

DETERMINANT OF INTELLECTUAL CAPITAL DISCLOSURE IN INDONESIAN LISTED COMPANIES

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ABSTRACT

This study aims to evaluate and analyze the factors (firm size, profitability, leverage, audit firm type, and industry type) of intellectual capital disclosure (ICD) in the annual reports of Indonesian listed businesses. The information was extracted from the 2020 annual reports of 71 selected publicly traded corporations. The sample technique incorporated stratified sampling. In this study, multiple linear regression analysis models are used for model analysis. The conclusions that can be derived from this study based on the data analysis findings and the prior discussion are that firm size and industry type were proven to be determinants of ICD in the annual reports of Indonesian listed companies, implying that they have some influence on the ICD. Conversely, the findings of this study's variables for profitability, leverage, and audit firm type indicate that these factors have no significant impact on the extent of ICD.

Keywords: *Intellectual capital, Voluntarily Disclosure, Annual reports, Determinants, Stratified Sampling, Public companies.*

Penelitian ini bertujuan untuk mengevaluasi dan menganalisis faktor-faktor (ukuran perusahaan, profitabilitas, leverage, jenis perusahaan audit, dan jenis industri) dari pengungkapan modal intelektual (ICD) dalam laporan tahunan perusahaan terdaftar di Indonesia. Informasi tersebut diambil dari laporan tahunan tahun 2020 dari 71 perusahaan publik terpilih. Teknik pengambilan sampel yang digunakan adalah stratified sampling. Dalam penelitian ini, model analisis regresi linier berganda digunakan untuk analisis model. Kesimpulan yang dapat diambil dari penelitian ini adalah bahwa ukuran perusahaan dan jenis industri terbukti menjadi penentu ICD dalam laporan tahunan perusahaan yang terdaftar di Bursa Efek Indonesia, yang menyiratkan bahwa mereka memiliki pengaruh terhadap ICD. Sebaliknya, temuan variabel penelitian ini untuk profitabilitas, leverage, dan jenis perusahaan audit menunjukkan bahwa faktor-faktor ini tidak berpengaruh signifikan terhadap tingkat ICD.

Kata kunci: Modal intelektual, Pengungkapan Sukarela, Laporan Tahunan, Determinan, Stratified Sampling, Perusahaan Publik

INTRODUCTION

Knowledge-based economy is emerging as a result of globalization and the expansion of information and communication technology. According to Sariningsih (2019), a business must have a complete plan, which necessitates greater information and data disclosure. In an era where corporate management paradigms are transitioning to a knowledge-based economy, knowledge-based assets, also known as intellectual capital, rather than physical assets are the company's primary asset (Sudibyo & Basuki, 2017).

Consequently, it is crucial for firms to examine not just the disclosure of financial information, but also the disclosure of nonfinancial information.

Disclosure allows firm management to provide information on intellectual capital. Disclosure refers to an organization's attempt to be transparent in giving information to its financial and non-financial stakeholders. According to Nguyen and Nguyen (2020b), investors' expectations for information disclosure are rising, not just for mandated disclosure but also for voluntary disclosure. Although

intangible assets have begun to increase the phenomena of intellectual capital in Indonesia, this is not consistent with the Indonesian practice of revealing information about a company's intellectual capital. This is conceivable due to Indonesia's lack of company development using information technology (Astuti and Wirama, 2016).

Several previous research have explored a variety of elements that influence the disclosure of intellectual capital, but the results are conflicting. According to Ousama (2012), Rahman et al. (2019), Fauziah and Murharsito (2019), and Fauziah and Murharsito (2019), firm size is a factor of intellectual capital disclosure (2021). Larger businesses (SIZE) report a higher incidence of IC. In contrast, this study's findings are inversely proportional to those of Priyanti and Wahyudin (2015), who discovered that it had no significant effect on intellectual capital disclosure. In the beginning of 2020 Covid-19 hits Indonesia. This pandemic create pressure to stock market, and it create a unique condition and therefore reveal an opportunity for further research. As Orazalin (2019) mention that during crisis companies are being held responsible and accountable for the impact of their services and activities on the society, especially after the financial crisis, as a result, the level of information reported by companies substantially increased due to high pressure from the society.

Moving on to the profitability determinant all discovered that profitability had a positive effect on ICD (Ousama, 2012; Ousama et al., 2012; Utama & Khafid, 2015). According to Novrian et al. (2020), profitability has an adverse effect on ICD. While Leonard & Trisnawati (2015), Asfahani (2017), and Isnalita & Romadhon (2018) have proven that profitability has no effect on ICD. This previous research shows that it is necessary to examine the effect of profitability on ICD.

Similarly, the previous research on leverage's determinants. According to studies by Priyanti and Wahyudin (2015), Zuliyati and Wahyuningrum (2018),

Rahman et al. (2019), and Barokah and Fachrurrozie (2019), leverage has a positive effect on ICD (2019). Contrary to the findings of Ousama (2012), Isnalita & Romadhon (2018) showed no statistically significant effect on ICD. The fact that previous research do not showed consistent conclusion that leverage has a positive effect on ICD, required further research.

The fourth determinant is audit company. Ferreira et al. (2012) discovered that auditor type tended to influence intellectual capital disclosure. Susanto et al. (2019) discovered, contrary to Rahim et al. (2011) and Ousama et al. (2012), that the kind of audit company had no significant effect on ICD. This inconsistent result laid the basic to the notion on re-examine the effect of audit type on ICD.p

The type of industry effects intellectual capital disclosure, according to Ousama (2012), and Isnalita and Romadhon (2018). In contrast, Yi et al. (2011) found that the kind of industry was not a significant influence in intellectual capital disclosure. This variable remain important to analyze since the effect of industry is continue to be inconclusive, especially in period of Covid-19.

However, because to the numerous contradictions in the findings of previous research, the purpose of this study is to analyze using the variables of firm size, leverage, profitability, auditor type, and industry type. In light of this, the authors of this study intend to determine and reexamine the factors that affect the quantity of intellectual capital declared in annual reports. This reexamination is important since the research on ICD during the period of Covid-19 in particular and crisis in general is limited. The research of Ousama et al. 2012) is one of the primary references for this study (2012). Researchers reproduced the study with several modifications to the study's location, sampling method, and data and sample collecting year (research context). This study determined EICD on the basis of firm size, leverage, profitability, auditor type, and industry type. The researchers selected 2020 as the sample year since it is

the most recent year for corporations to disclose or publish annual reports, and this particular year could show anomaly due to Covid-19 pandemics. Importantly, the selection of the sample is based on a random process, which can assist generalize the research findings and ensure that the sample is representative of the entire community.

Since the sharing of Intellectual Capital is considered voluntary disclosure, this research is necessary. There are no regulatory-based standard rules for its disclosure, however. As a result, many corporations continue to assert that disclosure of intellectual property (IP) is not required due to the absence of a sovereign authority over it, despite their lack of awareness regarding the importance of utilizing IP for businesses.

This article consists of several main points, starting with an introduction and then continuing with the second part outlining the theory to hypothesize the relationship between the influencing factors; the third part describes the research method; the fourth section describes the data analysis and discussion; and the last part is the fifth presents conclusions, and suggestions.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Agency theory

Agency theory is based on the separation of functions between management as agent and the owner of capital as principle. Managers (agents) perform a number of functions for shareholders, including authorizing agents and supplying specific information. While the owners (principals), who would obtain the information and outputs of the agent's labor, are compelled to pay or reward managers for their job, which we refer to as agency cost, the agency cost is borne by the agent (Vitolla et al., 2020). Therefore, businesses attempt to reveal more information to avoid these expenses.

Theorists of agency emphasize the importance of monitoring corporate management behavior in order to limit the likelihood of conflict between firm

shareholders and management. According to agency theorists, increased disclosure decreases investor uncertainty and, as a result, reduces the firm's cost of capital. Therefore, managers must be willing to share intellectual capital information with investors in order to increase firm value by enhancing investors' comprehension of the company's activities and reducing the volatility of stock return volatility. In order to decrease agency problems brought on by the separation of ownership and management, agency theory presents voluntary disclosure behavior as a component of corporate governance (Vitolla et al., 2020).

Signaling theory

The occurrence of a gap between the information held by management and the information held by shareholders is the foundation of signaling theory. Information signaling is a tactic utilized to convince investors of a company's value. According to the signaling theory, high-quality firms will tend to market their reputation. On the one hand, the signal will inspire shareholders and other stakeholders to increase the company's value and then take activities that will increase the company's profitability Ousama (2012).

Managers are required to communicate vital information to stakeholders, especially investors. Managers offer information willingly to investors, while investors may provide favorable news that is interpreted in the managers' judgments (Scott, 2015). The disclosure of intellectual property could provide a positive signal to the user. Users can assess the effectiveness of their resource management and notice the competitive advantage of being owned by a company that is not owned by another company.

Legitimacy theory

The legitimacy theory is grounded in the notion of a social contract between a company and its society. According to Gutrie et al. (2004) and Lindblom (1994), companies can use disclosures to bring attention away from the negative

consequences of their operations or to prove to the public that management is concerned with social norms. As a result, if management determines that particular actions represent a threat to the general community, the company will voluntarily report them. Therefore, it can be considered that the company was approved and made a positive contribution to society.

Intellectual Capital

Intellectual capital, according to Kianto et al. (2017), is the total amount of intangible and information-related resources that a company uses to generate value. Intellectual capital, according to Dumay and Guthrie (2019), are assets that are not disclosed on the balance sheet, have few or no physical assets, and increase the financial worth of the company. In general, intellectual capital consists of 3 components, namely: internal capital, also known as structural capital, is a set of data resources such as organization behavior, a dataset of varied information, a company structure, management systems, systems, copyrights, methodology, and information systems. Second, external capital (relational capital) refers to IC just outside of the organization, the information inherent in marketing activity and customers, such as business partnering and alliances, consumers, market share, customer satisfaction, number of suppliers, key suppliers, distribution network, market value and share price, and shareholders. Lastly, human capital (HUC), which is a term for the company's human resources including the values, training, and experience of its employees.

Intellectual Capital Disclosure

Annual reports, which are annually produced to provide the opportunity for comparative evaluation of management behaviors and practices during the reporting period, therefore provide company with accumulated information regarding developments and events that occurred during the reporting year in a comprehensive way (Winarto, 2021). The annual report includes a variety of

information, including information regarding intellectual capital.

According to Dumay (2016), it is companies to disclose their intellectual property in order to give the market accurate information about these assets, which will help investors make better decisions and will also benefit management and disciplinary committees with regard to the economy. By identifying and evaluating crucial performance indicators to stay ahead of the competition, intellectual capital reporting supports firms in formulating business strategies.

The influence of firm size on the disclosure of intellectual capital

The firm size represents the company's size, whether large or small. Whereas a large company is perceived to have more resources, the management company is expected to provide more details about the resources utilized for business operations (Ousama et al., 2012). This is in line with agency theory, which claims that agency costs in larger companies are greater than those in smaller companies because they frequently experience conflict between corporate management and stakeholders, which may in turn raises agency costs (Isnailita, 2018). In order to lower the agency cost, the company voluntarily discloses extra information in their annual report, including information on intellectual capital (Ousama et al., 2012). Several prior research have found a positive relationship between firm size and intellectual capital disclosure (Ferreira et al., 2012; Ibikunle et al., 2013; Putra et al. 2013, Kateb, 2014). Based on this description, the following hypothesis is developed are presented in this study:

H1: The extent of ICD in annual reports is determined by the firm size.

The influence of profitability on the disclosure of intellectual capital

Profitability demonstrates a company's ability to benefit from all of its activities. It demonstrates the effectiveness of utilizing all of a company's resources in order to turn a profit (Nguyen, Pham, & Nguyen, 2020a). The greater the company's

potential to make profits, the higher the company's future prospects.

According to the signaling theory, high-performing companies must reveal more specific information in their annual reports in order to communicate with investors and prove their financial performance (Mondal & Ghosh, 2014). The signals could be information regarding intellectual capital. According to studies by Ousama et al. (2012), Muryanti and Subowo (2017), and Susanto et al. (2019), profitability has a positive, substantial impact on the disclosure of intellectual capital. The following hypotheses are proposed in this study based on the description above are:

H2: The extent of ICD in annual reports is determined by the company's profitability.

The influence of leverage on the disclosure of intellectual capital

According to agency theory that was discovered by Jensen and Meckling (1976), that the companies with a higher leverage have greater agency costs lead to an increased risk, such as the probability of financial distress. Companies make an effort to voluntarily disclose their intellectual property in an aim to overcome investor concerns about the investments and as a manager's responsibility to minimize agency costs. When there are information asymmetries, creditors and other stakeholders, such bondholders, will ask for more information to make sure the company is not breaking any loan arrangements. Asfahani, 2017 and Suryani and Khafid (2022) shown that leverage has a favorable and significant impact on intellectual capital disclosure. Based on this view, the following hypotheses are provided and examined in this study:

H3: The extent of ICD in annual reports is determined by the company's leverage.

The influence of type of audit firm on the disclosure of intellectual capital

Rahim et al. (2011) argue that the capacity and quality of the auditor may have an impact on the information included in the company's annual reports. This is because

large, reputable audit firms may persuade businesses to publicly disclose more information. Companies with high agency costs will use big audit firms as a forced to reduce these costs. As a result, the big audit firms will request for extra data, especially IC information, to be provided in order to meet the principals' expectations.

In line with research by Ousama (2012) that variable size/type of auditors show more widespread ICD. Because big-4 auditing companies have a reputation to protect, they drive their clients to voluntary disclose more IC rather than limiting disclosure behavior. The following hypotheses are proposed in this study based on the description above are:

H4: The extent of ICD in annual reports is determined by the company's type of audit firm (i.e. Big-4) which audits the company.

The influence of industry type on the disclosure of intellectual capital

High-tech companies are said to be excellent examples of industry that make significant intellectual capital investments. Intellectual capital disclosure would be more highly relevant to high-technology companies than low-technology companies, according to Ousama (2012). According to research conducted in Indonesia by Putra et al. (2013), Puteri and Chairiri (2016), and Sariningsih (2019), the industry type does have an influence on the disclosure of intellectual property. Intellectual capital (IC) disclosure by high technology companies likely to provide as a signal to investors, allowing investors to more accurately assess the company's future prospects. The following hypotheses are proposed in this study based on the description above are:

H5: The extent of ICD in annual reports is determined by the company's industry type (i.e. high-technology companies).

RESEARCH METHODS

Sample selection and data collection

This study uses secondary data, namely the annual report for the period 2020. The population of this study is all of companies that listed in main board index on

Indonesian stock exchange. (N; 372). For the following reason, a total of 53 companies that are in the financial sector were removed from the population: "finance companies must adhere to particular requirements and regulations that specifically apply to their sector, which then would affect their disclosure procedures." After removing 53 financial sector companies and 72 companies that using currencies other than rupiah, the total population that can be used as a sample is 247 companies.

The sample size was calculated using the slovin formula with the highest limit of error of 10 percent (Astuti and Wirama, 2016). After calculating the slovin formula, the number of samples obtained is 71 companies. Using a stratified sampling with a systematic random technique, a total of 71 sample companies from eight sectors were chosen based on the relevant population. In a proportionate stratified method, the sample size of each stratum is proportionate to the population size of the stratum are shown on the following table.

Table 1 shows the population and sample size of the companies based on the established strata, i.e. high-technology and non-high-technology companies. The strata categorization is based on the industry category in the proxy for the industry type variable, this is done according to the classification that has been done by Ousama et al. (2012).

Operational Definition and Measurement of Variables

Intellectual Capital Disclosure

Intellectual Capital disclosure can be specifically defined from the disclosure of value creation perspective as the "intellectual material - knowledge, information, intellectual property, experience - that can be put to use to

create wealth" (Ousama et al. 2012). This research uses items referred from Ulum (2015) and regulations regarding the Submission of Annual Reports of Issuers or Public Companies. In this scheme, IC is grouped into 3 categories consisting of 36 items, namely 3 categories and the 36 items referred to are as follows: human capital category 8 items; structural capital 15 items; and relational capital 13 items, 15 of which are modification items. The measurement of the extent of intellectual capital disclosure (ICD) is calculated as follows (Ousama et al. 2012, Ulum, 2015):

$$ICD_j = (TADS_j) / MRDI_j$$

Where: TADS_j is the total actual disclosure score for sample company j; MRDI_j is the total relevant disclosure items (i.e. 36 items) for company j.

Firm size (SIZE)

The size of a firm is determined by its assets. Larger businesses are more likely to have greater intellectual capital. Firm size (SIZE) because as firm size increases, there is a higher chance of increasing the level of board member and firm performance at the same time, which may effect on the level of disclosure (Vitolla et al., 2020). According to earlier research (e.g. Ousama et al. 2012, Sariningsih, 2019), firm size (SIZE) is determined by the natural logarithm value of the company's total assets in one fiscal year. $SIZE = \ln(\text{Total Assets})$

Profitability (PROFTBTY)

Profitability is measured by the return on shareholders' equity (ROE) as a profitability proxy, according to prior studies (e.g. Ousama et al. 2012, Ferreira et al. 2012, Eddine, 2015). The return on equity (ROE) is a ratio used to measure a company's capacity to create profit. The ability of managers to manage firm capital in order to generate profits for the principal can be

Table 1.
Stratified Random Sampling Method Calculation Results

Industry	Population	Sample	Percentage
1=high-technology companies	51	15	21%
0= non-high-technology companies	196	56	79%
Total	247	71	100%

measured using ROE.

$ROE = (\text{Net profit}) / (\text{Total of equity})$

Leverage (LEV)

Debt to equity ratio reveals a company's capabilities to fulfill long-term obligations and the degree to which creditors can be secured (Ousama et al. 2012). The Leverage variable (LEV) is measured using debt to equity ratio or defined in total liabilities over shareholder's equity. This proxy is consistent with earlier studies. (e.g Ousama et al. 2012, Isnalita & Romadhon, 2018).

$LEV = (\text{Total of debt}) / (\text{Total of equity})$

Type of audit firm (AUDIT)

As measured by previous research, the type of audit firm is indicated by a dummy variable which means the value 1 if indeed the company is audited by one of the Big-4 external auditors and 0 if it has been audited by a non-Big-4 auditor (e.g. Ousama et al. 2012). The audit firms included in the Big - 4 category in this study are: Price Waterhouse-Coopers (PWC), Ernst & Young (EY), Deloitte Touche Thomatsu (DTT), Klynveldt Peat Marwick Goerdeler (KPMG).

Industry type (INDUSTRY)

Industry type is determined by a categorical measurement that represents the value of 1 if the company is a high-technology company (such like technology, IT, software development, telecommunications, advertising or media, chemical, pharmaceutical, automotive, electrical) and otherwise 0 if the company is not a high-technology company (such like manufacture, trade and services, plantations, construction, and others). This assessment was conducted using reference

from previous research. (Ousama et al. 2012)

Multiple regression model

The method of analysis in this study is multiple linear regression. Multiple linear regression analysis is used to see whether the independent variable has an effect on the dependent variable. This study's approach is a multiple linear regression model that will process data using the SPSS 25 program, which is a popular method applied in ICD research (e.g. Ousama et al. 2012). The regression's equation is written as follows:

$EICD = \alpha + \beta_1 \text{ SIZE} + \beta_2 \text{ PROF} + \beta_3 \text{ LEV} + \beta_4 \text{ AUDIT} + \beta \text{ INDUSTRY} + \varepsilon$

Where, EICD is the extent of Intellectual Capital Disclosure, SIZE is Firm size, PROF is profitability, LEV is Leverage, AUDIT is Type of audit firm, INDUSTRY is industry type, β is Coefficient of regression, and ε is error

ANALYSIS AND DISCUSSION

Descriptive statistics

The Descriptive statistical analysis output as shown on table 2 displays descriptive statistics as a technique for gathering and presenting a set of data in terms of determining the data quality in the form of variable types, summary statistics, containing information about the number of samples (N), minimum value (Min), maximum value (Max), average value, mean (Mean), and standard deviation (Std.) of each variable. The table shows that 71 data were used in the study.

Based on the Table 2, from 71 observational data during the 2020 period, the firm size variable (X1) shows the lowest

Table 2.
Descriptive Statistics

Variables	N	Minimum	Maximum	Mean	Std. Deviation
SIZE	71	25.78	33.45	29.3694	1.56556
PROFTBTY	71	-4.13	2.04	-.0247	.70460
LEV	71	.00	23.38	1.6072	3.50689
AUDIT	71	0	1	.44	.499
INDUSTRY	71	0	1	.21	.411
EICD	71	.28	.86	.6745	.11520

value at 25.78 and the highest at 33.45. And for the mean value obtained is 29.3694 with a standard deviation of 1.56556. The fact that the mean value is greater than the standard deviation of $29.3694 > 1.56556$ indicates that the distribution of firm size values is favorable.

The next variable is profitability. The value of the lowest profitability variable (X2) is -4.13 and the highest is 2.04. And the average value for the profitability variable is -0.0247 with a standard deviation of 0.70460. Mean value is lower than the standard deviation of $-0.0247 < .70460$ indicates that the distribution of profitability values is unfavorable. The negative mean of profitability shows that in the year 2020 most companies in the sample were under performed.

Based on 71 observational data in the year 2020, the leverage variable (X3) has a minimum value of 0.0024 and a maximum value of 23.38. The average value for the leverage variable is 1.6072 with a standard deviation of 3.50689. This indicates that the range of corporate leverage in this research sample is 0.0024 to 23.38, with a mean of 1.6072 and a standard deviation of 3.50689. Mean value is lower than the standard deviation of $1.6072 < 3.50689$ indicates that the distribution of leverage values is unfavorable.

Type of audit firm (X4) is an independent variable with an average

(mean) of 0.44 with a standard deviation of 0.499. This variable is a dummy variable, the sample audited by the Big Four KAP was given a value of 1 and the non-Big Four was given a value of 0, where of the 29 samples observed there were 31 samples audited by the Big Four KAP and 40 samples audited by the non-Big Four KAP. This mean that the number of samples audited by big four were relatively equal to the number of samples audited by non big four.

The industry type variable (X5) has an average value of 0.21 with a standard deviation of 0.411. This variable is a dummy variable, the samples included in the high-technology companies were given a value of 1 and the non-high-technology companies were given a value of 0, where from the 29 samples observed there were 15 samples which belonged to the industrial type of high-technology companies and 56 samples were non-high-technology companies.

The value of the lowest Intellectual capital disclosure variable (Y) is .28 and the highest is .86. The Intellectual capital disclosure variable has an average value of 0.6745 with a standard deviation of 0.1152. Mean value is greater than the standard deviation of $0.6745 > 0.1152$ indicates that the distribution of profitability values is favorable. The mean of Intellectual capital disclosure shows that in the year 2020 more than fifty percent of items were disclosed by the companies.

Table 3.
Regression Results

Regression equation	Unstandardized Coefficients		Standardized Coefficient	t	Sig.
	B	Std. Error	Beta		
Regression coefficient 1					
(Constant)	.018	.249		.071	.944
SIZE	.021	.009	.292	2.485	.016
PROFTBTY	.022	.024	.137	.955	.343
LEV	.001	.005	.017	.118	.906
AUDIT	.019	.027	.081	.702	.485
INDUSTRY	.081	.030	.288	2.653	.010
R square	.266	Adj. R Square	.210		

Multiple linear regression analysis

Multiple linear regression analysis is being used to provide evidence of an association among firm size, profitability, leverage, audit firm type, and industry type variables on intellectual capital disclosure. The purpose of this analysis was to examine and validate the study hypotheses.

From Table 3 shown that the p value of firm size is 0.016 smaller than 0.05, indicating that Hypothesis 1 is accepted. The coefficient shows that firm size has a positive effect on intellectual capital disclosure. Therefore, the greater the business, the more intellectual capital it reveals. According to Sariningsih (2019), this is relevant to the agency theory and signaling theory, as a company's disclosure of its intellectual property will reduce disputes between principals and agents. Disclosure by large enterprises will also help businesses save on agency fees. (Ferrerira, 2012) argues that larger corporations should have higher-quality disclosures due to their investor followings, political consequences of noncompliance, and legal concerns. In addition to decreasing information asymmetries, a high level of IC disclosure can send a powerful signal to stakeholders about the organization. The findings of this investigation were consistent with those of Ousama et al. (2012), Fereira et al. (2012), Sariningsih (2019), and Susanto (2020).

The outcome of the hypothesis test reveals that Hypothesis 2 cannot be supported because the value of sig. 0.343 is more than 0.05. The disclosure of intellectual capital was therefore unaffected by profitability. This study's findings aligned with those of Isnalita (2018) and Sariningsih (2017). (2019). Sariningsih (2019) provides the rationale for why profitability has no bearing on the disclosure of intellectual property. This is due to the fact that managers assume that stakeholders are already aware of a company's positive future prospects due to the fact that high earnings indicate the company's safe funding capacity. This study's findings contradict the signaling theory since voluntary information disclosure to signal corporate performance

is not bound by a low level of profitability. This is consistent with the findings of Isnalita (2018), who discovered that companies with high levels of profitability have a tendency to restrict IC information to prevent the activities of rival businesses that wish to copy the company's concepts, creations, and resourcefulness via the intellectual capital information provided in the annual report.

Based on the third hypothesis test, the p value is 0.906 indicates that Hypothesis 3 should be rejected because it exceeds the significance level of 0.05. According to the findings of the study, leverage does not influence ICD in the annual reports of Indonesian-listed businesses. Due to the company's desire to maintain their name, trustworthiness, and positive reputation, the stated intellectual capital does not connect with the high level of disclosed debt. This study's findings were consistent with those of Ousama et al. (2012), Isnalita & Romadhon, and others (2018). According to Isnalita (2018), a relatively insignificant influence of leverage may occur in this study due to the company's strategy, where companies may be able to rely on other forms of communication besides intellectual capital disclosure to avoid conflicts between capital providers and managers, thereby reducing agency cost.

The fourth hypothesis shows the p value 0.485 which means the variable type of audit company has a significance value greater than 0.05, Hypothesis 4 is rejected. This illustrates that the type of audit firm a company employs, such as one of the Big 4, has little bearing on the extent to which ICD information is revealed in annual reports. This study's findings are consistent with empirical findings by Rahim et al. (2011), Ousama et al. (2012), and Susanto and al. (2019), which indicate that big4 audit firms do not significantly affect the level of intellectual disclosure in Indonesian enterprises. This study's findings do not support the agency theory, which asserts that organizations with higher agency costs may hire larger audit firms to help them reduce expenses in order to fulfill the expectations of their

principals. The large auditing companies will supply comprehensive information, including IC information (Inchausti, 1997).

The 5th hypothesis was accepted, since the p value indicates less than 0.05, the test result for the industry type's contribution to intellectual capital disclosure is 0.010. It appears to imply that industry type is a factor in determining ICD. The positive coefficient shows that a high-tech industry reveals greater amounts of intellectual capital than a low-tech industry. This is done to improve and manage a company's image while minimizing stakeholder intervention. In accordance with the research of Ousama et al. (2012), Astuti and Wirama (2016), and Sariningsih (2019) (2019). The results of this study are consistent with signaling theory. High-tech companies typically make substantial investments in IC, therefore they have a larger incentive to share more information about their IC activities in order to demonstrate their worth and activity. By doing so, companies will receive a more accurate assessment of their future prospects from investors in the future. Additionally, the legitimacy theory can be used to explain the results of this study. Companies in an industry may be in the limelight due to environmental concerns or, in this case, the fact that HUC is a member of IC, according to the legitimacy hypothesis. Consequently, these businesses may increase their level of transparency to demonstrate their legitimacy. It is claimed that high-technology corporations have limited tangible assets that may be exhibited; consequently, the disclosure of intellectual property, a component of non-physical assets, could enhance the company's reputation Ousama (2012).

CONCLUSION

The conclusions that can be derived from this study based on the data analysis findings and the prior discussion are that firm size and industry type were proven to be determinants of IC disclosure (ICD) in the annual reports of Indonesian listed companies, implying that they have some influence on the ICD. Conversely, the findings of this study's variables for

profitability, leverage, and audit firm type indicate that these factors have no significant impact on the extent of ICD.

LIMITATIONS AND SUGGESTIONS.

There are several limitations and suggestions in this study, including: First, only 1 year data from the 2020 annual reports was used in the study. Second, the ICD in this study is measured by content analysis. Other measurements can be used by the next researcher for more significant results. Third, based on the percentage determination coefficient (adjusted R²), it can be inferred that, in addition to the variables adopted for this research, there are might be other determinants that can be investigated in association to influencing the extent of intellectual capital disclosure. To improve the quality of research results, it is suggested that the future study use relevant variables other than current research variable.

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