COMPARATIVE ANALYSIS OF THE PERFORMANCE OF CONVENTIONAL BANKS IN ASEAN COUNTRIES BEFORE AND AFTER THE IMPLEMENTATION OF ASEAN ECONOMIC COMMUNITY

(UNDERGRADUATE THESIS)

By

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2019
ABSTRACT

COMPARATIVE ANALYSIS OF THE PERFORMANCE OF CONVENTIONAL BANKS IN ASEAN COUNTRIES BEFORE AND AFTER THE IMPLEMENTATION OF ASEAN ECONOMIC COMMUNITY

By

Stefanus Erik Saputra

This research aims to compare performance of conventional banks in ASEAN countries before and after the implementation of ASEAN Economic Community that was reviewed based on aspects of CAMELS method namely capital, asset quality, management quality, earnings, liquidity, and sensitivity to market risk. Samples used were selected by purposive sampling to produce final sample of 54 conventional banks which consist of 36 banks in Indonesia, 4 banks in Malaysia, 3 banks in Singapore, 6 banks in Thailand and 5 banks in Philippines. The data sources of this research are financial data belonging to conventional banks in ASEAN countries taken from stock exchanges in every country for 2014-2017 period. Data processing is done using the help of Software Statistics and Service Solution (SPSS) version 22. The hypothesis testing used Paired Sample T Test. The result of statistical test shows that are significant differences in CAR and NPL, but there are no significant differences in NIM, ROA, ROE, LDR and IRR ratio among five countries. Before AEC conventional banks in Indonesia are better than other ASEAN countries at CAR, NPL, NIM, ROA, LDR ratio. Meanwhile after AEC conventional banks in Indonesia are better than other ASEAN countries at CAR, NIM, ROA, ROE, LDR ratio.

Keywords: ASEAN Economic Community (AEC), Bank Performance, CAMELS, Paired Sample T Test.
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Stefanus Erik Saputra

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With this stated that my thesis entitled "Comparative Analysis of The Performance of Conventional Banks in ASEAN Countries Before and After The Implementation of ASEAN Economic Community" is true of my own work. In this thesis there is no whole or partial of the writings of others by copying or forging in the form of a series of sentences or symbols that show ideas or arguments or thoughts of other authors, which I acknowledge as my own writing, other than that or I take it from someone else's writing without giving the original author's acknowledgment. If in the future proved that my statement is not true, then I am ready to accept sanctions in accordance with applicable regulations.

Bandar Lampung, March 20th 2019

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Stefanus Erik Saputra
BIOGRAPHY

The author was born in Bandar Lampung on May 31st, 1997 with the full name Stefanus Erik Saputra as the second child of two siblings. His father’s name is Mr. Sutaji and his mother’s name is Mrs. Magdalena Suparti, his older sister’s name is Mentari Lydia Sukarini. The author completed his kindergarten education at Taman Kanak-kanak (TK) Fransiskus 2 Bandar Lampung in 2003. The author continued his elementary school education at Sekolah Dasar (SD) Fransiskus 2 Bandar Lampung and graduated in 2009. The author completed his education of junior high school at Sekolah Menengah Pertama (SMP) Xaverius 2 Bandar Lampung in 2012, and then completed the education of senior high school in Sekolah Menengah Atas Negeri (SMAN) 8 Bandar Lampung in 2015 and took the science majority.

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and Kansai University of International Studies (KUIS) Japan. In that event the author managed to get the title as best group presentation. Furthermore in 2017, the author won as the 1st winner of Ambassador of Generation Planning (Duta Generasi Berencana) Selection in Lampung Province and then managed to get the title as top 10 in national scale. In the same year the author also received Peningkatan Prestasi Akademik (PPA) Scholarship. In 2016 and 2017 the author also had the opportunity to become a mentor and instructor in an English language skills improvement program held by the language center integrated service unit of University of Lampung (UPT Balai Bahasa Universitas Lampung).

During the lectures session, the author was active as a member of HIMAKTA (Himpunan Mahasiswa Akuntansi), and ever became person in charge in conducting Accounting Best Student Awards (ABSA) 2016. The author was also listed as a member of Economics’ English Club (EEC) and chosen as Chief of Council for 2017/2018 period. The author was also listed as committee in several international events that were held in University of Lampung such as Asian Cooperative Program 2018, International Conference 3rd SHIELD 2018 University of Lampung, International Conference of Economics Business and Entrepreneurship 2018 University of Lampung, and Aoyama Gakuin University Short Course 2019. In March 2019, the author also participated in a tax volunteer program (Program Relawan Pajak) and served in Bengkulu and Lampung Directorate General of Taxation Regional Office (Kanwil DJP Bengkulu & Lampung).
DEDICATION

Praise The Lord Jesus Christ, The Almighty God, for all the blessings that have been given, so that this thesis can be completed.

I dedicate this thesis to:

My dear parents, Mr. Sutaji and Mrs. Magdalena Suparti
who always love me, give me the endless prayer, and give me useful advices and motivation, and always be patient hearing all my complaints. May The Almighty God, Lord Jesus Christ, always provide blessings and protection for my parents.

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who always give encouragement, prayer, and endless support.

My Almamater, University of Lampung.
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“So do not fear, for I am with you, do not be dismayed, for I am your God. I will strengthen you and help you, I will uphold you with my righteous right hand”

(Holy Bible, Isaiah 41:10)

“I sought the Lord, and he answered me, and delivered me from all my fears”

(Holy Bible, Psalm 34:4)

“God never said that the journey would be easy, but He did say that the arrival would be worthwhile”

(Max Lucado)

“I can’t be perfect, but I can always be better than I was yesterday”

(Stefanus Erik Saputra)
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Praise The Lord Jesus Christ for the grace and blessings that have been given so that the writer can complete the thesis entitled "Comparative Analysis of The Performance of Conventional Banks in ASEAN Countries Before and After The Implementation of ASEAN Economic Community" as one of the obligations to obtain a Bachelor of Economics degree at the Accounting Department Faculty of Economics and Business University of Lampung.

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Thus, hopefully this paper can provide benefits for those who read it.

Bandar Lampung, March 20th, 2019

Author,

Stefanus Erik Saputra
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I. INTRODUCTION

1.1 Research Background

Nowadays, the increasingly dynamic movement of global economy has caused upheaval. The upheaval tends to have a negative impact on developing countries, including countries in Southeast Asia region. As a solution to overcome the upheaval, an initiative emerged to form a regional integration in Southeast Asia through ASEAN Vision 2020 during ASEAN Second Informal Summit. This initiative was then realized in form of a long-term roadmap called Hanoi Plan of Action which agreed in 1998.

Starting from beginning of 2016, Indonesia as one of the initiators of ASEAN Economic Community (AEC) began to implement vision and mission of AEC in every regulation and direction of its economic policy. According to Diah (2013) the main concept of ASEAN Economic Community is to create ASEAN as a single market and unity of production base, where there is free flow of goods, services, factors of production, investment and capital, and also elimination of tariffs for trading among ASEAN countries which are then expected can reduce poverty and economic disparities among its member through a number of mutually beneficial cooperation.
By forming this single market, it is also expected that it will be able to help ASEAN powerless countries in facing global economic competition. However, implementation of AEC cannot be directly said as an absolute benefit for Indonesia or other ASEAN countries. This is because when the era of globalization among ASEAN countries is realized in form of a single market such as AEC, competition among countries in various economic sectors cannot be avoided. This competition requires each country to fix their economic condition so that they will also have power to compete. As a solution for economic problems in ASEAN region after the implementation of AEC, then it will be followed by implementation of financial sector integration, especially ASEAN banking in 2020 (Triwijanarko, 2015). Financial services sector is the main foundation that supports Indonesia's readiness in welcoming AEC. There are 3 main pillars of ASEAN financial sector, namely banking, capital markets, and insurance (Ministry of Industry of the Republic of Indonesia, 2016).

Therefore banking sector is considered to be the most influential in welcoming AEC. This is because banks have a role as financial intermediary that can influence economy of a country. According to Gunawan in Widyawati (2018), banking is an important sector because the era of free markets will open up the flow of traffic in goods and services to be increasingly wide, so that role of banks as financial intermediary for sectors involved in an economy becomes increasingly important.

In a general lecture, Senior Deputy Governor of Bank Indonesia conveyed the readiness of banks in welcoming AEC, where Thailand banks showed good progress, namely with a small number of banks but there were some of them
becoming international banks such as Bangkok Bank. Whereas Philippines banks seen from Non Perfoming Loans ratio (NPL) is still considered higher at 2.4% compared to the Indonesian banking which is lower at 1.9%. Unlike the condition of banks in both countries, banks in Indonesia are considered not able to compete optimally. (Wahyuni and Sukirno, 2016)

From reasons described, it is necessary to improve and upgrade the quality of bank performance, considering that in 2015 Indonesia has 118 commercial banks with a majority of small size and do not have scale or support to compete effectively with global giant (Indonesian Banking Statistics-Vol 16, 2018). Therefore, it is very important to know the level of bank performance assessment, so that efforts will emerge to encourage efficiency of banking sector which is highly competitive so as not to lag behind other countries.

There have been several previous studies regarding the assessment of bank performance in ASEAN countries. There are two examples of research related to bank performance in ASEAN countries, the first research was conducted by Hasan, Suhadak and Sulistyowati (2016) who analyzed performance of three banks with the largest assets in Philippines, Indonesia, Malaysia, Singapore and Thailand in 2012-2014. The results showed that there are significant differences in ratio of CCA, NIM, EEA, LDR, ROA, ROE, and AGR to banks in these five countries and there are no significant differences in CAR, RORA, NPL, and LOA ratios. The results also stated that Indonesia is better than the four other countries on the average of financial ratios of CCA, RORA, NIM, ROA, ROE. The second research is conducted by Hariadi (2016) who found that financial performances of banks in ASEAN, especially Indonesia, Malaysia and Thailand in 2010-2014
are different. An interesting finding that arises in his research is that banks in Indonesia are quite competitive compared to Malaysia and Thailand. The indicators of capital risk (CAR), asset quality (NPL), earning (ROA and ROE), and growth (AGR) showed a better average than its competitors in ASEAN. With the basis of these descriptions above, this research takes the title “Comparative Analysis of The Performance of Conventional Banks in ASEAN Countries Before and After The Implementation of ASEAN Economic Community”.

1.2 Problem Formulation

Based on description above, problem formulations that will be tested in this research are:

1. Are there any differences in the performance of conventional banks in ASEAN countries before and after the implementation of AEC reviewed from aspect of capital (C)?

2. Are there any differences in the performance of conventional banks in ASEAN countries before and after the implementation of AEC reviewed from aspect of assets Quality (A)?

3. Are there any differences in the performance of conventional banks in ASEAN countries before and after the implementation of AEC reviewed from aspect of management quality (M)?

4. Are there any differences in the performance of conventional banks in ASEAN countries before and after the implementation of AEC reviewed from aspect of earnings (E)?
5. Are there any differences in the performance of conventional banks in ASEAN countries before and after the implementation of AEC reviewed from aspect liquidity (L)?

6. Are there any differences in the performance of conventional banks in ASEAN countries before and after the implementation of AEC reviewed from aspect of sensitivity to market risk (S)?

1.3 Research Purposes

Based on problem formulations above, the purpose of this research is to:

1. Conduct a comparative test of the performance of conventional banks in ASEAN countries before and after the implementation of AEC reviewed from aspect of capital (C)

2. Conduct a comparative test of the performance of conventional banks in ASEAN countries before and after the implementation of AEC reviewed from aspect of assets quality (A)

3. Conduct a comparative test of the performance of conventional banks in ASEAN countries before and after the implementation of AEC reviewed from aspect of management quality (M)

4. Conduct a comparative test of the performance of conventional banks in ASEAN countries before and after the implementation of AEC reviewed from aspect of earnings (E)
5. Conduct a comparative test of the performance of conventional banks in ASEAN countries before and after the implementation of AEC reviewed form aspect of liquidity (L)

6. Conduct a comparative test of the performance of conventional banks in ASEAN countries before and after the implementation of AEC reviewed form aspect of sensitivity to market risk (S)

1.4 Research Benefits

1. For practitioners (investors, creditors, directors, board of commissioners, employees, customers, shareholders, accountants), this research is expected to be one of the source in obtaining information about banking financial indicators in ASEAN

2. For the world of academia, this research is expected to be an additional insight and information on the comparison of the performance of conventional banks in ASEAN countries before and after the implementation of the AEC
II. LITERATURE REVIEW

2.1 Theoretical Basis

2.1.1 Signaling Theory

Go public companies in the capital market are competing to get funds from investors, as well as the banking industry competing in getting funds from creditors and investors (Rochmawan, 2004). To compete in getting funds from investors and creditors, company and bank provide a signal in form of accounting information to get a response. Signaling theory is information signals needed by investors to consider and determine whether investors will invest or not in the company concerned (Suwardjono, 2005). Signaling theory discusses how signals of success or failure of management as agent should be conveyed to the owner as principal. Signaling theory explains that the signaling is done by management to reduce asymmetric information. According to Sari and Zuhrotun (2006), signaling theory explains why companies have the urge to provide financial report information for external parties. The urge arises due to the existence of asymmetric information between company (management) and external parties, where management knows company's internal information is relatively more and faster than external parties such as investors and creditors. Lack of information obtained by external parties about company will make external parties
protecting themselves by giving a low value to company. The management can increase value of company by reducing asymmetric information, one of ways is by signaling external parties in form of reliable financial information, so that it can reduce the uncertainty about company's prospects in future. A report about good performance of company will increase value of company.

This is the reason why signaling theory can be used as grand theory for bank performance assessment, namely how management of banks as an agent can maintain the trust of shareholders and customers as principal. Financial reports that reflect good performance are signals or signs that bank is operating properly. A good signal will also be responded well by external parties, because market response depends on fundamental signals issued by company. In the case of banking, investors and customers will only invest their funds if they consider that banks are able to provide added value to the funds invested more than if they invest elsewhere. For this reason, the attention of investors and customers is directed at company's ability as reflected in financial reports issued by bank.

2.2 ASEAN Economic Community (AEC)

2.2.1 Definition of AEC

According to Kimah (2013) ASEAN Economic Community is a program for ASEAN countries to further improve the quality of economy, especially trading, to become an easier access such as implementing elimination of tariffs (Free Trade Area) to create a single market.
The main concept of ASEAN Economic Community is to create ASEAN as a single market and unity of production base, where there is free flow of goods, services, factors of production, investment and capital, and also elimination of tariffs for trading among ASEAN countries which are then expected to reduce poverty and economic disparities among its member countries through a number of mutually beneficial cooperation (Diah 2013).

2.2.2 History of AEC

According to Widyaiswara (2015), AEC formation began with the agreement of ASEAN leaders at Summit (Konferensi Tingkat Tinggi) in December 1997 in Kuala Lumpur, Malaysia. The agreement aims to improve ASEAN's competitiveness and make it able to compete with China and India in order to attract foreign investment. Foreign capital is needed to increase employment and welfare of ASEAN citizens. At that time, ASEAN launched an initiative to establish ASEAN regional integration or ASEAN community through ASEAN VISION 2020 during ASEAN Second Informal Summit. This initiative was later realized in form of a long-term roadmap called Hanoi Plan of Action agreed in 1998.

At the next summit Indonesia was one of AEC initiators namely in Declaration of ASEAN Concord II in Bali on October 7th 2003 where ASEAN officials declared that the establishment of AEC in 2016. The formation of ASEAN Community was part of ASEAN's efforts to further strengthen ASEAN integration. Besides that, it is also an evolutionary effort by ASEAN to adjust its perspective so that it
can be more open in discussing domestic issues that have an impact on region without abandoning the main principles of ASEAN, namely: mutual respect, not interfering in domestic affairs, consensus, dialogue and consultation. ASEAN Community consists of three pillars which also included in it is cooperation in economic field, namely ASEAN Economic Community (AEC).

2.3 Bank

2.3.1 Definition of Bank

According to PSAK No. 31, Bank is an institution that acts as a financial intermediary between party that have excess funds *(surplus units)* with party that need funds *(unit deficits)* and as an institution that functions to facilitate payment traffic.

Whereas according to Law *(Undang-undang)* number 10 of 1998, about Bank, definition of Bank is a business entity that collects funds from public in form of deposits and distributes them to public in form of credit and/or other forms in order to improve the living standards of people.

So that it can be concluded from those above understandings that banking has a strategic position, namely supporting the smoothness of payment system, implementing monetary policy and achieving financial system stability, so that a healthy and accountable banking is needed.
2.3.2 Function of Bank

According to Budisantoso and Nuritomo (2014) the main function of bank is to collect funds from public and distribute it back to public for various purposes or as a financial intermediary. Specifically bank can function as:

1. Agent of trust

   The main basis of banking activities is trust. People will be interested to deposit funds in bank because of trust. The bank will also distribute funds to debtor because element of trust.

2. Agent of development

   Bank activities in form of collecting and distributing funds enable public to carry out investment activities, distribution activities and economic activities of goods and services. Smooth investment, distribution and consumption are economic development activities of a public.

3. Agent of services

   Bank also offers other banking services, such as remittance, deposit valuables, the provision of bank guarantees and settlement of claims.

2.3.3 Sources of Bank Funds

According to Sinungan in Dendawijaya (2005) bank funds that used as a tool for operation of a bank are sourced from the following funds:

1. First Party Funds

   First party funds are funds from own capital from shareholders.
2. Second Party Funds

Second party funds are loan funds from external parties

3. Third Party Funds

Third party funds are funds in the form of deposits from public

2.4 Financial Report

2.4.1 Definition of Financial Report

According to Sadeli (2002) financial report are the result of accounting process and historical information. Accounting is process of identifying, measuring and reporting economic information to form the right consideration and decision making for the users of information.

According to Kieso et.al (2013) financial reports are the main medium by which a company communicates its financial information to external parties. These reports present the history of company quantified in terms of money.

According to PSAK No. 1 (2015) financial reports are structured presentation of financial position and financial performance of an entity. This report shows the history of entity quantified in monetary value.

Based on these notions, it can be said that financial reports reflect all business transactions over time which results in both a net increase and a decrease in the economic value of capital owner. Therefore, financial reports are an important medium to assess the presentation and economic conditions of a company.
2.4.2 Bank Financial Report

In order to create uniformity in accounting treatment and presentation of financial reports, it is necessary to formulate Statement of Financial Accounting Standards about Banking Accountancy No. 31, namely:

1. Measurement in Value of Money

Bank financial reports must be presented in *rupiah*. In event that a bank has assets, liabilities and commitments and contingencies in foreign currency, it must be translated into *rupiah* using middle rate prevailing at the date of report. The paid up capital in foreign currency is translated using Bank Indonesia conversion rate at time the capital is paid (*historical rate*). Banks are required to disclose the net position of assets and liabilities in foreign currencies that are still open or net open positions.

2. Bank Financial Report

The bank's financial reports consist of:

a. Balance
b. Report on Commitments and Contingencies
c. Income statement
d. Cash flow statement
e. Notes to Financial Statements
2.4.3 Requirements of Financial Report

As a media and source of information on the economic condition of a company, financial reports must fulfill several requirements so that the information presented will not mislead its users.

According to Subroto (1985) in Wibowo (2015) states that financial report requirements include:

1. Relevant
   Relevance is the suitability of information that must be associated with the user intent. If an information is not relevant for the needs of decision makers, then the information cannot be used. In considering the relevance of a general purpose information, attention is focused on the general needs of user and even on certain basic special needs.

2. Understandable
   An information must be understood by all users of the information and expressed in form and with terms that are adjusted to the scope of users understanding.

3. Testable
   An information must be validated by independent examiners with the same measurement methods.

4. Neutral
   Information in a financial report must be addressed based on the general needs of the user not for certain interests.
5. Timely

Information or financial reports must be submitted as early as possible so that they can be used as a basis to assist in making economic decisions.

6. Comparability

Information or financial reports will be more useful if the information or financial reports can be compared with the financial reports in the previous period.

7. Complete

The financial reports are said to be complete if the accounting information presented in full includes all financial accounting data that can meet the six quantitative or above requirements, it can also be interpreted as meeting adequate standards of disclosure in financial reporting.

\[\text{2.4.4 Purposes of Financial Report}\]

According to Sadeli (2002) states that the purposes of financial reports are:

1. Providing reliable information about wealth and obligations.

2. Presenting reliable information about changes in company's net worth as a result of business activities.

3. Presenting reliable information about changes in net assets that do not originate from business activities.

4. Presenting information that can help users in assessing the company's ability to make a profit.
5. Presenting other information that is appropriate or relevant to the needs of the owners.

### 2.4.5 Limitations of Financial Report

The Indonesian Accounting Principles (1984) states that the limitations of financial reports are as follows:

1. The financial reports are historical, which is a report on past events. Therefore, financial reports cannot be considered as the only source of information in the economic decision-making process.

2. The financial reports are general, and are not intended to meet the needs of certain parties.

3. The process of preparing financial reports is not spared from estimates and various considerations.

4. Accounting only reports material information. Likewise, the application of accounting principles to certain postal facts may not be implemented if this does not have a material effect on the feasibility of the financial reports.

5. The financial reports are conservative in the face of uncertainty, if there are some uncertain conclusions about the valuation of a post, then an alternative is usually chosen that produces the smallest net profit or asset value.

6. The financial reports emphasize more on the economic meaning of an event/transaction than the legal form.
7. The financial reports are prepared using technical terms, and report users are assumed to understand the technical language of accounting and the nature of the information produced.

8. The existence of various accounting methods alternatives that can be used gives rise to variations in the measurement of economic resources and the level of success between companies.

9. Qualitative information and facts that cannot be quantified are generally ignored.

2.4.6 Users of Financial Report

According to Harahap (2007) the users of financial reports and their uses can be seen as follows:

1. Shareholders

   Shareholders to find out the financial condition of the company, assets, debt, capital, results, costs, and profits. Shareholders also want to see the company's performance in management operations that given the mandate. Shareholders want to know the amount of dividends to be received, the amount of company income, the amount of retained earnings. Shareholders also want to know the development of the company from time to time, comparison with similar businesses, and other companies. From the information obtained by shareholders, it can take a decision whether the shareholders will retain their shares, sell or add.
2. Investors

Potential investors will see the potential for profit that will be obtained from the reported company.

3. Capital Market Analyst

Capital market analysts want to know the company's value, strength and financial position. Is it worth advising to buy shares, sell or maintain.

4. Manager

The manager wants to know the economic situation of the company he leads. A manager is always faced with a thousand and one problems that require quick and every decision. To arrive at the right decision, the manager must know the complete financial condition of the company both the position of all balance sheet, profit / loss, liquidity, profitability, solvency, break even, gross profit.

5. Employees and Trade Unions

Employees need to know the company's financial condition to determine whether employees still continue to work or move, and also to find out the results of the company's operations in order to assess whether the income received is fair or not.

6. Tax Authorities

Tax authorities can use financial reports as a basis for determining the correctness of tax calculations, tax payments, tax deductions, restitution, and also for legal basis.
7. Funders
   The funder wants to know information about the situation and condition of the company both those who have been given a loan and those who will be given a loan.

8. Supplier
   Financial reports can be information to find out if the company is eligible to be given credit facilities, how long it will be given, and the extent of potential risks that the company has.

9. Government or Official Regulatory Agency
   The government wants to know whether the company has followed the rules that have been implemented.

10. Subscriptions or Consumer Institutions
   The concept of market economy and competitive economy, consumers are very benefited. Consumers are entitled to satisfactory service at equilibrium prices, in this condition consumers are protected from possible practices that are detrimental both in terms of quality, quantity, price.

11. Non-Governmental Organizations
   Non-Governmental Organizations need financial reports to assess the extent to which a company is detrimental to certain parties it protects.

12. Researcher/Academic/Institution Rank
   For researchers and academics, financial reports are very important, as primary data in conducting research on certain topics related to financial reports or companies.
2.5 Bank Performance Assessment

Bank performance can be seen from the health of bank. According to Budisantoso and Nuritomo (2014) bank health is the ability of a bank to carry out banking operations normally and be able to fulfill all its obligations properly in ways that comply with applicable banking regulations. From this understanding, it can be concluded that bank health is a reflection of conditions, performance and medium for the supervisory authority to determine the strategy and focus of supervision on bank.

This research will assess performance of banks in ASEAN using CAMELS method as regulated in Bank Indonesia Circular Letter number 6/23/DPNP dated May 31\textsuperscript{st} 2004 and Bank Indonesia Regulation number 6/10/PBI/2004. CAMELS is a method that was first created in the United States by banking supervisory authority as a tool for analyzing financial statements of banks or other financial institutions in assessing bank performance and health periodically and can be used universally in other countries (Roman & Sargu, 2013; Yuksel et al., 2015). In accordance with Bank Indonesia Circular Letter number 6/23/DPNP dated May 31\textsuperscript{st} 2004, CAMELS method measures the soundness of banks by using financial ratios that represent each aspect as follows:

2.5.1 Aspect of Capital

The assessment of quantitative and qualitative approaches to capital factors is carried out through evaluating the following components:
1. Adequacy of fulfilling the Minimum Capital Requirement for the applicable provisions
2. Capital composition
3. Future trends / Minimum Capital Requirement projections
4. Productive assets classified as compared to Bank capital
5. The ability of the Bank to maintain the need for additional capital from profits (retained earnings)
6. Bank capital plan to support business growth
7. Access to capital sources
8. Shareholders' financial performance to increase Bank capital

2.5.2 Aspect of Quality Assets

The assessment of quantitative and qualitative approaches to asset quality factors is carried out through evaluating the following components:

1. Classified earning assets compared to total earning assets
2. Core credit debtors outside related parties compared to total loans;
3. The development of problematic productive assets/ non-performing asset assets compared to earning assets
4. The level of adequacy of the allowance establishment for possible losses on earning assets
5. Adequacy of productive asset policies and procedures
6. Internal review system of earning assets
7. Documentation of earning assets, and
8. Performance of handling productive assets is problematic

### 2.5.3 Aspect of Management Quality

The assessment of management factors is carried out through evaluating following components:

1. General management
2. Implementation of a risk management system, and
3. Bank compliance with applicable provisions and commitments to Bank Indonesia and / or other parties.

### 2.5.4 Aspect of Earnings

Assessment of quantitative and qualitative approaches to earnings is carried out through evaluating the following components:

1. Return on assets (ROA)
2. Return on equity (ROE)
3. Net interest margin (NIM)
4. Operational Costs compared to Operating Income (BOPO)
5. Development of operating profit
6. Composition of productive asset portfolios and income diversification
7. Application of accounting principles in recognition of income and costs, and
8. Prospects of operating profit.
2.5.5 Aspect of Liquidity

Assessment of quantitative and qualitative approaches to liquidity factors are carried out through evaluating the following components:

1. Liquid assets less than 1 month compared to liquid liabilities of less than 1 month
2. 1-month maturity mismatch ratio
3. Loan to Deposit Ratio (LDR)
4. Projected cash flow for the next 3 months
5. Dependence on interbank funds and core depositors
6. Policy and management of liquidity (assets and liabilities management)
7. The ability of the Bank to gain access to money markets, capital markets, or other funding sources, and
8. Stability of third party funds (DPK).

2.5.6 Aspect of Sensitivity to Market Risk

Evaluation of quantitative and qualitative approaches to sensitivity to market risk is carried out through evaluating the following components:

1. Capital or reserves formed to cover interest rate fluctuations compared to potential loss as an adverse movement of interest rates
2. Capital or reserves formed to cover exchange rate fluctuations compared to potential loss as an adverse movement of exchange rates, and
3. Adequacy of implementing a market risk management system.
2.6 Previous Research

Information contained in previous research can enrich the theory, so that it can be used as a reference in reviewing research. The list of previous studies relating to the research conducted by author is presented in Table 2.1 as follows:

**TABLE 2.1 SUMMARY OF PREVIOUS RESEARCH**

<table>
<thead>
<tr>
<th>No</th>
<th>Name</th>
<th>Title</th>
<th>Variable</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Widyawati and Musdhofiah (2018)</td>
<td>Analisis Komparatif Tingkat Kesehatan Perbankan dengan Metode CAMELS di ASEAN (Studipada Bank Umum Indonesia, Malaysia, Singapura, Thailand, dan Filipina Tahun 2012-2016)</td>
<td>CAR, NPL, EEA, ROA, ROE, NIM, BOPO, LDR, IRR</td>
<td>The statistical test results show that all indicators of financial ratios among Indonesian, Malaysian, Singapore, Thailand and Philippines banks are significantly different. Overall based on CAMELS method approach it can be concluded that Indonesian banks are superior to banks in four other ASEAN countries seen based on indicators of capital, assets quality, and earnings as measured by CAR, NPL, ROA, ROE, and NIM ratios. Based on management quality indicators as measured by ratio of EEA Singapore banks are superior to banks in four other ASEAN countries. Meanwhile, Thailand banks are superior to other ASEAN banks seen based on indicators of liquidity and sensitivity to market risk as measured by LDR and...</td>
</tr>
<tr>
<td></td>
<td>Hariadi (2016)</td>
<td>Komparasi Kinerja Keuangan Perbankan di ASEAN</td>
<td>CAR, CCA, NPL, EEA, LDR, ROA, ROE, AGR</td>
<td>This study found that financial performance of banks in ASEAN, especially Indonesia, Malaysia and Thailand was different. The interesting finding and the main point in this study is that Indonesian banks are quite competitive compared to Malaysia and Thailand. The indicators of capital risk (CAR), asset quality (NPL), profitability (ROA and ROE), and growth (AGR) shows a better average than its competitors in ASEAN.</td>
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<tr>
<td>3</td>
<td>Hasan, Suhadak and Sulasmiyati (2016)</td>
<td>Analisis ASEAN Banking Integration Framework (ABIF) Untuk Kinerja Perbankan ASEAN (Studi Perbankan pada Filipina, Indonesia, Malaysia, Singapura, Thailand Tahun 2010-2014)</td>
<td>CCA, CAR, RORA, NPL, NIM, EEA, LOA, LDR, ROA, ROE, AGR</td>
<td>The results showed that there were significant differences in ratio of CCA, NIM, EEA, LDR, ROA, ROE, and AGR banking in Philippines, Indonesia, Malaysia, Singapore, and Thailand. The results also showed that there were no significant differences in the CAR, RORA, NPL, and LOA ratios in five countries. The average financial ratios of Indonesian banks CCA, RORA, NIM, ROA and ROE are better than four other countries. The ratio of CAR, NPL, EEA, LOA, LDR, and AGR for Indonesian banks is still not good compared to the four other countries.</td>
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<tr>
<td>Page</td>
<td>Author (Year)</td>
<td>Title (Abstract)</td>
<td>Financial Indicators</td>
<td>Analysis</td>
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<tr>
<td>4</td>
<td>Wibowo (2015)</td>
<td>Analisis Perbandingan Kinerja Keuangan Perbankan Syariah Dengan Metode CAMEL di ASEAN (Studi Komparatif: Indonesia, Malaysia, Thailand)</td>
<td>CCA, CAR, NPL, EEA, LDR, ROA, ROE, AGR</td>
<td>The results of statistical tests show that ratio of all Islamic banking financial indicators in Indonesia is significantly different from those in Malaysia and Thailand and none of them is shown significantly. The better average ratio of Islamic banking in Indonesia is ROA, ROE. What's bad is EEA, LDR, and AGR compared to two other ASEAN countries.</td>
</tr>
<tr>
<td>5</td>
<td>Wibowo and Limajatini (2015)</td>
<td>Identifikasi Kinerja Keuangan Perbankan Terbaik di ASEAN (Studi Komparatif: Indonesia, Thailand, Philippines)</td>
<td>CAR, NPL, BOPO, LDR, ROA, ROE, AGR</td>
<td>The results showed that the comparison of all Indonesian banking financial indicators with Thailand and Philippines was significantly different and some were not significant. The average Indonesian banks' best financial ratios are better, namely NPL, ROA and ROE whereas CAR, BOPO, LDR and AGR are not good compared to Thailand and Philippines.</td>
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<tr>
<td>6</td>
<td>Rochmawan (2004)</td>
<td>Analisis Indikator Kinerja Keuangan Perbankan ASEAN (Studi Perbandingan Indonesia, Malaysia, Thailand dan Philippines 2000-2002)</td>
<td>CAR, NPL, ROL, LOA, ROE, AGR, CCA, RRA, EEA, LDR, ROA</td>
<td>All indicators of Indonesian banking finance are significantly different from banking financial performance of three ASEAN countries, except ROA and ROE ratio. The average financial ratio of Indonesian banks is better than the average of four other ASEAN countries, namely for CAR, NPL, ROL, LOA, ROE, AGR.</td>
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</table>
ROE, and AGR ratios, while CCA, RRAS, EEA, LDR and ROA show a better average of four other ASEAN countries.

<table>
<thead>
<tr>
<th>7</th>
<th>Sumarta and Yogiyanto (2002)</th>
<th>Evaluasi Kinerja Perusahaan Perbankan yang Terdaftar di Bursa Efek Indonesia dan Thailand</th>
<th>ROE, AGR, CAR, RORA, NPM, ROA, BOPO, CML, KDN</th>
</tr>
</thead>
</table>

Indonesian banking is better than Thailand banks in CAR, RORA, ROA, CML and KDN ratios, while NPM and BOPO ratios do not show differences.

### 2.7 Research Framework

Previous researches were used by author as a reference in this research. This research aims to compare performance of conventional banks in ASEAN countries before and after the implementation of AEC that was reviewed based on aspects of capital, asset quality, management quality, earnings, liquidity, and sensitivity to market risk. In previous research the financial ratios used as research variables varied greatly. Therefore, author seeks to determine the appropriate financial ratios based on intensity level of financial ratios used in previous research and based on information that can be obtained in annual financial report.

Bank performance based on aspect of capital can be assessed using Capital Adequacy Ratio (CAR) ratio. This ratio is used to measure capital adequacy of a bank to support risk assets, such as bank loans. Bank performance based on aspect of asset quality can be assessed using Non Performing Loans (NPL) ratio. This ratio shows the amount of non-performing credit risk in a bank. Bank performance based on aspect of management quality can be assessed using Net Interest Margin (NIM) ratio. This ratio is used to measure a bank's ability to generate net interest
income from management of bank productive assets. Bank performance based on aspect of Earnings can be assessed using Return on Assets (ROA) and Return on Equity (ROE). These ratios are used to show the ability of banks to manage assets and equity to earn profits. Bank performance based on aspect of Liquidity can be assessed using Loan to Deposit Ratio (LDR). This ratio is used to measure the ability of banks to repay liabilities to customers who have invested funds by withdrawing loans that have been given to their debtors. Bank performance based on aspect of Sensitivity to Market Risk can be assessed using Interest Rate Risk (IRR) ratio. This ratio is used to measure a bank's sensitivity to interest rate movements.

Information of conventional banks performance before implementation of AEC will then be compared with information of conventional banks performance after implementation of AEC. This test is intended to determine whether there are differences in the performance of conventional banks before and after implementation of AEC reviewed from each of research variables mentioned before. The conceptual framework that provides an overview of the research concept is shown in Figure 2.1 as follows:
2.8 Hypotheses Development

2.8.1 Capital (C)

Lack of capital is a common symptom experienced by banks in developing countries, including in ASEAN countries. The lack of capital might come from two things, first is because capital is in small number, the second is because quality of capital is bad. Thus, bank supervisors must be sure that bank must have sufficient capital, both in quantity and quality. In addition, shareholders and bank managers must be truly responsible for the capital that has been set. Definition of
capital adequacy is not only calculated from nominal amount, but also from capital adequacy ratio, or what is often referred as CAR Ratio. This ratio is a comparison between the amount of capital and risk-weighted assets (RWA). This ratio is used to measure the ability of capital to possibility of losses in credit activities and trade in other securities, so higher ratio indicates better capital.

According to Widyawati and Musdholifah (2018) in their research on health of ASEAN banks with studies in Indonesia, Malaysia, Singapore, Thailand and Philippines in 2012-2016, stated that all indicators of financial ratios among banks in Indonesia, Malaysia, Singapore, Thailand and Philippines are significant different and the highest average value of CAR ratio are banks in Indonesia.

Based on descriptions and results of research on assessment of bank performance based on aspect of capital, the hypothesis built in this research is:

H1: There is significant difference in the performance of conventional banks in ASEAN countries reviewed from aspect of Capital (C) before and after the implementation of AEC.

2.8.2 Assets Quality (A)

In normal conditions, most of bank’s assets consist of credit and other assets that can generate or become a source of income for bank, so that is the type of assets as productive assets. In other words, productive assets are planting of bank funds in both rupiah and foreign currencies in form of financing, accounts receivable, securities, placements, equity participation, temporary capital participation,
commitment and contingency on administrative account transactions. In analyzing
a bank, attention is generally focused on bank capital adequacy because solvency
issues are indeed important. However, analyzing quality of productive assets
carefully is equally important. Although in real terms banks have substantial
capital, if the quality of their productive assets are very bad, their capital
conditions can be bad as well. These are related to various problems such as the
formation of reserves, asset valuation, and lending to related parties.

The assessment of productive asset quality in this research is based on Non-
Performing Loans (NPL) ratio. This ratio is used to measure how much
productive asset quality is associated with non-performing loans, so the lower
ratio shows the better quality of productive assets. The results of research
conducted by Wibowo and Limajatini (2015) regarding to identification of the
best banking financial performance in ASEAN showed that comparison of all
Indonesian banking financial indicators with Thailand and Philippines is
significantly different and some are not significant. The average Indonesian
banking financial ratios are better at NPL, ROA and ROE ratios compared to
Thailand and Philippines.

Based on descriptions and results of research conducted before implementation of
AEC above, the hypothesis built in this research is:

H2: There is significant difference in the performance of conventional banks in
ASEAN countries reviewed from the aspects of Assets Quality (A) before and
after the implementation of AEC.
2.8.3 Management Quality (M)

Management quality of bank will determine whether bank is good or not. Management of a bank operational gets a great deal of attention in evaluating the performance of a bank because it is expected to create and maintain good performance. The ratio used to assess this aspect is Net Interest Margin ratio. NIM is a banking financial performance ratio to measure the efficiency achieved by banks in terms of profit margins against interest rates and overhead costs incurred by the bank.

The results of research conducted by Hasan, Suhadak and Sulasmiyati (2016) shows that there are significant differences in financial ratios used in assessing bank performance, one of that is NIM ratio on comparison of bank performance in Philippines, Indonesia, Malaysia, Singapore and Thailand. The difference in ASEAN banking NIM levels is due to differences in banking operational efficiency in generating net interest income.

Based on description and results of research conducted before implementation of AECabove, the hypothesis built in this research is:

H3: There is significant difference in the performance of conventional banks in ASEAN countries reviewed from aspect of Management Quality (M) before and after the implementation of AEC.
2.8.4 Earnings (E)

One of parameters to assess performance of a bank is the ability of banks to make a profit. Please note that if a bank always experiences losses in its operations, of course, over time the loss will consume its capital. Banks which in such conditions are certainly not healthy. Assessment is based on profitability or earnings of a bank that is seeing the ability of a bank to create profits. Assessment in this aspect is based on two types of ratios, namely Return On Assets (ROA) and Return On Equity (ROE). This research uses ROA because it shows the ability of banks to manage assets they control to generate profits, so the higher ratio shows the better results. ROE is also used because it shows the ability of banks to generate net income before tax in terms of Equity Capital, so the higher ratio also shows the better results as well.

The results of research conducted by Sumarta and Yogiyanto (2002) regarding to performance evaluation of banking companies listed on Indonesia and Thailand Stock Exchanges stated that banks in Indonesia are better than banks in Thailand, one of which is ROA ratio. However, these results are contrary to the results of research conducted by Rochmawan (2004) which in his research on the analysis of ASEAN banking financial performance indicators, stated that the average Indonesian financial ratio of banks is better than the average of four other ASEAN countries, namely CAR, NPL, ROL, LOA, ROE, and AGR, while for CCA, RRA, EEA, LDR and ROA, the average of four other ASEAN countries is better.
Based on descriptions and results of research conducted before implementation of AEC above, the hypothesis built in this research is:

H4: There is significant difference in the performance of conventional banks in ASEAN countries reviewed from aspects of Earnings (E) before and after the implementation of AEC.

2.8.5 Liquidity (L)

The liquidity aspect is used to measure a bank's ability to pay all its obligations when billed and able to grant all credit applications that are feasible to be funded (Kasmir, 2011). The ratio used to assess this indicator is Loan to Deposit Ratio (LDR). LDR is a financial performance ratio to measure how far the bank's ability to repay depositors' withdrawals when billed by using credit distributed as a source of liquidity (Dendawijaya, 2009). The results of research conducted by Hariadi (2016) regarding comparability of banking financial performance in ASEAN stated that financial performance of banks in ASEAN, especially Indonesia, Malaysia and Thailand is different. The study also found that banks in Indonesia are still not efficient in operational financing and still need to work hard in distributing loans to society in relation to liquidity aspects. Based on descriptions and results of research conducted before implementation of AEC above, the hypothesis built in this research is:

H5: There is significant differences in the performance of conventional banks in ASEAN countries reviewed from aspect of Liquidity (L) before and after the implementation of AEC.
2.7.6 Sensitivity to Market Risk (S)

The aspect of sensitivity to market risk is used to measure how far the movement of market variables affects the condition of a bank (Suabawa & Wirawati, 2012). Ratio used to assess this aspect is Interest Rate Risk (IRR) ratio. IRR ratio is an analytical tool commonly used to measure a bank's sensitivity to the movement of interest rates or measure interest rate obtained by a bank compared to interest rate incurred. The results of research conducted by Widyawati and Musdholifah (2018) stated that banks in Thailand show the highest average IRR ratio among four other ASEAN banks where an increase in IRR ratio indicates an increase in interest income earned by banks or in other words banks will have a large profit on when the interest rate rises.

Based on descriptions and results of research conducted after implementation of AEC above, the hypothesis built in this research is:

H6: There is significant difference in the performance of conventional banks in ASEAN countries reviewed from aspects of sensitivity to market risk (S) before and after the implementation of AEC.
III. RESEARCH METHODOLOGY

3.1 Research Design

This research is a quantitative descriptive analysis model, namely by collecting, classifying, analyzing, and interpreting data obtained from company so that it can provide an overview of actual situation (Arikunto, 2010).

3.2 Types and Sources of Data

Type of data used in this research is secondary data, namely data obtained indirectly by studying documents related to research. The data sources of this research are financial data belonging to banks in ASEAN countries taken from stock exchanges in every country. Data used is in form of conventional bank annual financial reports for 2014-2017 period.

3.3 Data Collection Technique

The author uses documentation method to collect data. Documentation method is a research method that is based on written objects. Starting with previous research phase, which is doing literature research by studying books, articles, journals and
websites that relate to the discussion in research. At this stage it is also carried out an assessment of data needed, the availability of data, how to obtain data, and an overview of how to obtain data. Furthermore, collecting all data needed to answer the research problem, adding reading material to support the quantitative data obtained. Documentation method in this research is data collection of bank financial reports published through the internet.

3.4 Population and Sample

3.4.1 Population

Population is a generalization area consisting of objects and subjects that have certain qualities and characteristics set by researchers to be studied and then drawn conclusions (Sugiyono, 2012). Population in this research are all conventional banks in ASEAN countries that are active and listed on respective stock exchanges, which in this case include the countries of Indonesia, Malaysia, Singapore, Thailand and Philippines. The author has difficulty in obtaining the banking annual financial report data from other ASEAN countries such as Brunei Darussalam, Vietnam, Laos, Myanmar and Cambodia, so that in this research the population used is limited to five countries mentioned above.

3.4.2 Sample

Samples are part of the number of characteristics possessed by the population (Sugiyono, 2012). The sampling technique in this research was carried out by
using purposive sampling method, namely sample chosen based on research objectives. The sampling criteria in this research includes:

1. Conventional banks in Indonesia, Malaysia, Singapore, Thailand and Philippines which are active and listed on respective stock exchanges.
3. Conventional banks that have a complete information needed in assessing the level of bank performance using CAMELS method.

### 3.5 Operational Definition of Research Variables

The variables used in this research are financial ratios as explanations about the performance of conventional banks in ASEAN countries. This research will assess bank performance which is proxied by bank financial ratios that measure aspects of capital, asset quality, management quality, earnings, liquidity and sensitivity to market risk. Measuring the financial aspects of the bank are as follows:

1. **Aspect of Capital**

   The aspect of capital is used to measure capacity of banking sector in anticipating risk of losses. Ratio used to assess this indicator is Capital Adequacy Ratio (CAR). CAR ratio is banking financial performance which is used to measure capital adequacy of a bank to support risk assets, such as bank loans (Dendawijaya, 2009).
CAR ratio is calculated using the following formula.

\[ CAR = \frac{\text{Capital}}{\text{Risk-Weighted Assets}} \times 100\% \]

2. Aspects of Assets Quality

The aspect of assets quality is used to assist banks in measuring the risk of debtor exposure. Ratio used to assess this aspect is Non Performing Loans (NPL) ratio. NPL ratio is a banking financial performance ratio to measure quantity of productive assets in relation to non-performing loans (Rochmawan, 2004).

The NPL ratio is calculated using the following formula.

\[ \text{NPL} = \frac{\text{Non Performing Loan}}{\text{Total Loan}} \times 100\% \]

3. Aspect of Management Quality

Analysis of aspects of quality management is intended to measure operational efficiency of the bank concerned. Measurements are made through calculations on interest rate income and company-issued overhead costs on profit margins. This ratio measures the ability of banks to generate net interest income from the management of bank productive assets. NIM is generated from the difference between net interest income and total credit provided, so higher NIM ratio means better result.
NIM ratio is calculated using the following formula.

\[
NIM = \frac{\text{Net Interest Income}}{\text{Total Loan}} \times 100\%
\]

4. Aspects of Earnings

The aspect of earnings is used to measure bank achievement in terms of business effectiveness and profitability. Ratio used to assess this aspect are Return on Assets (ROA) and Return on Equity (ROE). ROA is a ratio to measure a bank's ability to generate profits from invested capital in all assets (Riyadi, 2006). ROA ratio is calculated using the following formula

\[
ROA = \frac{\text{Earning Before Interest and Tax}}{\text{Average of Total Asset}} \times 100\%
\]

ROE is a ratio to measure a bank's ability to generate profits from equity held (Dendawijaya, 2009). ROE ratio is calculated using the following formula.

\[
ROE = \frac{\text{Earnings After Tax}}{\text{Total Equity}} \times 100\%
\]

5. Aspects of Liquidity

The aspect of liquidity is used to measure a bank's ability to pay all its obligations when billed and able to grant all credit applications that are feasible to be funded (Kasmir, 2011). Ratio used to assess this aspect is Loan to Deposit Ratio (LDR). LDR is a financial performance ratio to
measure how far the bank's ability to repay depositors' withdrawals when billed by using credit distributed as a source of liquidity (Dendawijaya, 2009). The LDR ratio is calculated using the following formula.

\[ LDR = \frac{Total \ Loan}{Third \ Party \ Funds} \times 100\% \]

6. Aspect of Sensitivity to Market Risk

The aspect of sensitivity to market risk is used to measure how far the movement of market variables affects the condition of a bank (Suabawa & Wirawati, 2012). Ratio used to assess this aspect is Interest Rate Risk (IRR) ratio. IRR is a ratio to measure a bank's sensitivity to interest rate movements. The following formula for calculating IRR according to Setyawati and Marita (2010).

\[ IRR = \frac{Interest \ Income}{Interest \ Expense} \times 100\% \]

3.6 Data Analysis Technique

The collected data will then be processed and analyzed according to the needs of this research. Data analysis uses descriptive data with a quantitative approach, which processes financial ratio calculation data in accordance with CAMELS method. Data processing is done using the help of Software Statistics and Service Solution (SPSS) version 22. Apart from being used in testing to answer hypotheses, calculation of financial ratios will also be used to determine whether
there are differences in performance of conventional banks among ASEAN countries, both before and after the implementation of AEC.

3.6.1 Descriptive Statistics

Descriptive statistics will provide an overview or descriptive of each financial ratio as a proxy for performance of conventional banks in ASEAN countries both before and after implementation of AEC. Comparison of bank performance before and after Implementation of AEC can be seen from the mean value, the highest value and the lowest of each ratio. However, each ratio cannot be used to test hypotheses, because it requires a further statistical difference test.

3.6.2 Normality Test

This test aims to determine whether the sample used in this research is normally distributed or not. Test the normality of data distribution for each variable using Kolmogorov - Smirnov One-Sample Test (K-S). The basis for decision making in Kolmogorov - Smirnov normality test are as follows:

1. If the value of sig. > 0,05, then the data is normally distributed.
2. If the value of sig. < 0,05, then the data is not normally distributed

The use of large samples as in this study will make it difficult to get data that is normally distributed based on the normality test, so that data that is not normally distributed in the study can be understood.
3.6.3 **Average Difference Test**

According to Ghozali (2016) *One-Way ANOVA* is a statistical procedure that is used to determine whether the average calculation (*mean*) of three or more groups is significantly different or not. This test is used to test the differences in the level of bank performance on CAMELS method among ASEAN countries. The basis of decision making are as follows:

If probability $< 0.05$ indicates that there are significant differences in the level of banking performance among ASEAN countries. Conversely, and if the probability $> 0.05$ indicates that there are no significant differences.

3.6.4 **Hypothesis Test**

The hypothesis testing in this research used *Paired Sample T Test*. This test is used to determine whether there are differences in the average of two samples in pairs. The two samples in question are the same sample but have different data. This paired average difference test is used to find out whether there are significant differences from the average of each financial aspect ratio used in CAMELS method before and after the implementation of AEC. The basis of decision making are as follows:

If Probability $< 0.05$ means that there is a statistically significant difference, and if Probability $> 0.05$ means there is no statistically significant difference.
V. CONCLUSION AND SUGGESTION

5.1 Conclusion

Based on the results of average difference test and hypothesis tests that have been compiled and discussed in previous section, this study aims to find out whether there are differences in the performance of conventional banks in ASEAN countries as a result of the implementation of AEC as follows:

1. There is significant difference with performance of conventional banks in ASEAN countries before and after implementation of AEC based on capital aspects. The increase in bank performance from the initial value of 18.00 before AEC, then rise to 20.09 after AEC which resulted an increase in bank performance because the implementation of AEC. Therefore the first hypothesis is supported (H1). There is also significant difference of conventional bank performance in Indonesia based on capital aspect.

2. There is significant difference with performance of conventional banks in ASEAN countries before and after implementation of AEC based on the aspects of asset quality. The increase from initial value of 1.71 before AEC, then rise to 2.29AEC which resulted a decrease in bank performance because the implementation of AEC. Therefore the second hypothesis is
supported (H2). There is also significant difference of conventional bank performance in Indonesia based on asset quality aspect.

3. There is no significant difference with performance of conventional banks in ASEAN countries before and after implementation of AEC based on management quality aspects. The increase in bank performance from initial value of 4.46 before AEC, then rises to 4.52 after AEC which resulted in an increase in bank performance because the implementation of AEC. Therefore the third hypothesis is not supported (H3).

4. There is no significant difference with performance of conventional banks in ASEAN countries before and after implementation of AEC based on earnings aspects. The increase of ROA ratio in bank performance from initial value of 1.56 before AEC, then rises to 1.74 after AEC which resulted in an increase in bank performance. The decrease in ROE in bank performance from initial value of 11.86 before implementation of AEC, then declines to 11.45 after implementation of AEC which resulted in a decrease in bank performance. Therefore the fourth hypothesis is not supported (H4).

5. There is no significant difference with performance of conventional banks in ASEAN countries before and after implementation of AEC based on liquidity aspect. The decline in bank performance from initial value of 84.69 before implementation of AEC, then declines to 84.62 after implementation of AEC which resulted in an increase in bank performance because the implementation of AEC. Therefore the fifth hypothesis is not supported (H5).
6. There is no significant difference with performance of conventional banks in ASEAN countries before and after implementation of AEC based on aspect of sensitivity to market risk. The increase in bank performance from initial value of 2.49 before AEC, then rise to 2.60 after AEC which resulted in an increase in bank performance because the implementation of AEC. Therefore the sixth hypothesis is not supported (H6). There is also significant difference of conventional bank performance in Indonesia before and after AEC based on sensitivity to market risk aspect.

5.2 Limitations

Limitations of this research are data obtained only five ASEAN countries, namely; Indonesia, Malaysia, Singapore, Thailand and Philippines with a total sample of 54 conventional banks. While other countries such as Brunei Darussalam, Vietnam, Laos, Myanmar and Cambodia cannot be found in annual financial report data, especially financial report series data from 2014-2017. Then the limitations that might cause a few problems in this research are:

1. The use of secondary data that has been uploaded on the internet, so that data analysis is very dependent on the results of publication of data

2. The use of the number of financial ratios described in this research is still very little, so the analysis of the performance of each bank is less detailed.

3. The period of data collection for four periods (2014, 2015, 2016, 2017) is also a limitation, because it is only consistent for four periods of financial statements.
4. Not considering factors that might affect the performance of conventional banks in five countries, especially external and internal factors that cannot be controlled in this research.

5.3 Suggestions

The overall suggestions from the results of this research are:

1. Further research is needed by increasing the number of bank samples and number of financial ratios and length research period.

2. The research orientation can be developed not only in the ASEAN region but can also broader the scope of the sample countries such as the Asian level or even the global level.

3. The implementation of the AEC will be followed by the implementation of the ASEAN Banking Integration Framework (ABIF) in 2020, so that the next research is expected to be able to link the relationship between bank performance, the influence of AEC and the influence of ABIF.
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