Does Audit Committee Quality Mediate Determinants of Intellectual Capital Disclosure?

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Abstract

This study investigates the direct and indirect effects, mediated by audit committee quality, of managerial ownership, institutional ownership, and profitability on intellectual capital (IC) disclosure. The object observed of this study is companies listed on the Indonesia Stock Exchange (IDX) in the 2014-2018 period that are classified as high intellectual capital-intensive industries. Based on the sampling method, purposive sampling, 51 companies were selected as samples. This study used path analysis techniques with IBM SPSS version 25 to study the direct and indirect influences of managerial ownership, institutional ownership, and profitability toward IC disclosure. The results of this study show that managerial ownership, profitability, and audit committee quality have a significant positive effect on IC disclosure whereas institutional ownership has significant negative effect on IC disclosure. This study also provides empirical evidence, supported by the sobel test, that the audit committee quality is able to mediate the effect of institutional ownership and profitability on IC disclosure. However, the audit committee quality is not able to mediate the effect of managerial ownership on IC disclosure. These findings develop and strengthen the results of prior studies related to the implementation of signaling theory and agency theory in devoting more understanding about IC disclosure.

Keywords: Intellectual Capital (IC) Disclosure, Audit Committee Quality, Institutional Ownership, Managerial Ownership, Profitability

JEL Classification Code: O34, G32, F65

1. Introduction

Current developments in the global economy lead to a new economic era that has a significant impact on business management and the determination of competitive strategies. Business management is nowadays increasingly emphasizing the importance of knowledge assets, which are a form of intangible assets. It seems that the businesses are starting to realize that the ability to compete does not only lie in the ownership of tangible assets, but also in innovation, information systems, organizational management and human resources owned by a company (Starovic, 2003).

As stated by Rahman, Sobhan, and Islam (2020) companies are now investing largely in R&D projects, intangibles, and intellectual properties. However, traditional financial statements as a mandatory financial reporting do not consider the true value of these intangibles and intellectual properties and become less informative to the investor. Intellectual capital disclosure, a new form of corporate voluntary disclosure, has emerged as a bridge between this existing gap of information regarding valuable intangibles and intellectual properties. In line with that, Nguyen, Nguyen, and Nguyen (2020b) stated that the requirement of investors for the information disclosure is increasingly higher, not only in mandatory information disclosure, but also in voluntary information disclosure.

Companies need to disclose information about their intellectual capital because the demand for information
transparency in the capital market is rising. IC disclosure can increase investor confidence in the company; this will have an impact on increasing the amount of investment for the company. However, in Indonesia, the importance of IC disclosure is apparently not in harmony with the level of disclosure about intellectual capital itself.

The average level of IC disclosure in Indonesia is still low, below 50%. The study by Ningsih and Laksono (2014) on financial companies listed on the IDX shows the level of IC disclosure is 6.27%. Utama and Khafid (2015) suggest that companies in the banking sector show a level of IC disclosure of 36.38%. Whereas Leonard and Trisnawati (2015) show that the level of IC disclosure in non-financial companies is 22.29%. Solikhah and Subowo (2016) show that the level of IC disclosure is 38.82%. Analyzing 86 Initial Public Offering (IPO) companies on the IDX Widarjo and Bandi (2018) showed that the level of IC disclosure was 39.9%. Alifia and Khafid (2018) show that the level of IC disclosure is 32.74% in financial companies.

In addition, the publication of the World Economic Forum (WEF) shows that the position of the quality of human resources in Indonesia ranks 96 out of 141 countries, and the adoption of information and communication technology in Indonesia ranks 72 out of 141 countries (Kevin, 2019). One of the problems regarding the practice of IC disclosure in Indonesia can be seen from the case that happened with the MNC Group. Hundreds of MNC Group employees refused to be laid off because of improper severance pay (Erdianto, 2017). This case indicates a lack of disclosure regarding company activities and operations related to company employees. Information about the case can be disclosed in the company’s annual report voluntarily in order to meet the information needs of stakeholders and employees as human capital for the company, so there is no information asymmetry that causes misunderstanding.

Solikhah and Subowo (2016) argued that there is no standard regulating in Indonesia what items are included in intangible assets that can be managed, measured and reported in both mandatory and voluntary disclosures. The absence of the standard makes companies reluctant to provide information about intellectual capital owned by the company.

Previous studies that attempt to examine the determinants of IC disclosure in different contexts provide inconsistent results (see for instance, Alifia & Khafid, 2018; Barokah & Fachrurozie, 2019; Dewayanto, 2018; Muryanti & Subowo, 2017; Mukhibad & Setyawati, 2019; Naimah & Mukti, 2019; Sartawi, 2018; Rahman, Sobhan, & Islam, 2019b). Therefore, a study on IC disclosure is needed to provide more evidence regarding the determinants of IC disclosure.

This study was conducted to explore the role of audit committee quality in mediating determinants of IC disclosure. This study presents the audit committee quality variable as an intervening variable because it was rarely investigated in previous studies. Prior studies have discussed IC disclosure and audit committee in different way (see for instance, Rahman & Saima, 2018; Rahman et al., 2020; Rahman, Meah, & Chaudhory, 2019a; Nguyen et al., 2020b). This study predicts that the audit committee quality is able to mediate determinants of IC disclosure. It has something to do with the fact that prior studies found that profitability and ownership structure had positive impacts on audit committee quality (Zureigat, 2011; Alhababsah, 2019) and the audit committee quality had a significant positive effect on the IC disclosure (Dewayanto, 2018; Haji, 2015; Naimah & Mukti, 2019). The better the audit committee quality of a company, the more information and quality will be provided to give a good signal to the stakeholders.

2. Literature Review and Hypotheses

2.1. Agency and Signaling Theory

This study is based on two theories, namely, the agency theory and the signaling theory. The agency theory is a theory that discusses management as an agent and the owner of capital as the principal. This theory was first put forward by Jensen and Meckling (1976) which states an agent’s relationship as a contract between one or more principles that requires an agent to do some work related to his interests including delegating some information or providing authority to an agent. The management as the superintendent of the company must be responsible to the owner because the owner has authorized the management in making best decisions for the progress of the company he manages.

The signaling theory is based on the existence of an information gap between information of management (well-informed) and information of shareholders (poor informed). Providing information as a signal is a process aimed at convincing investors about the value of the company. This theory is based on the idea that management will provide information to investors or shareholders when getting good information relating to the company such as increasing the value of the company (Spence, 1973).

The signaling theory is the theory on which voluntary disclosure is based. Voluntary disclosure is a disclosure of items other than those required by accounting standards or regulatory body regulations (Suwardjono, 2014). Giving a signal of excellence to the market can be a strong motivation for companies to report intellectual capital even though the focus and style of reporting can vary by different companies.

2.2. Intellectual Capital

Mortensen (1999) defines intellectual capital as the economic value of the two categories of intangible assets
from companies, namely organizational or structural capital and human capital (human capital). According to Statements of Financial Accounting Standards No. 19 issued by the Indonesian Accountant Association (IAI), intangible assets are non-monetary assets that can be identified, do not have a physical form, and are utilized for use in producing or delivering goods or services, leased to other parties, or for administrative purposes (IAI, 2002). Guthrie and Petty (2000) divide intellectual capital into three components, namely, internal structure (structural capital), external structure (customer capital), and employee competence (human capital). Dumas (2016) argued that the companies report their intellectual capital to provide adequate and appropriate information about intellectual assets to the market to improve decision-making by the investors and assist management and disciplinary boards with positive economic consequences.

Recently the issue of voluntary disclosure is more attractive to investors and demands for information disclosure are increasingly high, not only in mandatory disclosure, but also in voluntary disclosure (Nguyen et al., 2020b). According to Rahman et al. (2020), the broad and complete disclosure of intellectual capital can save company capital costs and improve company performance in the market. Based on prior study, there are many factors that can affect the level of IC disclosure, including corporate governance, leverage, ownership structure, profitability, company size, IC performance, and type of industry. However, this study only focuses on examining the effects of managerial ownership, institutional ownership, profitability, and the audit committee quality on IC disclosure. The following is a summary of some studies that discuss the determinants of IC disclosure.

Muryanti and Subowo (2017) examined banking companies listed on the IDX; the results showed that profitability, institutional ownership, and independent commissioners had a positive influence on IC disclosure. While the IC performance, leverage, and managerial ownership do not affect the IC disclosure. Sartawi (2018) examined financial companies listed on the GCC exchange and the results showed that there was a significant and negative relationship between ownership structures (director ownership, managerial ownership, institutional ownership, government ownership and foreign ownership) on intellectual capital disclosure. Barokah and Fachrurozie (2019) examined banking companies listed on the IDX, found that managerial ownership and profitability did not affect IC disclosure. Company size has a significant positive effect on IC disclosure and profitability. Leverage has a significant negative effect on IC disclosure. Profitability is not able to mediate company size and leverage on IC disclosure.

Examining financial companies listed on the IDX, Alifia and Khafid (2018) show that managerial ownership has negative effect on IC disclosure, institutional ownership has no significant effect on IC disclosure, foreign ownership and government ownership have a significant positive effect on IC disclosure, and the audit committee quality moderates the effect of institutional ownership on IC disclosure, but it is not proven to moderate the effect of managerial ownership, foreign ownership, and government ownership on IC disclosure. Mukhibad and Setyawati (2019) examined 26 companies included in the LQ 45 Index. This study found that company age, company size, and managerial ownership ratio had a positive effect on intellectual capital disclosure. Leverage level has no impact on IC disclosure. In addition, the results of the study also showed that profitability was only able to strengthen the effect of company size on IC disclosure and weaken the effect of managerial ownership on the effect of intellectual capital. Profitability does not moderate the relationship between age, and leverage on IC disclosure.

2.3. Effect of Managerial Ownership on IC Disclosure

According to Jensen and Meckling (1976), managerial ownership is the main governance mechanism that can overcome agency problems. Management share ownership is able to reduce agency problems. If the manager has shares in the company, the manager will also voluntarily disclose more information as a good signal to the market. Mukhibad and Setyawati (2019) and Saleh, Ridhuan, and Abdul (2009) found a positive relationship between managerial ownership and IC disclosure.

Hypothesis 1: Managerial ownership has a positive effect on IC disclosure.

2.4. Effect of Institutional Ownership on IC Disclosure

According to the signaling theory, the company will disclose company information more broadly to give a positive signal to the market and investors and provide more understanding to institutional investors so that investors will see management performance well. Iranmahd, Moeinaddin, Shahmoradi, and Heyrani (2014) argued that institutional investors support policies that can increase long-term incentives for companies, one of them being IC management policies. Rahayuni, Solikah, and Wahyuadin (2018) and Muryanti and Subowo (2017) show a positive effect between institutional ownership and IC disclosure.

Hypothesis 2: Institutional ownership has a positive effect on IC disclosure.
2.5. Effect of Profitability on IC Disclosure

Profitability reveals the ability to make a profit from all activities of a firm. It shows the efficiency of using all available resources of a firm to make a profit (Nguyen, Pham, & Nguyen, 2020a). The signaling theory implies that such firms, high-performance companies, disclose more information to send signals to investors (Spence, 1973). According to Ferreira (2012) companies that make a profit have an incentive to disclose intellectual capital, so the company looks superior in profit compared to other companies. Companies that have high profitability will send positive signals to the market and investors so that the IC disclosure will be even higher. Muryanti and Subowo (2017) show that profitability has a positive effect on IC disclosure.

Hypothesis 3: Profitability has a positive effect on IC disclosure.

2.6. Effect of Audit Committee Quality on IC Disclosure

The audit committee is one component of corporate governance that can improve company performance (Rahman et al., 2019a). The agency theory that was propounded by Jensen and Meckling (1976) illustrates the role of the audit committee as a party that has control over the company’s internal affairs. The independent directors on the audit committee do not have an economic or personal relationship with management making it more possible to work objectively and independently (Bédard & Gendron, 2010). Merawati, Badera, and Suardi kha (2013) proved that a qualified audit committee would be more effective in providing oversight of the company’s information reporting process.

Hypothesis 4: Audit committee quality has a positive effect on IC disclosure.

2.7. Audit Committee Quality Mediates Effect of Managerial Ownership on IC Disclosure

The audit committee is an extended part of board of the company. Its primary responsibility is to design, oversee, and implement financial reporting procedures related to companies and thus ensure better corporate governance (Rahman et al., 2019a). Merawati et al. (2013) proved that a qualified audit committee would be more effective in providing oversight on a company’s information reporting process. Companies that have a qualified audit committee will be able to provide extensive and qualified information reporting (Eddine, Abdullah, Hamid, & Hossain, 2015; Cahya, 2013). An increase in managerial ownership will encourage an increase in the quality of the company’s audit committee. The presence of the audit committee can assist in monitoring the management of the company’s intellectual capital and improve the quality of financial reporting and other information.

Hypothesis 5: Audit committee quality mediates the effect of managerial ownership on IC disclosure.

2.8. Audit Committee Quality Mediates Effect of Institutional Ownership on IC Disclosure

Based on the agency theory by Jensen and Meckling (1976), the role of the audit committee is a party that has control over the company’s internal affairs. The higher the institutional ownership, the greater the quality of the audit committee’s help to investors in overseeing the company’s internal activities. Tjager (2003) explains that the audit committee is a committee formed by the board of commissioners and responsible to the board of commissioners. The audit committee has many opportunities to control management so they will not retain the information for personal gain (Allegrini & Greco, 2013).

Hypothesis 6: Audit committee quality mediates the effect of institutional ownership on IC disclosure.

2.9. Audit Committee Quality Mediates Effect of Profitability on IC Disclosure

The signaling theory states that high-performance companies (good companies) use financial information to send signals to the market (Spence, 1973). Ferreira (2012) argued that companies that make a profit have incentives to disclose intellectual capital and improve the quality of their audit committees. Merawati et al. (2013) proved that a qualified audit committee would be more effective in providing oversight on the company’s information reporting process.

Hypothesis 7: Audit committee quality is able to mediate the effect of profitability on IC disclosure.

3. Research Methods

This study is based on a quantitative research with a research design in the form of hypothesis testing. The population in this study are companies listed on IDX and include high-IC intensive industries by Global Industry Classification Standard (GICS) in 2014-2018. The population in this study were 219 companies. Sampling in this study
is using purposive sampling technique. The sample criteria used are as follows: high-IC intensive industries companies listed on the Indonesia Stock Exchange in the 2014-2018 period, non-financial sector companies, companies that were not included in the new listing during 2014-2018, companies that published successive annual reports (2014-2018), companies that did not experience losses in 2014-2018, and companies that presented annual reports in rupiah. Based on the sample criteria used a sample of 51 companies was obtained with an analysis unit of 255.

This study uses five variables: a dependent variable, three independent variables, and an intervening variable. The summary of the definitions and measurements of the variables analyzed in the study can be seen in the Table 1.

Data collection method used in this study is the documentation method, while the method used to collect and assess intellectual capital disclosure data in the annual report is the content analysis method. Data analysis techniques used are descriptive analysis, inferential analysis, and path analysis by SPSS 25 IMB software. Hypothesis testing uses the t test and multiple tests.

4. Results and Discussion

When conducting the classical assumption test there were 110 outlier data, so that the remaining analysis units were 145 analysis units. The results of the descriptive statistical analysis in this study are as follows (see Table 2).

Path analysis is an extension of multiple regression analysis to determine direct and indirect effects. Model I regression analysis was conducted to determine the effect of managerial ownership, institutional ownership,
and profitability on the audit committee quality. Model I regression test results can be seen in Table 3.

Based on Table 3, the following Model I regression equation is obtained:

\[
ACQ = 91.803 - 0.011 \text{MO} - 0.001 \text{IO} + 1.3842 \text{P} + 0.935
\]

(1)

Unstandardized Coefficients value of -0.011 became path p5, -0.001 became path p6 and 1.3842 became path p7. Model II regression analysis was conducted to determine the effect of managerial ownership, institutional ownership, profitability and the audit committee quality on IC disclosure. Model II regression test results can be seen in Table 4.

Based on Table 4, the following model II regression equation is obtained:

\[
AY = 34.052 + 0.006 \text{MO} - 0.001 \text{IO} + 0.002 \text{P} + 0.230 \text{ACQ} + 0.812
\]

(2)

Unstandardized coefficients beta value of 0.006 becomes path p1, -0.001 becomes path p2, 0.002 becomes path p3 and 0.230 becomes path p4. The results of the regression analysis of Models I and II form the basis for estimating the causality relationship in the path analysis model. The path analysis diagram can be seen in Figure 1.

The value of direct effect, indirect effect, and total effect can be seen in Table 5.

T test aims to determine the magnitude of the partial effect of each independent variable on the dependent variable (Ghozali, 2013). A summary of the results of the t test can be seen in Table 6.

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**Table 3: Model I regression test results**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>B 91.803</td>
<td>Std. Error 1.384</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>MO</td>
<td>-0.011</td>
<td>0.004</td>
<td>-0.248</td>
<td>3.140</td>
</tr>
<tr>
<td>IO</td>
<td>-0.001</td>
<td>0.000</td>
<td>-0.257</td>
<td>3.258</td>
</tr>
<tr>
<td>P</td>
<td>1.3842</td>
<td>0.001</td>
<td>0.002</td>
<td>0.978</td>
</tr>
</tbody>
</table>

Note: dependent variable: ACQ

**Table 4: Model II regression test results**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>B 34.052</td>
<td>Std. Error 5.430</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>MO</td>
<td>0.006</td>
<td>0.003</td>
<td>0.171</td>
<td>2.401</td>
</tr>
<tr>
<td>IO</td>
<td>-0.001</td>
<td>0.000</td>
<td>-0.392</td>
<td>3.510</td>
</tr>
<tr>
<td>P</td>
<td>0.002</td>
<td>0.001</td>
<td>0.207</td>
<td>3.013</td>
</tr>
<tr>
<td>ACQ</td>
<td>0.230</td>
<td>0.058</td>
<td>0.290</td>
<td>3.947</td>
</tr>
</tbody>
</table>

Note: dependent variable: ICD

**Table 5: Summary of Model Parameter Estimation Results**

<table>
<thead>
<tr>
<th>No</th>
<th>Relationship Model</th>
<th>Direct effect</th>
<th>Indirect effect</th>
<th>Total effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>MO → ICD</td>
<td>0.006</td>
<td>-0.0025</td>
<td>0.0035</td>
</tr>
<tr>
<td>2</td>
<td>IO → ICD</td>
<td>-0.001</td>
<td>-0.00023</td>
<td>-0.00123</td>
</tr>
<tr>
<td>3</td>
<td>P → ICD</td>
<td>0.002</td>
<td>0.318</td>
<td>0.320</td>
</tr>
</tbody>
</table>
A sobel test was conducted to determine the mediating effect of the audit committee quality variables on managerial ownership, institutional ownership and profitability variables. Decision-making based on the significance value, if ≤ 0.05 then the hypothesis is accepted and if ≥ 0.05 then the hypothesis is rejected. A summary of the sobel test results can be seen in Table 7.

The determination coefficient shown from the Adjusted R Square value of 0.321. Value of 0.320 means that the dependent variable can be explained by the independent variables in the form of managerial ownership, institutional ownership, profitability and audit committee quality by 32.1% and the remaining 67.9% is explained by other factors outside the variables in this research model.

### 4.1. The Effect of Managerial Ownership on IC Disclosure

Managerial ownership has a positive effect on IC disclosure. The results of this study are in line with the agency theory proposed by Jensen and Meckling (1976), which explains that share ownership by management is able to reduce agency problems because managers will maximize their work performance to have more incentives.
The results of this study are in line with study by Mukhibad and Setyawati (2019) and Saleh et al. (2009).

4.2. The Effect of Institutional Ownership on IC Disclosure

Institutional ownership has a negative effect on IC disclosure. The reason for not accepting this hypothesis is because some companies as research samples have an institutional ownership value of more than 65% or are categorized as very high, and actually have a much lower level of IC disclosure; there are 13 units of analysis whose institutional ownership value is below 16% or in the very low category have a high level of IC disclosure. The results of this study are in line with the study by Hidalgo, Garci, and Martı (2011), Haji (2015), Rahman et al. (2019b), and Rahman and Sartawi (2018).

4.3. The Effect of Profitability on IC Disclosure

Profitability has a positive effect on IC disclosure. The results of this study are in line with the signaling theory that high-performance companies will disclose more information to send signals to investors (Spence, 1973). The more investors a company has, the greater the demand for transparency in performance and information. Hamrouni, Miloudi, and Benkraiem (2015) show that the company’s willingness to disclose intellectual capital is strongly influenced by the company’s performance. The results of this study are in line with research by Muryanti and Subowo (2017) and Solikhah and Subowo (2016).

4.4. The Effect of Audit Committee Quality on IC Disclosure

The audit committee quality has a positive effect on IC disclosure. The results of this study are in line with agency theory that describes the audit committee as a party that has control over the company’s internal affairs. One of the tasks and roles of the audit committee is to review financial statements and supervise the company’s internal affairs (Jensen & Meckling, 1976). The results of this study are in line with research by Dewayanto (2018) and Haji (2015).

4.5. The Audit Committee Quality Mediates the Effect of Managerial Ownership on IC Disclosure

The audit committee quality is not able to mediate the effect of managerial ownership on IC disclosure. The reason for not accepting this hypothesis is because the average managerial ownership value is still low at 0.3% while the value of the audit committee quality is quite good at 0.87. Therefore, the effect of managerial ownership on the audit committee quality cannot be proven due to the large difference in value. So, this research is unable to prove that large managerial ownership results in an increase in the audit committee quality in the companies.

4.6. Audit Committee Quality Mediates the Effect of Institutional Ownership on IC Disclosure

The results of this study are able to confirm the signaling theory, which states that the company will make more disclosures about company information to provide a positive signal to the market and investors (Spence, 1973). High institutional ownership will encourage an increase in the quality of the audit committee because the presence of the audit committee will assist shareholders in overseeing the performance or internal activities carried out by the company. A good audit committee will carry out its duties and responsibilities well so that it can increase the disclosure of company information, especially regarding intellectual capital.

4.7. Audit Committee Quality Mediates the Effect of Profitability on IC Disclosure

The results of this study were able to confirm the signaling theory and agency theory. Voluntary disclosure of intellectual capital by the company is expected to be a good signal for shareholders that can increase the trust of shareholders (Spence, 1973). Companies with high profitability certainly have more incentives to finance the improvement of the quality of the audit committee so that they are better able to monitor the quality of company reports before they are published and disclosed (Ferreira, 2012).

5. Conclusion

The results show that managerial ownership, profitability, and the audit committee quality have a positive and significant effect on IC disclosure. Institutional ownership has a significant negative effect on IC disclosure. The audit committee quality is able to mediate the effect of institutional ownership and profitability on IC disclosure. However, the audit committee quality is not able to mediate the effect of managerial ownership on IC disclosure. The results of this study develop and strengthen the results of prior studies related to the implementation of both the signaling theory and the agency theory. The findings provide more understanding to management about the importance of IC disclosure as a reference and consideration for investors before investing their share. This study contained outlier data so that it had to delete data, which caused the number of analysis units to decrease. Subsequent study can choose sample criteria
that match the data needed so that there is no outlier data, other than that it can also choose the population of other companies to know the difference.

References


