

Management Background, Intellectual Capital and Financial Performance of Indonesian Bank

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Abstract

This research aims to determine the effect of management background which proxy by accounting education background, MBA education background, Chinese ethnicity and intellectual capital (VAIC) on conventional banks' financial performance (ROA) in Indonesia. The Population consists of all conventional banks listed on Indonesia Stock Exchange period of 2012 to 2015. Using purposive sampling method to screen the data, the final sample for this research is 140 data that consists of 39 banking companies. This research used Eviews7 software to conduct panel data regression analysis. The results showed that accounting education background and Chinese ethnicity are not significantly affect financial performance. Meanwhile MBA education background and VAIC are significantly affecting financial performance (ROA).

Keywords: management background, VAIC, ROA, banking.

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1. INTRODUCTION

In the banking sector, 2020 will be the time of the ASEAN Economic Community (AEC) enactment in the Southeast Asia countries, where all workers can go through to the countries that joined the agreement. This means that the competition of labor forces in Indonesia will be more stringent. Public will be vying to increase their personal competencies in order not to lose in the competition. Science and technology development give enormous impact for the development of the business sector and it can make most of Indonesian people to think that being a foreign graduate can give some improvements in preparing for the competition with labor from abroad.

Latumaerissa (2011) said that with the globalization of the financial sector supported by the rapid technological developments can make the financial system becomes increasingly integrated. The Indonesian banking industry in continues to experience growth. In recent decades the banking world were faced with a new reality that bring on the new approach and new thinking in managing their business (Latumaerissa, 2011). These are the things that can cause problems so that bankers should be able to find ways to increase productivity and ensure profitability.

According to the Banking Supervision Deputy Commissioner of the Financial Services Authority (OJK), the Indonesian economy in 2016 is predicted to grow (Setiawan, 2016). But this should not make the banks in the comfort zone, because as the implementation of MEA for several years to come, they will see pretty heavy competition (Afrianto, 2016). If the banking industry does not do the preparation, it will be difficult to compete with foreign banks. Foreign banks will be more aggressive to control the market share

Based on the analysis of Ernst & Young Indonesia (2015), in comparison of the banking performance level among five Southeast Asian countries (Indonesia, Singapore, Malaysia, Thailand, Philippines) Indonesia occupies the 4th position since 2010. In addition, since 2012 ROA performance in Indonesia, according to Ernst & Young Indonesia (2015) also revealed a decrease in the percentage of 3.10 percent to 2.53 percent in 2015.

In the world of banking, human resources are the most important assets to be able to run the business. This means also closely related to intellectual capital owned. Kamath (2007) says that the banking industry is an industrial sector that is loaded with intellectuality. Intellectual capital has become an interesting issue for more than a decade. Intellectual capital in the international arena has become a major focus for the company to achieve competitive advantage in order to achieve the company's goals. Belkaoui (2003) says that the intellectual capital is a special knowledge owned by an organization. Qualifying intellectual capital as a strategic asset lies in the potential relationship between intellectual capitals on the one hand and the performance of the company on the other side. Knowledge based economy makes companies in Indonesia changed the way of doing business that had been based on labor, into a business that is based on knowledge (Sawarjuwono and Kadir, 2003).

Nimtrakoon (2015) also found that companies in the five ASEAN countries, which have a greater intellectual capital, tend to have a greater market value and have a positive significant relationship to the ratio of return on assets. Indonesia is also a country that has a lot of races and one that had a big contribution in the business world are the Chinese ethnic (Kusumastuti, Supatmi and Sastra, 2007). The population of Chinese ethnic themselves based on statistical data at the time of the census in 2010 was only about 1.2% but controls the country's economy up to 90%. Authors interested in researching how much influence the Chinese community in the financial performance of the national banking industry.

2. LITERATURE REVIEW

2.1. Theoretical Framework

2.1.1. Agency Theory

Agency theory is a concept that describes the contractual relationship between principals and agents. A key assumption underlying agency theory is that the conflict of interest of potential exists between principals and agents, each party acting in its own interests, the information asymmetry often exist between principals and agents, agents more risk averse than principals, and efficiency are the criteria of effectiveness (Zu & Kaynak, 2012).

The agency relationship by Jensen and Meckling (1976) is a binding contract agent to do something, Including delegate some decision-making authority on behalf of and interests of contracting parties (principals). The principals of the contract expecting that the agent may act in accordance with the principal interest. This corresponds to Nkundabanyanga (2016), in his research about the agency theory; suggest that employees or managers in an organization can be selfish. The concept of agency theory is the basis for the performance of the board of directors in an organization. The board of directors is expected to function optimally as a tool to give confidence to investors about the acceptance of the return on their invested funds.

2.1.2 Resource Based Theory

Panda and Reddy (2016), saying that the resource-based view describes that company gain a competitive advantage in the short term by using the company's scarce, valuable, and worthy resources.

Barney (1991) developed the concept that the organization will achieve sustainable competitive advantage if it has valuable resources, unique, rare and difficult to imitate. Resource-based view emphasizes the internal factors of the organization and criticized the organization industrial approach that emphasizes on external factors. Based on the resource-based view, organizations can determine the strategies that will be done in accordance with the organizational capabilities. However, the resource-based view also has some disadvantages particularly with regard to the conceptual issues and issues of research methods.

Weppe, Vanessa, and Lecocq (2016) found RBT appeared to be criticism of the industry paradigm that is often considered as a black box. Instead, RBT has focused on the company's internal resources by mobilizing resources concept. This

means starting with a diagnostic strategic analysis of the company's resources than the characteristics of the industry.

2.2. Hypothesis Development

2.2.1 The Existence of Accounting Education of Board of Directors and ROA

In their research, Botes, Low, and Chapman (2014) wrote that accountants have an important role to play in reporting the sustainability of a business. Suhardjanto and Permatasari (2010) explained that if the commissioner educational background in accordance with the type of business it will be able to support business continuity. Based on the above, it can be hypothesized as follows:

H1: The Existence of Accounting Educational Backgrounds in the Board of Directors gives positive effect on ROA

2.2.2. The Proportion of MBA Education Background in the Board of Directors and ROA

Hwang, Bento, and Arbaugh (2011) says that the MBA has a role in career development and encourage the industry changes, especially for decision-making. Baruch (2009) states that an MBA degree is a qualification that is closest to produce good management and offer the potential for high return on investment. Golec in Darmadi (2013) provides empirical evidence that better financial performance can be expected from the company directors who holds an MBA level. Based on the above, it can be formulated hypotheses as follows:

H2: The Proportion of MBA Education Background in the Board of Directors have positive significant effect on ROA.

2.2.3. The Proportion of Chinese Ethnic in the Board of Directors and ROA

Foreign ethnic entrepreneurs, based on Barrett et al. in Piperopoulos (2010), in general they are more aware as immigrants, work hard, spend less, and have access to its own network and use it to find market opportunities as well as cheaper labor. Kusumastuti et al. (2007), said that the status of Chinese ethnic minorities has a culture that continues to be upheld, it is this which makes them able to survive and succeed in running the business. Seeing the foregoing it can be formulated hypotheses as follows:

H3: The Proportion of Chinese Ethnic in the Board of Directors have positive significant effect on ROA.

2.2.4. Value Added Intellectual Coefficient and ROA

Kalkan, Bozkurt, and Arman, (2014) found that there is a positive relationship between intellectual capital, innovation, and corporate strategy and corporate performance companies operating in Antalya, Turkey. Ulum, Ghozali, and Purwanto, (2014), who analyzes the M-VAIC to measure the performance of the banking sector in Indonesia also found that Value Added is a function of capital

employed and Intellectual Capital thus affecting the performance of the banking system. Nkundabanyanga (2016) found a positive relationship between the interactions of the elements of intellectual capital to financial performance observed in microfinance companies in the State Uganda. Based on some of the above description, it can be hypothesized as follows:

H4: VAIC has positive significant effect on ROA.

2.3. Research Scheme

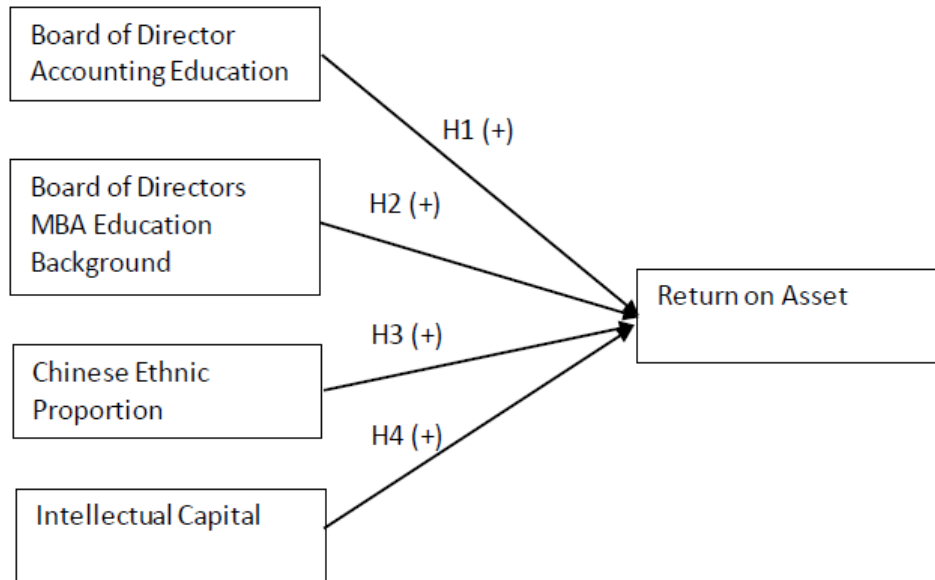


Figure 1. Research Scheme

2.4. Operational Definition and Measurement

2.4.1. Banking Industry Financial Performance

In general, the company's performance is measured using financial performance of the company. The purpose of the performance appraisal: that management is motivated to achieve organizational goals and adhere to standards of behavior from a predetermined, in order to produce results that match the desire of the organization (Lingle and Schiemann, 1996). The dependent variable in this research is financial performance; the proxy used is Return on Assets (ROA). We used ROA because it is inline we Ernst and Young Report (2015). They used ROA to capture the existing phenomena is their report.

Brigham and Houston (2010) define ROA as a ratio of net income to total assets and to measure the return on total assets after interest and taxes. The greater the ROA owned, the greater the level of benefits that can be achieved by the company and will improve its position in terms of asset utilization.

ROA: $\text{Net Income} / \text{Total Assets}$ (Kieso, Weygandt, dan Warfield, 2011)

2.4.2. Educational Background in Accounting

Accounting is an information system that identifies, records and communicates the economic events of an organization to interested parties (Kieso et al., 2011). This variable was measured using dummy technique, i.e. when there is a board of directors whose educational background in accounting then were given a value of 1. However, if in the composition of the board of directors no educational background in accounting then given a value of 0.

2.4.3. Proportion of MBA Education Background

Gottesman and Morey in Darmadi (2013) revealed that the manager who holds an MBA from the business school will tend to perform better than those with no holds an MBA from the courses rated.

The proportion of LBP MBA: Percentage of The Number of Directors with MBA Background / The numbers of Directors

2.4.4. Chinese Ethnic Proportion

Chinese ethnic are the people of Chinese descent who live and stay in Indonesia. How to tell the board that Chinese ethnic are to see the names and photos on profiles of directors in the annual report as well as find information through search engines. This variable was measured using proportion, ie the number of board of directors of Chinese ethnicity divided by the total number of the board of directors.

Ethnicity Proportion: Percentage of the number of board of directors of Chinese ethnicity / the total number of the board of director.

2.4.5. Value Added Intellectual Coefficient

Some researchers have expressed the definition of intellectual capital. Mavridis (2004) stated that IC is an important resource for the company to survive in the global economy based on knowledge. That is because although the IC's intangible but the IC can provide benefits for the company in the form of intangible goods that may include innovation, technology, ideas, patents, licenses, copyrights, software, methods, trademarks, as well as a competitive advantage.

We know that VAIC has several weaknesses, but it is the most reliable way to measure firm's IC when there is no internal data available from the samples. Mostly, it is difficult to gather internal data from the firms and the most reliable source for data is their published financial report as their external data (Nawaz & Haniffa, 2017). It is not a secret that the firm management won't allow outsider to peek a look at their internal management report or data even if it will be used as educational purpose for the masses. Pulic (2008) developed a measurement IC using VAIC method based on the fact that the performance results expressed in monetary units. The advantages of the method Pulic (2008) is relatively easily

obtained data from various sources and types of companies especially of the company's financial statements.

Intellectual capital consists of two basic components, namely human capital and structural capital (Pulic, 2008). Measurements using VAIC method can be calculated with the following formula:

$$\mathbf{VAIC = ICE + CEE}$$

VAIC= *value added intellectual coefficient.*

ICE = *intellectual capital efficiency coefficient (HCE + SCE).*

CEE = *capital employed efficiency coefficient.*

To search for CEE necessary components of the calculation as follows

$$\mathbf{CEE = VA / CE}$$

CEE = *capital employed efficiency coefficient. ; VA = value added.*

CE = *book value of the net asset for a company.*

$$\mathbf{VA = OUT - IN}$$

VA = *value added for company ; OUT = total Sales.*

IN = *cost of bought – in materials, components and services.*

Method that is used in calculated ICE, with the following formula:

$$\mathbf{ICE = HCE + SCE}$$

ICE = *intellectual capital efficiency coefficient.*

HCE = *human capital efficiency coefficient.*

SCE = *structural capital efficiency coefficient.*

$$\mathbf{HCE = VA / HC}$$

HCE = *human capital efficiency coefficient for company ; VA = value added.*

HC = *total salaries and wages for company.*

Method that is used in calculated SCE, with the following formula:

$$\mathbf{SCE = SC / VA}$$

SCE = *structural capital efficiency for company.*

SC = *structural capital ; VA = value added.*

$$\mathbf{SC = VA - HC}$$

SC = *structural capital for company.*

VA = *value added ; HC = total salary and wage.*

3. METHODOLOGY

This research used hypothesis-testing study that describes the nature of certain relationships or establish if there are differences between the two factors independently or in a situation (Sekaran and Bougie, 2013). This study used quantitative data derived from the annual financial statements published by the official website of Indonesia Stock Exchange (www.idx.co.id) or the company's official website and the data were also obtained through information provided on ICMD (Indonesia Capital Market Directory). The data in this study is panel data processed using Eviews 7. According Ajija, Sari, Setianto, and Primanti (2011) panel data does not require the classical assumption test. Classic assumption test is usually done to get the data BLUE

This study used a population of companies listed on the Stock Exchange in the period 2012 to 2015. The sampling technique according Ghozali (2012) carried out in the presence of certain restrictions so that the samples are selected according to the research objectives and can represent the population. The author chose 39 companies of the total sample of the population, so that it becomes 140 observations. Samples selected by using purposive sampling method with the following criteria:

1. The banking company has been in operation and listed on the Stock Exchange between the years 2012-2015.
2. The Company has issued financial statements as of December 31 of the complete and audited for the years 2012 to 2015.
3. The company has a December 31 fiscal year end.
4. The company uses IDR currency amount in its financial statements.
5. Have a complete data associated with the variables required in this study.

Equation used in this study:

$$ROA = \alpha + \beta_1 \text{LBPAccount} + \beta_2 \text{Prop_LBP MBA} + \beta_3 \text{Prop_Ethnic} + \beta_4 \text{VAIC} + \varepsilon$$

Information:

ROA	: <i>Return on Asset</i>
LBP Akun	: Educational Background in Accounting
Prop_LBP MBA	: Proportion of MBA Education Background
Prop_Etnis	: Chinese Ethnic Proportion
VAIC	: <i>Value Added Intellectual Coefficient</i>
α	: Constant
β	: Regression Coefficient
ε	: <i>Error Term</i>

3.1. Result

3.1.1 Descriptive Statistic

Table 1. Descriptive Statistic

	N	Mean	Median	Maximum	Minimum	Std. Deviation
ROA	140	0,0190	0,0161	0,1798	(0,0758)	0,0249
LBP AKUN	140	0,6071	1,0000	1,0000	0,0000	0,4901
LBP MBA	140	0,2063	0,2000	1,0000	0,0000	0.1727
ETNIS	140	0,5116	0,5000	1,0000	0,0000	0,2671
VAIC	140	6,2435	6,4647	9,9862	(6,5805)	2,6403
Valid N	140					

Source: Data Generated from Eviews

The results of descriptive statistical analysis of the table 1 above provide a summary of each of the variables used in this study. ROA has an average value of 0.0190 with a standard deviation of 0.0249, a minimum value of (0.0758) and a maximum value of 0.1798 as well as the median is 0.0161. A company with the largest value of ROA is PT. Bank Mestika Dharma Tbk. in 2013.

The existence of an accounting background to the board of directors of the average value of 0.6071 with a standard deviation of 0.4901 and has a minimum value of 0.0000, 1.0000 and the maximum value of the median is 1.0000. The proportion of MBA education background has an average value of 0.20763, the standard deviation of 0.1727 with a minimum value of 0.0000 and maximum values of 1.0000 and the median is 0.2000. Banking company that its board of directors has the highest number of MBA graduates at PT. Agris Bank Tbk. in 2015.

The proportion of Chinese ethnic has an average value of 0.5116 with a standard deviation of 0.2671, 0.0000 and a minimum value that is the maximum value of 1.0000, and the median of 0.5000. Banking companies on its board of directors are the largest Chinese ethnic there are four companies, namely PT. Bank Artha Graha Internasional Tbk. 2013, PT. Bank Bumi Artha Tbk. from the start in 2012 until 2015, PT. Bank Ina Perdana Tbk. 2014 and 2015, as well as PT. Agris Bank Tbk. in 2015. VAIC has an average value of 6.2435 with a standard deviation of 2.6403. Median on VAIC at 6.4647 while the minimum value (6.5805) on PT. Jtrust Bank Indonesia, Tbk. in 2013 and also the maximum value VAIC in this study amounted to 9.9862 on PT. Bank CIMB Niaga Tbk in 2012. Based on the results if the descriptive data in this study follows a graphic image of the average value of ROA over a span of years from 2012 to 2015.

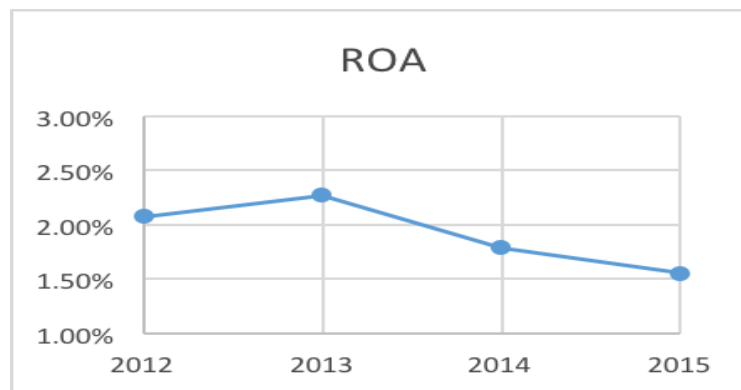


Figure 2 Return On Asset Graphic

3.2. Hypothesis Testing

3.2.1. Chow Test

Chow test can be used to determine whether the regression model to be used better to use common or Fixed Effect. Hypothesis result as following:

H_0 : *Common Effect*

H_1 : *Fixed Effect*

Table 2 Chow Test

Statistic	d.f.	prob.
5,6515	(38,97)	0,0000

Source: Data Generated

Table 2 shows that the probability of 0.000 smaller than 0,050 (5%), which means significant. The probability of significant value, it can be said to be more suitable regression model using a model Fixed Effect.

3.2.2. Hausman Test

Hausman test can be used to determine whether the regression model better use Fixed Effect or Random Effect. Hypothesis used in Hausman test that is as follows:

H0 : Random Effect

H1 : Fixed Effect

Table 3 Hausman Test

Chi-Sq. Statistic	Chi- Sq. d.f.	Prob.
8,0537	4	0,0896

Source: Data Generated

3.2.3 Regression Model Test Results

Table 4 Regression Test Result

Independent Variable	Coefficient	t-statistic	Prob.
ETNIC	0,0013	0,1697	0,8655
LBPAKUN	-0,0021	-0,4574	0,6481
LBPMBMBA	0,0231	2,0865	0,0388
VAIC	0,0021	3,3062	0,0012
C	0,0013	0,0070	0,8526
Dependent Variable			ROA
<i>R-squared</i>			0,1100
<i>Adj. R-squared</i>			0,0836
<i>F-statistic</i>			4,1730
<i>Prob. (F-statistic)</i>			0,0032

Source: Data Processed

$$\text{ROA} = 0,0013 - 0,0021 \text{ LBPAccount} + 0,0231 \text{ Prop_LBPMBMBA} + 0,0013 \text{ Prop_ETHNIC} + 0,0021 \text{ VAIC}$$

4. RESULT AND DISCUSSION

The significant value of accounting educational background variables is 0.6481 therefore the first hypothesis in this study was rejected. This research is in accordance with the test results of Darmadi (2013), which states that the commissioner's set in financial education has no effect on ROA. The educational background of accounting, which is owned by the board of directors, can indeed be used for the management of the company's accounting system and the presentation of accounting information. But in the banking business in the world is broader than that and also associated with other skills such as innovation, relationships, reputation, and negotiation. Kusumastuti et al. (2007) in their study also states that in running the company's business needed soft skills, while disciplines (hard skills) owned by the only critical to the success of 20%. That is evidenced by the results of this study that states that the presence or absence of a board of directors who have the educational background of accounting does not affect the rise and fall of financial performance of banks.

Many directors in the banking world today have been through an MBA (Master of Business Administration) and also many of those studying abroad. This is because the bankers realize that the competition is very tight, especially in order to welcome the MEA 2020. The results are given in the regression output in these tests demonstrate the significant value of MBA education background variables that is in the figure of 0.0388. That means that the test results consistent with the hypothesis given that the hypothesis can be accepted. However, the results in this study are not consistent with research Lindorff and Jonson (2013), which states that no correlation was found between the companies that own CEO, educated MBA or other qualifications with the company's financial performance.

The results of the regression output shown in this study reject the third hypothesis. This is due to the significant value generated in the variable proportion of Chinese ethnic that is equal to 0.8655. The test results mean to say that the proportion of Chinese ethnic in the board of directors does not affect the financial performance of banks proxy by the ROA. This study differs from previous research that has been done. Kusumastuti et al. (2007) states that the presence of Chinese ethnic in the board members found significantly affect the value of the company. The banking sector is an industry that relies on human resources so that the knowledge and the ability to develop the business would be an advantage. Indonesian banking conditions can now be said that any ethnic board of directors as long as the high competence and would practice it will be able to improve the financial performance of the company.

In the regression output that has been generated can be seen that the value of variable significance of intellectual capital is calculated using VAIC method shows a figure of 0.0012, which means it can be said that the hypothesis is accepted. The results in this study are consistent with research conducted by Nkundabanyanga (2016), which states that intellectual capital positively, and significantly affect the company's financial performance. These results are also supported Khan et al., (2012) which states that there is significant influence of intellectual capital that is

also calculated using the method VAIC on the financial performance of the Bank in Pakistan. If the companies are trying to upgrade the skills knowledge and experience of employees who are part of the human capital it will be able to also improve the return on assets. Besides the operating system and the company's strategy is part of the structural capital can be managed properly it will be able to motivate employee performance so as to optimize the return on assets of the company.

5. CONCLUSION

5.1. Conclusion

Seen from the data processing, the analysis model in this test can only explained 10:37% of ROA, while the rest is explained by other factors. The results of this study indicate that there are only two significant variables that influence on ROA, i.e. the proportion of MBA background and intellectual capital that in this case is calculated using VAIC method. This means it can be said that whether or not the board of directors of educational background in accounting does not really affect the financial performance of banks. Moreover, the share of Chinese ethnicity board of directors is not fully able to improve financial performance in the banking sector. In a banking sector, through the results of this study can be said that human resources were affecting performance. Bankers who control capabilities in terms of business will help in improving the company's return on assets. Intellectual capital contained in the company was also shown to increase the return on assets of the company. This means that conventional banking company in Indonesia in order to increase performance, especially in preparing for the MEA must improve the skills and capabilities of all its employees.

5.2. Managerial Implication

5.2.1 For Government

The results of this study showed that the MBA education background affect the financial performance of banks in Indonesia. It can be a reference for the government to give appeals for people who want to advance in the banking sector has access to higher education relating to the business, even better if it can obtain an MBA. It also can be used to set up the State of Indonesia in facing the banking sector competition. The results of studies showing that VAIC provide a significant positive effect on the financial performance of banks and can be used as a reference for the government in improving the human intellect in banking. In the face of MEA in 2020, bankers especially on the board of directors must have a strong ability to compete with banks in neighboring countries. It is included in the improvement and self-development that can boost the growth of VAIC on the banking sector.

The results of the study showed that the proportion of Chinese ethnic on the board of directors does not affect the financial performance of banks could provide impetus for the government to give equal rights to all citizens in order to build together a better banking performance again.

5.2.2 For Company

Selection and appointment of the board of directors is fully vested in the company, but it would be nice if companies consider the educational background, which is owned in order to support the company's development, especially for improving the Return on Assets. In addition, the company also needs to raise capital owned up intellectual capital, because banks can walk because of its human capital.

5.2.3 For the Further Research

For the next study can use other variables such as their work experience, age of the board of directors, gender, and other ethnicity. Further research can be added control variables such as corporate culture, the advancement of technology, the characteristics of the company, and or age of the company. The next research can add the observation data using the period up to 2016 and subsequent years.

Further research can use other method of calculating the IC other than VAIC. Examples of measurement methods:

1. *Intangible Asset Monitor Approach*
2. *Intellectual Capital Dynamic Value (IC-dVAL)*
3. *Intellectual Asset Valuation*
4. *Calculated Intangible Value*
5. *The Value Explorer*
6. *The Financial Method of Intangible Assets Measurement (FiMIAM)*
7. *Estimated Value Via Intellectual Capital Analysis (EVIKAE)*

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