Determinants Intellectual Capital of Banking Companies in Indonesia

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ABSTRACT

This research examines the effect of ownership concentration, audit committee, and company performance on intellectual capital disclosures in banks on the Indonesia Stock Exchange. This research is descriptive quantitative research, and research data uses the financial statements of the IDX on banking 2014-2018. Company performance is measured by ROA, while VACA, VAHU and STV measure intellectual capital. Purposive sampling was used in this research and obtained 131 observations. Hypothesis testing with multiple linear regression analysis proves that ownership concentration and financial performance affect intellectual capital. A high concentration of ownership and sound financial performance will encourage company management to disclose intellectual capital. The amount of concentration of shares owned by shareholders will impact the effectiveness of control over management. Companies that have a good performance, shareholders will always supervise management in carrying out their duties; therefore, management will disclose intellectual capital. This study also shows that the audit committee doesn’t affect intellectual capital. The audit committee doesn’t affect intellectual capital due to the lack of independence in conducting supervision. Therefore, management will always carry out their duties in managing companies that disclose intellectual capital.

Keywords: Intellectual Capital, Audit Committee, Ownership Concentration, and Financial Performance

1. INTRODUCTION

Companies in the globalization era must have intellectual capital, innovation, technology to face competition and business changes. Isa & Deviana [1] explain that the business environment experiencing changes must use intangible assets, including intellectual capital. Intellectual capital is an essential aspect of a company's survival [2]. Intellectual capital is a combination of company resources and knowledge [3].

Companies in the globalization era must have intellectual capital, innovation, [2] explained that companies must improve technology and relationships with customers and investors to obtain adequate intellectual capital. This study tries to test intellectual capital in banking in Indonesia based on previous research findings. Several studies on intellectual capital have been conducted with other variables. Research conducted by Joston & Susanti [3] examined intellectual capital, ownership concentration and audit committee [4]. From the above research, concluded that the factors that affect intellectual capital include corporate governance and company performance that the company value can increase.

Several research results prove that ownership concentration does not affect intellectual capital Nurfitasari [5]; Subaida [6] Subaida (2019); and Wahyuni & Utami [7], while Eduardus & Daromes [8] and Anna et al. [9] prove that ownership concentration has a positive effect of intellectual capital. Research on the financial performance of intellectual capital was conducted by Puspitosari [10]; Ulum et al.[11]; and Ulum [12] show that financial performance affects intellectual capital.

Jensen & Meckling [13] explained that there are principal and management, which causes conflicts of interest and information asymmetry. Agency theory is to describe the relationship between management and company owners who must control its management activities. Asfahani [14] explains that the delegation of authority between the principal and the agent in decision
making often creates agency problems, leading to differences in motivation and interests. Efforts to reduce agency problems in the company can be made by increasing share ownership concentration. The more concentrated the company’s shares, the more likely it will encourage management to disclose intellectual capital and reduce agency conflicts. Likewise, a more independent audit committee will make it easier to solve problems within the company. Asfahani [14] in his research, proves that the old company age will reveal more complete and comprehensive intellectual capital information which will have an impact on reducing agency costs.

2. LITERATURE REVIEW

2.1. Agency Theory

According to Jensen & Meckling [13], the company's principal-agent relationship can be assumed as a contract in which the owner can involve the agent in making decisions and managing the company. Therefore, company management's existence must be in line with the owners and shareholders' goals and desires. Therefore, company management's existence must be in line with the owners and shareholders' goals and desires. Company management must provide services to owners and shareholders (principal) by their duties [14].

Agency theory explains the separation of duties between the shareholder and the management [15]. Management must act under applicable regulations, but often the agents are more selfish, so that will cause agency problems. Thus, a system used by shareholders is needed in supervising the activities of managers in company management which aims to reduce the occurrence of information asymmetry.

According to Eduardus & Daromes [8], the impact of agency problems is agency costs. Asfahani [14] say that to overcome information asymmetry. Companies can form supervisor boards consisting of an audit committee to assist company activities, especially in supervising managers, carrying out their duties and preparing financial reports. One way to minimize agency costs is by disclosing hidden values such as intellectual capital which is reported annually.

Companies that provide signals to the market through disclosure of intellectual capital can reduce asymmetry problems, especially for companies that see the importance of intellectual capital [16]. For this reason, the company will provide more voluntary disclosure of information than it should be to give a positive signal so that it will make it easier for stakeholders to assess the company and influence it.

2.2. Ownership concentration

Ownership concentration is how much shareholders supervise company managers in carrying out their duties and obligations [17]. The concentration of ownership is also one way to improve managers' performance so that shareholders can get more detailed information about their company [4]. Company information is needed because it is used to attract investors to invest in the company. For this reason, the published information must be under the actual truth and circumstances according to the company.

2.3. Audit Committee

The audit committee's function is to oversee management's actions in managing the company, a series of financial reporting preparation processes, and auditors' selection to audit the results of financial statements [18]. According to Nurfitasari [5], the audit committee has the task of controlling company activities. The audit committee has an essential role in a company because its job is to supervise when reporting intellectual capital disclosures. The audit committee can be said to be effective if it can increase disclosure of intellectual capital. Thus, the audit committee will have a role in supervising company management and shareholders.

2.4. Company Performance

The company's performance generally consists of financial (profit) and nonfinancial. This research focuses more on the performance of financial companies. Company performance includes financial performance using the Return On Asset ratio. Puspitosari [10] explains that financial performance is an achievement of a company seen from its financial statements for a certain period. Elisetiaiwati & Artinah [19] explain that financial performance is an effective and efficient determinant for companies to achieve the company's goals. Puspitosari [10] explains that the ROA is a financial performance ratio often used to obtain information.

2.5. Hypothesis Development

2.5.1. The Effect of The Ownership Concentration on Intellectual Capital

The Effect of Ownership Concentration on Intellectual Capital. Hindun [4] explains that ownership concentration is how big company shares are spread across shareholders. Agency theory states that shareholders can supervise the company so that managers can carry out their duties properly [17]. Supervision within a company aims to reduce agency conflicts. Hindun [4] explains that the higher the concentration of shares, the good the relationship between company managers and shareholders. Thus it will reduce the problems that are happening in the company and agency costs.

Eduardus & Daromes [8] stated that concentration positively affects the disclosure of intellectual capital. Hindun [4]; Nugroho [17] and Wahyuni & Utami [7] states that ownership concentration doesn’t affect the disclosure of intellectual capital. Thus, the higher the stock, the lower the agency costs. Shareholders have the...
right to properly supervise the management's performance to carry out their duties in the company. The first hypothesis is the following:

H1: Ownership concentration has a positive effect on intellectual capital

2.5.2. The Effect of The Audit Committee on Intellectual Capital

Nurfitasi [5] explains that the audit committee variable is a company attribute that affects intellectual capital disclosures. Hindun [4] explains that agency theory, companies must have supervisor boards, namely an audit committee whose job is to supervise the performance of company managers when making financial reports. Agency theory explains that when the audit committee runs according to its duties, the disclosure of intellectual capital in a company will be maximized.

Hindun [4] explained that the audit committee members would disclose much information about intellectual capital disclosures. Ningsih & Lakisto [20] explain that many audit committees are likely to solve financial reporting problems because they will effectively carry out supervision. In their research, Ana et al. [9] stated that the audit committee influenced intellectual capital, whereas those who stated that the audit committee did not influence intellectual capital were [5] and [7].

Thus, the larger number of audit committees will also disclose information regarding intellectual capital. The audit committee has a duty within the company to supervise managers when carrying out their duties. The second hypothesis is the following:

H2: Committee Has a Positive Effect on Intellectual Capital

2.5.3. The Effect of Financial Performance on Intellectual Capital

Puspitosari [10] explains that a company's achievements will be seen from its financial statements for one period. A company that has a high (good) performance will indirectly disclose its intellectual capital will also be useful. Isa & Deviana [1] explain that good company performance will perform complete information disclosure. Nurhayati et al. [21] explain agency theory that company performance that discloses information comprehensively will reduce agency costs.

Financial performance affects intellectual capital [1], [10], [21]. Thus, sound financial performance will minimize asymmetry and agency costs. The financial performance will publish complete intellectual capital information. The third hypothesis is the following:

H3: Financial performance has a positive effect on intellectual capital

3. RESEARCH METHOD

This research is a quantitative descriptive study on the IDX banking in 2014-2018. The choice of banking company in this research was because employees' intellectual aspects were more homogeneous [12]. Banking company employees have a different understanding, competence and soft skills, so a more objective human capital treatment is needed. Thus, the selection of a banking company as the unit of analysis in this study will be more objective in disclosing intellectual capital.

3.1. Operational Definition of Variables

Ulum [12] explained that intellectual capital could be measured by the value-added intellectual coefficient (VAIC). Intellectual capital is measured using the added value created by physical capital (VACA), structural capital (STVA), and human capital (VAHU). The intellectual capital indicator refers to Ulum [11] research, which states that value-added is used to reflect or create value.

The independent variables consist of ownership concentration, audit committee and company performance. Hindun [4] explains that ownership concentration is some outstanding shares with the highest share ownership to allow these shareholders to explore the company's resources. The indicator of ownership concentration is the most extensive share ownership divided by the shares outstanding [22]. Nurfitasari [5] explains that the audit committee is a committee that supervises the company to achieve its goal of seeking maximum profit. The audit committee indicator is the number of audit committee [20]. The financial performance in this research is measured using ROA. Isa & Deviana [1] stated that financial performance could reflect the company's success in generating profits in one period. Another opinion was stated by Ulum [12] that the ROA indicator is net income divided by total assets.

3.2. Data Analysis Technique

Multiple linear regression analysis is used to test the hypothesis of the relationship between variables. Besides that, descriptive statistical analysis was also carried out to provide an overview of the research data, including the minimum, mean, maximum, and standard deviation values.

They were testing the hypothesis of this research using Multiple Linear Regression to see the coefficient of determination (R2), partial test (t-test), and model F test. The partial test value can be used to see the significant value and the hypothesis. If the t-test value is less than 0.05, it is concluded that the research hypothesis is accepted (influential or significant). The research model:

\[ Y = \alpha + \beta_1X_1 + \beta_1X_2 + \beta_1X_3 + e \]
Information:
Y = Intellectual Capital
X1 = Audit Committee
X2 = Ownership Concentration
X3 = Financial Performance
A = Constant
E = Error.

4. RESULTS AND DISCUSSION

4.1. Data Analysis Results

4.1.2 Descriptive Statistical Analysis Results

The descriptive statistical analysis aims to describe the research variables consisting of Intellectual Capital (Y), Audit Committee (X1), Ownership Concentration (X2), Financial Performance (X3). Descriptive statistics in this research in Table 1.

Table 1. Descriptive Statistics

<table>
<thead>
<tr>
<th>Model</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1</td>
<td>0.2</td>
<td>542.8</td>
<td>35.354</td>
<td>122,6350</td>
</tr>
<tr>
<td>X2</td>
<td>3.0</td>
<td>7.0</td>
<td>3.977</td>
<td>1.0412</td>
</tr>
<tr>
<td>X3</td>
<td>0.00</td>
<td>1.40</td>
<td>0.235</td>
<td>0.12120</td>
</tr>
<tr>
<td>Y</td>
<td>-2.6</td>
<td>364.6</td>
<td>5.957</td>
<td>31.6483</td>
</tr>
</tbody>
</table>

Source: Data processed in 2020

Table 1 shows that the concentration of ownership has the lowest value of 0.2, the highest value of 542.8, the average value of 35.354 and a standard deviation of 122.6350. The audit committee had the lowest score of 3.0, the highest score of 3.0, the average value of 3,977 and the standard deviation of 1.0412. Financial performance has the lowest value of 0.00, the highest value of 1.40, the average value of 0.0235 and the standard deviation of 0.12120. The intellectual capital has the lowest value of -2.6, the highest value of 364.6, the average value of 5.957 and the standard deviation of 31.6483.

4.1.3. Classical Assumption Test Results

The multiple regression analysis uses a hypothesis test and the data tested using the Classical Assumption test. The results of data normality testing can be seen in Appendix 1, which shows the asymp value. Sig (2-tailed) of 0.101 (p > 0.05). These results show that the data is normally distributed to be used for further regression analysis. Furthermore, multicollinearity testing is carried out with a tolerance or variance inflation factor (VIF) value in Appendix 2. The test results VIF value is less than <10 and tolerance > 0.10, which means that the research variable does not occur multicollinearity.

4.1.4. Research Hypothesis Testing

4.1.4.1. Simultaneous Test (F Test)

Table 2, that the simultaneous significance test value (F test) is 12790.808 (positive) > F table 2.28 and the significance value is 0.000 < significance 0.05. Thus, the variables of ownership concentration, audit committee, and company performance simultaneously affect intellectual capital disclosures and are appropriate for use in research.

Table 2. Simultaneous Test (F Test)

<table>
<thead>
<tr>
<th>Model</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>12790.808</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Source: Data processed in 2020

4.1.4.2. Uji Parsial (T-Test)

Table 3 shows that the significance value of ownership concentration is P <0.009, and it is concluded that Hypothesis 2 is accepted. The audit committee's significance value is P > 0.742, and it is concluded that Hypothesis 3 is rejected. The significance value of financial performance is P > 0.000, and it is concluded that Hypothesis 4 is accepted. Table 3, it is concluded that the concentration of ownership and financial performance affects intellectual capital, while the audit committee does not affect intellectual capital.

Table 3. Uji Parsial (t-Test)

<table>
<thead>
<tr>
<th>Model</th>
<th>Beta</th>
<th>t-hitung</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1</td>
<td>0,003</td>
<td>2,641</td>
<td>0,009</td>
</tr>
<tr>
<td>X2</td>
<td>-0,44</td>
<td>-0,330</td>
<td>0,742</td>
</tr>
<tr>
<td>X3</td>
<td>260,848</td>
<td>223,355</td>
<td>0,000</td>
</tr>
</tbody>
</table>

Source: Data processed in 2020

4.2. Discussion

4.2.1. The Effect of Ownership Concentration, Audit Committee and Company Performance on Intellectual Capital

The SPPS test results show that ownership concentration, audit committee, and company performance influence intellectual capital. The concentration of ownership can be used as a basis for
companies in explaining share ownership. Joson & Susanti [3] state that stock concentration can increase supervision effectiveness because company managers will carry out their duties properly.

Based on agency theory, it explains that when a company has supervisor boards, namely the audit committee as the supervisory board in a company, oversee management in carrying out its duties to reduce information asymmetry [4]. The audit committee is one of the neutral parties in a company. Thus, it is hoped that the audit committee can resolve information problems that occur in the company, especially the manager and the shareholders.

The company's amount sees the company's performance of profit [1]. An excellent financial performance will reveal information regarding intellectual capital disclosures aimed at reducing agency costs. Puspitosari [10] explains that an excellent financial performance company will publish intellectual capital disclosure information to reduce agency costs. Companies that have old age will disclose more information because companies with old age have much experience. The company's age shows how long the company has been standing to maintain its existence [3] and [22].

4.2.2. The Effect of Ownership Concentration on Intellectual Capital Disclosure

The test results show that ownership concentration affects intellectual capital. The meaning of this study's results is that the more concentrated the company's shares will increase the value of intellectual capital. Joson & Susanti [3] stated that ownership concentration could be used as the basis for a company to explain the concentration of share ownership. The existence of stock concentration can increase supervision effectiveness because it shows the number of shares owned by shareholders. Based on the flank theory, shareholders who can control large shares can directly monitor company management's performace. A large concentration of ownership will result in agency costs Whiting & Woodcock [23]. Broad disclosure of intellectual capital can also help overcome agency problems by increasing intellectual capital disclosure.

Concentration of ownership is significant access to information to reduce agency costs. The explanation above shareholders has control over management to improve their intellectual capital disclosure practices to pay more attention to intellectual capital. Thus the results of this study support with the research of Joson & Susanti [3]; Al-hamadeen & Suwaidan [24]; Oliveira et al. [25] which states that ownership concentration has a positive effect on intellectual capital. The results of research conducted by Joson & Susanti [3]; Ferreira et al. [26] and Setiani & Prasetyo [22] show different results that share ownership concentration does not affect.

4.2.3. The Effect of The Audit Committee on Intellectual Capital

The results of this study prove that the audit committee doesn’t affect intellectual capital. These results show that the audit committee is not carrying out its function in exercising control properly. This condition also shows that many audit committees have not guaranteed and made it easier for management to effectively disclose intellectual capital [27] because there are many different or scattered opinions.

Based on agency theory, the audit committee is a supervisory board responsible for overseeing company management to reduce information asymmetry [9]. The audit committee does not affect Intellectual Capital because the supervisory function is not efficient and effective [4]–[7]. Companies that have a large number of audit committees tend to cause conflicts among their members. For the supervisory function of management to run well, a quality audit committee is needed [28] and understands the importance of disclosing information such as intellectual capital, financial reports, etc.

The results of this study are support with research by Hindu [4]; Nurfitasari [5]; Subaida [6] and Wahyuni & Utami [7] who show that the audit committee doesn’t affect intellectual capital. However, this study doesn’t support research by Li et al. [29]; and Arifah [30] proves that the number of audit committees has a significant effect on intellectual capital.

4.2.4. The Effect of Financial Performance on Intellectual Capital

The results of the analysis with the help of SPPS show that financial performance affects intellectual capital. The meaning in research is that the better the financial performance would increase the disclosure of intellectual capital. A good company will disclose its intellectual capital entirely and comprehensively.

The agency theory of sound financial performance will indirectly disclose total intellectual capital [21]. Financial performance is seen from the company's size, making the company better and experiencing an increase in profits. A company that has experienced an increase in profit will report intellectual capital gains.

Good financial performance will reduce agency costs because it will pay more attention to voluntary disclosures or intellectual capital disclosures [1]. Companies that have good performance will also reduce information asymmetry between shareholders and management because in this case, shareholders will always supervise management.

The results of this study are by research Isa & Deviana [1]; Ulum [12]; Chang et al. [31]; Anam et al. [16]; Utama & Khafid [32]; Puspitosari [10]; Oktari & Handajani [33]; Pratiwi [34]; and Nurhayati et al. [21] states that financial performance has effect on
intellectual capital. This results of this study doesn’t support research conducted by Ferreira et al. [26]; Septiana & Yutetta [35]; Setianto & Purwanto [36] and Leonard & Trisnawati [37] show that profitability does not affect intellectual capital.

5. CONCLUSIONS

The analysis results and research discussion on the determinants of ownership concentration, audit committee, and company performance on intellectual capital can conclude that ownership concentration and company performance affect intellectual capital. The concentration of ownership will reduce agency problems between shareholders and management [4]. The existence of stock concentration can increase supervision effectiveness because it shows the number of shares owned by shareholders. Good financial performance will reduce agency costs by increasing intellectual capital disclosure [1]. Companies that have a good performance, shareholders will always supervise management in carrying out their duties; therefore management will disclose intellectual capital.

This study also proves that the audit committee does not affect the disclosure of intellectual capital. An extensive audit committee's existence tends to cause coordination and communication problems between the audit committee members so that it is not optimal in carrying out its functions. The audit committee's duties is to assist the commissioners' board in supervising management performance and company internal control. The opinion above is in line with [7] that not all audit committees perform their functions properly. The audit committee's malfunction can be caused by a lack of competence, independence, activity in control, and the audit committee's size.

This research has several implications in the development of literature, especially in accounting, and becomes a reference in future research related to corporate governance. This research's findings are also expected to encourage accounting research on corporate governance and Intellectual Capital by adding company value and other variables. The company's practical implications in the findings of this research can provide input regarding the implementation of corporate governance, CSR, and Intellectual Capital to increase company value for stakeholders.

The suggestions that can be given for further research are to add research objects such as IT companies that are near related to the quality of human resources or manufacturing companies because the profits obtained are more excellent and are of great interest to investors. The next researcher can add other variables, such as the board of commissioners, leverage, and profitability. For further researchers, the measure of intellectual capital can be used following the latest concepts and conditions. Further researchers can also add samples and types of companies that are more in line with intellectual capital so that the research findings are expected to be even better. Several related theories can be used for further research, such as Legitimacy theory, Stakeholder theory, or other theories as to the leading theory in the study.

REFERENCES

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**Attachment 1: Normalitas Test**

Table 4. Kolmogorov-Smirnov Normality Test (K-S)

<table>
<thead>
<tr>
<th>Unstandardized Residual</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
</tr>
<tr>
<td>Kolmogrov-Smirnov Z</td>
</tr>
<tr>
<td>Asymp. Sig (2-Tailed)</td>
</tr>
</tbody>
</table>

Source: Data processed in 2020

**Attachment 2: Autokorelasi Test**

Table 5. Autokorelasi Test

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.999</td>
<td>0.998</td>
<td>0.998</td>
<td>2.037</td>
</tr>
</tbody>
</table>

Source: Data processed in 2020

**Attachment 3: Multikolinearitas Test**

Table 6. Uji Multikolinearitas

<table>
<thead>
<tr>
<th>Variabel</th>
<th>Collinearity Statistics</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>Audit Committee</td>
<td>0.998</td>
</tr>
<tr>
<td>Ownership Concentration</td>
<td>0.991</td>
</tr>
<tr>
<td>Financial Performance</td>
<td>0.975</td>
</tr>
</tbody>
</table>

Source: Data processed in 2020

**Lampiran 4: Uji Heteroskedestisitas**

Table 7. Heteroskedestisitas Test

<table>
<thead>
<tr>
<th>Model</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ownership Concentration</td>
<td>0.580</td>
</tr>
<tr>
<td>Audit Committee</td>
<td>0.181</td>
</tr>
<tr>
<td>Financial Performance</td>
<td>0.87</td>
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</tbody>
</table>

Source: Data processed in 2020