



DETERMINANTS OF DISCLOSURE OF INTELLECTUAL CAPITAL

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Abstract. This study aims to empirically examine the effect of company size, concentration of public ownership, size of the board of commissioners, number of board of commissioners, size of audit committee, and business complexity on intellectual capital disclosure. The population in this study is tourism sector companies listed on the Indonesia Stock Exchange (IDX) for the 2019-2021 period. Determination of samples using the purposive sampling method so that 87 observables were obtained based on established criteria. The data analysis technique used in this study is panel data regression analysis. The results showed that company size and business complexity had a positive effect on intellectual capital disclosure, public ownership concentration had a negative effect on intellectual capital disclosure, while the size of the board of commissioners and the size of the audit committee had no effect on intellectual capital disclosure. These results prove that large and complex companies disclose more information about intellectual capital. The more shares a company has publicly owned, the less information about intellectual capital is disclosed. The number of members of the board of commissioners and audit committee does not directly affect the level of disclosure of intellectual capital information.

Keywords: Company size, concentration of public ownership, size of the board of commissioners, size of audit committee, complexity of business, disclosure of intellectual capital

I. INTRODUCTION

Public companies listed on the Indonesia Stock Exchange are required to prepare financial statements that have been audited by independent auditors as a form of corporate accountability. Disclosure of financial statements has an important role for companies and stakeholders, such as investors, employees, and creditors. Transparent and accurate disclosure of financial statements can increase stakeholder trust (Hidayanti & Sunyoto, 2012). In the financial statements there are crucial financial accounts such as Assets which include all of the company's asset ownership, one of which is Intangible Assets. One of the intangible assets owned by the company is intellectual capital.

Regulations regarding intellectual capital in Indonesia have not been regulated by law that requires companies to implement intellectual capital disclosure. This makes the disclosure of intellectual capital is still voluntary in its presentation in the company's financial statements. Because of its voluntary nature, many companies do not disclose intellectual capital in the

financial statements. The application is done voluntarily and is still said to be low (Emilia & Ovami, 2021). This makes the company's financial statements unable to fully describe the company's financial condition so that it can affect the company's value.

Companies that disclose intellectual capital have beneficial benefits for the company in facing business competition that are not explained by other companies that do not disclose their intellectual capital (Ashari et al, 2016). Some of the benefits of intellectual capital disclosure include helping organizations formulate corporate strategy, assessing strategy execution, assisting in diversification and expansion decisions, being used as a basis for compensation and communicating measures to external stakeholders (Marr et al., 2003).

In the financial statements of tourism sector companies, intellectual capital disclosures help create a better understanding of the assets underlying business growth. In the tourism industry, assets such as trademarks, customer databases, efficient reservation systems, and local knowledge of tourist destinations are important elements that may not be physically visible, but are highly valuable. Behind its charm, the industry also has a sensitive side to various changes, both internal and external. The industry directly impacts the economy, social and culture (Gelgel, 2006). Tourism is not just an ordinary industry, but one of the main drivers of the world economy. Its ability to generate foreign exchange and open employment opportunities makes it a vital sector in economic growth. (Winarsih and Fariz, 2022).

Insufficient information in the submission of reports on intellectual capital to external parties will result in a lack of information for investors regarding the development of the company's intangible resources. This may result in higher risk perception among investors (Firdaus & Fitriyani, 2019). Overall, intellectual capital disclosure in the tourism sector has the potential to provide great benefits to the industry. It is not just about recording its value in the financial statements, but also about improving understanding, protecting assets, and creating a basis for the growth and sustainability of the tourism sector, including in terms of economic growth and accountability.

Large company sizes generally have a broader stakeholder base facing higher political costs and have greater stakeholder demands to present more transparent financial statements. This encourages them to disclose their intellectual capital more comprehensively. This result is supported by Mentari & Putra's research (2016) which proves that company size has no effect on intellectual capital disclosure. However, in the research of Rezki (2018), Delima & Zuliyati (2020), Rahma et al (2021) company size has a significant positive effect on intellectual capital disclosure.

The board of commissioners as a party that provides supervision in the company is expected to be able to bridge the information asymmetry between the holders of shares and the company managers. The size of the board of commissioners is expected to improve the quality of supervisory activities in the company, so it is expected that the more the board of commissioners the greater the level of disclosure of intellectual capital. In Rezki's research (2018), the size of the board of commissioners has no significant effect on intellectual capital disclosure. However, research by Cahya (2013), Priyanti & Wahyudin (2015), Delima & Zuliyati (2020), proves that the size of the board of commissioners has a significant positive effect on intellectual capital disclosure.

Business complexity explains how complex the business activities carried out by the company are. The more subsidiaries a company has, the more complex its business activities. This is because the company's operational activities are not only centralized in the parent company, but also in various subsidiaries spread across various locations. Business complexity in the company is expected to be controlled by the delivery of more complete information through the disclosure of intellectual capital. Priyanti & Wahyudin (2015) and Delima & Zuliyati (2020) prove in their research that business complexity has a significant positive effect on intellectual capital disclosure. However, in Priyanti's research (2015) proves that business complexity has no significant effect on intellectual capital disclosure.

Based on the description above, the research results show varying results. Therefore, some of these factors are discussed in this study as research variables by considering the inconsistency of previous research results. In addition to adopting factors with inconsistent results in previous studies, this study also adds a new variable, namely the concentration of public ownership. Public ownership can increase the level of transparency in the delivery of information (Latifah & Widiatmoko, 2022). If this is successfully implemented, it can serve as an internal mechanism to supervise management and reduce the risk of unethical behavior that may be committed by management.

This research is based on agency theory which emphasizes the relationship between agents (management) and principals (shareholders). Agency theory predicts that large companies with more resources and high business complexity will disclose more comprehensive intellectual capital compared to small companies. A high concentration of public ownership will disclose more intellectual capital compared to companies with low public ownership. A large board of commissioners with independent and competent members will encourage more comprehensive intellectual capital disclosure.

The results of this study will examine how agency theory can explain the factors of firm size, concentration of public ownership, and business complexity that strengthen or weaken the agency relationship and its implications for intellectual capital disclosure. It will also clarify the role of the board size mechanism in addressing agency problems and encouraging better intellectual capital disclosure.

Based on the problems regarding the disclosure of intellectual capital for tourism sector companies, it is used as a basis for conducting research with the title "DETERMINANTS OF INTELLECTUAL CAPITAL DISCLOSURE". The purpose of the study is to obtain empirical evidence about the effect of company size, concentration of public ownership, size of the board of commissioners, and business complexity partially on the disclosure of intellectual capital.

II. LITERATURE REVIEW

A. Agency Theory

Jesen and Meckling (1976) define an agency relationship as a contract that exists between one or more parties (principals) and other parties (agents) in delegating decision making and

authority to agents to do a job on their behalf. Agency theory is a theory that explains the relationship between managers (agents) and principal company owners in the form of contracts in achieving company goals. In line with the opinion of Scott (2014), "agency theory, a division of game theory, investigates contract frameworks aimed at encouraging a logical agent to represent a principal in situations where the agent's incentives might contradict those of the principal". According to Istanti (2009), a contract is a set of rules governing the profit and risk sharing mechanism agreed upon by the principal and the agent. An optimal employment contract, according to Istanti (2009), is a balanced contract between the principal and the agent, where the agent is mathematically proven to optimally carry out its obligations and the principal provides special rewards to the agent.

Between agents and principals, of course, have differences related to views and perceptions in achieving company goals. Differences in interests between agents (management) and principals (owners) can trigger new problems, especially when principals are unable to monitor management performance directly. According to Schoerder, Clark, and Cathey (2013), agency theory assumes that each individual tries to maximize their own interests, "... the shareholder is unable to monitor all actions and decisions made by agents, there is a threat that agents will prioritize maximizing their personal wealth over that of the shareholders". This can cause a conflict of interest due to the clash of interests between the interests of managers and shareholders. Shareholders want to maximize profits while managers want to maximize their own interests at the expense of shareholders' interests. A harmonious relationship between agents and principals is the main key in achieving common goals. Therefore, the agent is required to work according to the direction of the principal, but the principal also needs to listen to input and suggestions from the agent. This is important because agents have a deeper understanding of the internal conditions of the company than the principal.

The relationship between agents (management) and principals (owners) in the company raises a cost called agency cost. This cost arises due to differences in interests between agents and principals. According to Suhardjanto and Wardhani (2010), agency theory contains disclosures that become a mechanism to minimize costs arising from conflicts between managers and shareholders (compensation contracts) as well as from conflicts between companies and creditors (debt contracts). According to Suhardjanto and Wardhani (2010), agency theory contains disclosures that become a mechanism to minimize costs arising from conflicts between managers and shareholders (compensation contracts) as well as from conflicts between companies and creditors (debt contracts). Jensen and Meckling (1976) categorize agency costs into three types, namely monitoring costs, bonding costs, and residual losses. Therefore, company management should increase transparency to principals to reduce agency costs. All kinds of information must be reported to the principal such as the disclosure of intellectual capital and related factors such as company size, concentration of public ownership, board size, audit committee size, and business complexity. This means that disclosure is a mechanism that can control the performance of managers and make the basis for managers to make voluntary disclosure. By knowing the intellectual capital and assets and intangible assets owned by the company, the principal will be able to easily understand and analyze the condition of the company and predict the future of the company.

B. Intellectual Capital Disclosure

Intellectual capital is intellectual material that has been formalized, captured, and utilized to produce higher value assets (Steward, 1997). The level of intellectual capital disclosure of each company is obtained by dividing the total disclosure score of each company by the total items in the intellectual capital disclosure index. The role of intellectual capital is considered very important and very strategic in the organization. This is because intellectual capital is one of the main resources of the organization in carrying out its role. Intellectual capital is placed in the form of assets and hidden resources, perspectives, and capabilities such as data, information, knowledge, and policies.

Intellectual capital disclosure has benefits in providing information to stakeholders about the intellectual resources owned by the company and can reduce information imbalance. The advantage for the company is that the knowledge can make a valuable and diverse contribution to the company (Santosa and Setiawan, 2010 in Lina, 2013). Intellectual capital disclosure is voluntary, so not all companies include this information in their annual reports. Although it is not mandatory, intellectual capital disclosure is considered important enough to meet the broader information needs of annual report users (Zulkarnaen and Mahmud, 2013). A company's intellectual capital disclosure helps predict the value and performance of the company. This is beneficial for shareholders and investors. Ulum (2009) explains that intellectual capital disclosure becomes a new form of communication that controls the "contract" between management and workers. This allows managers to create strategies to achieve the demands of stakeholders such as investors, and convince them of the superiority or benefits of corporate policies.

This study uses an index of disclosure of intellectual capital items in the annual report based on components developed by Abdol Mohammadi in Firdaus & Fitriasaki (2019). The indicator used in the disclosure of intellectual capital consists of 58 items divided into 10 categories: Brand (5 items), Competence (11 items), Culture (4 items), Consumer (8 items), Information Technology (7 items), Intellectual Property (7 items), Partnership (2 items), Personnel (7 items), Ownership process (6 items), Resource & Development (1 item).

Research Framework

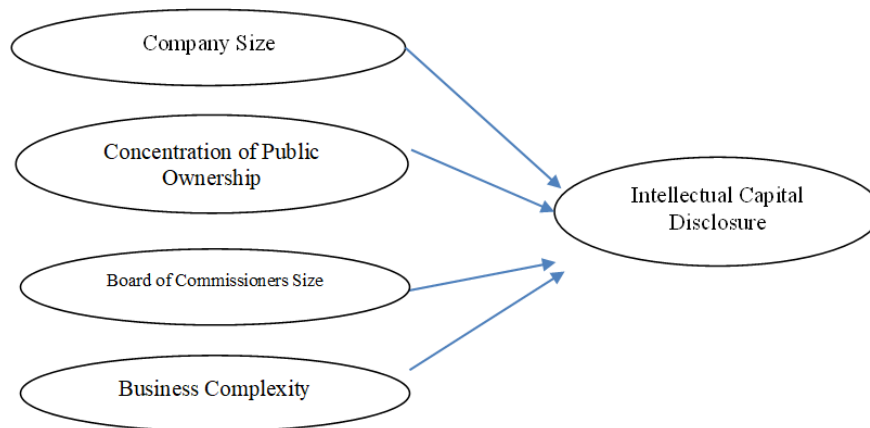


Figure 1. Research Framework

Hypothesis Development

Company Size

Company size can be seen from the amount of total assets owned by the company. This makes the size of the company can more or less reflect the conditions and characteristics of the company in determining how many employees can be hired, total assets, total sales, and the number of shares outstanding. According to Purnomosih (2006), company size is an important variable that can explain information disclosure in order to obtain funding, as well as experiencing pressure from related parties (stakeholders) to disclose more information. Intellectual capital disclosure can help large companies to reduce uncertainty and risk for shareholders, which can reduce agency costs. Intellectual capital is one of the resources that can provide a competitive advantage for the company. The larger the size of the company, the more extensive the disclosure of information by the company, including disclosure of intellectual capital. This is because large companies have more intellectual capital that needs to be disclosed.

Research by Rahma et al (2021) shows that company size has a significant effect on intellectual capital disclosure, because large companies often experience agency conflict because they have many and widespread stakeholders. So it is evident that the larger the size of the company, the tendency to increase the level of intellectual capital disclosure is also higher. This result is supported by research by Rezki (2018), Delima & Zulyati (2020), which also proves that company size has a significant positive effect on intellectual capital disclosure. However, research conducted by Mentari & Putra (2016) proves the opposite result, namely that company size has no effect on intellectual capital disclosure.

H1: Company size has a positive effect on intellectual capital disclosure.

Concentration of Public Ownership

Ownership concentration is the number of company shares owned by shareholders (Nugroho, 2012). Public share ownership includes the number of company shares owned by individuals or institutions outside management, with share ownership below five percent,

without any special relationship with the company (Rozak, 2012). Public ownership can serve as a control mechanism for management in managing the company, including in the utilization of intellectual capital. Agency theory argues that complex ownership structures can increase conflicts between owners and managers. This conflict can be detrimental to the company because it can cause managers to take actions that do not benefit the owner's interests. Therefore, public share ownership can increase disclosure.

However, the results of research conducted by Al-hamadeen and Puasanti (2013) and Al Hamadeen and Suwaidan (2014) prove that the concentration of public ownership does not significantly affect the disclosure of intellectual capital. This is because the data related to the public ownership concentration variable tends to be stable or relatively constant during the study period, despite an increase in the number of shareholdings, the percentage of ownership remains unchanged.

H2: Concentration of public ownership has a positive effect on intellectual capital disclosure.

Board of Commissioners Size

The board of commissioners will supervise and control managers to reduce agency costs through emphasis on managers to disclose information thoroughly (Cahya, 2013). The existence of the board of commissioners is one of the efforts in the company's internal control in aligning the differences in interests between managers (agents) and company owners (principal) through disclosure of intellectual capital information. Agency theory argues that the board of commissioners can encourage companies to disclose more information. This is because the board of commissioners is concerned with the interests of the company and shareholders.

Delima & Zulyati's research (2020) proves that the size of the board of commissioners has a significant positive effect on intellectual capital disclosure. This is because the size of the board of commissioners can affect how the company runs an optimal supervisory system. The board of commissioners plays an important role as a supervisor and controller of the company's internal performance, including in the process of disclosing intellectual capital. Thus, the larger the size of the board of commissioners, the more optimal the supervisory and control performance in intellectual capital disclosure. Conversely, if the size of the board of commissioners is small, the ability to control and supervise will be reduced, so that the ability to comprehensively disclose intellectual capital is also limited.

This result is supported by research by Cahya (2013) and Priyanti & Wahyudin (2015), which also prove that the size of the board of commissioners has a significant positive effect on intellectual capital disclosure. However, research by Nugroho (2011) and Aini S (2018), proves that the size of the board of commissioners has no significant effect on intellectual capital disclosure.

H3: Board size has a positive effect on intellectual capital disclosure.

Business Complexity

The expansion of a company with several business branches (subsidiaries) is a determining factor of business complexity (Rukmana et al., 2017). Business complexity explains how complicated the business activities carried out by the company are. The more subsidiaries a

company has, the more complex its business activities. This is because the company's operational activities are not only centralized in the parent company, but also in various subsidiaries spread across various locations.

Agency theory argues that business complexity can increase conflicts between owners and managers. Intellectual capital disclosure can help reduce conflicts between owners and managers. Companies that have more subsidiaries will increase agency costs. This is because principals have to spend more to monitor management performance, not only in the parent company but also in subsidiaries. In an effort to reduce high agency costs, companies need to disclose sufficient information to principals such as information about intellectual capital disclosure.

Research by Delima & Zuliyati (2020) proves that business complexity has a significant positive effect on intellectual capital disclosure. This explains that with greater business complexity, the need for wider intellectual capital disclosure will increase. Caused by the complexity of the company's organizational structure which has several branches, resulting in delegation of authority involving various levels of management. Therefore, clear transparency is needed in the management of information, both financial and non-financial. The higher the level of business complexity of the company, the more extensive and comprehensive the disclosure of intellectual capital required.

This result is supported by the research of Priyanti & Wahyudin (2015) which proves in their research that business complexity has a significant positive effect on intellectual capital disclosure. However, in Priyanti's research (2015) proves that business complexity has no significant effect on intellectual capital disclosure.

H4: Business complexity has a positive effect on intellectual capital disclosure.

III. RESEARCH METHODOLOGY

This type of research is quantitative research with causality. The population in this study are tourism sector companies listed on the Indonesia Stock Exchange (IDX) for the 2019-2021 period. Determination of the sample using purposive sampling method so that 87 observations were obtained based on the specified criteria. The data analysis technique used in this research is panel data regression analysis. The data source used is secondary data using the documentation data collection method.

Variable Operations and Measurements		
Variables	Definition	Measurement
Intellectual Capital Disclosure	The indicators used in the disclosure of intellectual capital consist of 58 items divided into 10 categories: Brand (5 items), Competence (11 items), Culture (4 items), Consumer (8 items), Information Technology (7 items), Intellectual Property (7 items), Partnership (2 items), Personnel (7 items), Ownership process	$ICD\ Index = \frac{\sum\ Skor\ Pengungkapan\ Per}{Total\ Item\ Pengungkapan}$

	(6 items), <i>Resource & Development</i> (1 item).	
Company Size	The size of a company can be seen from the total value of assets owned by the company.	Company Size = $\ln \text{Total Assets}$
Concentration of Public Ownership	The number of shares owned by the public in a company, compared to the number of shares outstanding.	Concentration of Public Ownership = <i>Jml. Saham yang dimiliki</i> <i>Jml. Saham Bereda</i>
Board of Commissioners Size	A large number of boards are tasked with supervising and advising the director or directors.	Board of Commissioners Size = $\Sigma \text{ Board of Commissioners}$
Business Complexity	One of the company's business structures is subsidiary ownership. This is because the more subsidiaries, the more diverse the business activities, the complex the organizational structure, the greater the risks and uncertainties, and the need for company resources.	Business Complexity = $\Sigma \text{ Subsidiary entities}$

Source: Data processed (2023)

IV. RESULTS AND DISCUSSION

The data used in this study are secondary data. Data sources are obtained from the annual reports of tourism sector companies listed on the Indonesia Stock Exchange on the website www.idx.co.id and the company's official website. The sampling technique in this study was to use purposive sampling method. Based on the criteria, there were 29 companies that met the criteria from a total of 43 tourism sector companies listed on the Indonesia Stock Exchange at the time this research was conducted. The observation period used by the author is 3 years (2019-2021) so that the total data in this study is 87 data samples.

The data required in this study are total assets, number of outstanding shares, number of public ownership, number of board of commissioners, number of audit committees, and number of subsidiaries. The dependent variable in this study is intellectual capital disclosure while the independent variables in this study are company size, public ownership concentration, board size, audit committee size, and business complexity.

TABLE 2. Sampling Procedure

No.	Category	Total
1	Tourism companies that are listed and publish financial reports on the IDX and the company's official <i>website</i> consecutively in 2019-2021	43

2 Tourism companies that did not provide the data needed by researchers (14)

Total Company Sample Per Year (2019-2021)	29
Total Company Sample 2019-2021 (3 Years)	87

Source: Data processed (2023)

Data Analysis Results

Descriptive Statistics

TABLE 3. Descriptive Statistical Test Results

Variables	N	Minimum	Maximum	Mean	Std. Deviation
Company Size	87	24,679	31,062	27,633	1,365
Concentration of Public Ownership	87	0,012	0,772	0,286	0,174
Board of Commissioners Size	87	2	7	3,28	1,291
Business Complexity	87	0	27	6,56	6,683
Intellectual Capital Disclosure	87	0,193	0,561	0,391	0,088

Source: Data processed (2023)

The results of descriptive statistical testing in Table 3 show that the research sample for the company size variable has the lowest (minimum) value of 24.679 and the highest (maximum) of 31.062. The average value (mean) of this variable is 27.633 with a standard deviation (Std. Deviation) of 1.365. The public ownership concentration variable has the lowest (minimum) value of 0.012 and the highest (maximum) of 0.772. The average value (mean) of this variable is 0.286 with a standard deviation (Std. Deviation) of 0.174. The board of commissioners size variable has the lowest value (minimum) 2 and the highest (maximum) 7. The average value (mean) of this variable is 3.28 with a standard deviation (Std. Deviation) of 1.291. The business complexity variable has the lowest value (minimum) of 0 and the highest (maximum) of 27. The average value (mean) of this variable is 6.56 with a standard deviation (Std. Deviation) of 6.683. The intellectual capital disclosure variable has the lowest (minimum) value of 0.193 and the highest (maximum) value of 0.561. The average value (mean) of this variable is 0.391 with a standard deviation (Std. Deviation) of 0.088.

Panel Data Regression Estimation Model Selection Test

TABLE 4. Chow Test Results

Effect Test	Prob.
Cross-section F	0,3618
Cross-section Chi-square	0,0636

Source: Data processed (2023)

Based on the chow test in table 4, the probability value of the cross-section F is $0.3618 > 0.05$, so the estimation model used in the panel data regression is the Common Effect Model (CEM).

TABLE 6. *Hausman* Test Results

<i>Test Summary</i>	<i>Prob.</i>
<i>Cross-section random</i>	0,1300

Source: Data processed (2023)

Based on the housman test in table 6, the probability value of cross-section random is $0.1300 > 0.05$, so the estimation model used in the panel data regression is the Random Effect Model (REM).

TABLE 7. *Lagrange Multiplier (LM)* Test Results

	<i>Test Hypothesis</i>
	<i>Cross-section</i>
<i>Breush-Pagan</i>	0,7588

Source: Data processed (2023)

Based on the lagrange multiplier (LM) test in table 7, the cross-section breuush-pagan value is $0.7588 > 0.05$, so the estimation model used in the panel data regression is the Common Effect Model (CEM).

Classical Assumption Test

TABLE 8. Multicollinearity Test Results

Variables	Collinearity Statistics		Conclusion
	Tolerance	VIF	
Company Size	0,641	1,560	No Multicollinearity
Concentration of Public Ownership	0,930	1,075	No Multicollinearity
Board of Commissioners Size	0,638	1,569	No Multicollinearity
Business Complexity	0,730	1,369	No Multicollinearity

Source: Data processed (2023)

Based on the multicollinearity test results in table 8, it shows that the independent variables of this study are free from multicollinearity problems. This is evidenced by the variable value of company size, concentration of public ownership, board size, and business complexity more than > 0.10 or equal to $VIF < 10$. This means that the regression model is free from multicollinearity problems so that the model is suitable for use.

TABLE 9. Heteroscedasticity Test Results

Variables	Sig.	Conclusion
Company Size	0,652	No Heteroscedasticity
Concentration of Public Ownership	0,170	No Heteroscedasticity

Board of Commissioners Size	0,874	No Heteroscedasticity
Business Complexity	0,196	No Heteroscedasticity

Source: Data processed (2023)

Based on table 9, the results of the Glejser test mean that there are no symptoms of heteroscedasticity as evidenced by the significance value of the company size variable of 0.652, concentration of public ownership of 0.170, size of the board of commissioners of 0.874, and business complexity of 0.196 whose value is above the significance value of 0.05. These results conclude that none of the independent variables statistically affect the dependent variable ABS_RES2.

Panel Data Regression Test

TABLE 10. Panel Data Regression Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.625131	0.242531	-2.577536	0.0118
X1	0.026181	0.006619	3.955460	0.0002
X2	-0.090012	0.043187	-2.084206	0.0403
X3	0.007593	0.007019	1.081819	0.2825
X4	0.003238	0.001267	2.555603	0.0125

Source: Data processed (2023)

Based on table 10, the multiple linear regression equation is stated as follows:

$$Y = -0.625131 + 0.026181X1 - 0.090012X2 + 0.007593X3 + 0.003238X4 + e_i$$

Hypothesis Testing

T test

TABLE 11. Partial Test Results

	Coefficient	t	Sig.	Conclusion
(Constant)	-0,625131	-2,577536	0,0118	
Company Size	0,026181	3,955460	0,0002	Significant
Concentration of Public Ownership	-0,090012	-2,084206	0,0403	Significant
Board of Commissioners Size	0,007593	1,081819	0,2825	Not Significant
Business Complexity	0,003238	2,555603	0,0125	Significant

Source: Data processed (2023)

Based on table 11, it is found that the effect of company size, concentration of public ownership, board size, audit committee size, and business complexity with the dependent variable of intellectual capital disclosure with the following explanation.

1. Company Size

Table 11 shows that the coefficient of the firm size variable is 0.026181 and the t count is 3.955460. The significance value of firm size is smaller than the predetermined significance level of 0.0002 < 0.05. This means that H1 is accepted or company size has a significant positive effect on intellectual capital disclosure.

2. Concentration of Public Ownership

Table 11 shows that the coefficient of the public ownership concentration variable is -0.090012 and the t-statistic is -2.084206. The significance value of public ownership concentration is smaller than the predetermined significance level of 0.0403 <0.05. This means that H2 is rejected or that the concentration of public ownership has a significant negative effect on the disclosure of intellectual capital.

3. Board of Commissioners Size

Table 11 shows that the coefficient of the board size variable is 0.007593 and the t count is 1.081819. The significance value of the size of the board of commissioners is greater than the predetermined significance level of 0.2825 > 0.05. This means that H3 is rejected or the size of the board of commissioners has no effect on the disclosure of intellectual capital.

4. Business Complexity

Table 11 shows that the coefficient of the business complexity variable is 0.003238 and t count of 2.555603 > t table 1.98827. The significance value of business complexity is smaller than the predetermined significance level of 0.0125 <0.05. This means that H5 is accepted or business complexity has a positive effect on intellectual capital disclosure.

F test

TABLE 12. F Test Results

F	Prob (F-Statistic)	Conclusion
13,60450	0,00000	Significant

Source: Data processed (2023)

Based on table 12, it is found that this research model with independent variables of company size, concentration of public ownership, size of the board of commissioners, size of the audit committee, and business complexity can be used to predict the dependent variable of intellectual capital disclosure as shown by the value of f count of 13.60450 > f table 2.32727 with a significance level of 0.000 <0.05.

Determination Coefficient Test

TABLE 13. Test Results of the Coefficient of Determination

Predictors	Adjusted R Square
(Constant), Business Complexity, Audit Committee Size, Public Ownership Concentration, Company Size, Board of Commissioners Size	0,422906

Source: Data processed (2023)

Based on table 13, the results of the coefficient of determination test obtained an Adjusted R Square value of 0.422906 which means that the effect of the company size variable, the concentration of public ownership, the size of the board of commissioners, the size of the audit committee, and business complexity on the intellectual capital disclosure variable is 42.3% and the remaining 57.7% is explained by other variables outside the study.

Discussion

The Effect of Company Size on Intellectual Capital Disclosure

Company size has a positive effect on Intellectual Capital Disclosure in tourism sector companies listed on the Indonesia Stock Exchange in 2019-2021. The results of this study are in line with the research of Rahma et al (2021), Rezki (2018), and Delima & Zuliyati (2020) which show that company size has a significant effect on intellectual capital disclosure, large companies often experience agency conflicts because they have many and widespread stakeholders, so it is evident that the larger the size of the company, the tendency to increase the level of intellectual capital disclosure is also higher.

Intellectual capital disclosure can help large companies as a strategy in reducing and managing uncertainty and risk which has a positive impact on trust for shareholders and can reduce agency costs. As companies grow, the level of corporate disclosure also increases proportionally. Large companies tend to make more extensive disclosures, including more in-depth details about their intellectual capital. This is due to the ownership and management of more abundant intellectual assets, which require transparency to provide a comprehensive understanding to shareholders and other stakeholders.

This research is supported by agency theory which highlights that large companies have more assets and activities, which can increase the complexity and risk of conflicts of interest between principals and agents. This complexity can make it difficult for the principal to monitor the agent's performance and ensure that the agent acts in accordance with the principal's interests. The risk of conflicts of interest between principals and agents increases with firm complexity, as agents have more opportunities to act to the detriment of the principal, such as taking advantage of confidential company information or committing corruption. This may encourage large companies to disclose more information about their intellectual capital, to reduce the risk of conflict of interest and increase trust between the principal and agent.

Large companies have more resources and capabilities that are unique and cannot be imitated by their competitors. This may encourage large companies to disclose more information about their intellectual capital, to protect their competitive advantage and increase firm value. This is because the disclosure of intellectual capital can make it more difficult for competitors to understand the unique resources and capabilities possessed by the company.

The Effect of Public Ownership Concentration on Intellectual Capital Disclosure

The concentration of public ownership has a negative effect on the disclosure of intellectual capital in tourism sector companies listed on the Indonesia Stock Exchange in 2019-2021. This study found that ownership concentration has a negative effect on intellectual capital disclosure. This means that changes in the public ownership concentration variable cause opposite changes in the intellectual capital disclosure variable. This result contradicts the hypothesis of previous research which states that ownership concentration has no effect on intellectual capital disclosure.

Based on theory, high ownership concentration may encourage intellectual capital disclosure because controlling shareholders have an interest in reducing agency costs and information asymmetry. However, this study found that controlling shareholders of tourism sector companies on the Indonesia Stock Exchange can access information directly through financial statements and annual reports. This causes ownership concentration to have a negative effect on intellectual capital disclosure. Therefore, controlling shareholders should continue to support the increase in intellectual capital disclosure. This is because intellectual

capital disclosure has several benefits, including helping shareholders in making strategic decisions.

This research is supported by agency theory which highlights that companies with a low concentration of public ownership have more public shareholders, which can increase the complexity of the company. This can make it difficult for the principal to monitor the agent's performance and ensure that the agent acts in accordance with the principal's interests. Therefore, companies with a low concentration of public ownership may not disclose more information about their intellectual capital, to avoid the risk of conflicts of interest, save costs, and comply with corporate policy.

Companies with a low concentration of public ownership have more public shareholders, which may reduce the company's focus on developing and managing unique resources and capabilities. This is because public shareholders have an interest in maximizing their own profits, which may conflict with the interests of the company. In an effort to protect its competitive advantage, companies with low concentration of public ownership are better off not disclosing more information about their intellectual capital, as it makes it more difficult for competitors to understand the unique resources and capabilities possessed by the company.

The Effect of Board of Commissioners Size on Intellectual Capital Disclosure

The size of the board of commissioners has no effect on the disclosure of intellectual capital in tourism sector companies listed on the Indonesia Stock Exchange in 2019-2021. The results of this study contradict research conducted by Delima & Zuliyati (2020) and Priyanti & Wahyudin (2015) which state that the size of the board of commissioners affects the disclosure of intellectual capital, this is based on the company disclosing more extensive intellectual capital disclosure information due to the needs of parties outside management, namely the public who owns shares. The public wants to obtain the widest possible information about the company in which they invest. The more parties who need information related to the company, the greater the need for companies to provide broader intellectual capital disclosure information.

The results of the study are in line with research conducted by Nugroho (2012) showing that the size of the board of commissioners has no significant effect on intellectual capital disclosure. Agency theory can explain the relationship between board size and intellectual capital disclosure. The board of commissioners is a company organ responsible for overseeing management performance. A larger board size can increase oversight of management, which can reduce the risk of conflicts of interest. However, the results show that the size of the board of commissioners has no effect on intellectual capital disclosure. A board of commissioners with a large number of members can lead to several problems, such as hampered communication and coordination. According to Cerbioni and Parbonetti (2007), this lack of coordination can weaken the ability of the board of commissioners to supervise management, thus triggering agency problems. The more members there are, the more difficult it is to reach consensus and make decisions quickly. Lack of coordination between members can weaken the board's supervision of management. Lack of supervision can cause management to act in their own self-interest, rather than in the interests of the company.

The Effect of Business Complexity on Intellectual Capital Disclosure

Business complexity has a positive effect on capital disclosure intellectual capital in tourism sector companies listed on the Indonesia Stock Exchange in 2019-2021. The results of this study are in line with the research of Priyanti & Wahyudin (2015) and Delima & Zuliyati (2020) which prove that business complexity has a positive effect on intellectual capital disclosure. This is because with greater business complexity, the need for broader intellectual capital disclosure will increase. This is due to the complexity of the company's organizational structure which has several branches, resulting in delegation of authority involving various levels of management. Therefore, clear transparency is needed in the management of information, both financial and non-financial. The higher the level of business complexity of the company, the more extensive and comprehensive the disclosure of intellectual capital required.

This research is supported by agency theory which highlights that companies with high business complexity have more business units, products, or services. This may increase the difficulty for the principal to monitor the performance of each business unit, product, or service. In addition, this may encourage companies with high business complexity to disclose more information about their intellectual capital, to reduce the risk of conflict of interest and increase trust between principal and agent. Companies with high business complexity have more stakeholders, who need information about the company's intellectual capital. This may encourage companies with high business complexity to disclose more information about their intellectual capital, to meet the needs of stakeholders.

TABLE 10. RESEARCH HYPOTHESIS

Hypothesis	Description	Path
H1	Company size affects intellectual capital disclosure	X1 → Y
H2	Public ownership concentration affects intellectual capital disclosure	X2 → Y
H3	Board size affects intellectual capital disclosure	X3 → Y
H4	Business complexity affects intellectual capital disclosure	X4 → Y

Source: Research Data (2023)

V. CONCLUSION

This sub-chapter contains conclusions. This study aims to empirically examine the effect of company size, concentration of public ownership, board of commissioners size, audit committee size, and business complexity on intellectual capital disclosure in tourism sector companies listed on the Indonesia Stock Exchange (IDX) in 2019-2021. The data analysis technique used in this research is panel data regression analysis. Based on the results of research findings and hypothesis testing previously proposed, it can be concluded that:

1. Company size has a positive effect on intellectual capital disclosure in tourism sector companies listed on the IDX in 2019-2021.
2. The concentration of public ownership has a negative effect on the disclosure of intellectual capital in tourism sector companies listed on the IDX in 2019-2021.
3. The size of the board of commissioners has no effect on the disclosure of intellectual capital in tourism sector companies listed on the IDX in 2019-2021.

4. Business complexity has a positive effect on the disclosure of intellectual capital in tourism sector companies listed on the IDX in 2019-2021.

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REFERENCES

- Al-hamadeen dan Suwaidan. 2014. Content and Determinants of Intellectual Capital Disclosure: Evidence from Annual Reports of the Jordanian Industrial Public Listed Companies. *International Journal of Business and Social Science*, Vol 5. No 8. hal 165-175.
- Ashari, P. M. S. (2016). Pengaruh Umur Perusahaan, Ukuran Perusahaan, Profitabilitas, Leverage Dan Komisaris Independen Terhadap Pengungkapan Modal Intelektual. *E-Jurnal Akuntansi Universitas Udayana*, 14.3, 1699–1726.
- Cahya, H. M. P. (2013). Determinan Luas Pengungkapan Modal Intelektual Pada Perbankan. *Accounting Analysis Journal*, Vol. 2. No. 4. Hal 395-403. Semarang: Universitas Negeri Semarang.
- Delima, Z. M., & Zuliyati, Z. (2020). Determinan Pengungkapan Modal Intelektual Pada Perusahaan Perbankan. *Jurnal REKSA: Rekayasa Keuangan, Syariah Dan Audit*, 7(2), 133. <https://doi.org/10.12928/j.reksa.v7i2.2871>
- Emilia, R. A., & Ovami, D. C. (2021). Praktik pengungkapan modal intelektual dan kinerja keuangan perusahaan sektor farmasi. *Jurnal Penelitian Pendidikan Sosial Humaniora*, 6(1).
- Firdaus, R. N., & Fitriyanti, R. (2019). Disclosure of Intellectual Capital in Aviation Companies in Indonesia Registered on the Idx. ... *Journal of Research and Reflection in ...*, 7(2), 1–13. <http://www.idpublications.org/wp-content/uploads/2019/03/Full-Paper-Disclosure-Of-Intellectual-Capital-In-Aviation-Companies-In-Indonesia-Registered-On-The-Idx.pdf>
- Gelgel, I. P. (2006). *Industry Pariwisata Indonesia: Dalam Globalisasi Perdagangan Jasa GATS WTO*. Bandung: Rafika Aditama.
- Hidayanti, E., & Sunyoto. (2012). Pentingnya Pengungkapan (Disclosure) Laporan Keuangan dalam Meminimalisasi Asimetri Informasi. *Jurnal WIGA*, 2(2), 19–28.
- Istanti, S. L. W. (2009). Faktor-Faktor yang Mempengaruhi Pengungkapan Sukarela Modal Intelektual (Studi Empiris Pada Perusahaan Non Keuangan yang Listing di BEI). Tesis. Semarang: Universitas Diponegoro.
- Jensen, M., C., dan W. Meckling, 1976. "Theory of the firm: Managerial behavior, agency cost and ownership structure", *Journal of Finance Economic* 3:305- 360, di-download dari <http://www.nhh.no/for/courses/spring/eco420/jensenmeckling-76.pdf>.
- Latifah, F. N., & Widiatmoko, J. (2022). Pengaruh Struktur Kepemilikan Terhadap Corporate Social Responsibility Dan Dampaknya Pada Nilai. *JIMAT (Jurnal Ilmiah Mahasiswa Akuntansi)*, 13(3), 921–937. <https://ejournal.undiksha.ac.id/index.php/S1ak/article/download/44363/2324>

- Lina. (2013) "Faktor-faktor penentu pengungkapan modal intelektual". *Media Riset & Akuntansi*. Vol. 3 (1) hal. 48-64
- Marr, Bernard. (2004). "Measuring and benchmarking intellectual capital", *Benchmarking: An International Journal*, Vol. 11 Iss: 6, pp.559 – 570
- Priyanti, S. Y., & Wahyudin, A. (2015). *MODAL*. 4(2), 1–10.
- Puasanti. (2013). Pengaruh Ukuran Perusahaan, Umur Perusahaan, Konsentrasi Kepemilikan, Komisaris Independen, dan *Leverage* Terhadap Pengungkapan Modal Intelektual, *Skripsi*. Program Sarjana Ekonomi Universitas Negeri Semarang. Semarang.
- Purnomosidhi, Bambang. (2006). Analisis Empiris Terhadap Determinan Praktik Pengungkapan Modal Intelektual pada Perusahaan Publik di BEJ. Universitas Brawijaya.
- Purnomosidhi, Bambang. (2006). Praktik Pengungkapan Modal Intelektual Pada Perusahaan Publik di BEJ. *Jurnal Riset Akuntansi Indonesia*. Vol. 9 No. 1 Hal 1-20
- Rahma, M., Wijaya, M., & Priyatama, T. (2021). Analisis Pengungkapan Modal Intelektual. *Jurnal Ilmiah Universitas Batanghari Jambi*, 21(3), 1232. <https://doi.org/10.33087/jiubj.v21i3.1663>
- Rezki, S. B. (2018). Determinan Faktor Pengungkapan Modal Intelektual dan Tingkat Pengungkapan Per Industrinya pada Seluruh Perusahaan yang Terdaftar di Bursa Efek Indonesia. *Kompartemen: Jurnal Ilmiah Akuntansi*, 16(1), 95–108. <https://doi.org/10.30595/kompartemen.v16i1.2458>
- Rukmana, M., Konde, Y.T., dan Setiawaty, A., (2017), "Pengaruh Risiko Litigasi, *Corporate Governance*, Karakteristik Perusahaan, dan Karakteristik Auditor Terhadap Audit Fee pada Perusahaan yang Terdaftar di BEI", *Simposium Nasional Akuntansi 20*.
- Rusiadi, E. (2017). *Ekonometrika: Pendekatan Teori dan Aplikasi*. Yogyakarta: Pustaka Pelajar.
- Aini. (2018). Pengaruh Karakteristik Dewan Komisaris dan Direksi Terhadap Pengungkapan Intellectual capital
- Schroeder, Richard G., Myrtle W. Clark, dan Jack M. Cathey. (2013) *Financial accounting theory and analysis: text and cases. edition*. United State of America: John Wiley and Sons
- Scott, William R. (2014) *Financial accounting theory. edition*. University of Waterloo. Toronto: Pearson
- Suhardjanto, Djoko dan Mari Wardhani. (2010) "Praktik *Intellectual Capital* Disclosure perusahaan yang terdaftar di Bursa Efek Indonesia". *JAAI*. Vol. 14 (1) hal. 71-85
- Winarsih, T., & Fariz. (2022). Performance improvement strategies Indonesian tourism sector. *Proceeding 2nd International Conference on Business & Social Sciences (ICOBUSS)*, 1287–1295.