

INTELLECTUAL CAPITAL OF PHARMACEUTICAL COMPANIES AS THE CHARACTER OF THE HIGH-PROFILE INDUSTRY

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Abstract

This study aims to examine the impact of this type of industry on the extent of disclosure of intellectual capital of pharmaceutical companies. The type of industry in this study is divided into two, namely the high profile and low profile industries. This study also examines the impact of firm size on intellectual capital disclosure. This research was conducted on all companies listed on the Indonesia Stock Exchange for five years from 2014 to 2018. Path analysis was used to analyze the research data. The results showed that pharmaceutical companies, which were a high profile industry, proved to be more intense in disclosing their intellectual capital ownership than other industries. The research also found that the larger the company size, the more encouraging them to disclose their intellectual capital ownership in their annual reports.

Keywords: intellectual capital disclosure, pharmaceutical companies, high profile industry, size of the firm.

1. RESEARCH BACKGROUND

Pharmaceutical companies operate on knowledge. Their most important long-term assets are employee expertise, constantly developing technology, customization of production, marketing systems and distribution networks. These companies rely on high technology and require large investments in intellectual capital such as R&D expenses, human capital and product development (Istianingsih, 2015).

These various intangible assets are not presented in the balance sheet or traditional financial statements (Canibano et al., 2000). Mandatory financial reports are considered less informative (Collins et al., 1997; Francis and Schipper, 1999; Lev and Zarowin, 1999). In line with the Signaling theory, companies operating in this knowledge-based industry require more disclosure of intellectual capital. This disclosure is useful for providing signals to investors regarding the relevance of intellectual capital to company performance (Krayyem Al-Hajaya et al., 2019).

Bozzolan et al., (2003) show that there is a difference in the amount of intellectual capital disclosure between companies that are in the high profile industry category and those included in the low-profile industry category in the company's annual report in Italy. Meanwhile, Garcia-Meca et al., (2005) did not find a significant relationship between intellectual capital disclosure and industry type. Bruggen, Vergauwen, and Dao (2009), examined the determinants of intellectual capital disclosure with data

from a sample of 125 companies listed on the Australian stock exchange using the content analysis method. The research results of Bruggen et al., (2009) support the findings of Petty and Cuganesan (2005) that the type of industry is a key role as a determinant of intellectual capital disclosure.

Apart from the type of industry, the size of the company also determines the level of disclosure of its intellectual capital. Large companies will be the focus of attention of investors and other stakeholders. According to Lang and Lundholm, (1993) investors will ask for more information for large-scale companies. The bigger the company size, the bigger the shareholders need for company information. In theory, large companies will become political targets, increasingly being pressured to carry out social responsibility, or be subject to large taxes (Jensen and Meckling, 1976). In line with agency theory, the larger the company will make more disclosures to reduce the possibility of wealth transfers from shareholders to managers (Jensen and Meckling, 1976). Research by Garcia-Meca et al., (2005) examined data from a sample of 257 companies registered in Spain during 2000 to 2001. They found evidence that larger firms disclose more intellectual capital. The research results of Petty and Cuganesan (2005), Oliveira, Rodrigues, and Craig (2006), Burrigen et al., (2009) also support the research results of Garcia-Meca et al., (2005), that firm size is a determinant of capital disclosure. this intellectual.

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Some of the literature on intellectual capital disclosure is a descriptive study that does not examine the reasons for differences in the level of intellectual capital disclosure between companies (Whiting and Miller, 2008). Meanwhile, some other studies have examined the factors that can influence the practice of disclosing intellectual capital. However, the results of this previous study are still inconsistent because there are differences in the results of the tests on several variables that are predicted to be the determinants of intellectual capital disclosure. This is in line with the statement of Bruggen et al., (2009) that although there are developments regarding research in the field of intellectual capital, there are no definite and clear results regarding the determinants of intellectual capital disclosure. Therefore, it is still necessary to conduct research on the determinants of intellectual capital disclosure, namely the type of industry and company size.

2. THEORY BASIS AND HYPOTHESIS DEVELOPMENT

Legitimacy theory is based on the idea that a company is bound by a contract with the community where the company operates. This theory states that the company strives to ensure that its operating activities are within the boundaries of the ties and norms of the community in its environment. The existence of a social contract between the company and the surrounding community requires the company to always be responsive to the existence of the environment and pay attention by carrying out operations that are consistent with environmental values. Therefore, the company will try to disclose its activities voluntarily if management considers that these activities are of concern to the community around the company. Because the company cannot legitimize intellectual capital ownership in the form of tangible assets, it will report to the public by disclosing this information in its annual reports. To measure the level of disclosure of intellectual capital information, content analysis method is the most appropriate method and has been widely used in previous research (Vergauwen and Alem, 2005).

The Influence of Types of Industry on Disclosure of Intellectual Capital

The type of industry will determine the level of intellectual capital disclosure because each industry has different specifications in terms of the composition of intellectual capital. In line with the Signaling theory, companies operating in knowledge-based industries require more disclosure of intellectual capital in order to provide signals to investors about the relevance of intellectual capital to firm value. From the side of legitimation theory, it can be seen that companies engaged in industries that require high investment in intellectual capital will disclose more intellectual capital information to legitimize intellectual capital ownership.

Industry differences have been used in previous studies to explain the differences in disclosure in annual reports in Cooke's (1989) study in Bukh et al., (2005). In their research, Bukh et al., (2005) classified industries into 2 groups, namely IT and Biotechnology companies and manufacturing industries. Because intellectual capital is usually more important in high-tech industries, according to Bukh et al., (2005) the IT and biotechnology industries will reveal more intellectual capital than manufacturing. Garcia Meca et al., (2005) separated the types of industries into financial and non-financial industries to test different types of industries on intellectual capital disclosure. The

financial industry is predicted to reveal more than non-financial ones. However, their research results failed to find evidence of the influence of different types of industry on intellectual capital disclosure.

Sonier (2008), divides the industry category into High-Technology industries and traditional industries to examine the effect of industry differences on intellectual capital disclosure. Meanwhile Oliveira and Rodrigues (2008) also examined the effect of industry differences on intellectual capital disclosure by dividing industry categories based on high and low intangibles ownership levels. This research categorizes industries with high intellectual capital content and companies with low intellectual capital content. Companies that are categorized as companies with high intellectual capital loads are companies operating in industries that tend to place great importance on high technology in their operations, prioritize innovation for their products, and require more expertise and human resource skills. Conversely, a company is categorized as a company with low intellectual capital if the company operates in an industry that is relatively less demanding of high technology, innovation, and special expertise or skills. This classification is based on the industry category in ICMC in 2018. Industries that are included in the category with high intellectual capital include the pharmaceutical industry. Meanwhile, other industrial categories are included in the category of industries with low intellectual capital content, including some manufacturing industries, including, among others, the textile, agriculture, retail, food and beverages, animal feed and husbandry industries.

In companies that are categorized as having a high intellectual capital content, they need more disclosure of intellectual capital to provide signals to investors. This is in line with the signaling theory because managers want to provide a signal for the company's true capabilities that they cannot reveal through the company's financial statements. The disclosure of intellectual capital that is higher in companies with high intellectual capital can also be explained by stakeholder theory. According to this theory, stakeholders have the right to obtain information about the impact of company activities on them even if they choose not to use this information. As a form of manager's accountability to stakeholders, managers will disclose intellectual capital information in their annual reports.

To legitimize their intellectual capital ownership and to provide a signal for the true capabilities of the company, companies that are included in the category of high intellectual capital content will disclose more intellectual capital information than other industries. Therefore, the hypothesis proposed in this study are as follows:

H1: Pharmaceutical companies have a higher intellectual capital disclosure index than those with a low profile industry.

The Influence of Company Size on Intellectual Capital Disclosure.

Large companies are usually the center of attention of investors. This type of company also has sufficient funds to make voluntary disclosures. A number of studies have proposed a positive relationship between organizational size and the size of voluntary disclosure (Watts and

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Zimmerman, 1986). Larger firms tend to have a higher proportion of outside capital and also higher agency costs than smaller firms (Jensen and Meckling, 1976).

The larger the company size, the more likely it is to increase stakeholder interest in intellectual capital information. Large companies tend to have a broader ownership base than smaller companies, so large companies will do more disclosure of intellectual capital than small companies. In addition, making information is also costly so that small companies will have limitations in disclosing intellectual capital. Usually, larger companies will tend to employ employees with higher intellectual abilities and smarter management so that they will be better able to create a better reporting system (Depoers, 2000). White, Lee, and Tower's (2007) study aims to examine the key factors that influence the level of intellectual capital disclosure in biotechnology companies. The findings of their research prove that firm size is a key factor determining the disclosure of a company's intellectual capital.

Based on this description, this study predicts that the greater the size of the company, the greater the amount of intellectual capital disclosure in the company's annual report.

H2: Company size has a positive effect on the Intellectual Capital Disclosure Index

3. RESEARCH METHOD

This study uses secondary data from financial reports and annual reports from companies listed on the Indonesia Stock Exchange. The population of this study is all companies listed on the IDX, while the research sample is companies listed on the IDX for the period 2014 to 2018. The final sample is 284 companies.

The number of samples used in this study was relatively large, namely 69% of the population and 94%. The entire sample of firms was observed over a total of 5 years. Therefore, in general it can be said that the sample of this study is relatively representative of companies listed on the Indonesia Stock Exchange which are the objects of this research.

All the instruments for measuring the disclosure of intellectual capital used in this study were adopted from the list of items used in the study of Li et al., (2008) conducted abroad, it is feared that it will have an impact on different results when applied to this study. Therefore, in this study, the validity and reliability of all instruments used in measuring the disclosure of intellectual capital were tested.

The models used to test H1 and H2 are as follows:

$$\text{ICDI}_{i,t} = \alpha_0 + \alpha_1 \text{INDUSTRY}_{i,t} + \alpha_2 \text{SIZE}_{i,t} + \epsilon_{i,t}$$

Where: ICDI i, t : intellectual capital disclosure index. Measured using the content analysis method following the research of Li et al., (2008).

INDUSTRY i, t : industry dummy variable, with a value of 1 for companies in industries with high intellectual capital content, and zero for others.

SIZE i, t : company size calculated from the logarithm of market capitalization

Operationalization of Variables Disclosure of Intellectual Capital

To measure intellectual capital disclosure, the intellectual capital disclosure index (ICDI) will be used. This index will be created using a content analysis method of disclosing intellectual capital items in the company's annual report. The components used to measure the level

of intellectual capital disclosure are components taken from the research of Guthrie et al., (2004) and Vergauwen et.al. (2007) with modifications to suit the data available in Indonesia. The size of disclosure is divided into 3 categories, namely human capital disclosure (HCDI) which consists of 22 items, disclosure of structural capital (STCDI) consists of 18 items, and disclosure of relational capital (RCDI) which consists of 21 items. So that there will be 61 items to be analyzed.

To create an intellectual capital disclosure index, each item will be given a score of 1 if a company makes disclosures on that item. This score will then be added up with all the scores obtained in each category and weighted by the total items per category to obtain an index for each category. The intellectual capital disclosure index is the total index of the three index categories.

Type of Industry

To measure the type of industry, this study will use dummy variables. With a value of 1 for pharmaceutical companies operating in the high profile industry, and 0 for the low profile industry. Industries with a low intellectual capital content (low profile) include some manufacturing industries, such as the textile industry, agriculture, retail, food and beverages, animal feed and husbandry. Industry types that fall into these two categories are the classification of industry types in Indonesia Capital Market Directory.

Company Size (SIZE)

This variable is calculated using the proxy logarithm of the firm's market capitalization value. This variable is included to control for the possible influence of firm size on intellectual capital disclosure.

4. RESEARCH RESULT

Overall, the companies that were the samples of this study had characteristics as shown in the descriptive statistics in the table 1. From the results of descriptive statistics on 284 sample companies for 5 years, there are 1420 observations of data, it can be seen that the value of the ICDI variable has a minimum number of 0.045, this means that the minimum index of disclosure of the company's intellectual capital is 4.5%. The maximum value of the intellectual capital disclosure index is 0.587 or 59% and the average sample company has an intellectual capital disclosure index of 20%. By using a scale from 0% to 100%, the average intellectual capital disclosure of the sample companies is still relatively small, namely 20%. Judging from the relatively small standard deviation value of 0.13, it shows that the variation in intellectual capital disclosure between sample companies is not too different.

Meanwhile, the test results on the correlation between variables that are determinants of intellectual capital disclosure are presented in table 2.

The correlation between INDUSTRY and ICDI variables is positive and significant. This result is an initial indication to prove the hypothesis regarding the effect of industry type on intellectual capital disclosure. The results of categorizing the sample companies into industry types show that from a total sample of 284 companies, 122 companies are in the high profile category, while the remaining 162 companies are low profile companies with low intellectual capital.

The results of the correlation test for the INDUSTRY and ICDI variables were also reinforced by the results of

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different tests carried out on the INDUSTRI variable which was a categorical variable for the ICDI variable. A summary of the results of the difference test is presented in table 3.

From the results of the average difference test, it was also found that the INDUSTRY variable with a value of 1 had an average ICDI that was higher than that which was 0. This significant positive difference indicates that companies that are in an industry with high intellectual capital will

disclose more intellectual capital. a lot when compared to companies that are in industries with low intellectual capital content. This result is interesting to prove further in the regression, whether it can provide consistent evidence that companies operating in industries with high intellectual capital will disclose more intellectual capital than companies operating in industries with low intellectual capital.

Table 1. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness
ICDI	1420	.04466	.58733	.20302	.13187	.823
INDUSTRI	1420	.00000	1.00000	.42958	.49519	.285
AGE	1420	8.74208	73.77376	27.50674	13.27627	1.266
LEV	1420	.29183	1.27818	.55006	.20972	.379
SIZE	1420	4.58225	8.18185	5.60429	.84480	.723

Table description: this table is a descriptive statistic of its variables used in this research. ICDI: intellectual capital disclosure index, measured by the content analysis method using the checklist used in the research of Li et al., (2008). INDUSTRY; dummy variable. With a score of 1 for pharmaceutical companies operating in a high profile industry and 0 for others. AGE: the age of the company, calculated in units of years since the company was founded. LEV: is the level of debt which is calculated from the proportion of total debt compared to the company's equity. SIZE: company size calculated from the logarithma of market capitalization.

Table 2. Correlation Test Results

	ICDI	INDUSTRI	AGE	LEV	SIZE
ICDI	1				
INDUSTRY	.060*	1			
AGE	.005	.065*	1		
LEV	.032	.035	.178**	1	
SIZE	.257**	.097**	.332**	.101**	1

Table 3. Different Test Results

VARIABLE	MEAN STATISTICS		ICDI		INFORMATION
	ICDI		t-test For Equality of Mean		
	1	0	t	sig (2 tailed)	
INDUSTRY	0,213824	0,198755	2,069	0,039**	There is a significant difference

**) significant at the 5% level

Table description: this table is a table of different test results for the average variable type of industry. ICDI: intellectual capital disclosure index, measured by the content analysis method on annual reports using a list of instruments used in the research of Li et al., (2008). INDUSTRY: an industrial dummy, with a score of 1 for pharmaceutical companies that are in a high profile industry with high intellectual capital, zero for others.

The SIZE variable has a significant positive relationship to ICDI in the correlation test. This is also an early indication to prove the hypothesis about the positive effect of company size on the intellectual capital disclosure index, where the larger the company size, the greater the disclosure of intellectual capital.

The results of the Lisrel test which can be seen in the R² value for each equation are obtained. The ICDI structural equation model has an R² value of 0.14, which means that this model is able to explain 14% of changes in intellectual capital disclosure. The rest is explained by other variables not examined in this study.

The structural equation has an R² value of 0.15, which means that this model is able to explain 15% of the changes in intellectual capital disclosure. The rest is explained by other variables not examined in this study.

The hypothesis of this research states that companies operating in industries with high intellectual capital content will have a higher intellectual capital disclosure index than companies operating in industries with low intellectual capital content. The test results show that this hypothesis is proven. The findings of the study show that the pharmaceutical industry as a high profile industry with high intellectual capital has a higher level

of intellectual capital disclosure than companies that are in a low profile industry with low intellectual capital.

The SIZE variable, which is a proxy for firm size, has a positive and significant effect on intellectual capital disclosure (ICDI) at the 1% level. The larger the company size, the higher the intellectual capital disclosure index. These results indicate that the larger the company, the more concerned it will be with disclosure of intellectual capital. This is probably because the larger the size of the company will have more relationships with outsiders who are an important asset for large companies, which triggers them to increasingly disclose this intellectual capital ownership.

DISCUSSION

The overall results for hypothesis 1 support the findings of Petty and Cuganesan (2005) and Burggen et al., (2009), but these results are not in line with the results of research by Garci'a-Meca et al., (2005) which also did not find there are different effects of types of industry on intellectual capital disclosure. Pharmaceutical companies that are included in the category of high intellectual capital-laden industries usually produce the components they market themselves. They have relatively large R&D

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expenses and marketing expenditure values.

The results of this study are in line with the signaling theory and legitimacy theory in which companies in the high profile category industry with high intellectual capital need to legitimize their intellectual capital ownership as well as give signals to investors about the relevance of intellectual capital to their company value.

The results of this study also indicate that the greater the size of the company, the higher the level of intellectual

capital disclosure. These findings support the findings of previous studies, namely Garc'a-Meca et al., (2005) Oliveira et al., (2006), and Burggen et al., (2009). This result is in line with the Agency's theory that large companies will be motivated to disclose more intellectual capital in order to reduce the possibility of wealth transfers from shareholders to managers (Jensen and Meckling, 1976).

Table 4. Summary of Test Results

Variable	Predicted Sign Koefisien		(t-value)
INDUSTRY	+	0.0074	2.28*
AGE	-	- 0.0011	-3.95*
SIZE LEV	+	0.0017	3.65*
	+	0.0066	0.45
R ²			0.15
RMSEA GOF			0.000
p-value			100
			1
* Significant at $\alpha = 1\%$			***Significant at $\alpha = 5\%$

ICDI: intellectual capital disclosure index, measured by the content method analysis of the annual report using a list of instruments used in research by Li et al., (2008). INDUSTRY: a dummy variable, with a value of 1 for companies operating in industries included in the category of high intellectual capital content, and 0 for others. AGE: the age of the company, calculated in units of years since the company was founded. LEV: Leverage, is the proportion of total debt compared to the company's equity. SIZE: company size calculated from the logarithm of market capitalization.

5. CONCLUSION

Pharmaceutical companies that have the characteristics of a high profile industry are proven to pay more attention to the disclosure of their intellectual capital than the low profile industry. The method used to classify the types of high profile industries with high intellectual capital and low intellectual capital in this study is only based on the list of industries contained in the ICMD.

Future research needs to use other methods to classify different types of industries with high intellectual capital and low intellectual capital. This method is for example by classifying industries based on the ratio of marketing expenditure, R&D expenses or other ratios. This study also has limitations in calculating the intellectual capital disclosure index using the content analysis method of annual reports only. Further research needs to use interviewing techniques and questionnaires or other media to capture the intellectual capital ownership of pharmaceutical companies.

This research contributes to the management of pharmaceutical companies in determining what information needs to be conveyed regarding intellectual capital in order to provide more transparency to investors. Second, the findings of this study are important for management as a reference in managing intellectual capital better and focus on the components needed so that they can contribute to improving company performance and its ability to obtain funds from the capital market.

BIBLIOGRAPHY

- Bozzolan, S., Favotto, F. dan Ricceri, F. (2003). Italian Annual Intellectual capital disclosure: an empirical analysis. *Journal of Intellectual Capital*, 4(4), 543-558.
- Bozzolan, S., O'Regan, P. dan Ricceri, F. (2006). Intellectual Capital Disclosure (ICD): A Comparison of Italy and The UK. *Journal of Human Resource Costing and Accounting*, 10(2), 92-113.
- Bukh, P. (2003). The Relevance of IC Disclosure: A Paradox?. *Accounting, Auditing and Accountability Journal*, 16(1), 49-56.
- Bukh, P., Nielsen, C., Gormsen, P. dan Mouritsen, J. (2005a). Disclosure of Information on Intellectual Capital in Danish IPO Prospectuses. *Accounting, Auditing and Accountability Journal*, 18(6), 713-732.
- Bukh, P., Rimmel, G., Koga, C., Nielsen, C., Tadanori, Y. dan Sakakibara, S. (2005b). *Intellectual Capital in Japanese and Danish IPO Prospectuses: A Comparative Analysis*. European Accounting Association Congress, Dublin, Ireland.
- Brooking, A. (1996). *Intellectual Capital*, Thomas Business Press, London
- Brooking, A. (1997). *Intellectual Capital: Core Asset for The Third Millennium Enterprise*, Thomson Business Press, London.
- Bruggen, A., Vergauwen, P., Dao, M. (2009). Determinants of Intellectual Capital
- Disclosure: Evidence From Australia. *Management Decision*, 47 (2), 233-245
- Canibano, L., Garcia-Ayuso, M. dan Sanchez, P. (2000). The Value Relevance and Managerial Implications of Intangibles: A Literature Review. *The Journal of Accounting Literature*, 19, 102-30.
- Collins, D., S. Kothari, J. Shanken dan R. Sloan (1994). Lack of Timeliness and Noise as Explanations for the Low Contemporaneous Return-Earnings Association. *Journal of Accounting and Economics*, 18, 289-324.
- Cooke, T. (1989). Voluntary Disclosure by Swedish Companies. *Journal of International Financial Management and Accounting*, 1, 171-195.
- Diamond, D. dan Verrecchia, R. (1991). Disclosure, Liquidity and The Cost of Capital. *Journal of Finance*, 46(4), 1325-1359.
- Depoers, F. (2000). A Cost-Benefit Study of Voluntary Disclosure: Some Empirical Evidence From French Listed Companies. *The European Accounting Review*, 9 (2), 245-63.
- Francis, J., R. LaFond, P. Olsson dan K. Schipper. (2004). Cost of Equity and Earnings Attributes. *The*

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- Accounting Review*, 79, 967-1010.
16. Francis, J., dan Schipper, K. (1999). Have Financial Statements Lost their relevance? *Journal of accounting research*. Vol.37(2), 319-352
 17. Hughes, P. (1986). Signaling by Direct Disclosure Under Asymmetric Information. *Journal of Accounting and Economics*, 8, 119-142.
 18. Istianingsih. (2015). Impact of firm characteristics on CSR disclosure: Evidence from Indonesia stock exchange. *International Journal of Applied Business and Economic Research* vol. 13.
 19. Jensen, M. C. dan W. H. Meckling (1976). Theory of The Firm: Managerial Behavior, Agency Cost, and Ownership Structure. *Journal of Financial Economics* 3, 305-360
 20. Krayyem Al-Hajaya, Mohammad Saleh Altarawneh, Bayan Altarawneh. (2019). Intellectual Capital Disclosure by Listed Companies in Jordan: A Comparative Inter-sector Analysis. *International Review of Management and Marketing*, 2019, 9(1), 109-116. DOI:10.32479/irmm.7381.
 21. Leuz, C. dan Verrecchia, R. (2000). The Economic Consequences of Increased Disclosure. *Journal of Accounting Research*, 38 (Supplement), 91-124.
 22. Lev, B. (1992). Information Disclosure Strategy. *California Management Review*, 34 (4), 9-32.
 23. Lev, B. (2001). *Intangibles: Management, Measurement and Reporting*. Washington, D.C., WA: Brookings Institution Press.
 24. Lev, B. dan Zarowin, P. (1999). The Boundaries of Financial Reporting and How to Extend Them. *Journal of Accounting Research*, 37(2), 353-383.
 25. Lev, B. dan Feng, G. (2001). Intangible Assets: Measurement, Drivers, Usefulness. *Paper presented at Advances in the Measurement of Intangible (Intellectual) Capital Conference*, New York University.
 26. Lev, B. dan Zambon, S. (2003). Intangibles and Intellectual Capital: An Introduction to A Special Issue. *European Accounting Review*, 12 (4), 597-603.
 27. Li, J., Pike, R. dan Haniffa, R. (2008). Intellectual Capital Disclosure and Corporate Governance Structure in UK firms. *Accounting and Business Research*, 38 (2), 137-159.
 28. Lundholm, R., dan Myers, L. M. (2002). Bringing The Future Forward: The Effect of Disclosure on The Returns-Earnings Relation. *Journal of accounting research*, 40 (3), 809-839.
 29. Oliveira, L., Rodrigues, L.L. dan Craig, R. (2006). Firm-Specific Determinants of Intangibles Reporting: Evidence From The Portuguese Stock Market. *Journal of Human Resource Costing and Accounting*, 10 (1), 11-33.
 30. Petty, P. dan Guthrie, J. (2000). Intellectual Capital Literature Review: Measurement, Reporting and Management. *Journal of Intellectual Capital*, 1 (2), 155-75.
 31. Petty, R. dan Cuganesan, S. (2005). Voluntary Disclosure of Intellectual Capital by Hong Kong Companies: Examining Size, Industry and Growth Effects
 32. Vergauwen, P. dan Van Alem, F. (2005). Annual Report IC Disclosures In The Netherlands, France and Germany. *Journal of Intellectual Capital*, 6 (1), 89-104.
 33. Vergauwen, P., Bollen, L. dan Oirbans, E. (2007). Intellectual Capital Disclosure and Intangible Value Drivers: An Empirical Study. *Journal of Intellectual Capital*, 45(1), 1163-1180.
 34. Verrecchia, R. (1983). Discretionary Disclosure. *Journal of Accounting and Economics*, 5(3), 179-194.
 35. Watts, R.L. dan Zimmerman, J.L. (1986). *Positive Accounting Theory*. Prentice- Hall, Englewood Cliffs, NJ, United States of America.
 36. White, G., Lee, A., dan Tower, G., (2007). Drivers of Voluntary Intellectual Capital Disclosure in Listed Biotechnology Companies. *Journal of Intellectual Capital*, 8 (3), 517-537.
 37. Whiting, R. H., dan Miller, J. C., (2008). Voluntary Disclosure of Intellectual
 38. Capital in New Zealand Annual Reports and The "Hidden Value". *Journal of Human Resource Costing and Accounting*, 12 (1), 26-50