The effect of managerial ownership, institutional ownership, and foreign ownership on intellectual capital

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ABSTRACT

This research aims to examine the effect of managerial ownership, institutional ownership, and foreign ownership on intellectual capital performance. The intellectual capital performance is measured by Extended Value Added Intellectual Capital Plus (E-VAIC Plus) which was developed by Ulum (2014). Managerial ownership is measured by the ratio of the number of stocks owned by the managers over the total company’s stocks outstanding. Institutional ownership is measured by the ratio of the number of stocks owned by institutions over the total company’s stocks outstanding. Foreign ownership is measured by the ratio of the number of stocks owned by foreign parties over the total company’s stocks outstanding. It used a population of 34 banking companies listed on the Indonesia Stock Exchange in the period 2013-2016. They were taken using a purposive sampling technique, consisting of 20 banks. The data were analyzed using SEM-PLS. The results showed that managerial ownership has an effect on intellectual capital performance. Institutional ownership has no effect on intellectual capital performance. Foreign ownership has no effect on intellectual capital performance.

1. INTRODUCTION

Currently, in the era of globalization, technology and science are progressing rapidly. Their development has an impact on companies. Globalization of technological innovation and increasingly intense business competition make every company increase their competitive advantage in order to compete in the global market. The lack of competitive advantage and innovation in the business world in Indonesia leads to low competitiveness. This is in accordance with the World Economic Forum Report 2017 that Indonesia’s position of competitiveness was low, or ranked 65 out of 130 countries (Global Human Capital Index, 2017). This ranking was far from the rankings of neighboring countries in Southeast Asia, such as Singapore ranked 11,
Malaysia ranked 33, Thailand ranked 40 and Brunei Darussalam ranked 57. The reasons for the low competitiveness of Indonesia include the low quality of human resources (human capital) and weak mastery in the application of technology. This is the reason that Indonesia is unable to compete in the global market (World Economic Forum 2017).

The development of technology and science has an impact on companies. Companies that can innovate in technology and science will produce better performance. Besides, they can also increase their competitive advantage. In the beginning, the companies aim to increase production or tangible assets only but along with the globalization the companies have to change the way they run their business from labor-based business to knowledge-based business.

The emergence of knowledge-based business, along with the application of knowledge management, has brought changes in the values and parameters of perception of the company’s work parameters (Saleh, et al, 2009). This knowledge-based business has the main characteristics of being based on science and technology. Therefore, the success of a company’s business depends on its ability and efficiency by using science and technology. In this knowledge-based management system, conventional capital, such as natural resources, financial resources and other physical assets, becomes less important than knowledge and technology-based capital.

The use of science and technology will lead to the way how to use other resources efficiently and economically, which will later provide a competitive advantage. Yet, reducing or even losing fixed assets in the company’s balance sheet does not cause a loss of market appreciation for them. According to the Resource-Based Theory, companies gain competitive advantage and good corporate performance by owning, mastering, and utilizing important strategic assets including tangible assets and intangible assets. More importantly, some companies will rely more on assets such as intellectual capital, while others will rely more on physical assets for the success of their business.

In Indonesia, the term intellectual capital has not been popular. Up to now, companies in Indonesia tend to use conventional industries in building their businesses, so that the products they produce are still technologically poor. In addition, these companies have not given more attention to human capital, structural capital, and relation capital, even though these all are important elements in building the company’s intellectual capital. Furthermore, if the companies refer to existing developments, namely knowledge-based management, the companies in Indonesia can compete by using competitive advantages. This can be obtained through creative innovations produced by intellectual capital owned by the companies. This will encourage the creation of products that are increasingly favorable for consumers.

The concept of intellectual capital has got great attention from various parties, especially accountants. This phenomenon requires any company to look for more detailed information relating to the management of intellectual capital. This can be done by starting from the method of identifying and measuring to the disclosure of the company’s financial statements. Research by Ulum et al (2014) carried out further modifications to the VAIC™ method (Pulic, 1998, 2000). The result placed the intellectual capital taxonomy in a more appropriate position with the Extended VAIC™ Plus (E-VAIC Plus) method.

The extended VAIC™ Plus (E-VAIC Plus) method includes marketing or promotion costs, research and development costs, and amortization and depreciation costs. The research sample used were Indonesian banking companies because in banking sector, intellectual capital was more important than the physical ability in the process of acquiring wealth. As stated by Widaryanti (2011). Similarly, Novitasari and Januarti (2009), in general the banking sector, it is an ideal field for intellectual capital research because the business nature of the banking sector is intellectual. In addition, from the intellectual aspect, overall employees in the banking sector are more homogeneous than those in other sectors. This is in line with the research conducted by Suprad, et al. (2016) that the performance of the intellectual capital in financial industry is higher than the performance of intellectual capital in non-financial industries.

Ownership structure is an aspect that reflects the performance of intellectual capital. This is because the ownership structure will encourage the company manager’s conflict. This conflict occurs because managers must choose to create more value for the company or maximize their personal interests. In managerial ownership, managers tend to be
involved in value creation activities that can enhance long-term competitive advantage for companies (Saleh et al, 2009). Institutional ownership is the stocks owned by institutional investors. Institutional investors will prefer and support policies that can increase long-term incentives for companies, one of which is the policy of improving and managing intellectual capital (Novitasari and Januarti, 2009). Foreign ownership has almost the same role as institutional investors because foreign ownership can be used as an appropriate way to oversee management (Saleh et al, 2009). Based on these assumptions, foreign investors will prefer and support policies that increase long-term incentives for companies, one of which is the management policy of intellectual capital. The optimal management and utilization of intellectual capital will ultimately result in a high performance of intellectual capital.

According to Supradnya, et al. (2016), management of corporate ownership structure governance is an alternative that can be done to minimize agency conflict. The ownership structure describes the parties who have the authority to determine policies to guide management when running the company. These policies include the management of intellectual capital. Different management policies of intellectual capital will certainly produce different intellectual capital performance.

Research related to the performance of intellectual capital has been carried out by previous researchers. Research conducted by Supradnya, et al. (2016) examined the effect of the type of industry, managerial ownership, institutional ownership, and foreign ownership on the performance of intellectual capital by using a sample of 49 companies in Indonesia listed on the Indonesia Stock Exchange (IDX) during the period 2012-2014. The results of the research stated that the type of industry, institutional ownership and foreign ownership had a positive effect on the performance of intellectual capital, but managerial ownership had no effect on the performance of intellectual capital.

The results showed that foreign ownership and government ownership had a negative effect on the performance of intellectual capital, while managerial ownership and institutional ownership had a positive effect on the performance of intellectual capital.

Research by Novitasari and Januarti (2009) used a sample of banking companies listed on the Indonesia Stock Exchange (IDX) which published financial statements for 2005-2007. The results of the research showed that managerial ownership had an insignificant positive effect on intellectual capital (IC) performance, while institutional ownership had a significant negative effect on IC performance. The variable of company size had an insignificant negative effect on IC performance. The variable of leverage had an insignificant negative effect on IC performance. And the variable of Return on Assets (ROA) had a significant positive effect on IC performance.

Based on this phenomenon and the inconsistency of the results of previous research, the researcher decided to conduct research related to the effect of managerial ownership, institutional ownership and foreign ownership on intellectual capital performance.

2. THEORETICAL FRAMEWORK AND HYPOTHESIS

Resource-Based Theory (RBT)

Resource-Based Theory (RBT) uses a resource-based approach in analyzing the competitive advantage. This theory is a development in strategic management and corporate competitive advantage that analyzes and interprets organizational resources to understand how organizations achieve sustainable competitive advantage. According to RBT, pioneered by Penrose (1959) in Saleh et al (2009), by knowing and analyzing the company’s resources, it is clear to understand how a company obtains its competitive advantage. Company resources are heterogeneous. Companies from different types of industries will have different views in managing assets, and these different resources will give unique characteristics to each company.

Agency Theory

According to agency theory, conflicts between principals and agents can be reduced by aligning the interests of both principals and agents. The presence of managerial ownership (insider ownership) can be used to reduce the agency
cost that has the potential to arise, because by owning company stocks, it is expected that the manager feel the benefits directly from every decision he makes. This process is called bonding mechanism, a process to equalize the interests of management through a binding program of management in the company’s capital. Likewise with other ownership, a shareholder will try to increase the profits he earns, one of which is by increasing the performance of intellectual capital, because companies with good intellectual capital are companies that have good performance, so that they will generate more profits for the company.

When managerial ownership tends to encourage opportunistic action, the managers ignore the interests of the company and shareholders for their personal gain. This is due to opportunistic actions that can result in a decrease in investor confidence in the company. The greater the proportion of managerial stocks ownership in the company, the greater the efforts made by the managers because managers have an obligation to maximize the welfare of shareholders, but on the other hand managers also have an interest in maximizing their own welfare. In managerial ownership, managers will tend to be involved in value creation activities that can increase long-term competitive advantage for companies (Saleh et al, 2009). One way that managers can take to create value for the company is by increasing investment in intellectual capital which is believed to create a competitive advantage for the company.

With the managers’ involvement and support, the company’s intellectual capital will be managed and utilized efficiently so that the performance of the company’s intellectual capital will increase. Research by Bohdanowicz and Urbanek (2013) supports the statement that managerial ownership has a positive effect on intellectual capital performance. From this, the hypothesis can be formulated as follows:

Hypothesis 1: Managerial ownership has an effect on intellectual capital performance.

The Effect of Institutional Ownership on Intellectual Capital Performance

Institutional ownership is considered being able to contribute to the performance of intellectual capital because with the stocks owned by the institution, managers will behave or work in accordance with work contracts and they are directly supervised by the institution. The higher the stocks owned by institutions, the greater the voice strength and institutional oversight of management. Institutional investors will prefer and support policies that can increase long-term incentives for companies, one of which is the policy of managing intellectual capital. Intellectual capital managed and utilized optimally is believed to produce a long-term competitive advantage. With the full support and optimal supervision from institutional shareholders, the management efficiency and utilization of intellectual capital will increase so that it will produce a higher performance of intellectual capital. For this reason, institutional ownership is indicated to increase the performance of intellectual capital in the company.

Studies conducted by Supradnya, et al (2016), Bohdanowicz and Urbanek (2013), Purwanto (2011), Putriani (2010) and Novitasari and Januarti (2009) support the statement that institutional ownership influences the performance of intellectual capital. Research conducted by Supradnya, et al. (2016) shows that institutional ownership has a positive effect on the performance of intellectual capital. This means that the greater the institutional ownership, the higher the performance of the company’s intellectual capital, and vice versa. Research conducted by Bohdanowicz and Urbanek (2013) shows that institutional ownership has a positive effect on the performance of intellectual capital. Research conducted by Purwanto (2011) shows that institutional ownership significantly influences the performance of intellectual capital. And research conducted by Putriani (2010) shows that institutional ownership has a significant effect on the performance of intellectual capital. This means that institutional ownership in banking companies in Indonesia is quite large, so that it can influence the performance of intellectual capital. In addition, companies whose stocks are owned by an institution will be motivated to perform well, because supervision by institutions will usually be more stringent. Therefore, institutional ownership will significantly influence the performance of intellectual capital. Research by Novitasari and Januarti (2009) showed that institutional ownership has a significant negative effect on the performance of intellectual capital. Based on the description, the hypothesis can be formulated as follows:

Hypothesis 2: Institutional ownership has an effect on intellectual capital performance.
The Effect of Foreign Ownership on Intellectual Capital Performance

Foreign ownership can be an effective way to monitor management from fraudulent activities, because its role is similar to that of institutional investors. Foreign investors tend to choose policies to increase long-term profits for the company. Foreign ownership can also be an effective monitor for managers in a growing market, because foreign ownership demands high corporate governance standards. Thus, foreign investors will prefer and support policies that increase long-term incentives for companies, one of which is the management of intellectual capital. With the full support and optimal supervision from foreign shareholders, the management efficiency and utilization of intellectual capital will increase. The optimal management and utilization of intellectual capital will ultimately result in a high performance of intellectual capital.

Studies conducted by Supradnya, et al (2016) and Bohdanowicz and Urbanek (2013) support the statement that foreign ownership influences the performance of intellectual capital. Research conducted by Supradnya, et al. (2016) states that foreign ownership has a positive effect on the performance of intellectual capital. This can be interpreted that the greater the foreign ownership, the higher the performance of the company’s intellectual capital. Research conducted by Bohdanowicz and Urbanek (2013) shows that foreign ownership has an effect on the performance of intellectual capital. Based on the description, the hypothesis can be formulated as follows:

Hypothesis 3: Foreign ownership has an effect on intellectual capital performance.

The framework in this study is as in Figure 1.

3. RESEARCH METHOD

Sampling Technique

The study used a population of all banking companies listed on the Indonesia Stock Exchange period 2013-2016. It used a purposive sampling method with the criteria such as: (1) banking companies listed on the Indonesia Stock Exchange and issuing financial statements for the period 2013-2016; (2) banking companies having all the complete data related to the research variables; (3) banking companies experiencing positive year earnings during the study period.

Research Data

Data were obtained from the official website of the Indonesia Stock Exchange through www.idx.co.id. They were collected by means of documentary method. Documentary method is data collection carried out by studying previous research journals and company documentation in accordance with the data needed.

Research Variables

This study used endogenous variable and exogenous variable. The endogenous variable used is intellectual capital (IC) performance, while the exogenous are managerial ownership, institutional ownership, and foreign ownership.

Operational Definition of Variable

Intellectual Capital Performance

Intellectual capital performance is the value creation obtained through the management of intellectual capital. The intellectual capital performance, measured using Extended Value Added Intellectual Capital Plus (E-VAIC Plus) developed by Ulum (2014), is the company’s ability to create Value Added (VA) created by Intellectual Capital Efficiency (ICE) and Capital Employed Efficiency (CEE) with the measurement as follows:

Figure 1

Framework

Managerial Ownership (X1)
Institutional Ownership (X2)
Foreign Ownership (X3)

Intellectual Capital Performance (Y)
Managerial Ownership
Managerial ownership is a proportion of stocks ownership held by executive managers. The executive managers include managers, directors, and board of commissioners. The measurement of managerial ownership refers to research conducted by Supradnya, et al (2016):

Managerial Ownership =
Stocks owned by manager
--------------------------------
Number of stocks outstanding
x 100%
of managerial ownership is 28.23, owned by PT. Bank Capital Indonesia Tbk in 2013, which means that managerial ownership of the company’s stocks is 28.23% of the total company stocks outstanding and is the highest managerial ownership during the study period. The mean value is 1.87 and the standard deviation value is 5.02. This shows that the standard deviation value is greater than the mean value, which means that the level of data variation (data spread) of managerial ownership is fairly large (not good) or the data are heterogeneous.

Institutional ownership is the proportion of company stocks owned by institutions, such as banks, insurance companies, and investment companies. Based on Table 1, it can be seen that the minimum value of institutional ownership is 2.54, owned by PT. Bank CIMB Niaga Tbk in 2014 and was the lowest institutional ownership during the study period. The maximum value of institutional ownership is 95.36, owned by PT. Bank Rakyat Indonesia Agroniaga Tbk in 2013, which means that the institutional ownership of the company stocks is 95% of the company stocks outstanding and this constituted the highest institutional ownership during the study period. The mean value is 40.60 and the standard deviation value is 28.37. This shows that the standard deviation value is smaller than the mean value, which means that the level of data variation (data spread) is relatively small (good) or the data are homogeneous.

Foreign ownership is the proportion of company stocks owned by foreign parties. Based on Table 1, it can be seen that the minimum value of foreign ownership is 0.02, owned by PT. Bank Rakyat Indonesia Agroniaga Tbk in 2015, which means that the foreign ownership of the company stocks is 0.02% of the total company stocks outstanding and was the lowest foreign ownership during the study period. The maximum value of foreign ownership is 96.92, owned by PT. Bank CIMB Niaga Tbk in 2013 and 2015, which means that the foreign ownership of the company stocks is 97% of the total company stocks outstanding and was the highest foreign ownership during the study period. The mean value is 35.63 and the standard deviation value is 27.00. This shows that the standard deviation value is smaller than the mean value, which means that the level of data variation (data spread) is relatively small (good) or the data are homogeneous.

Measurement Model (Outer Model)
Based on the PLS output in Figure 2, it can be seen that there is a value after Bootstrapping is done. This research does not use PLS Algorithm because one variable is measured by one indicator or one construct variable due to the absence of construct variables in exogenous, endogenous, or mediating variables in this study. Therefore, there is no need to test reliability or validity because the indicator (Construct Variable) is only one.

Results of Analysis and Discussion
Evaluation of structural models with PLS begins by looking at the variance presentation which can be explained by the value of R-Square.

R-Square Test
Evaluation of structural models with PLS was done by looking at the value of R-Square with assessment terms of 0.75, 0.5, 0.25, which means that the strong, moderate, weak model can be seen in Table 2.

<table>
<thead>
<tr>
<th>R-Square</th>
<th>Adjusted R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intellectual Capital</td>
<td>0.131</td>
</tr>
</tbody>
</table>

Based on Table 2, it can be seen that the adjusted R² value is 0.104, which means that the variables of managerial ownership, institutional ownership and foreign ownership are able to
explain the intellectual capital performance of 10.4%, while the remaining 89.6% is explained by other variables outside the research model. Adjusted R² value of 0.104 indicates that the model is weak because it is below 0.75.

Hypothesis testing (t test)

Hypothesis testing was done through a bootstrapping procedure. Bootstrapping is recommended to be done as many as 500 or 1000 times so that the results obtained are better and more stable. Bootstrapping in this study is conducted 500 times. The value of the path coefficient or inner model shows the level of significance in testing the hypothesis. The requirements that must be fulfilled in testing the hypothesis are that the t value must be greater than Z α 0.5 (5%) = 1.96 and 0.1 (10%) = 1.65 so as to ensure the presence or absence of the influence of exogenous variables on endogenous variable, as seen in Table 3.

H1: Managerial ownership has an effect on Intellectual Capital Performance

Based on Table 3, the first hypothesis testing shows that the t-statistic value is 6.074, or greater than the value of Z α = 0.05 (5%) = 1.96. So, it can be stated that managerial ownership has an effect on intellectual capital performance, indicating that H1 is accepted.

H2: Institutional Ownership has an Effect on Intellectual Capital Performance

Based on testing using PLS 3.0, it can be seen that managerial ownership has a significant effect on intellectual capital performance, but it can be said to be negative because the exogenous variable decreases and

H3: Foreign ownership has an effect on the Intellectual Capital Performance

Based on Table 3, the third hypothesis testing shows that the t-statistic value is 0.128, or smaller than the value of Z α = 0.05 (5%) = 1.96. Thus, it can be stated that foreign ownership has no effect on intellectual capital performance, indicating that H3 is rejected.
the endogenous variable also decreases. These results indicate that managerial ownership in banking sector companies in Indonesian is low because the ownership of more than 5% is only owned by one company. This means that the management has not been able to provide support and involvement in the management of intellectual capital. The management involvement includes employee development through human capital through employee training. Management is also involved in developing product innovations and product promotions. The inability of management in direct involvement results in decreased management of intellectual capital which causes decreased intellectual capital performance.

The results of this study are in line with the research conducted by Bohdanowicz and Urbanek (2013) that managerial ownership has an effect on intellectual capital performance. The results of this study are not in line with the results of research conducted by Supradnyaa, et al (2016), Mahardika, et al (2014), Purwanto (2011), Putriani (2010), Novitasari and Januarti (2009) and Saleh, et al (2009) that managerial ownership has no effect on intellectual capital performance.

The Effect of Institutional Ownership on Intellectual Capital Performance

According to agency theory, conflicts of interest between agents and principals can be minimized through a control mechanism by institutional investors to direct and control the involvement in value creation and to supervise managers as agents to act in accordance with the interests of shareholders because the percentage of institutional ownership for banking sector that is more than 50% is in only 12 banks each year. Institutions are not directly involved in developing employees through human capital with employee training. Institutions are also not involved in developing product innovations and product promotions. In addition, institutions are not directly involved in the management of intellectual capital, such as management of human capital, structural capital and relation capital.

The results of this study are in line with the results of research conducted by Mahardika, et al (2014). However, the results of this study are not in line with the results of research conducted by Supradnyaa, et al (2016), Bohdanowicz and Urbanek (2013), Purwanto (2011), Putriani (2010) and Novitasari and Januarti (2009) that institutional ownership influences the performance of intellectual capital.

Table 3
Path Coefficients (Mean, STDEV, T-Statistic, P-Values)

| Path Coefficients | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T-Statistics (|O/STDEV|) | P Values |
|-------------------|---------------------|-----------------|---------------------------|---------------------------|----------|
| Managerial Ownership --> Intellectual Capital | -0.303 | -0.310 | 0.050 | 6.074 | 0.000 |
| Institutional Ownership --> Intellectual Capital | -0.202 | -0.204 | 0.111 | 1.818 | 0.070 |
| Foreign Ownership --> Intellectual Capital | -0.014 | -0.014 | 0.107 | 0.128 | 0.898 |

Source: Processed data
The Effect of Foreign Ownership on Intellectual Capital Performance

According to agency theory, management of corporate ownership structure governance is an alternative that can be done to minimize agency conflict. Ownership structure, such as foreign ownership, describes the parties who have the authority to determine policies to guide management when running the company. Foreign ownership can be an effective way to monitor management from fraudulent activities because the role of foreign ownership is similar to that of institutional investors. Foreign investors tend to choose policies to increase long-term profits for companies through the management of intellectual capital.

Based on the results of hypothesis testing using SEM-PLS with Smart PLS 3.0, the third hypothesis states that foreign ownership has no effect on intellectual capital performance as evidenced by the value of t-statistics. This means that institutional ownership does not affect the performance of intellectual capital in a negative direction because the results of PLS 3.0 on the original sample have a negative direction (Ghozali, 2012).

Based on testing using PLS 3.0, it can be seen that foreign ownership has no significant effect on intellectual capital performance, indicating that foreign parties are not able to motivate management to improve their performance, because foreign investors cannot monitor and intervene in management performance. Foreign ownership is considered not to be an effective control mechanism for management performance, so that it can be said that the high and low foreign ownership will not affect the high and low performance of intellectual capital. In addition, the percentage of foreign ownership in banking sector in Indonesian that has more than 50% is only 4 banks each year so that foreign parties have not been able to advance banking sector in Indonesia in the field of intellectual capital management because there is only a small shareholding.

The result of this study are in line with that of research by Saleh et al (2009) and Mahardika et al. (2014) that foreign ownership has no effect on intellectual capital performance. However, the results of this study are not in line with the results of research conducted by Supradnyya, et al (2016) and Bohdanowicz and Urbanek (2013) that foreign ownership has an effect on intellectual capital performance.

5. CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

The results of the study indicate that the research model on the performance of intellectual capital with the determinant of 2 variables is still weak. This is reflected in the value of the coefficient of determination of the model. Managerial ownership has a significant negative effect on intellectual capital performance. The results also show that institutional ownership and foreign ownership have no effect on intellectual capital performance.

The limitation of this study is that the results of hypothesis testing indicate that there are several effects of exogenous latent variables on endogenous latent variables whose results are 10.4%. This indicates that there are still other factors beyond research model that can affect endogenous latent variables. It is recommended that subsequent research should add other variables that can be factors that influence the performance of intellectual capital.

REFERENCES


