The Effect of Audit Committee Meetings, Profitability, and Foreign Ownership on Intellectual Capital

Nurainun Bangun\textsuperscript{1}\textsuperscript{*} Ngadiman Ngadiman\textsuperscript{1} Khairina Natsir\textsuperscript{1}

\textsuperscript{1}Faculty of Economics and Business, Universitas Tarumanagara, West Jakarta - 11470, Indonesia
\textsuperscript{*}Corresponding author. Email: nurainunb@fe.untar.ac.id

\textit{Submitted: June 2022, Revised: November 2022, Accepted: February 2023}

\begin{abstract}
This study aims to obtain empirical evidence regarding the factors that affect intellectual capital in manufacturing companies listed on the Indonesia Stock Exchange during 2019-2021. The number of companies as the research sample was 34 manufacturing companies which were selected through purposive sampling technique with predetermined criteria. Intellectual capital is measured by Value Added Intellectual Coefficient (VAIC) taking into account VACA, VAHU, STVA. Panel data were processed using Eviews 12.0. Classical assumption testing includes multicollinearity test and heteroscedasticity test. Model selection is done by testing Chow, Hausman and Lagrange Multiplier. While the hypothesis test using the t test and the coefficient of determination test.

The results of the analysis show that the audit committee frequency of meetings has a negative and insignificant effect on intellectual capital, Profitability as proxied by Return on Assets (ROA) has a positive and significant effect on intellectual capital, and Foreign ownership has a positive and significant effect on intellectual capital.

\textbf{Keywords:} Intellectual Capital, Profitability, Frequency of Audit Committee Meetings, Foreign Ownership
\end{abstract}

1. INTRODUCTION

Computer, communication and information technology in the 21st century has gained popularity and has experienced rapid innovation and has an impact on economic and human life [1]. Companies can also plan the right strategy for business continuity. A business strategy based on labor (labor-based business) must be replaced so that it can be based on knowledge (knowledge-based business), so that the strategy can change the characteristics of the company to become knowledge-based (Sawarjuwono & Kadir, 2003 in [2]). Companies are able to compete if they have knowledge or intellectual capital in the form of innovations, ideas, and information systems that are different from other companies.

Intellectual capital is categorized into human capital, customer capital, and structural capital which has a relationship with knowledge, technology, and human experience that can become a company's competitive advantage. The average achievement of intellectual capital in the financial statements of companies in Indonesia listed on IDX is still low at only 44% [3].

The application of intellectual capital in companies can be influenced by several factors, such as profitability, audit committee frequency of meetings, foreign ownership, and so on.

In the audit committee, one of the important characteristics is the frequency of the committee meetings because it can evaluate the due diligence of the company's audit committee. Intensive audit committee meetings are expected to have the potential to increase the effectiveness of monitoring the company's reporting process. The audit committee must also have adequate meeting time [4]. Meeting frequency is at the core of efficiency and reliability in company processes [5]. According to “OJK Regulation No. 55/POJK.04/2015 Chapter IV Article 13-16” it is explained that the audit

https://doi.org/10.24912/ijaeb.v1i1.322-333
committee meeting must be held at least every three months [6]. According to [5], the frequency of audit committee meetings has a significant and positive effect on intellectual capital. However, according to research conducted by [7] states that the number of audit committee meetings has no effect on intellectual capital.

Profitability is one of the main indicators to meet an economic goal in a business or an entity (Weqar, et al. 2020). If the company has good performance, the company's growth will continue to grow and get good value for the company's investors. This is the goal of every company, therefore profitability by using one of the indicators, namely Return on Assets (ROA) is one of the indicators [8]. According to [9], profitability has no effect on intellectual capital. However, according to [10], profitability has a positive relationship with intellectual capital.

For the purpose of monitoring the company's management, one way that can be used is to look at the portion of foreign ownership. Foreign investors will be more supportive of policies that can increase long-term incentives for companies, one of which is intellectual capital management [11]. According to [11] and [12], foreign ownership has a significant and positive effect on intellectual capital. According to [13], intellectual capital is not affected by foreign ownership. According [14], foreign ownership has a significant and negative relationship to intellectual capital.

The purpose of this study is to: empirically prove the relationship between the influence of Audit Committee Meetings, Profitability, and Foreign Ownership on Intellectual Capital.

2. THEORETICAL REVIEW

2.1. Grand Theory

2.1.1. Agency Theory

Agency theory was discovered by Jensen and Mecklin (1976) in [4] which defines that the parties in the company are called agents and principals. The agent is the management of the company and the principal is the shareholder in the company. Principal assigns tasks to agents for the benefit of implementing and making decisions for the company. Agency costs consist of bonding costs, monitoring costs, and residual costs. The costs incurred by agents to prove they have carried out their responsibilities properly are bonding costs. Monitoring costs are costs that the principal incurs to monitor behavior and evaluate agent behavior. Residual loss can occur when there is a contradiction between the wishes of the agent and the investor as principal, and the agent cannot prioritize the interests of the principal [15].

2.1.2. Resourced-Based Theory

This theory analyzes the sources of the company's competitive advantage using a resource-based approach. This theory is a development in strategic management and company competitive advantage that analyzes and interprets company resources to achieve a sustainable competitive advantage [11]. The company's resources are heterogeneous so that companies with different types of industries can have different views and the processing of assets and resources will be different, but will still give character to each company [12].

2.2. Operational Theory

2.2.1. Audit Committee Frequency of Meetings

The audit committee is a team that is responsible to the board of commissioners, whose function is to realize good corporate governance. This committee functions to oversee the company's qualifications and the integrity of financial statements. OJK Regulation No. 55/POJK.04/2015 Chapter IV Article 13-16 states that the audit committee meeting must be held at least once in three months. Meetings held by the audit committee will have an impact on the board of commissioners to
make decisions [6]. The frequency of this audit committee meeting is one of the core elements in the efficiency of the company's activities and processes and reliability [5].

2.2.2. Profitability

According to Kieso [16] states that "Profitability ratio measures the degree of success or failure of a given company or division for a given period of time". This statement explains that the profitability ratio is used to measure the success of an entity or company for a certain period of time. According to Munawir (2019:240) "profitability is a ratio - a ratio used to assess the company's ability to earn profits".

2.2.3. Foreign Ownership

Foreign ownership is a mechanism that can complement the corporate governance structure that can be used to monitor the management of activities in order to increase company value [17]. Foreign investors will be more supportive to increase the company's long-term incentives, one of which is the intellectual capital management policy [11]. Foreign investors also pay attention to the evaluation of the company's management and maintain high levels of information [18].

2.3. Relationship Between Variables

2.3.1. The Relation of Audit Committee Frequency Meetings to Intellectual Capital

Audit committee frequency of meetings is an important characteristic of a company's audit committee. Board members who meet regularly are more likely to complete their work and responsibilities with greater care and thus become more successful. The board will certainly be more effective in increasing oversight of the reporting process by direct or indirect means through the choice of the audit committee and external auditors [5]. Frequent meetings of the audit committee can also increase their role to monitor the company's reporting process and also find the right time to meet so that they can solve complex company problems. It is recommended that the audit committee meet at least three or four times a year [4].

2.3.2. The Relationship between Profitability and Intellectual Capital

Profitability is considered as the main indicator for the fulfillment of economic goals in a business [1]. Good company growth can generate good value for investors because of good performance. These resources need to be constantly improved in order to increase investors' assets in the company [8]. The company's ability to generate profits and relate it to earnings, equity, or total assets is indicated by the profitability ratio. Through this ratio, the profit generated and management performance can be seen [9].

2.3.3. Relationship of Foreign Ownership to Intellectual Capital

Foreign ownership is the proportion of foreign ownership of shares in a company. The existence of foreign ownership can also function as an effective monitoring tool for companies management because foreign ownership usually demands high standards of corporate governance so that they can support policies that can increase company value. With this supervision, the efficiency of the utilization and management of intellectual capital will increase and encourage high performance [11]. From agency theory, foreign investors can monitor the performance of company management [13].

2.4. Thinking Framework and Hypotheses

Referring to the main theory described above, and taking into account the relationship between variables, the formulation of the research model and research hypothesis is structured as follows:
The formulation of the hypothesis based on the framework and explanation above are:
H1 : Intellectual Capital is affected positively by Audit committee frequency of meetings.
H2 : Profitability proxied by ROA affect on Intellectual Capital positively.
H3 : Foreign Ownership affect positively on Intellectual Capital.

3. RESEARCH METHOD

3.1. Population and Sample

The population of this research is companies in manufacturing sectors listed in the Indonesia Stock Exchange along 2019 - 2021. The sample selection technique uses purposive sampling with several criteria that have been applied, namely: (1) The companies listed in manufacturing sector of Indonesia Stock Exchange consecutively along 2019 - 2021; (2) The companies that do not conduct (IPO), delisting, and suspension during 2019 - 2021; (3) Presenting financial statements ending on December 31; (4) Presenting annual reports and financial reports for 2019 – 2021 in full; (5) Provide the data needed in this study (6) Manufacturing companies that have positive equity and generate profits in a row during 2019 – 2021. Based on these criteria, 34 companies were selected with a total sample of 102.

3.2. Operationalization of Variables and Instruments

3.2.1. Dependent Variable

Intellectual capital in this study is measured by Value Added Intellectual Capital (VAIC) which is a numerical measurement that produces data that can be compared within a department or industry [4].

\[
\text{VAIC} = \text{VACA} + \text{VAHU} + \text{STVA} \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots (1)
\]

Whereas:

\[
\begin{align*}
\text{VA} & = \text{OUT} – \text{IN}, \quad \text{VACA} = \frac{\text{VA}}{\text{CE}}, \\
\text{VAHU} & = \frac{\text{VA}}{\text{HC}}, \quad \text{STVA} = \frac{\text{SC}}{\text{VA}}
\end{align*}
\]

Description:

VA : Value Added; as an objective indicator to assess the success of a company.
OUT : Outputs which is Total Income and Sales
IN : Input, which is in the form of total expenses except for employee expenses
VACA: Value Added Capital Employed; indicates how many new values are generated by
CE : Capital Employed; Total Equity
VAHU: Value Added obtained from Human Capital;
HC : Human Capital; Employee Expenses
STVA : Structural Capital Value Added;
SC : Structural Capital; VA – HC
3.2.2. Independent Variables

3.2.2.1. Audit Committee Frequency of Meetings

The frequency of audit of committee meetings is measured using a ratio scale, which is conducted by counting the frequency of confluence held by the company's audit committee every year [4]. How to measure it is as follows:

$$\text{AUDMeeting} = \text{number of audit committee meetings}$$

3.2.2.2. Profitability

The profitability variable is measured by a ratio scale that can measure the company's ability to use assets and generate net income, namely the Return on Assets (ROA) [9]. How to measure it is as follows:

$$\text{ROA} = \frac{\text{Net Income}}{\text{Total Asset}}$$

3.2.2.3. Foreign_Ownership

The foreign ownership is the ratio of share ownership owned by foreign investors [11]. The way to measure it is as follows:

$$\text{ForOwn} = \left( \frac{\text{Number of shares owned by foreign investors}}{\text{Total number of outstanding shares}} \right) \times 100\%$$

3.3. Data Analysis

The analysis of data was conducted by Multiple Linear Regression technique. The initial stage is testing the classical assumptions on the data which includes the multicollinearity test and the heteroscedasticity test. In testing the hypothesis using multiple regression, several tests were carried out first to obtain the most suitable regression model. Regression model selection is conducted by using the Chow, and Hausman test. After getting the best model, the t-test and R-square test were carried out to find how big is the contribution of the independent variable in predicting the dependent variable.

4. DATA ANALYSIS AND RESULTS

4.1. Multicollinearity Test Results

The existence of multicollinearity can be known by looking at the correlation coefficients of each of the independent variables. If the correlation coefficient of each independent variable is > 0.8, then there is multicollinearity experienced among the independent variables [19]. The following table shows the result of the multicollinearity test for each independent variable:
From the results shown in Table 1 above, there is no correlation coefficient between independent variables with a value greater than 0.8. This means that this study is not influenced by multicollinearity among the variables used so that it is free from the presence of multicollinearity symptoms.

4.2. Heteroscedasticity Test Results

A good and feasible regression model is one that does not contain heteroscedasticity in the regression equation. If the probability value of chi-square (Obs*R-square) > 0.05 (significance level), it means that the model used does not experience symptoms of heteroscedasticity. However, if the Prob Chi-square (Obs*R-square) <0.05 (significance level) then the model used in the study has symptoms of heteroscedasticity [19].

The next table is the output of the heteroscedasticity test:

<table>
<thead>
<tr>
<th>Table 2 Heteroscedasticity Testing Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-statistic</td>
</tr>
<tr>
<td>0.661179</td>
</tr>
</tbody>
</table>

From the output of the heteroscedasticity test in Table 2 above it is noticeably that the chi-square probability value on Obs*R-squared is more than 0.05 (significance level), thus avoiding the symptoms of heteroscedasticity in the regression model.

4.3. Estimation Model Selection

4.3.1. Chow Test

The Chow test is used to prove which model is more suitable for predicting panel data regression between fixed effect model or the common effect model at the significance level of 0.05. Hypothesis of Chow test is formulated as:

H0: CEM (common effect model) is prefer
Ha: FEM (fixed effect model) is more better [19]

The following are the results of the chow test:

<table>
<thead>
<tr>
<th>Table 3. Chow Test Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effects Test</td>
</tr>
<tr>
<td>Cross-section F</td>
</tr>
<tr>
<td>Cross-section Chi-square</td>
</tr>
</tbody>
</table>

From the test results presented in Table 3 above, it can be seen that the probability of cross-section F shows the number 0.000. This probability value is lower than 0.05, where 0.05 is the significant level in this study. This means that the null hypothesis in the form of the common effect model is rejected or cannot be accepted. Based on the result of chow statistical test just been done, than the most suitable approach of regression model is the Fixed Effect Model.

Source: Results of data processing
4.3.2. Hausman Test

The hypothesis in the Hausman test is H0: random effect model and Ha: fixed effect model [20]. The following are the results of the Hausman test:

<table>
<thead>
<tr>
<th>Test Summary</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section random</td>
<td>0.0011</td>
</tr>
</tbody>
</table>

Based on the results of the Hausman test shown in Table 4 above, it was found the Prob. of cross-section random is 0.0011. This value is lower than the 0.05. This means that the null hypothesis in the form of a random effect model is rejected or unacceptable. Thus, the appropriate regression model to be used in estimating the panel data regression based on the Hausman test results is the fixed effect model. Both the Chow test and the Hausman test provide recommendations for the same approach, namely the Fixed Effect Model, so the LM test does not need to be carried out again.

4.4. The Result of Linear Regression Analysis

The model for estimating the panel data regression in this study based on the results of the Chow and Hausman tests is the fixed effect model. Table 5 display the results of Fixed Effect Model FEM Regression Model.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audit Committee Frequency Of Meetings</td>
<td>-0.233501</td>
</tr>
<tr>
<td>Profitability</td>
<td>42.79821</td>
</tr>
<tr>
<td>Foreign Ownership</td>
<td>12.69008</td>
</tr>
</tbody>
</table>

Refering to Table 5 above, the regression model of this study is:

\[
\text{Int. Capital} = -4.256539 - 0.233501 \times \text{Audit Comm. Freq. Of Meetings} + 42.79821 \times \text{Profitability} + 12.69008 \times \text{Foreign Ownership} + \epsilon \ldots
\]

Looking at the linear regression equation, the constant value for intellectual capital is -4.256539. Which means that intellectual capital will be worth -4.256539 if the value of the independent variables, namely audit committee frequency of meetings, profitability, and foreign ownership is 0 (zero). The coefficient number shows the magnitude of the influence of each variable related to intellectual capital. The presence of a positive or negative sign indicates the direction of the relationship. A positive sign indicates a unidirectional effect, which means that if the independent variable increases by one unit, the intellectual will increase by that coefficient. A negative influence indicates the direction of the relationship is in the opposite direction, which means that every increase in one unit of the independent variable will cause a decrease in the independent variable by that coefficient, and vice versa. From the table or from the equation, we can see that audit committee frequency of meetings affects intellectual capital by -0.233501, Profitability affects Intellectual Capital by 42.79821, and Foreign Ownership affects Intellectual Capital by 12.69008

4.4.1. t-Test Results

The t-test was carried out to determine whether or not the influence of the independent variable on the dependent variable was partially used [19]. Each independent variable has a significant effect on the dependent variable only if the probability value of the related independent variable shows a number <0.05 (significance level). On the other hand, if the probability value of the independent
variable is > 0.05 (significance level), it means that there is no significant effect. The following are the results of the t test:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audit Committee Frequency Of Meetings</td>
<td>0.3028</td>
</tr>
<tr>
<td>Profitability</td>
<td>0.0000</td>
</tr>
<tr>
<td>Foreign Ownership</td>
<td>0.0469</td>
</tr>
</tbody>
</table>

Based on the results of the t-test in table 6. above, it can be seen that the Audit Committee Frequency of Meetings does effect on Intellectual Capital significantly because the Prob value is 0.3028 (> 0.05), while the Probability and Foreign Ownership variables have a significant effect on Intellectual capital since the Prob value of each are 0.0000 (<0.05) and 0.0469 (<0.05) respectively.

4.4.2. Coefficient of Determination Test Results ($R^2$)

The coefficient of determination test aims to investigate how much the independent variable contributes in explaining the dependent variable used in the model. The $R^2$ value ranged from 0 (zero) to 1(one) [19]. The following are the results of the coefficient of determination test:

<table>
<thead>
<tr>
<th>Coefficient of Determination Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>$R^2$</td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
</tr>
</tbody>
</table>

Based on the results of the coefficient of determination test in table 15, it can be concluded that the independent variables of audit committee frequency of meetings, profitability, and foreign ownership can explain the dependent variable, namely intellectual capital of 0.830213 or 83.0213%, while the remaining 0.169787 or 16.9787% of the intellectual capital variable. explained by other factors outside of this study.

5. DISCUSSIONS

5.1. The Effect of Audit Committee Frequency of Meetings on Intellectual Capital

The results of statistical tests that have been carried out prove that H1 in the form of audit committee frequency of meetings has a positive and significant effect on intellectual capital being rejected or unacceptable.

This study is consistent with [7] which states that the frequency of audit committee meetings has no significant effect on intellectual capital disclosure. Meetings or meetings held by the audit committee are only to fulfill an obligation to the applicable regulations. Meetings held by the audit committee are not the basis or guidelines that the supervision carried out has been carried out effectively and efficiently. The number of meetings or meetings held by the audit committee does not guarantee whether the supervision that has been carried out has been effective or not, so it must pay attention to aspects of independence and also the competence of members of the company's audit committee. This study is also in line with [21] which revealed that the frequency of audit committee meetings has no effect on intellectual capital performance. This is because any number of audit committee meetings cannot ensure that intellectual capital performance will also increase. The effectiveness of the meeting agenda in evaluating the company's performance reports from each meeting is very necessary.

The results of the analysis in this study are inconsistent with research conducted by [4] which states that audit committee frequency of meetings has a positive and significant effect on intellectual
capital. An audit committee that meets frequently will increase the efficiency of their respective roles in monitoring the company's reporting process. In dealing with quite complex problems within the company, the audit committee is asked to take advantage of the time by holding as many meetings as necessary. The results of this study are also not in line with [22] and [23] which state that the frequency of audit committee meetings has a positive and significant effect on intellectual capital disclosure. The more meetings or meetings held by the audit committee, the greater the company's ability to improve performance due to good supervision by the audit committee. The number of audit committee meetings that are more frequent may have a greater influence on regulating intellectual capital disclosure and of course, this is motivated by the maximum utilization of intellectual capital owned.

5.2. The Effect of Profitability on Intellectual Capital

The statistical test results show that the hypothesis H2 in the form of profitability has a positive and significant effect on intellectual capital and is acceptable. This study is consistent with [24] and [25] which explain that profitability has a positive and significant effect on intellectual capital disclosure. Higher profits encourage companies to disclose more things, one of which is about the intellectual capital used by the company. Companies that have high profitability can use their intellectual capital to the fullest. Companies that have large profits can have a competitive advantage because they have strong financial resources so that they can disclose information and transparency on the maximum utilization of intellectual capital. The results of the analysis in research for profitability as an independent variable are not consistent with research conducted by [9], [26], [27] which revealed that profitability had a positive and insignificant effect on intellectual capital disclosure. This is because the resulting profit does not affect the performance of a company. Higher profits prove that the company's finances are getting better and do not require additional management as is the case for intellectual capital, so the company does not require additional information disclosure. Companies that have higher profits are also more inclined to limit information in order to avoid plagiarism of ideas, innovation, and creativity which are the company's intellectual capital which will have an impact on their competitive advantage.

5.3. The Effect of Foreign Ownership on Intellectual Capital

It has been proven that the influence of foreign ownership on intellectual capital is positive and significant on intellectual capital can be accepted or cannot be rejected. This study is consistent with [12] which states that foreign ownership has a positive and significant effect on intellectual capital performance. The ownership structure can minimize the occurrence of agency conflicts within the company, one of which is foreign ownership. Foreign ownership can be an effective approach to monitoring management activities because foreign investors are more likely to manage the intellectual capital owned by the company to increase profits or long-term profits. Good supervision from foreign investors can improve the management of the company's intellectual capital. Foreign investors can provide knowledge, expertise, and ideas for companies to have a competitive advantage. Foreign shareholders can also influence domestic companies to be able to invest in projects that can create added value so that the company's performance in managing intellectual capital becomes even better. However, this study is not consistent with [11] which revealed that foreign ownership has a positive and insignificant effect on intellectual capital. The results of the research [17] and [28] also show that foreign ownership has a negative and insignificant effect on intellectual capital performance. Research [13] and [14] also states that foreign ownership has a negative and insignificant effect on intellectual capital disclosure. Foreign ownership cannot motivate the management to improve operational performance. Foreign investors cannot monitor the performance of the management. The large or small number of foreign ownership in a company cannot guarantee the performance of intellectual capital is getting better, so that foreign ownership is not considered to be an effective control mechanism on the performance of management in managing its intellectual capital. Although foreign shareholders can transfer their knowledge to the company, all of this knowledge sometimes does not match the culture in Indonesia.
6. CONCLUSIONS

This research was conducted with the aim of analyzing and knowing how the influence of the independent variable on the dependent variable. The independent variables are audit committee frequency of meetings, profitability, and foreign ownership, while the dependent variable used is intellectual capital in manufacturing companies listed on the Indonesia Stock Exchange (IDX) for the 2017-2019 period with a total of 34 companies, with a sample size of 102 data. The results of the analysis with the help of the regression equation in the study show that the audit committee frequency of meetings has a negative and insignificant effect on intellectual capital, Profitability as proxied by Return on Assets (ROA) has a positive and significant effect on intellectual capital, and Foreign ownership has a positive and significant effect on intellectual capital.

The limitations of this study are (1) this research is regressed directly on intellectual capital; (2) the type of company sector that is too common, namely only using the manufacturing sector; (3) the research period using only 3 years. From the existing limitations, suggestions that can be given for further research in the future are in the form of (1) using the regression equation of each indicator of intellectual capital, namely capital employed, human capital, and structural capital; (2) using other company sectors such as banking or consumer goods; (3) expanding the scope of the year period such as 5 years in order to be able to analyze the condition of the company in the long term.

REFERENCES


