



PROCEEDINGS

The 4th International Conference on Sustainable Innovation (ICoSI) 2020

Cutting Edge Innovations for Sustainable Development Goals

Universitas Muhammadiyah Yogyakarta (Indonesia)

October 13 - 14 2020

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Focal Conferences



- ✔ (ICPU) The 2nd International Conference on Pharmaceutical Updates
- ✔ (ICOMS) The 6th International Conference on Management Sciences
- ✔ (ICLAS) The 9th International Conference on Law and Society
- ✔ (ICMHS) The 4th International Conference Medical and Health Sciences
- ✔ (ICAF) The 6th International Conference for Accounting and Finance
- ✔ (ILEC) The 2nd International Language and Education Conference
- ✔ (ICONURS) The 2nd International Conference on Nursing
- ✔ (ICITAMEE) The 1st International Conference on Information Technology, Advanced Mechanical and Electrical Engineering
- ✔ (IConARD) International Conference on Agribusiness and Rural Development
- ✔ (ISHERSS) The 2nd International Symposium on Social Humanities Education and Religious Sciences
- ✔ (ICONPO) The 10th International Conference on Public Organization
- ✔ (DREAM) The 5th Dental Research and Exhibition Meeting
- ✔ (ICHA) The 5th International Conference on Hospital Administration
- ✔ (ICOSA) The 3rd International Conference on Sustainable Agriculture





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Preface by the Chairperson of the 4th ICoSI 2020



Dr. Yeni Rosilawati, S.IP. S.E., MM.

Assalamu'alaikum Wr. Wb.

All praise is due to Allah, the Almighty, on whom we depend for sustenance and guidance. Prayers and peace be upon our Prophet, Muhammad SAW, his family and all of his companions.

On behalf of the organizing committee, it is my pleasure and privilege to welcome the honourable guests, distinguished keynote & invited speakers, and all the participants.

With the main theme of "Cutting-Edge Innovations on Sustainable Development Goals (SDGs)", the 4th International Conference on Sustainable Innovation (ICoSI) 2020 serves as a forum to facilitate scholars, policy makers, practitioners, and other interested parties at all levels from Indonesia and abroad to present their novel ideas, promote cutting-edge research, and to expand collaboration network. The conference has about 1373 participants participating from more than 8 countries 4 continents all over the world, making this conference a truly international conference in spirit.

This multidisciplinary conference was first held in 2012 and has undertaken various changes and adopted to the current technological trends of our education system. From having this conference with just 175 participants back in 2012 we have come a long way in making the conference a huge success with more than 1373 participants participating in this two-day conference.

Formerly, this conference consisted of only 9 (nine) focal conferences. This year, there are 14 focal conferences from various disciplines, namely: 1) The 2nd International Conference on Pharmaceutical Updates (ICPU), 2) The 6th International Conference on Management Sciences

(ICoMS), 3) The 9th International Conference on Law and Society (ICLAS), 4) The 4th International Conference Medical and Health Sciences (ICMHS), 5) The 6th International Conference for Accounting and Finance (ICAF), 6) The 2nd International Language and Education Conference (ILEC), 7) The 2nd International Conference on Nursing (ICONURS), 8) The International Conference on Information Technology, Advanced Mechanical and Electrical Engineering (ICITAMEE), 9) The 2nd International Conference of Agribusiness and Rural Development (IConARD), 10) The 10th International Conference on Public Organization (ICONPO), 11) The 2nd International Symposium on Social Humanities Education and Religious Sciences (ISHERSS), 12) The 5th Dental Research and Exhibition Meeting (DREAM), 13) The International Conference on Hospital Administration (ICHA), and 14) The 3rd International Conference on Sustainable Agriculture (ICoSA).

Accordingly, We are proud to announce that this year, the 4th ICoSI 2020 breaks the Museum Rekor-Dunia Indonesia (MURI) record as the Virtual Multidisciplinary Conference with the Largest Number of Area of Fields in Indonesia

In addition, this year, this conference holds special value since this is the first conference in the history of our university where the entire conference is taking place remotely on a digital platform through the use of advance technologies due to the Covid-19 Pandemic.

I would take this opportunity to express my highest respect to the Rector of Universitas Muhammadiyah Yogyakarta, Dr. Gunawan Budiyanto who gave approval and ensured the maximal support from all the faculty members of Universitas Muhammadiyah Yogyakarta (UMY) that made this event a big success. In addition, my appreciation goes to all the support teams who have provided their valuable support and advice from planning, designing and executing the program.

Let me conclude my speech by encouraging the delegates to participate with an increasing number in all the activities and discussions through the digital platforms for the next two days. I wish everyone a successful, safe, and fruitful conference.

Thank you!

Wassalamu'alaikum Wr. Wb.

Yogyakarta, Indonesia, 14 October 2020



Welcoming Remarks by the Rector of Universitas Muhammadiyah Yogyakarta



Assoc. Prof. Dr. Gunawan Budiyanto

Innovation is the beginning of the development of technology, and technology is a development machine that is expected to provide benefits to humans and provide the smallest possible impact on environmental quality. In the concept of sustainable development, development must improve the quality of human life without causing ecological damage and maintain the carrying capacity of natural resources.

International Conference on Sustainable Innovation (ICoSI) is an international conference which is an annual conference held by the University of Muhammadiyah Yogyakarta (UMY), Indonesia. In 2020 this raises the issue of "Cutting-Edge Innovations on Sustainable Development Goals." Therefore, on behalf of all UMY academics, I would like to congratulate you on joining the conference, hoping that during the Covid-19 Pandemic, we can still provide suggestions and frameworks for achieving sustainable development goals.

About The 4th International Conference on Sustainable Innovation (ICoSI) 2020

Cutting Edge Innovations for Sustainable Development Goals

The 2030 Agenda for Sustainable Development is enacted by the United Nations as a shared blueprint for peace and prosperity for people and the planet, now and into the future. It consists of strategies to improve health and education, reduce inequality, and spur economic growth while also conserving natures by 2030.

This year, however, at the first one-third of its timeline, the SDG Reports shows that the outbreak of COVID-19 did hinder the achievement, or at least decelerate the progress of achieving the 17 goals. In fact, according to the report, “some number of people suffering from food insecurity was on the rise and dramatic levels of inequality persisted in all regions. Change was still not happening at the speed or scale required”, accordingly.

Therefore, in this event of pandemic, the quantity and quality of research, innovation, and more importantly multi-disciplinary collaboration are indispensable. Furthermore, there needs to be clear ends of those works. That is how those research are applicable and benefits directly to the society. That is how those research is incorporated as the drivers of policy making, and used practically in the society. Hence, the stakeholders especially the triple helix of higher education institution, government, and industry must be re-comprehended and supported to reach the common goal of the SGD.

International Conference on Sustainable Innovation (ICoSI) has been essentially attempting to strengthen this regard since its first establishment. One of the goals of ICoSI is to provide primarily a platform where scholars, practitioners, and government could grasp the development and trends of research. Hopefully, meeting these actors altogether would result in stronger collaboration, sophisticated and advantageous research, and brighter ideas for further research. Based on these reasoning, this year, the 4th ICoSI 2020 UMY is themed ‘Cutting-edge Innovations for Sustainable Development Goals’.

Improving from last year conference which brought nine focal conference, this year ICoSI 2020 UMY brings 14 disciplines, from social sciences, natural sciences, and humanities. ICoSI 2020 received as much as 1005 papers. The paper works submitted in ICoSI 2020 UMY will be published in Atlantis Proceedings, IOP Proceedings, National/International Journals, and ICoSI ISBN-indexed Proceedings.

Nevertheless, ICoSI believes that publication is only the beginning of research dissemination. The publications will enhance the chance of the research known by wider audience, and then used, applied, and incorporated at either system, institutional, or personal level of human lives.





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TRACK ECONOMICS, LAW, EDUCATION, SOCIAL, AND HUMANITIES



Determination Analysis Affecting Intellectual Capital Disclosure and Its Effect on Market Performance and Cost of Equity Capital

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ABSTRACT

This study aims to analyse the factors that come from characteristics firm, company size, company age, leverage, profitability, and industry type of intellectual capital disclosure and the influence of intellectual capital disclosure on market performance and cost of equity capital in manufacturing companies in Indonesia. The population of this study are all manufacturing companies listed on the Indonesia Stock Exchange in 2015-2019. The sample was chosen using purposive sampling method. The test results show that overall, who have high enthusiasm in expressing and noticing ICD elements is precisely companies that have small assets and companies that are still young. However, the enthusiasm of these companies even impacted not in accordance with the expected, judging from the results Robust Test. Manufacturing companies in Indonesia tend not to have high awareness in the disclosure of intellectual capital, this is due to the absence of detailed regulations on the identification and measurement of intellectual capital disclosure, so the disclosure is still voluntary. Because of its voluntary nature, companies tend to disclose only little information about intellectual capital disclosure, which in turn will impact on the lack of investor attention to intellectual capital disclosure information disclosed by the company.

Keywords: *Intellectual Capital Disclosure, Characteristics firm, Market Performance, Cost Of Equity Capital*

INTRODUCTION

The spread of the internet or information technology, as well as the increase in innovation and science in the industrial world have modified the value creation process in companies. The development of information technology or knowledge has in principle led to the emergence of a "new economy" known as a knowledge-based economy, which means that the prosperity of a company will depend on a transformation creation and capitalization of knowledge itself. In other words, a company that can manage its knowledge well will have a competitive advantage compared to other companies that ignore this knowledge.

This increasingly complex economic development has raised issues regarding the disclosure of intellectual capital, which is an important way to report the nature of the intangible value of a company. The model of intellectual capital disclosure (ICD) first appeared in the west, especially in Europe and Scandinavian countries, then this concept became known in Asia in the 2000s and is still a domain that provides many opportunities to be explored. The fields of study that mostly explore intellectual capital are accounting and management. Accounting research is usually aimed at exploring financial statement disclosures related to intellectual capital (IC), IC measurement and assessment, as well as IC's relationship with company performance.

Currently, it is not sufficient for the decision-making process within the company to be based solely on mandatory financial information, voluntary information is also important to consider. Likewise, not only tangible assets need to be disclosed, but intangible assets are also very important to be reported by companies in the company's annual report. One of the approaches used in the assessment and measurement of knowledge assets is to use intellectual capital (Buggen et al, 2009). Disclosure information about IC in the annual report is one of the voluntary disclosures. One area that has attracted the attention of academics and practitioners is related to the use of intellectual capital as a tool to determine company value (Ulum, 2008).

In Indonesia, information related to intellectual capital disclosed by companies is still minimal (Sawarjuwono et al, 2003). This occurs because there is no accounting standard that requires companies to disclose information about intellectual capital in the company's financial statements. PSAK as the applicable financial accounting standard in Indonesia does not explicitly regulate intellectual capital. The phenomenon of intellectual capital began to develop in Indonesia after the emergence of Statement of Financial Accounting Standards (PSAK) No. 19 regarding intangible assets (Murti 2010). However, the regulation does not regulate how to measure and what items of intellectual capital need to be disclosed (Fitriani, 2001). Thus, intellectual capital disclosures are classified as voluntary disclosures. The level of intellectual capital disclosure was

found to vary from company to company. This is thought to be influenced by several factors. Keenan and Aggestam (2001) prove that the responsibility of prudent investment on intellectual capital depends on the objectives and characteristics of the company, and lies on corporate governance. In Indonesia, many researches on the factors that affect intellectual capital disclosure have been carried out, but the results still vary from one to another. The results of research on ICD still produce inconsistent findings (see for example Eddine, Houssein, 2015 and Saufi, 2016), so further testing is needed to determine the consistency of the findings when applied to different environmental conditions. Research on the impact of intellectual capital disclosure is still rare, even though ICD has benefits both for investors and for the company itself, so that the topic of intellectual capital and its disclosures has attracted the attention of researchers. Through disclosure and measurement of intellectual capital, companies have the opportunity to build trust with stakeholders, improve external reputation, reduce information asymmetry on the capital market, reduce the cost of equity capital, and reflect market performance.

Another fundamental issue among the debates over corporate reporting is the benefits companies derive from increasing disclosure, namely through a reduction in the cost of equity capital. Research that specifically examines the effect of intellectual capital disclosure on the cost of equity capital was conducted by Mangena, et al (2015). His research reveals that companies with greater disclosure of intellectual capital have a lower cost of equity capital. Companies with a higher level of disclosure have a cost of equity capital 2.35 - 2.84% lower than companies with a lower level of disclosure. The conclusion is that disclosure of intellectual capital has a negative effect on the cost of equity capital.

Previous research on the factors that influence the ICD and the influence of the ICD on market performance and cost of equity capital still shows inconsistent results. This is because research uses different indicators and research objects, so further testing is necessary to determine the consistency of the findings when applied to different environmental conditions. This study seeks to examine several determinants that affect intellectual capital disclosure and also examine the effect of ICD on market performance and cost of equity capital.

This study emphasizes more on analytical tools that are different from previous studies. The inconsistency of the results of previous research regarding the effect of intellectual capital disclosure on the market performance and cost of equity capital of the company motivated authors to conduct further research with a different analysis, namely by mitigating company characteristics (size, age, leverage, profitability, and type of industry). on the interaction between ICD and market performance and cost of equity capital. This analysis is expected to prove that the presence or absence of ICD influence on market performance and

cost of equity capital is caused by one of the five company characteristics. This analysis is important considering that the ICD is a key element or can be said to be a driver for creating value of the firm (Pulic, 1997-2003) and its private nature makes it a very risky information because this information can be used by the company's competitors (Sonnier, 2008)

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

The Influence of Company Size on Intellectual Capital Disclosure

The larger the size of the company, the more activity will be and the higher the level of disclosure due to the high demands on information disclosure compared to smaller companies.

Signaling theory can explain the relationship between company size and ICD. Signal theory emphasizes the importance of the information released by the company. This means that the information published by the company is an announcement that provides a signal for investors in making investment decisions. More disclosure of information is the company's way of trying to signal that the company has implemented the principles of good corporate management, so that investors will respond positively and the company's value will increase (Sujoko and Soebiantoro, 2007).

Ferreira and Branco (2012) state that an easier explanation for why large companies are considered more capable of disclosing information about IC is because large companies have the resources to disclose more information and large companies tend to have better internal management information systems as a result of their various activities, so as to be able to reveal more information

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

The Effect of Company Age on Intellectual Capital Disclosure.

According to Marwata (2001), companies that are older have more in-depth knowledge about the needs of their constituents for information about the company. Therefore, companies with older age tend to disclose more complete information, including intellectual capital disclosure, because disclosing detailed information can attract the attention of stakeholders.

In accordance with the viewpoint of signaling theory, when the age of a company is matured, the more extensive the intellectual capital disclosure carried out by the company will continuously provide a signal to investors in making investment decisions and of course to create confidence in outsiders in the quality of the company.

H2: Company age has a positive effect on intellectual capital disclosure.

The Influence of Company Leverage on Intellectual Capital Disclosure.

Company leverage is seen from the liquidity ratio which is seen as a measure of company performance in managing company finances. Signaling theory is used to explain the effect of leverage on the level of corporate disclosure. According to signal theory, more disclosure of information is done because companies with low debt ratios are more incentivized in sending signals to the market about their financial structures. In other words, the higher the debt the company has, the company will tend to hide information related to the company's debt. If the company discloses information related to the company's debt, the company has a bad impact on the company because this information can harm the company.

H3: Leverage has a positive effect on intellectual capital disclosure.

The Effect of Profitability on Intellectual Capital Disclosure.

Profitability is the result of investing in intellectual capital that is sustainable and the company may disclose higher or more extensive relevant information to provide signals as to mean their right decision to invest in the long term for company value.

This is in line with the signaling theory which states that companies that have high profitability can use intellectual capital disclosure to differentiate from other companies that are less profitable. Companies with low profitability ratios will instead try to increase capital as well as possible, so that they will do a lot of disclosure (Meek et al., 1995). Thus, the higher the profitability of the company, the more information it will reveal about intellectual capital.

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

The Effect of Industry Type on Intellectual Capital Disclosure.

Industry type is a characteristic that a company has in carrying out its business processes. In certain types of industry, a company needs trust from customers and investors regarding their ability to produce quality goods and services. Therefore, such companies require disclosure of information about the intellectual capital of the company.

Signal theory can be used to describe an association between industry affiliation and disclosures of intellectual capital. The signal given is none other than disclosure. Companies classified as high-tech industry will be more likely to disclose intellectual capital which is also higher, thus it is expected to be able to provide good and positive signals to stakeholders, which in turn will have an impact on stakeholder assessments of the company.

H5: Industry type has a positive effect on intellectual capital disclosure.

The Influence of Intellectual Capital Disclosure on Market Performance.

Market Performance is a market perception that comes from stakeholders on the company's financial condition and is usually reflected in the market value of the company's shares. The better the market perception, the better the company's stock market value. Market value is the total value of shares owned by the company. In other words, market value is the amount that must be paid to own shares in the company.

According to Resource-Based Theory, IC is one component of the company's capital and resources that contributes to the creation of a company's prosperity process. When companies disclose more IC information, it will help stakeholders better understand the process of creating company prosperity so as to reduce errors in the valuation of the company's stock price. Abdol Mohammadi (2005) and Widarjo (2011) found that the amount of intellectual capital disclosure in the annual report has a significant effect on the value of the company's market capitalization. This means that companies that disclose more components of intellectual capital in their annual reports tend to have a higher market capitalization value.

H6: Intellectual capital disclosure has a positive effect on market performance.

The Effect of Intellectual Capital Disclosure on Cost of Equity Capital.

Botosan, 1997 suggests that theoretical research that supports the negative relationship between the level of disclosure and the cost of equity capital is supported by two streams of research. First, broader disclosure increases stock market liquidity, thereby lowering the cost of equity capital, either through lowering transaction costs or through increasing demand for corporate securities. The second research stream states that broader disclosure reduces the risk of estimates arising from investors' estimates of the asset's return or payoff distribution parameters.

Signalling theory supports these two schools of research. Signalling theory explains why companies have the urge to provide information about the company to external parties. The incentive of companies to provide information is because there is information asymmetry between the company and outside parties, because the company knows more about the company and its future prospects than outsiders. One way to reduce information asymmetry is to increase disclosure. Decreasing information asymmetry will increase market liquidity, thereby reducing the expected rate of return for investors (Mangena et al., 2015). A decrease in the return that

investors expect means a decrease in the cost of equity capital borne by the company. Thus, the higher the level of intellectual capital disclosure made by the company, the lower the cost of equity capital borne by the company.

H7: Intellectual capital disclosure has a negative effect on the cost of equity capital.

RESEARCH METHODS

Data gathering

This study uses a population of manufacturing companies on the Indonesia Stock Exchange (BEI) for the 2015-2019 period. The population in this study are all manufacturing companies listed on the Indonesia Stock Exchange (BEI) in 2015-2019. The sample selection in this study using purposive sampling method. The research sample is based on predetermined criteria. The criteria established in research sampling are as follows: a) manufacturing companies listed on the IDX during the 2015-2019 period, b) manufacturing companies for which a complete 2015-2019 annual report is available, c) not delisted (out) from the IDX for 5 consecutive years, namely 2015, 2016, 2017, 2018 and 2019, d) the company listed on the IDX before 2015, e) manufacturing companies that present financial reports or annual reports in rupiah, and f) each annual report has complete information to fulfill the measurement interests of each variable.

The data analysis method in this research includes descriptive statistics, data normality test, multicollinearity test, autocorrelation test, and heteroscedasticity test. Hypothesis testing uses multiple linear regression analysis accompanied by robust test analysis. The type of data used is secondary data originating from the company's annual reports that have been published and listed on the IDX for the 2015-2019 period, where the data can be obtained at the Capital Market Information Center (www..idx.co.id).

Research Variable and the measurement

Intellectual capital disclosure (ICD) is measured using index numbers (ICD Index). This study uses a disclosure index of 61 items developed by Mangena (2015). Measurement of the ICD level uses a disclosure score by giving a value to the items mentioned by the company in the company's annual report. A score of 1 is given if the specified item is disclosed by the company in the annual report. Meanwhile, a score of 0 is given if the specified items are not disclosed by the company in the annual report.

$$ICDi = (\sum di / M) \times 100\%$$

Company size company shows the size of a company. Measurement of company size in this study refers to Eddine (2015) which uses the natural logarithmic value of total assets as a proxy for company size. Total assets can be used as a proxy for the size of the company because total assets include current and non-current assets used by the company, so they better represent the actual size of the company.

$$Size = Ln (Total Asset)$$

Company age the company is the initial operation of the company so that the company can maintain its existence in the business world (survive). In this study, the age of the company is calculated from the year the company was first listed on the IDX until the year the last financial report (research) was conducted.

$$Age = Yr - Yrs$$

Leverage shows the proportion of the use of debt to finance company investment. The higher the leverage rate, the higher the company's dependence on debt. So, the greater the risk faced, investors will ask for a higher profit rate.

$$Lev = (Total debt) / (Total equity) \times 100\%$$

Profitability shows the company's ability to generate profits. This study uses the basis of the rate of return on assets (Return on Assets = ROA) as a proxy for profitability. ROA is measured by comparing net income to total assets.

$$ROA = (Net income) / (Total assets) \times 100\%$$

Industry type, the measurement of industry type variables uses dummy variables by grouping industries into high-tech industry and low-tech industry. This means that industries including high-tech industries are given a score of 1, and industries that are low-tech industries get a score of 0. Market Performance The market performance variable is proxied by the Price to Book Value ratio (PBV) which aims to measure how far or the difference between the market value of a company and its book value. This ratio shows how far a company is able to create firm value relative to the amount of invested capital. The bigger the ratio, the greater the market value (market value) compared to the book value (book value).

$$PBV = (Market Price) / (Book Value per share) \times 100\%$$

Cost of equity capital is the cost borne by the company to obtain funds from re-investment activities including the disclosure costs incurred by the company for public interest. The cost of equity here refers to the rate of return which is the right of investors on their investment in public companies. Measurement of cost of equity capital in this study refers to research by Mangena et al (2015) which uses the Price Earning Growth (PEG) Model approach developed by Easton (2004) as a proxy for the company's cost of equity capital. This model uses the current stock price and the company's EPS (earnings per share) forecast data.

$$r_{peg} = \sqrt{\frac{eps_2 - eps_1}{p_0}}$$

Information:

Eps 2 – Eps1: estimated earnings per share two years and one year after the publication date of the annual report, respectively

P0: share price at the time of publication of the annual report

In accordance with the Professional Standards of Public Accountants auditors are required to have sufficient work experience in the profession they are engaged in, and are required to fulfill technical qualifications and experience in

	Unstandardized Residual		
	Model I	Model II	Model III
<i>Asymp. Sig. (2-tailed)</i>	0,749	0,499	0,341
<i>Requirement to be approved</i>	>0,05		

the field of industry that their clients are involved in. Measurement of work experiences variable using instruments used by Sukriah, et al (2009), which are the duration of work as an auditor, and the number of inspection tasks.

Data Analysis and Discussion

Table 1 shows the results of normality test.

TABLE 1.

Model	Model I	Model II	Model III
ICD ¹ - SIZE ¹	0,000	0,002	0,002
ICD ¹ - AGE ¹	0,000	0,001	0,001
ICD ¹ - LEV ¹	0,000	0,001	0,001
ICD ¹ - ROA ¹	0,000	0,001	0,001
ICD ¹ - TPINDS ¹	0,000	0,001	0,001
ICD ¹ - ICD ¹	0,000	0,001	0,001
ICD ² - SIZE ²	0,000	0,002	0,002
ICD ² - AGE ²	0,000	0,001	0,001
ICD ² - LEV ²	0,000	0,001	0,001
ICD ² - ROA ²	0,000	0,001	0,001
ICD ² - TPINDS ²	0,000	0,001	0,001
ICD ² - ICD ²	0,000	0,001	0,001
ICD ³ - SIZE ³	0,000	0,002	0,002
ICD ³ - AGE ³	0,000	0,001	0,001
ICD ³ - LEV ³	0,000	0,001	0,001
ICD ³ - ROA ³	0,000	0,001	0,001
ICD ³ - TPINDS ³	0,000	0,001	0,001
ICD ³ - ICD ³	0,000	0,001	0,001

From the above data it can be concluded that the data for regression model are normally distributed. Table 2 shows the result of multicollinearity test.

TABEL 2.

From the above data it can be concluded that there is no correlation between the independent variables. Table 3 shows the result of heteroscedasticity test.

TABLE 3.

Independent Variable	Sig.		
	Model 1	Model 2	Model 3
SIZE	0,554	-	-
AGE	0,752	-	-
LEV	0,757	-	-
ROA	0,545	-	-
TPINDS	0,530	-	-
ICD	-	0,806	-
ICD	-	-	0,640

From the above data it can be concluded that heteroscedasticity does not occur. Table 4 shows the result of autocorrelation test.

TABLE 4.

	Collinearity Statistics					
	Model I		Model II		Model III	
	T	VIF	T	VIF	T	VIF
SIZE	0,808	1,237	-	-	-	-
AGE	0,854	1,171	-	-	-	-
LEV	0,844	1,185	-	-	-	-
ROA	0,870	1,150	-	-	-	-
TI	0,762	1,312	-	-	-	-
ICD	-	-	1,000	1,000	-	-
ICD	-	-	-	-	1,000	1,000

	Model 1	Model 2	Model 3
	<i>Durbin Watson</i>	1,938	1,933

From the above data it can be concluded that there is no autocorrelation.

Multiple regression analysis is used to determine the effect of the independent variable on the dependent variable. This study uses 3 regression models. The independent variables in model I are company size, company age, leverage, profitability, and industry type on the dependent variable, namely Intellectual Capital Disclosure. As for Model II and Model III Intellectual Capital Disclosure as independent variables on the dependent variable Market Performance and Cost of Equity Capital. The results of the regression coefficients for data analysis are shown in Table 6.

TABLE 6.

Hypothesis 1 Testing Results

The results of statistical analysis for the firm size variable as measured by size show that the regression coefficient is positive at 0.021. The t test results for the firm size variable obtained a value of 2.522 with a significance level smaller than the predetermined significance level (0.013 < 0.05), it can be concluded that company size has a positive and significant effect on ICD in manufacturing companies listed on the Stock Exchange. Indonesia in the 2015-2019 period. These results are in line with research conducted by Eddine (2016), Tyas and Indrasari (2015), and Saufi (2016) which state that there is an influence relationship between company size and disclosure of intellectual capital. This shows that the size of the company (size) is very relevant, because size can show how high the level of intellectual capital disclosure is in the financial statements. Companies with a large size do more activities than companies with a small size. This becomes the center of attention for investors to make decisions. The larger the company size, the higher the demand for information disclosure compared to smaller companies. The results of this study are directly proportional to the existing theory,

namely the signaling theory which emphasizes the importance of information issued by the company. This means that the information published by the company is an announcement that provides a signal for investors in making investment decisions. The bigger the company size, the higher the demands for information disclosure compared to smaller companies. Because large companies are entities that are highlighted by the market and the public in general. Therefore it can be concluded that H1 which states that company size has a positive effect on ICD is proven, so that the first hypothesis can be accepted.

Hypothesis 2 Testing Result

The age of the company shows that the company still exists, is able to compete and take advantage of business opportunities in an economy. By knowing the age of the company, it will be known to what extent the company can survive in carrying out its business activities (Istanti, 2009). From the analysis of the effect of company age on intellectual capital disclosure in table 6 shows that company age has an effect on ICD. This is evident from the significance level of less than 0.05, which is equal to 0.038, which means that the fourth hypothesis is supported. The findings in this study are in line with research conducted by Saufi (2016) which states that company age has a significant effect on ICD. The results showed that company age had an effect on ICD. This means that companies with older age tend to disclose more complete information, including intellectual capital disclosure, because detailed information disclosure can attract the attention of stakeholders. In accordance with the view of the signaling theory, when the age of a company is matured, the more extensive the intellectual capital disclosure carried out by the company will continuously provide a signal to investors in making investment decisions and of course to create confidence on the outside in the quality of the company.

Hypothesis 3 Testing Result

The results of statistical analysis for the leverage variable note that the regression coefficient is positive at 0.001. The t test results for the leverage variable obtained a value of 1.159 with a significance level greater than the predetermined significance level ($0.134 > 0.05$), it can be concluded that leverage has no effect on the ICD of manufacturing companies listed on the Indonesia Stock Exchange in the 2015 period. -2019. These results are in line with research conducted by Eddine et al (2016), Tyas and Indrasari (2015), and Prabowo (2014). These findings indicate that although the company has a responsibility towards external parties, it does not affect the voluntary reporting of the company's intellectual capital. According to the signal theory (Signaling theory), disclosure of information is mostly done because companies with low debt ratios are more incentivized in sending signals to the market regarding their financial structure. In other words, the higher the debt the company has, the company will tend to hide information related to the company's debt. The results of the research actually show that some companies

that have high leverage actually convey more disclosure of intellectual capital. This appears to be due to the company's efforts to "provide reasons" for this condition more clearly to investors and third parties. This is done as a form of reducing information asymmetry.

Hypothesis 4 Testing Result

From the results of the analysis regarding the effect of profitability on ICD, it can be seen from the partial test in table 4.7 which shows the significance value above = 0.05, which is equal to 0.838, which means that the third hypothesis is unsupported. The results of this study are in line with research conducted by Saufi (2016). Contrary to the signaling theory, which states that companies that have high profitability can use intellectual capital disclosure to differentiate from other companies that are less profitable. The results showed that the company considered investors not to be affected by high or low company profitability. If the company has a high or increased level of profitability, it will give a good signal to investors that the company has good prospects and high return on earnings. Conversely, if the company has a low level of profitability, investors will not only look at the company's current performance but also look at the performance in previous periods to analyze and make decisions.

Hypothesis 5 Testing Result

In this test, the type of industry is classified into high-tech industry and low-tech industry and is treated as a dummy variable. The test results show that the type of industry variable has a regression coefficient value of -0.038 with a significance of 0.217 in the regression model, which means that the variable type of industry has a negative effect on the ICD. Thus the fifth hypothesis (H₅) is stated that the type of industry has a positive effect on ICD is rejected. This finding is consistent with the findings of Tyas and Indrasari (2015). This contrasts with the signal theory which explains the influence between the type of industry and the disclosure of the company's intellectual capital. This is supported by research conducted (Setianto 2014) which examines that signal theory can be used to describe an association between industry affiliation and disclosure of intellectual capital. Where the signal given is none other than disclosure. Industries that have high intellectual capital will be more likely to disclose higher intellectual capital, so it is hoped that they will be able to provide good and positive signals to stakeholders, which in turn will have an impact on stakeholder assessments of the company.

Hypothesis 6 Testing Result

Based on the results of hypothesis testing, it shows that the ICD variable obtained a value of 0.183, far above the standard significance of 0.05. So it can be concluded that the sixth hypothesis is rejected, which means that partially the ICD variable has no effect on market performance. This is in line with research conducted by Shella and Wedari

(2016). The results of this study also contradict the Resource-Based Theory. The influence of ICD on market performance is Model II of this study which uses additional analysis through the Robust Test by separating company size (SIZE) and company age (AGE) into two categories, namely high and low. This is done to prove whether ICD interaction on market performance (PBV) is influenced by company size and company age. The results of the Robust Test in table 6 show, from the interaction of ICD to market performance (PBV), only [ICD] _ (size low) against [PBV] _ (size low) which shows a significance level below 0.05 or 5%, namely of 0.084 with a negative coefficient value of -0.011. This proves that the interaction between ICD and market performance is influenced by company characteristics, namely company size. It is the company with the low size or the small size that has an influence on the ICD interaction on market performance. In conclusion, smaller companies pay more attention to disclosure of intellectual capital (ICD) so that the market performance decreases.

Hypothesis 7 Testing Result

The results of hypothesis testing show that the intellectual capital disclosure variable has a significance probability of 0.023. This result fulfills the significance requirement <5%, so it can be concluded that intellectual capital disclosure has an effect on the cost of equity capital. The value of standardize beta coefficient β shows a positive direction of 0.039, where the intellectual capital disclosure made by the company will not reduce the cost of equity capital. The direction of this relationship is positive so it is not as expected in this study. However, based on the results of statistical tests the significance value is less than 5%, so it can be concluded that the higher the intellectual capital disclosure, the higher the cost of equity capital. The results of this study are consistent with existing studies conducted by Yulistina (2015) who examined the effect of intellectual capital disclosure on the cost of equity capital. The effect of ICD on the cost of equity capital is Model III of this study which uses additional analysis through the Robust Test by separating company size (SIZE) and company age (AGE) into two categories, namely high and low. This is done to prove whether the ICD interaction on the cost of equity capital (COEC) is influenced by company size and company age. The results of the Robust Test in Table 6 show, from the interaction between ICD and COEC, only [ICD] _ (age low) against [COEC] _ (age low) shows a significance level below 0.05 or 5%, which is equal to 0.003 with a value negative coefficient of 0.128. This proves that the interaction between the ICD and the COEC is influenced by company characteristics, such as the age of the company. It is the companies with a young age that have an influence on the ICD's interaction with COEC. In conclusion, companies that are still young pay more attention to disclosure of intellectual capital (ICD), which in turn will increase the cost of equity capital (COEC).

CONCLUSION, LIMITATIONS AND SUGGESTIONS

The results of hypothesis testing concluded that company size and age had a positive effect on ICD and intellectual capital disclosure had no effect on market performance, but intellectual capital disclosure had a positive effect on cost of equity capital. Judging from the results of the Robust test analysis, as a whole, those who have high enthusiasm in disclosing intellectual capital (ICD) are companies that have small assets and companies that are still young. However, the enthusiasm of the company. This company actually has an impact that is not as expected. Pulic (1997-2003), states that ICD is a driver / key element for creating the creating value of the firm. Sonnier (2008) states that the ICD is private information. Due to its practical nature, this information is very risky because it will be used by the company's competitors. It is possible that a small and young company does not pay attention to proprietary costs and does not sort out information in terms of information costs, cost of ownership, or information relevance. Go public companies in the manufacturing sector in Indonesia tend not to have high awareness of intellectual capital disclosures, because the level of disclosure is relatively low, namely less than 50%. Another possibility is that in Indonesia there are no detailed regulations regarding the identification and measurement of intellectual capital disclosures, so the disclosure is still voluntary. Due to its voluntary nature, companies tend to disclose only a small amount of information regarding intellectual capital disclosures, which in turn will prevent investors from paying more attention to the intellectual capital disclosures disclosed by the company.

Suggestions for further research are Future research should be able to use the company not only limited to one type of company. In addition, further research is expected to add indicators of Annual Stock Return (ASR) and Price to Earning Ratio (PER) to market performance variables or develop and add other variables that can be influenced by intellectual capital disclosure, such as financial performance. Finally, further research is expected to add aspects of the proprietary cost.

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