The Role of Board Commissioner, Ownership Concentration, Leverage, and Firm Size on Intellectual Capital Disclosure

Anis Maryanih\(^1\), Lia Uzliawati\(^2\), Agus Sholikh Yulianto\(^3\)

\(^1,2,3\) Department of Accounting, Sultan Ageng Tirtayasa University, Indonesia

ABSTRACT: The purpose of this study is to discover the impact of Board of Commissioner Size, Independent Commissioner, Ownership Concentration, Leverage, and Firm Size on Intellectual Capital Disclosure. Research population is Banking Sector listed on Indonesian Stock Exchange in 2017-2020. The study used purposive sampling method in order to collect the sample. This study used the data analytical method is descriptive statistical analysis, classical assumption test, coefficient determination test, f test and t test by SPSS version 25. Based on certain criteria, there were 148 sample. Finding at the study is Board of Commissioner Size, Independent Commissioner, Ownership Concentration has not effect on Intellectual Capital Disclosure. Leverage, and Firm Size have a significant positive effect on intellectual capital disclosure.

Keywords – Commissioner, Ownership, Leverage, Firm Size, Intellectual Capital Disclosure.

1. INTRODUCTION

The shift from a labor-based business to a knowledge-based business makes companies focus more on the importance of creating knowledge transformation as a form of intangible assets (Soebyakto, Agustina & Mukhtaruddin, 2014). The right component in measuring, assessing, and reporting intangible assets is to use intellectual capital. Intellectual Capital disclosure in Indonesia is caused by the disclosure that is still voluntary and depends on the policies of each company (Nurhayati & Uzliawati, 2017). According to Widiatmoko and Indarti (2018), intellectual capital disclosure can help companies reduce the occurrence of information asymmetry and increase the relevance of financial statements. The intellectual capital banking sector has developed through various digital transformations such as BNI, BRI, BCA, and Mandiri which have developed the latest innovations in serving customers. This development is also followed by the complete disclosure of intellectual capital in the annual report. Naimah and Mukti (2019) stated that the increase in intellectual capital disclosure was influenced by several factors including leverage and firm size. Lia Uzliawati (2015) the level of intellectual capital disclosure is influenced by the role of the board of commissioners. Meanwhile, research by Saha and Kabra (2020) states that the factor that affects the level of Intellectual Capital Disclosure is the ownership concentration. The number of commissioners will affect the company's competitiveness so that the disclosures made by the company will increase (Rahandika & Dewayanto, 2019), the proportion of independent commissioners is also needed in supervising management actions not to be opportunistic and prioritizing the interests of shareholders will make the disclosure of Intellectual Capital Disclosure higher (Ashari & Putra, 2016). Shares of companies that are widely owned will result in diverse shareholder interests so that information asymmetry often occurs, therefore companies need to disclose additional information by disclosing intellectual capital (Setianto & Purwanto, 2014). The need for intellectual capital information is also
needed by creditors, because the higher the level of leverage, the higher the risk borne by the company. That way the company will disclose intellectual capital as consideration for creditors in assessing the company's ability to pay off debt (Setianto & Purwanto, 2014). Another factor that affects the level of intellectual capital disclosure is the size of the company because the larger the scale of the company reflects that the more diverse activities are carried out and the information asymmetry tends to be higher. Therefore, companies need to disclose a lot of information including intellectual capital disclosure (Naimah & Mukti, 2019).

2. Literature Review and Hypothesis

2.1 Agency Theory
Jensen and Meckling (1976) mention that agency theory is related to the contractual relationship between the principal (business owner) and the agent (business manager or management). The concept of agency theory states that both the principal and the agent are self-interest (Ghozali, 2020). Eisenhardt (1989) assumes that human nature related to agency theory consists of selfishness, so both the agent and the principal often have different interests. Agents tend to act opportunistically even against the will of the principal. Based on this assumption, managers as human beings who have their self-interests are most likely to act opportunistically by not providing comprehensive information to the principal, as a result, the principal has less information in assessing agent behavior (Eisenhardt, 1989; Scott, 2000). According to Delima and Zuliyati (2020) shareholders have access to internal company information, while company managers have real and comprehensive information about the company's operations and performance. To reduce the occurrence of information asymmetry, companies need to disclose additional information in the form of intellectual capital disclosure.

2.2 Board of Commissioner Size Impact to Intellectual Capital Disclosure
The number of commissioners can increase the effectiveness of supervision (Rahandika & Dewayanto, 2019). In this, management will be more careful in their actions and will be encouraged to disclose a lot of information, including Intellectual Capital Disclosure. The more the board of commissioners, the higher the disclosure of the company's intellectual capital (Saha & Kabra, 2020). Uzliawati (2015), Rahandika & Dewayanto (2019), and Priyanti & Wahyudin (2015) show that the board of commissioner size has a positive effect on intellectual capital disclosures. Therefore the hypothesis is:
H1: Board of commissioner size has a positive effect on intellectual capital disclosure.

2.3 Independent Commissioner Impact to Intellectual Capital Disclosure
The effective role of the board of commissioners can be seen in the independent commissioners. The role of the independent commissioner as a neutral party is expected to be an intermediary between the interests of management and shareholders. The existence of an independent commissioner also makes management make accurate disclosures by disclosing intellectual capital. The more effective the role of independent commissioners, the higher the disclosure of intellectual capital (Ashari & Putra, 2016). In the research of Ashari & Putra (2016), Muryanti & Subowo (2017), and Latusura & Muid (2021) show that independent commissioners has a positive effect on intellectual capital disclosure. Therefore, the next hypothesis is:
H2: Independent commissioner has a positive effect on intellectual capital disclosure.

2.4 Ownership Concentration Impact to Intellectual Capital Disclosure
A low of ownership concentration allows for conflicts between owners (Setianto & Purwanto, 2014). Agency problems can increase if the percentage of shares owned by management is small (Soebjakto et al., 2014). Companies with spread ownership mean that the company has more shareholders with diverse interests so that the demands for information disclosure are higher, as a result, there is more disclosure of intellectual capital (Setianto & Purwanto, 2014). Research by Setianto & Purwanto (2014), and Suwarti et al., (2016) shows that ownership concentration has a negative effect on intellectual capital disclosure. Therefore, the hypothesis in this study is:
H3: Ownership concentration has a negative effect on intellectual capital disclosure.
2.5 Leverage Impact to Intellectual Capital Disclosure
Agency theory explains that the higher the level of corporate leverage, the higher the demand for transparency on the company (Jensen & Meckling, 1976). Information asymmetry occurs when management does not provide sufficient information about the use of debt. As a result, management will disclose a lot of information, including intellectual capital disclosure (Setianto & Purwanto, 2014). Research Septiana & Subowo (2020), Rajabalizadeh & Oradi (2021), and Bohalima et al., (2021) show that leverage has positive effect on intellectual capital disclosure. So, the next hypothesis is:

H4: Leverage has a positive effect on intellectual capital disclosure.

2.6 Firm Size Impact to Intellectual Capital Disclosure
Large-scale companies have diverse operational activities, competent human resources, and adequate information systems (Suwarti et al., 2016). The bigger the company, the higher the demand for transparency of company information. To provide an overview of the actual condition of the company and reduce the information asymmetry that occurs, management will make voluntary disclosures including intellectual capital disclosure (Naimah & Mukti, 2019). In research Kamath (2017), Septiana & Subowo (2020), and et al., (2021) state that firm size has positive effect on intellectual capital disclosure. So the hypothesis in this study is:

H5: Firm size has a positive effect on Intellectual Capital Disclosure.
3. RESEARCH METHODS

3.1 Methods
This study uses secondary data in the form of annual reports and financial statements for the 2017-2020 period. This study obtains annual report data and financial reports from the Indonesia Stock Exchange, which can be accessed at www.idx.co.id and the bank’s official website. The population in this study is the banking sector listed on the Indonesia stock exchange in 2017-2020 with the sample criteria using purposive sampling. This study uses data processing techniques with SPSS (Statistical Product and Service Solution) version 25. The data analysis used is descriptive statistical analysis, classical assumption test, coefficient of determination test, f-test, and t-test.

3.2 Research Variable
The dependent variable in this study is intellectual capital disclosure using the ICD-In framework modified by Ulum (2015). The measurements are as follows:

\[ \text{Score} = \frac{\sum d_i}{m} \]

The board of commissioner size is obtained from the number of commissioners in that year.

Independent commissioners are measured using the following:

\[ \text{Komisaris Independen} = \frac{\sum \text{Komisaris independen}}{\sum \text{Dewan Komisaris}} \]

The ownership concentration is measured using the following measurements:

\[ \text{Own} = \frac{\sum \text{Kepemilikan saham terbesar}}{\sum \text{saham beredar}} \]

Leverage is proxied by the debt to asset ratio in the following formula:

\[ \text{DAR} = \frac{\text{Total Hutang}}{\text{Total Aset}} \]

Firm size is measured by the following formula:

\[ \text{Ln Total Assets} \]

4. RESEARCH RESULT

4.1 Variable Description
The population in this study amounted to 42 banks while the sample in this study consisted of 37 banks. This means that there are 5 banks that do not meet the sample criteria. So that the total data sampled in the 2017-2020 period amounted to 148 data.

4.2 Descriptive Statistical Analysis Result
Descriptive statistical analysis is used in study to provide an overview or description of research data seen from the average value (mean), minimum value, maximum value and standard deviation (Ghozali, 2018) (Ghozali, 2018: 19). The description of this research variable is follows:

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOCS</td>
<td>148</td>
<td>2.00</td>
<td>10.00</td>
<td>2.01834</td>
</tr>
<tr>
<td>IC</td>
<td>148</td>
<td>0.33</td>
<td>0.80</td>
<td>0.09676</td>
</tr>
<tr>
<td>OWN</td>
<td>148</td>
<td>0.15</td>
<td>0.98</td>
<td>0.22454</td>
</tr>
<tr>
<td>LEV</td>
<td>148</td>
<td>0.71</td>
<td>0.94</td>
<td>0.05131</td>
</tr>
<tr>
<td>SIZE</td>
<td>148</td>
<td>28.43</td>
<td>34.95</td>
<td>1.70288</td>
</tr>
<tr>
<td>ICD</td>
<td>148</td>
<td>0.39</td>
<td>0.86</td>
<td>0.10672</td>
</tr>
</tbody>
</table>

Valid N (listwise) 148

Source: Data is processed by researcher with SPSS 25 (2022)
Information:
ICD = Intellectual Capital Disclosure
BOCS = Board of Commissioner Size
IC = Independent Commissioner
OWN = Ownership Concentration
LEV = Leverage
SIZE = Firm Size

4.3 Classic Assumption Test Result
The results of the classical assumption test, namely normality, multicollinearity, heteroscedasticity, and autocorrelation tests are explained as follows:

<table>
<thead>
<tr>
<th>Normality Test</th>
<th>Asymp. Sig = 0.200</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multikolonierity Test</td>
<td>Tolerance 0.670, 0.944, 0.931, 0.951, 0.689</td>
</tr>
<tr>
<td>VIF</td>
<td>1.492, 1.059, 1.074, 1.052, 1.452</td>
</tr>
<tr>
<td>Autokorelation Test</td>
<td>du&lt;dw&lt;4-dw = 1.8012 &lt; 1.932 &lt; 2.1988</td>
</tr>
<tr>
<td>Heterokedasticity Test</td>
<td>0.163, 0.615, 0.320, 0.304, 0.304</td>
</tr>
</tbody>
</table>

Source: Data is processed by researcher with SPSS 25 (2022)

Based on table 3, the results of the residual normality test show the Asymp value. Sig of 0.200 which is greater than alpha (α = 0.05), means that the residual data in this study is normally distributed. The results of the multicollinearity test in table 3 show the variable the board of commissioner size, independent commissioners, concentration of ownership, leverage, and firm size tolerance > 0.10 and variance inflation factor (VIF) < 10, this indicates that there is no multicollinearity in the regression model. The heteroscedasticity test shows that the variable the board of commissioner size, independent commissioners, ownership concentration, leverage, and firm size have a significant value above 0.05 which means there is no heteroscedasticity. The results of previous tests showed an autocorrelation. Therefore, to deal with autocorrelation, the Orcutt Cochrane test is used by transforming the data into a lag form. From the results of the analysis, it can be seen that the Durbin Watson resulting from the autocorrelation test is 1.932. Durbin Watson table obtained a lower limit value (dl) of 1.6608 and an upper limit value (du) of 1.8012 at a significance level of 0.05. Where du < dw < 4-du is 1.8012 < 1.9320 < 2.1988. So it can be concluded that there is no autocorrelation.

4.4 Coefficient Determination Test (R Square) Result

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.680</td>
<td>0.462</td>
<td>0.443</td>
<td>0.06397</td>
</tr>
</tbody>
</table>

Source: Data is processed by researcher with SPSS25 (2022)

Based on Table 4 the value of the coefficient of determination can be seen from the Adjusted R Square value of 0.462 or 46.2% which means that the independent variables in the form of the board of commissioner size, independent commissioners, ownership concentration, leverage, and firm size affect intellectual capital disclosure by 46.2%, while the remaining 54.8% is influenced by other variables not examined in this study.
4.5 F Test Result

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>0.495</td>
<td>5</td>
<td>0.099</td>
<td>24.203</td>
<td>0.000</td>
</tr>
<tr>
<td>Residual</td>
<td>0.577</td>
<td>141</td>
<td>0.004</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1.072</td>
<td>146</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Data is processed by researcher with SPSS 25 (2022)

Based on Table 5, it is known that the f-count value is 24.203 and f-table is 2.28 and the significance value is 0.000. The value of f-count is greater than f-table which is 24.203 > 2.28 and the significance value is 0.000 less than 0.05 (5%). So it can be concluded that the independent variables are the board of commissioners size, independent commissioners, ownership concentration, leverage, and firm size has effect on intellectual capital disclosure.

4.5 T Test Result

<table>
<thead>
<tr>
<th>Model</th>
<th>Hypotesis</th>
<th>B</th>
<th>Prediction</th>
<th>t</th>
<th>Sig.</th>
<th>Note</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>-0.065</td>
<td></td>
<td>-3.405</td>
<td>0.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BOCS</td>
<td>H1</td>
<td>6.876</td>
<td>Positive</td>
<td>1.865</td>
<td>0.064</td>
<td>No Significant</td>
<td>No Accepted</td>
</tr>
<tr>
<td>IC</td>
<td>H2</td>
<td>0.032</td>
<td>Positive</td>
<td>0.450</td>
<td>0.654</td>
<td>No Significant</td>
<td>No Accepted</td>
</tr>
<tr>
<td>OWN</td>
<td>H3</td>
<td>-0.010</td>
<td>Negative</td>
<td>-0.356</td>
<td>0.722</td>
<td>No Significant</td>
<td>No Accepted</td>
</tr>
<tr>
<td>LEV</td>
<td>H4</td>
<td>0.179</td>
<td>Positive</td>
<td>2.832</td>
<td>0.005</td>
<td>Significant</td>
<td>Accepted</td>
</tr>
<tr>
<td>SIZE</td>
<td>H5</td>
<td>3.102</td>
<td>Positive</td>
<td>7.612</td>
<td>0.000</td>
<td>Significant</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

Source: Data is processed by researcher with SPSS 25 (2022)

Based on the results of the t-test in Table 6, the significance value of the board of commissioner size is 0.064 > 0.05. So it can be concluded that the board of commissioner size has not effect on intellectual capital disclosure, it’s mean that hypothesis 1 is not accept. The independent commissioner variable has a significance value of 0.654 > 0.05. So it can be concluded that the independent commissioner has not effect on intellectual capital disclosure, it’s mean that hypothesis 2 is not accepted. The ownership concentration variable has a significance value of 0.722 > 0.05. So it can be concluded that the ownership concentration does not have a significant positive effect on intellectual capital disclosure, it’s mean that hypothesis 3 is not accepted. The leverage variable has a significance value of 0.005 < 0.05. So it can be concluded that leverage has a significant positive effect on intellectual capital disclosure, it’s mean that hypothesis 4 is accepted. The firm size variable has a significance value of 0.000 <0.05. So, it can be concluded that the board of commissioner size has a significant positive effect on intellectual capital disclosure, it’s mean that hypothesis 5 is accepted.

4.6 Discussion

4.6.1 The Effect of Board of Commissioner Size on Intellectual Capital Disclosure

The results of testing the first hypothesis (H1) show that the board of commissioner size has no effect on intellectual capital disclosure, meaning that the first hypothesis is not accept. This means that the size of commissioners has no effect on the level of intellectual capital disclosure. The results These results support the research Saha and Kabra (2020) which state that the board of commissioner size is not effective in controlling management to disclose intellectual capital, because the coordination of the board of commissioners will be more focused on company directors.
4.6.2 The Effect of Independent Commissioner on Intellectual Capital Disclosure
Results of test the second hypothesis (H2) indicate that the independent commissioner has no effect on intellectual capital disclosure, meaning that the second hypothesis is not accept. This means that the role of independent commissioners has no effect on the company’s decision to disclose intellectual capital information. The results of this study are in line with research Indrayati et al (2021) which states that company management as an agent will act opportunistically and not prioritize the interests of shareholders. Thus, it shows that the more significant the proportion of Independent Commissioners is not necessarily able to understand and represent the interests of minority shares and all company stakeholders so that the control and internal control functions at the top level do not work as they should.

4.6.3 The Effect of Ownership Concentration on Intellectual Capital Disclosure
Results of test the third hypothesis (H3) show that the ownership concentration has no effect on intellectual capital disclosure, meaning that the third hypothesis is no accept. This means that share ownership that is spread or concentrated to a certain structure does not affect the extent of disclosure of the company’s intellectual capital. The results of this study are in line with the research Widiatmoko and Indarti (2018) which states that the size of the percentage ownership concentration does not affect the amount of intellectual capital disclosure.

4.6.4 The Effect of Leverage on Intellectual Capital Disclosure
Results of test the fourth hypothesis (H4) show that leverage has a positive effect on intellectual capital disclosure, meaning that the fourth hypothesis is accepted. This means that a high level of leverage has an impact on high information asymmetry as well. So to meet the information needs required by creditors, the company will disclose intellectual capital in its annual report. These results are in line with the research Bohalima et al, (2021), Rajabalizadeh & Oradi, (2021), and Septiana & Subowo (2020).

4.6.5 The Effect of Firm Size on Intellectual Capital Disclosure
Results of test the fifth hypothesis (H5) indicate that firm size has a positive effect on intellectual capital disclosure, meaning that the fifth hypothesis is accepted. This means that the larger the size of a company with diverse activities, the higher the level of information asymmetry. So to reduce this the company will disclose complete information with intellectual capital disclosure. These results are in line with the research of Rahma et al., (2021), Kamath (2017), and Septiana & Subowo (2020).

5. CONCLUSION
The purpose of this study was to determine the effect board of commissioners size, independent commissioners, ownership concentration, leverage, and firm size on intellectual capital disclosure in the banking sector listed on Indonesia Stock Exchange in 2017-2020. Based on the results of statistical tests and discussions that have been carried out, it can be concluded that board of commissioners size, independent commissioners and ownership concentration have no effect on intellectual capital disclosure. This shows that the corporate governance component cannot influence management’s decision to disclose intellectual capital so that management is more concerned with its own interests and overrides the interests of shareholders. Likewise, the number of dispersed shareholders also does not affect the extent of intellectual capital disclosure by the company. Leverage and firm size have a significant positive effect on intellectual capital disclosure. This shows that companies that are large in scale or have a high level of leverage tend to disclose more information voluntary disclosure of intellectual capital. The limitation of this study is that the use of variables to represent the role of board of commissioners has not been fulfilled so that the effectiveness of the role of the board of commissioners is still not seen. The recommend adding other variables such as the frequency of board of commissioners meetings and the educational background of the board of commissioners. Another limitation is that during the research period, this study only used 4 years of observation with 148 samples. As a result, data processing is not optimal due to the lack of variation in research data. Future research is expected to be able to add research periods and research samples to facilitate the processing of research data.
Journal Papers:


Books:


Internet:
[26] www.idx.co.id

INFO

**Corresponding Author:** Anis Maryanih, Department of Accounting, Sultan Ageng Tirtayasa University, Indonesia.