Thrift Bank – PhP650 million for those with head office within Metro Manila and with authority to undertake quasi-banking operations; PhP400 million if without quasi-banking operations; PhP64 million for those with head office outside Metro Manila e) Investment House – PhP300 million; provided, that underwriting commitments cannot exceed 20 times the house’s net worth f) Financing Company – PhP10 million if located in Metro Manila; PhP5 million if located in first-class cities; PhP2.5 million if located in second class cities and first class municipalities; PhP1.0 million if located in third class cities and second class municipalities; and PhP0.5 million if located in fourth class cities and third class municipalities and below.</p>

Source: ¹⁾ Chapter 19 Act 41 of 1970

²⁾ Commercial Banking Act B.E. 2505

³⁾ Foreign Bank Liberalization Act (Rep. Act No. 7221) (“FBLA”)

4. CONCLUSIONS AND RECOMMENDATIONS

4.1. Conclusions

Some of the findings of this research are: First, based on the results of the analysis with DEA approach and financial ratios, Indonesian banks are relatively more efficient compared to banks from ASEAN member countries. There is a straight line relationship between net income and income to loan ratio with efficiency. The greater the

ratio of net interest income to loan banks will be the higher the efficiency level.

Secondly, although in terms of financial ratios and DEA of Indonesian banks appear to be efficient, but inefficient. Which is marked by a high NIM? A high NIM signifies an additional charge beyond the operational costs of the financial institution to its customers that impact on high-cost economic practices and other risks beyond the pure risk of business.

Third, to encourage more efficient Indonesian banking and lower NIMs, Indonesia should join the ABIF, as it will encourage the financial sector to become more integrated and enable certain Indonesian banks to operate within the ASEAN region. Besides, the presence of foreign banks in Indonesia is expected to increase competition of national banks.

4.2. Recommendations

The Indonesian government is currently working to improve the role of the financial sector. Strategic efforts are required that include a plan and implementation of the policy to intensify the monetary rate of the economy through improvements in access to financial institutions, transparency, and efficiency, as well as to promote a rational rate of return.

Efforts to increase the role of the financial sector can be pursued by encouraging Indonesian banks to open branch offices in ASEAN countries and open the banking market for the entry of foreign banks. Based on the results of the analysis, for the initial phase, the government can focus on four countries, namely Malaysia, Singapore, Thailand and the Philippines. Demand for banks in these four countries is quite high as evidenced by the high contribution of the financial and insurance sector to GDP.

In order to reduce inequality of market access and banking activities between Indonesia and ASEAN countries, the Financial Services Authority must enter into bilateral agreements with the banking authorities in each ASEAN country. Agreement which is part of the implementation of ABIF aimed at making Indonesian banks in the QAB category who will apply for permission to establish full branch offices in ASEAN countries get the convenience.

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REFERENCES

- Akhavein, J.D., A.N. Berger and D.B. Humphrey, 1997. The effects of bank megamergers on efficiency and prices: Evidence from the profit function. *Review of Industrial Organization*, 12(1): 95-139. [View at Google Scholar](#)
- Andrieş, A.M. and G.U. Silviu, 2016. Financial crisis and bank efficiency: An empirical study of European banks. *Economic Research-Ekonomska Istraživanja*, 29(1): 485-497. [View at Google Scholar](#) | [View at Publisher](#)
- Ariyanto, T., 2011. Determinants of net interest of banking Margin Indonesia. *Finance and Banking Journal*, 13(1): 34-46.
- Baderi, F., 2014. Foreign bank seizes local customers - unfair competition ahead of Mea. Retrieved from <http://www.neraca.co.id/article/37649/bank-asing-rebut-nasabah-lokal-persaingan-tidak-sehat-jelang-mea> [Accessed 15 March 2018].
- Batir, T.E., V.A. David and G. Bener, 2017. Determinants of bank efficiency in Turkey: Participation banks versus conventional banks. *Borsa Istanbul Review*, 17(2): 86-96. [View at Google Scholar](#) | [View at Publisher](#)
- Berger, A.N., D. Hancock and D.B. Humphrey, 1993. Bank efficiency derived from the profit function. *Journal of Banking and Finance*, 17(2-3): 317-347. [View at Google Scholar](#) | [View at Publisher](#)
- Charnes, A., W.W. Cooper and E. Rhodes, 1978. Measuring the efficiency of decision-making units. *European Journal of Operational Research*, 2(6): 429-444. [View at Google Scholar](#) | [View at Publisher](#)
- Chen, X., I. Michae and K. Brown, 2005. Banking efficiency in China: Application of DEA to pre- and post-deregulation eras: 1993-2000. *China Economic Review*, 16(3): 229-245. [View at Google Scholar](#) | [View at Publisher](#)

- Demirguc-Kunt, A. and H. Huizinga, 1999. Determinants of commercial bank interest margins and profitability: Some international evidence (English). *World Bank Economic Review*, 13(2): 379-408. [View at Google Scholar](#) | [View at Publisher](#)
- DeYoung, R. and D. Nole, 1996. Foreign-owned banks in the US: Earning market share or buying it? *Journal of Money, Credit, and Banking*, 28(4): 622-636. [View at Google Scholar](#) | [View at Publisher](#)
- Farrell, M.J., 1957. The measurement of productive efficiency. *Journal of the Royal Statistical Society*, 120(3): 253-278. [View at Google Scholar](#)
- Hadad, M.D., S. Wimboh, M. Eugenia and I. Dhaniel, 2003. Parametric approach for bank Indonesia efficiency, Bank Indonesia. Retrieved from www.bi.go.id [Accessed 25 March 2018].
- Ho, T.S.Y. and A. Saunders, 1981. The determinants of bank interest margins: Theory and empirical evidence. *Journal of Financial and Quantitative*, 16(4): 581-600. [View at Google Scholar](#) | [View at Publisher](#)
- Kurniati, Y., 2016. ASEAN banking integration framework: Advances and challenges in regional integration. Jointly Organized by Hitotsubashi University and the IMF Regional Offices for Asia and the Pacific, March 3-4 Tokyo, Japan.
- Mesa, R.B., M.S. Horacio and N.R.S. Jesús, 2014. Main determinants of efficiency and implications on banking concentration in the European Union. *Revista de Contabilidad – Spanish Accounting Review*, 17(1): 78-87. [View at Google Scholar](#) | [View at Publisher](#)
- Mester, L.J., 1996. A study of bank efficiency taking into account risk preferences. *Journal of Banking & Finance*, 20(6): 1025-1045. [View at Google Scholar](#) | [View at Publisher](#)
- Muljawan, D., J. Hafidz, R.I. Astuti and R. Octapiani, 2014. Determinants of the efficiency of Indonesian banking and its impact on credit interest calculation. Bank Indonesia. WP No. 2.
- Mulyadi, 2015. Assessment of bank efficiency with envelopment analysis data at 10 large rated banks in Indonesia. *Journal of Accounting Research and Taxation*, 2(2): 113-126.
- Repkova, I., 2015. Banking efficiency determinants in the Czech banking sector. *Procedia Economics and Finance*, 23: 191 – 196. [View at Google Scholar](#) | [View at Publisher](#)
- Rini, A.S., 2015. Foreign banks are more transparent than local banks, in financials. Retrieved from <http://finansial.bisnis.com/read/20150611/90/442659/bank-asing-dinilai-lebih-transparan-daripada-bank-lokal> [Accessed 15 March 2018].
- Rogers, K.E., 1998. Nontraditional activities and the efficiency of US commercial banks. *Journal of Banking and Finance*, 22(4): 467-482. [View at Google Scholar](#) | [View at Publisher](#)
- Setiawam, S., 2013. Cost-benefit analysis Indonesian financial services liberalization policy in regional comprehensive economic partnership (Rcep), Center for Regional Policy and Bilateral Agency for Fiscal Policy, Working Paper.
- Sharma, D., S.K. Anil and B.K. Mukesh, 2013. Efficiency and productivity of banking sector: A critical analysis of literature and design of conceptual model. *Qualitative Research in Financial Markets*, 5(2): 195-224. [View at Google Scholar](#) | [View at Publisher](#)
- Siswanto, J., 2012. ASEAN banking integration, in Kompas. Retrieved from <https://internasional.kompas.com/read/2012/07/18/02154748/Integrasi.Perbankan.ASEAN> [Accessed 20 March].
- Siudek, T., 2008. Theoretical foundations of banks efficiency and empirical evidence from Poland. Warsaw University of Life Sciences, Department of Economics and Organization of Enterprises, Social Research, 3(13): 150-158. [View at Google Scholar](#)
- Soedarmono, W., I. Hasan and N. Arsyad, 2015. Non-linearity in the finance-growth nexus: Evidence from Indonesia. Working Paper.
- Suryasnia, S., P. Ina, S. Sucherly and H. Aldrin, 2016. Banking strategy and implementation of banking ASEAN integration framework (ABIF) in ASEAN community (AEC)'s Era 2020. MPRA Paper No. 73303.

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