

The Effects of Corporate Governance on the Intellectual Capital Disclosure: An Empirical Study from Banking Sector in Indonesia

Falikhatun*, Y Anni Aryani** and Ananto Prabowo***

The objective of this research is to provide empirical evidence of the effect of corporate governance on the disclosure of intellectual capital in annual reports issued by the banking sector in Indonesia. This research used 36 annual reports of listed companies on Indonesian Stock Exchange (BEI) from 2004 to 2008. The research finds that on average the information of intellectual capital that is disclosed by companies in Indonesia is only 35.7%. In this case, board size, independent directors and ownership structure do not affect the intellectual capital disclosure, while the existence of management ownership is a significant variable that has a negative effect on the disclosure of the internal structure of the capital. This implies that with the ownership management in a company, the management will tend to keep information and not disclose it to outsiders. Furthermore, the findings of this paper implied that intellectual capital disclosure could be used as one of an approach to assess the sustainability of the company.

Keywords: intellectual capital disclosure, corporate governance, annual report, Indonesia

1. Introduction

Financial reporting that focus on firm financial performance often is insufficient as performance reporting for banking sector. The inadequate is become a vexed issue, where researchers argue that management and reporting systems that has been established, gradually lost its relevance due to its incapability to provide important information for management to manage process that based on knowledge (knowledge-based process) and intangible resources (Bornemann and Leitner, 2002). Therefore, there are other information that should be informed to the user of banking financial reporting that able to explain value adding of the banking company such as innovation, systems invention, knowledge and skill of human resources, consumer relations and so on that often called as knowledge capital or intellectual capital that difficult to be informed to external company due to the absence of the accounting standard on this issue.

*Falikhatun, M.Si., Accounting Department, Economics Faculty, Universitas Sebelas Maret (UNS), Surakarta – Indonesia, Email: falie_008@yahoo.com

**Y Anni Aryani, Ph.D, Accounting Department, Economics Faculty, Universitas Sebelas Maret (UNS), Surakarta – Indonesia, Email: anni.aryani@live.vu.edu.au

***Ananto Prabowo, Accounting Department, Economics Faculty, Universitas Sebelas Maret (UNS), Surakarta – Indonesia

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Study about intellectual capital (IC) has been increasingly popular since year 1990st (Sullivan and Sullivan, 2000). Currently, intellectual capital is one of the important factors for the successfulness of an organization that get attention for the reviewing the organizations strategic as well as development's strategic. In this century, business community around the world agreed the important of knowledge asset for the creation of firm value than physical production (Saleh et al., 2007). Intellectual capital is one significant asset in banking industry that includes human capital, structural capital, and relational capital (Li, Pike and Haniffa, 2008).

The fast development of banking industry generally followed with the complexity of bank operation that increasing the exposure of bank risk. In order to increase the bank performance, protect its shareholders, comply with regulation and ethics value that generally applied for banking industry, a bank have an obligation to manage its operation based on the corporate governance principal (Indonesian Central Bank Regulation No. 8/4/PBI/2006). The implementation of corporate governance requires the firm to more transparent, reliable, independent and increasing the firm accountability (General Rule of Corporate Governance).

Transparency as one of the aspect of corporate governance requires organization to disclose its information both mandatorily as well as voluntarily. Voluntary disclosure is depending on management decision to be included on financial statement (Zhou and Panbuyuen, 2008). Based on company's structure, management is controlled by the board of directors who are able to influence management decisions.

The type of intellectual capital disclosure is valuable information for investors, as it can help them reducing the uncertainty of the company's future prospect and facilitate in valuing the firm (Bukh, 2003). The failure of financial statement in informing the ability of creating value of intangible asset (Lev and Zarowin, 1999), increasing the information asymmetry between the firms and the users of the financial accounting (Healy and Palepu, 2001). This information asymmetry creates inefficiency on the resources allocation process on the capital market (Li, Pike, and Haniffa, 2008).

Some of prior researches (see: Lev, 2001; Mouritsen, Larsen, and Bukh, 2001) have been offered to disclose more about indicator non-financial investment on intangible asset. Canibano, Garcia-Ayuso and Sanchez (2000) argue that cost is associated with radical change on the accounting system that not be able to make intellectual capital intensive firm's is more valuable. Furthermore, they argue that one approach that can be used to increase financial statement quality is by increasing voluntary disclosure of information regarding intellectual capital. Research regarding the effect of corporate governance on intellectual capital disclosure have been done by many researchers employing content analysis (see: Budiyanawati, 2009; Li et al., 2008; Cerbioni and Parbonetti, 2007).

Prior studies find that many intellectual capital disclosures are measured with the number and detail of non-mandatory information on the annual report. This information cannot be considered as a simple reference on the information quantity that has been

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disclosed (Beattie, 2000; Beretta and Bozzolan, 2004). In this case, this current study used semantic properties from the information such as economic sign and outlook oriented as a proxy of the quality of intellectual capital disclosure (Cerbioni and Parbonetti, 2007).

Referring Guthrie et al., (2008) and Cerbioni and Parbonetti, (2007), this current study regressed eight disclosure indexes on corporate governance. Corporate governance in this study is proxies with four variables which are board of director, independent director, ownership structure, and management ownership. Whereas, the control variable that is used in this study to explain the firm's level of disclosure are total asset, return on equity, leverage, growth, firm's age, and auditor type. Hence, the research question in this study is what is the effect of corporate governance (the size of board of director, independent director, ownership structure, and management ownership) on intellectual capital disclosure?

The remainder of the paper is structured as follows: section two discusses the literature review a long with the hypotheses development. The research method and results discussion are presented in section three and four respectively. Finally, section five presents the conclusions along with the implication of the study, the limitations and suggestions for further research.

2. Literature Review And Hypotheses Development

There are many model of intellectual capital (Brooking, 1996; Roos, Roos & Edvinsson, 1997; Stewart, 1997; Sveiby, 2001; Edvinsson and Malone, 1997; Bontis et al., 2000) that has been used by prior studies. However, in general there are three main construct of intellectual capital that can be identified from prior literature, which are human capital, structural capital, and customer capital. Human capital is knowledge, skill and experience that have been taken by employees when they leave a company (Starovic and Marr, 2004), which include individual knowledge about organization (Bontis, 2000) as a result of competition, behavior and intellectual smartness of those employees (Roos, Roos, Edvinsson and Dragonetti, 1997). Human capital is a combination of genetic inheritance, education, experience, and attitude about life and business (Hudson, 1993). Human capital represents individual knowledge stock regarding an organization that has been represented by the employee (Bontis et al., 2001).

Structural capital has been illustrated as what remain in the company when the employee back home at night (Petrash, 1996). Structural capital is knowledge that remains in the company which includes organization routine, procedures, systems, culture and database. Some of those structural capital is protected by law and it become an intellectual property right that legally owned by the company (Starovic and Marr, 2004).

Whereas, the main issue of customer capital is knowledge that inherence on marketing channels and customer relationship that have been developed by the organization via the operation of the business (Bontis et al., 2000). For example: image, consumers'

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loyalty, consumers' satisfaction, connection with suppliers, commercial strength, and negotiation capability with financial entities and activities environment (Starovic and Marr, 2004).

Based on Cerbioni and Parbonetti's (2007) study, intellectual capital disclosure is a complex and multidimensional concept. This means that to provide more qualified intellectual capital disclosure is not only from the availability of information content regarding with the intellectual capital but it also have to understand the meaning of those information. Thus, the current study uses semantic properties which include economic sign and outlook orientation as a framework of intellectual capital as it can be seen in Table 1 below. Economic sign communicate the effect that is been expected from intellectual capital owned by the company on the company's performance, while outlook orientation communicates the company's view about the intellectual capital.

Nasution and Setiawan (2007) state corporate governance is a concept that has been proposed to increase firm's performance through supervision or monitoring performance management and guarantee the management accountability on stakeholder based on a set of rules. The concept of corporate governance has been proposed to reach the company managerial that more transparent for all financial statements users. If the concept is applied well then it is expected that the economic growth will rise sustainably in line with the better of the company managerial transparency that eventually have a benefit for many parties. Corporate governance system provides effective protection for investor and creditor so that they confident to gain return from their investments.

Table 1
Intellectual Capital Framework

Category	Component																																							
Intellectual Capital																																								
Content	<table border="0"> <thead> <tr> <th>Internal Structure</th> <th>External Structure</th> <th>Human Capital</th> </tr> </thead> <tbody> <tr> <td><i>Intellectual Property</i></td> <td><i>Brands</i></td> <td><i>Employees</i></td> </tr> <tr> <td><i>Management Philosophy</i></td> <td><i>Customers</i></td> <td><i>Education</i></td> </tr> <tr> <td><i>Corporate Culture</i></td> <td><i>Customers</i></td> <td><i>Training</i></td> </tr> <tr> <td><i>Management Processes</i></td> <td><i>Satisfaction</i></td> <td><i>Work Related</i></td> </tr> <tr> <td><i>Information/Networking Systems</i></td> <td><i>Companies</i></td> <td><i>Knowledge</i></td> </tr> <tr> <td><i>Financial Relations</i></td> <td><i>Names</i></td> <td><i>Entrepreneurial</i></td> </tr> <tr> <td></td> <td><i>Distribution</i></td> <td><i>Spirit</i></td> </tr> <tr> <td></td> <td><i>Channels</i></td> <td></td> </tr> <tr> <td></td> <td><i>Business</i></td> <td></td> </tr> <tr> <td></td> <td><i>Collaboration</i></td> <td></td> </tr> <tr> <td></td> <td><i>Licensing</i></td> <td></td> </tr> <tr> <td></td> <td><i>Agreements</i></td> <td></td> </tr> </tbody> </table>	Internal Structure	External Structure	Human Capital	<i>Intellectual Property</i>	<i>Brands</i>	<i>Employees</i>	<i>Management Philosophy</i>	<i>Customers</i>	<i>Education</i>	<i>Corporate Culture</i>	<i>Customers</i>	<i>Training</i>	<i>Management Processes</i>	<i>Satisfaction</i>	<i>Work Related</i>	<i>Information/Networking Systems</i>	<i>Companies</i>	<i>Knowledge</i>	<i>Financial Relations</i>	<i>Names</i>	<i>Entrepreneurial</i>		<i>Distribution</i>	<i>Spirit</i>		<i>Channels</i>			<i>Business</i>			<i>Collaboration</i>			<i>Licensing</i>			<i>Agreements</i>	
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<i>Economic Sign</i>	Positive: <i>Intellectual capital information that has a positive economic impact.</i> Negative: <i>Intellectual capital information that has a negative economic impact.</i>																																							
<i>Outlook Oriented</i>	Forward-looking: <i>Forward-looking information about intellectual capital, which was obtained with the same methodology by considering the phrase "future oriented"</i> (Cerbioni and Parbonetti, 2007, p. 22) Historical: <i>Historical information about intellectual capital, which refers to the score obtained if the information being considered was based on past events.</i> "(Cerbioni and Parbonetti, 2007, p. 22)																																							

Source: Modification between Cerbioni and Parbonetti (2007) and Guthrie et al. (2008)

Rachmawati and Triatmoko (2007) argue that there are four corporate governance mechanism that often been used by many studies (see for example: Cerbioni and Parbonetti, 2007) which are audit committee, independent directors, institutional ownership, and managerial ownership. Cerbioni and Parbonetti (2007) state that company will try to reduce agency cost through effective monitoring especially in regard with corporate governance and voluntary disclosure. Corporate governance and voluntary disclosure are two things that are able in increasing the protection for investor that result a more efficient market. The corporate governance mechanism on the company is expected to be able to increase the quality and quantity of voluntary disclosure regarding the information of intellectual capital.

The Size of Board of Directors

The number of the board of director members of the company can influence the level of disclosure since the level of disclosure is a strategic decision that have been made by the company's board of directors. As part of the highest management level, the job of

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the board of directors is formulated company's strategy and policy that will be followed by managers. In this case, there is still question arise whether the more the company's board of director members, the more decrease the information asymmetry (Chen and Jaggi, 2000). The size of the board of directors with a variety of characteristics such as education background and skill have better ability to distribute the work load (Klein, 2006; Anderson, Mansi, and Reeb, 2004), have better opinion (Hermalin and Weisbach, 2003), be able to increase decision making quality, more represented the shareholder, and erase CEO domination (Zhou and Chen, 2004).

There are empirical results when the size of the board of director is small, the monitoring quality will be better (Yermack, 1996) because the agency problem will increase in line with the size of the board of director of the company (Conger et al., 1998). Yermack (1996) find that there is a negative correlation between market value and the size of board of director. Jensen (1993) state that when the number of board of directors is seven or eight, they will function less effective and easy for the CEO to control them. While Conger, Finegold, and Lawler (1998) argue that to become 'empowered board' the board of directors must be small enough to create a cohesive group. Therefore, the hypothesis that will be tested is:

H₁: There is a negative relationship between the sizes of the board of directors on the intellectual capital disclosure level.

Proportion of Independent Directors

The proportion of independent directors is a control mechanism, not only to ensure the company acting for interest of shareholder, but also for other stakeholder by providing the more information regarding the activities and firm's performance (Tricker quoted on Haniffa and Cooke, 2005). This argument is in line with what Eng and Mak (2003) who state that independent directors able to more influence the company to disclose more information for outside investors. According to agency theory, the independent directors are able to increase the effectiveness of the board of directors (Jensen and Meckling, 1976).

Studies by Haniffa and Cooke (2005) and Hossain (2008) find the substitute relationship between information disclosure and independent directors. Nasir and Abdullah (2004); Lim, Matolcsy, and Chow (2007) find that there is significant positive relationship between independent directors and information disclosure. While, Cerbioni and Parbonetti (2007) find that independent directors have positive impact on internal capital disclosure. Li et al., (2008) also find that there are significant positive relationship between independent directors and intellectual capital disclosure. Hence, the hypothesis that will be tested is:

H₂: There is a positive relationship between independent directors on the intellectual capital disclosure.

Ownership Structure

Ownership structure is the percentage of ownership company's stock owned by an institution. The increase of the institution ownership requires the increase of controlling on the company's management and reducing the probability of management to disclose information only from the management point of view. There is an increase probability of information disclosure on the company with ownership that split into small portion (Hossain et al., 1994). This view shows that there is a positive relationship between institution's stock ownership and the level of intellectual capital disclosure. Therefore, the hypothesis that will be tested is:

H₃: There is a positive relationship between ownership structures on the intellectual capital disclosure level.

Management Ownership

Management ownership is the existence or the absence of stock owned by management on the company. The level of information disclosure will be reduced when there is management ownership because the requirement of information disclosure is also decreased (Chau and Gray, 2002). The management ownership as one of corporate governance variable is very significant with a facts that investment scenario in East Asia is owned and controlled by the same parties (La-Porta, Lopez-de-Silanes, Shleifer and Vishny, 2000; Tan, 2000; Ho and Wang, 2001).

According to Ho and Wong (2001), a person who holds two roles together will tend to keep information and not to disclose it to outside parties. While Fama and Jensen (1983) argue that when a person holding as a chairman and CEO, it can be sure that he/she will tend to take side on management than on stockholder. The study by Ho and Wong (2001) find the negative (but not significant) relationship between dominant personality and voluntary disclosure. Thus, the hypothesis that will be tested is:

H₄: There is a negative relationship between management ownership on intellectual capital disclosure.

Control Variable

The probability of bias due to other factors can be avoided by employing control variable as measurement validity (Bryman and Bell, 2007). In this current study, the control variables used are total asset, return on equity (ROE), leverage, market to book value (growth), firm's age, and auditor type.

The first control variable is firm's size with natural logarithm total asset (LnTA), that adopted from Ho and Wong (2001), Eng and Mak (2003), Gul and Leung (2004) studies. The second control variable is company's performance that measured with ROE. The company's performance is an important aspect since company that performs well that shown with the high level of profitability has positive relationship with

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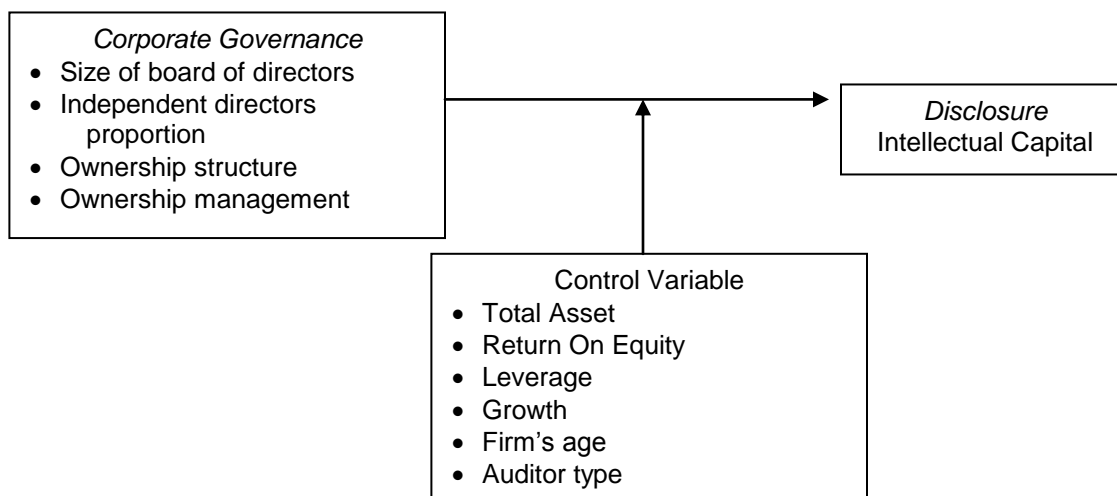
company's disclosure (Singhvi and Desai, 1971; Kahl and Belkaoui, 1981; Wallace and Nasser, 1995; and Hosain, 2008). In this current study, ROE is measured by comparing net income with total equity.

Leverage is the third control variable in this current study. Following Eng and Mak (2003), Lakhali (2003), Swartz and Firer (2005), leverage is used as ratio of liability to total assets. The fourth control variable is market-to-book ratio (growth) with measured using the comparison of market value and equity book value. Company with high growth uses information disclosure as a method to differentiate the potential information until the asymmetry information between management and investor (Cerbioni and Parbonetti, 2007). The fifth control variable is firm's age that can be measured by the years since the firm operated (Hossain, 2008). Owusu-Ansah (1998) and Akhtaruddin (2005) state that company's disclosure is affected by the age which includes development and growth phase. The last control variable is auditor type. The use of auditor type (Indonesian BIG4 auditor type) has been done by Eng and Mak (2003); Lim et al. (2007); and Hossain and Taylor (2007). Hossain and Taylor (2007) examine the relationship between company's characteristics (banking companies) and information disclosure. They find that there are positive relationship between those two factors and audit firm.

Conceptual Framework

Based on the discussion above, this current study aim is to test the corporate governance (the size of board of directors, independent directors, ownership structure, and ownership management) on the level of intellectual capital in banking sector in Indonesia. The conceptual framework in this study is presented in Figure 1 below.

Figure 1
Conceptual Framework



3. Research Method

Sampling Procedure

This study uses archival research method to address the research question and to test the hypotheses developed. This study is carried out over all banking sectors in that have been listed in Indonesia Stock Exchange (BEI). The sampling method in this study is purposive sampling with criteria as follows:

1. Banking sector listed on Indonesian Stock Exchange (BEI).
2. Publish annual report between years 2004 to year 2008 on BEI's website.
3. The company is not on the process of law dispute on the beginning of this study started.
4. The annual report is accessible.
5. The annual report has complete information needed in this study.

To analyse the intellectual capital disclosure, the study uses content analysis method. The method conducted by reading the annual report of each sample companies and makes a coding for each information based on the intellectual capital indicator framework in Table 1. This study applies the weighted coding as used by Cerbioni and Parbonetti (2007) with intellectual capital framework modified from Cerbioni and Parbonetti (2007) and Guthrie et al. (2008). The formula is:

$$ICDI = \frac{\sum_{i=1}^M d_i}{M}$$

Where: ICDI is intellectual capital disclosure index. d_i is attribute i where a sentence is coded with score 2 if IC disclosure provide quantitative information; with a score of 1 if it provide qualitative information; with a score of 0 if it provide no information or containing general assumptions (such as: "we strongly believe that ...") or the information has been disclosed before. This zero score is to avoid the possibility of adding more sentences on the annual report to get additional disclosure score. M is maximum score for each firm.

Data Analysis Method

Regression is employed to test the hypotheses in order to ascertain the relationship of each independent variable to the dependent variable of interest. The regression model in this study is presented below:

$$ICDI_i = \beta_0 + \beta_1 \text{SIZE} + \beta_2 \text{IND} + \beta_3 \text{OWN_STRUC} + \beta_4 \text{OWN_MGT} + \beta_5 \text{LnTA} + \beta_6 \text{ROE} + \beta_7 \text{LEV} + \beta_8 \text{GROWTH} + \beta_9 \text{AGE} + \beta_{10} \text{AUDT} + e$$

Note:

ICDI_i = intellectual capital disclosure index

SIZE	= size of board of directors
IND	= independent directors proportion
OWN_STRUC	= ownership structure
OWN_MGT	= ownership management
LnTA	= natural logarithm of total asset
ROE	= return on equity
LEV	= leverage
GROWTH	= company's growth
AGE	= company's age
AUDT	= auditor type (Indonesian Big 4)
β_0	= intercept
$\beta_1, \dots, \beta_{10}$	= regression coefficient
e	= error.

4. Results and Discussion

The final sample that fulfils the criteria set in this study is 36 annual reports. The results of the hypothesis testing are presented in Table 2 and the discussions are presented below.

Hypotheses 1

Based on the results on Table 2, this study find that all of the intellectual capital disclosure models have significant t-value for the size of board of directors greater than the significance level. It means that this study do not find the relationship between the size of board of directors and intellectual capital disclosure, hence H_1 is failed to be supported by the data in this study.

This study is not in line with the study by Jensen (1993) that argues when the board of directors consists of seven or eight people; they will function less effective and easier for CEO to control them. This study is also contradict with Conger et al. (1998) who found that to become "*empowered board*", the board of directors must small enough to create a cohesive group. Both of studies stated that with the small size of board of directors then it will function more effective and this current study fail to support that claim (SIZE mean = 4.94). Thus, this current study has not able to explain the relationship between the size of board of directors and the level of intellectual capital in banking sector that listed in BEI.

However, this current study in line with the studies by Lakhal (2003), and Nasir and Abdullah (2004), that also do not find the relationship between the board size and voluntary disclosure. The possible explanation that there is no relationship between the size of board of directors and intellectual capital disclosure especially in banking sector listed in BEI perhaps due to the number of board of directors has not shown serious attention on the intellectual capital rather the existence of the board of directors are only focused on the company's performance.

Hypotheses 2

It can be seen from Table 2, this study find that all of the intellectual capital disclosure models have significant t-value for the independent directors greater than the significance level. It means that this study do not find the relationship between the independent directors and intellectual capital disclosure, hence **H₂** is failed to be supported by the data in this study.

This current study is in line with Cerbioni and Parbonetti (2007) study that state there is positive relationship between independent directors and internal capital structure disclosure. This study is also in line with Li et al. (2008) that find a significant positive relationship between independent directors and intellectual capital disclosure. This result is perhaps due to the weakness of the corporate governance practice in Indonesia. As Mintara (2008) find a fact that there is no obligation for the company listed on BEI to disclose the condition and structure of corporate governance especially regarding the responsibility and the independency of the directors. Further possible explanation is perhaps although Indonesian Stock Exchange is already have a regulation about the number of independent directors, however, practically there is absent mechanism regarding how stockholders vote the independent directors. Therefore, although the independent directors exist but there is no information regarding how those directors have been chosen. That condition give more opportunity for many parties to practice collusion, corruption and nepotism, such as voting independent director member who has family relationship with company's board of director. This results a very weak application of corporate governance, since this insider transaction, fraud, and so forth worsen the corporate governance. The weakness of the corporate governance affects the information disclosure as part of transparency which is one of corporate governance principle.

Hypotheses 3

From Table 2, this study find that all of the intellectual capital disclosure models have significant t-value for the ownership structure greater than the significance level. It means that this study do not find the relationship between the ownership structure and intellectual capital disclosure based on the eight intellectual capital disclosure model. Therefore, **H₃** do not supported by the data in this study.

This study do not confirm the results of Hossain et al. (1994) study that find information disclosure perhaps will be increase on the company with spilt ownership. Again, the weakness of corporate governance practice in Indonesia perhaps is one of the explanations of this phenomenon. As Mintara (2008) state that on many cases often there is phenomenon where managers and directors are immune to the responsibility for stakeholder. The higher the institution ownership is not enough to conduct better transparency (in this case the information disclosure) in a company. This causes the weakness of disclosure practice and ineffectiveness of information disclosure in the company.

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Table 2 Summary of Regression Results

		Intellectual Capital Disclosure								
		Content of Intellectual Capital					Semantic Properties of Intellectual Capital			
		Multiple Linear Regression					Ordinal Logistic Regression			
		Model 1 ICDI	Model 2 InCD	Model 3 ExCD	Model 4 HuCD		Model 5 ICD_Pos	Model 6 ICD_Neg	Model 7 ICD_FL	Model 8 ICD_H
(Constant)	Coefficients Sig. t	-0,612 (0,22)	-0,346 (0,47)	-0,979 0,10	-0,417 (0,72)					
Size of board of directors	Coefficients Sig. t	0,007 (0,55)	0,018 (0,12)	0,015 (0,29)	-0,017 (0,52)	Size of board of directors	0,051 (0,91)	0,520 (0,31)	-0,126 (0,77)	0,171 (0,68)
Independent directors	Coefficients Sig. t	0,015 (0,93)	0,215 (0,24)	0,279 (0,21)	-0,593 (0,18)	Independent directors	-1,163 (0,88)	6,682 (0,47)	1,377 (0,82)	8,083 (0,30)
Ownership structure	Coefficients Sig. t	-0,196 (0,17)	-0,123 (0,38)	-0,142 (0,41)	-0,361 (0,29)	Ownership structure	-2,144 (0,65)	9,022 (0,23)	5,988 (0,27)	-1,590 (0,74)
Ownership management	Coefficients Sig. t	-0,016 (0,61)	-0,061 (0,07)*	-0,006 (0,88)	0,022 (0,77)	Ownership management	0,191 (0,86)	-1,986 (0,13)	-2,157 (0,101)	0,021 (0,99)
Log Natural Total Assets	Coefficients Sig. t	0,031 (0,052)*	-0,003 (0,86)	0,053 (0,007)***	0,039 (0,28)	Log Natural Total Assets	-0,445 (0,45)	-0,163 (0,80)	-0,276 (0,63)	0,400 (0,47)
Return On Equity	Coefficients Sig. t	0,136 (0,44)	0,058 (0,74)	0,213 (0,31)	0,121 (0,77)	Return On Equity	11,847 (0,23)	-2,996 (0,77)	14,841 (0,13)	1,115 (0,88)
Leverage	Coefficients Sig. t	0,068 (0,89)	0,478 (0,31)	-0,418 (0,47)	0,255 (0,82)	Leverage	40,864 (0,09)*	-11,965 (0,74)	-22,047 (0,23)	-3,215 (0,86)
Growth	Coefficients Sig. t	0,004 (0,94)	0,047 (0,28)	-0,059 (0,26)	0,039 (0,70)	Growth	1,883 (0,79)	-4,277 (0,88)	-2,698 (0,11)	-0,343 (0,90)
Firm's Age	Coefficients Sig. t	0,001 (0,31)	0,001 (0,32)	0,001 (0,51)	0,001 (0,55)	Firm's Age	-0,020 (0,45)	0,013 (0,56)	0,004 (0,88)	-0,016 (0,54)
Auditor Type (BIG4)	Coefficients Sig. t	-0,058 (0,25)	-0,012 (0,80)	-0,120 (0,054)*	-0,027 (0,82)	Auditor Type (BIG4)	0,777 (0,66)	1,232 (0,58)	-2,376 (0,15)	0,545 (0,79)
Max VIF		9,843935894								
R Square		0,487	0,342	0,658	0,222	Pseudo R ²	0,203	0,207	0,290	0,093
Adjusted R Square		0,282	0,079	0,521	-0,088					
Std. Error Estimate		0,0763356	0,0752234	0,0917689	0,180118	Chi-Square Change	9,928	9,341	13,564	4,204
F		2,376	1,300	4,815	0,715	Sig.	0,446	0,500	0,193	0,937
Sig.		(0,038)**	0,283	(0,001)***	0,702					

*** significant at the 0,01 level, ** significant at the 0,05 level, * significant at the 0,10 level : ICDI: Intelltual Capital Discl. Index; InCD: Internal Cap. Disclro; ExCD: Ecternal Cap Disclro; HuCD: Human Cap Disclro; ICD_Pos: Intellectual Cap Disclro Positif; ICD-Negatif; ICD-FL:ICD- Forward Looking; ICD_H : ICD- Historical.

Source: secondary data that has been processed

Hypotheses 4

As it can be seen in Table 2, this study find that all of the intellectual capital disclosure models (except regarding the internal capital structure disclosure) have significant t-value for the ownership management greater than the significance level. It means that this study find the relationship between the ownership management and internal capital structure disclosure with negative coefficient and significant value of 0.07 (significant at $\alpha=10\%$), while other seven models fails to support the hypothesis that there are relationship between ownership management and intellectual capital disclosure. Therefore, **H₄** is supported by the data in this study (only in the case of the total internal capital structure disclosure).

This current study in line with Ho and Wong (2001) study that argue a person who holds two jobs together tend to keep information and prefer not to disclose it to other parties. This study also confirm Fama and Jensen (1983) study that state when a person hold as chairman and CEO, it is expected that he/she will tend to take management side than stockholder side. The coefficient of ownership management shows negative value on the total of internal capital structure disclosure. Cerbioni and Parbonetti (2007) argue that information disclosure regarding internal capital structure only notice by management and external stakeholder will not detect it if management decides not to disclose it. It can be concluded in this current study that the existence of ownership management influence the decrease of the number of information disclosure about internal capital structure. This is possible since the information is regarding as not relevance for management that owned the company.

Control Variable Tests

The results of control variable examination are discussed as follows. The first control variable is total assets (LnTA) has significant t-value of 0,052 (model 1); 0,007 (model 3); and for other six models the t-value are greater than the level of significance level. Model 1 and 3 have positive coefficient value. Therefore, it can be concluded that total assets (TA) has positive significant effect on the level of $\alpha=10\%$ on total intellectual capital disclosure and has positive significant with the level of $\alpha=1\%$ on the total of external capital structure disclosure. This results in line with the studies by Ho and Wong (2001), Eng and Mak (2003), Gul and Leung (2004), that find positive relationship between firm size with the level of information disclosure. The coefficient of total assets shows positive value on total intellectual capital disclosure and total external capital structure disclosure. It can be implied that the greater the firm size, the higher the level of intellectual capital disclosure and external capital structure disclosure on annual report published by the company. This in line with Mujiono (2004) who stated that company with total assets greater tend to disclose more information compare with those with smaller total assets. The bigger company much more has products diversity and operates in many locations, including overseas.

The second control variable that is company performance (ROE) has significant t-value greater than the level significance for all models. This means that this study do not find any relationship between company's performance with the eight models of intellectual capital disclosure. This results are contradict with the studies by Singhvi and Desai (1971), Kahl and Belkaoui (1981), Wallace and Nasser (1995) and Hossain (2008), that find profitability has positive influence on company disclosure.

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The third control variable which is total liability over total equity (leverage) has significant t-value of 0.09 (model 5), while other seven models shows significant t-value greater than the significance level. The model 5 has positive coefficient. Hence, it can be inferred that leverage has significant positive effect ($\alpha=10\%$) on total information which has positive effect on intellectual capital disclosure. This result contradict with Cerbioni and Parbonetti (2007) who stated that there is no relationship between leverage and total information that have positive effect on intellectual capital disclosure. Leverage coefficient shows positive value on information total that has positive effect on intellectual capital. This means that the greater the level of company leverage, then the information disclosure will tend to be good news about intellectual capital. Company liability is one of mechanism in combining management and stockholder interest, as liability provide signal about company financial condition to fulfil its obligation. As the leverage of the company greater and in order to not increase the market concern and financial problem, the management tends to disclose information about the good news.

The fourth control variable which is *market-to-book ratio (growth)* has significant t-value greater than the significance level for all models. It can be inferred that this study do not find any relationship between *market-to-book ratio* and all of the eight model of intellectual capital disclosure. This result is not in line with Cerbioni and Parbonetti (2007) study that found company with high growth used information disclosure as one of method to connect potential different information between management and investor.

The fifth control variable which is firm age has significant t-value greater than significance level for all of the models. This means that this study fail to find any relationship between firm age with all of the eight models intellectual capital disclosure. This finding is in line with Cerbioni and Parbonetti (2007) study that found no relationship between firm age with information total that negatively affect intellectual capital.

The last control variable which is auditor type has significant t-value of 0.054 (model 3) and the other seven model have significant t-value greater than the significance level. Model 3 has negative coefficient. Thus, it can be concluded that auditor type has significant negative influence ($\alpha=10\%$) on total external capital structure disclosure. This result is in line with Craswell and Taylor (1992) that stated there is no relationship between audit type and voluntary disclosure. Zhou and Panbunyuen (2008) argue that auditor Big 4 will have more role on the company's accomplishes of mandatory disclosure. The coefficient of auditor type shows negative value on the total of external capital structure disclosure and total intellectual capital disclosure in regard with historical views. This means that the existence of auditor Big 4 that audit the company, it can reduce the total of intellectual capital disclosure regarding external capital structure.

5. Summary and Conclusions

From the hypothesis tests show that: (1) the size of board of directors as a proxy of corporate governance does not have effect on intellectual capital disclosure. This finding is not in line with the studies by Jensen (1993), and Conger, et al. (1998). However, this study is confirmed the prior studies done by Lakhal (2003) and Nasir and Abdullah (2004); (2) independent directors as a proxy of corporate governance does not affect the intellectual capital disclosure. This finding is not in line with the studies by Cerbioni and Parbonetti (2007) and Li et al. (2008); (3) ownership structure as a proxy of corporate governance does not affect the intellectual capital disclosure. This finding is not in line with the study by Hossain et al. (1994); (4) ownership management as a proxy of corporate

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governance does negatively influence the internal capital structure disclosure. This finding confirms the studies by Fama and Jensen (1983) and Ho and Wong (2001).

In regard with the hypothesis finding, this study find that in banking sector in Indonesia that listed in BEI, the size of board of directors, independent directors composition, and ownership structure do not have influence on intellectual capital disclosure. The possible explanation of this finding is the weakness of the implementation of corporate governance in Indonesia and the small attention of the company on intellectual capital. The existence of corporate governance is mainly to comply with Bapepam regulation and only focus on the company operation performance. Furthermore, the existence of ownership management on the company will has impact on reducing the number of information disclosure in regard of internal capital structure. This perhaps due to that those information is seen as not relevant for the managers who hold ownership of the company.

This study has several implications which include: (1) theoretical implication; and (2) practical implication. From a theoretical perspective, this study is expected to become a reference for further research on intellectual capital and corporate governance. While from practical point of view, this finding of this study is expected to provide information for Bapepam to develop regulation to increase the implementation of corporate governance in banking industry in Indonesia.

As with other empirical studies, however, this research also has some limitations. However, apart from the limitations of the study, this research provides the opportunity for future research. The limitations and the opportunity for further research associated with this study are as follows: (1) this study is only employ the size of board of directors, the independent directors, the ownership structure, and ownership management as proxies of corporate governance. Further research can be done using other proxies of corporate governance such as corporate governance index; (2) in the beginning, this study employ another independent variable which is the existence of audit committee as a proxy of corporate governance. However, the result shows constant value or in other word each company has an audit committee. Therefore, further research that can be done is using other elements or characteristics of audit committee, not the existence of committee audit itself, such as the proportion of audit committee from independent parties; (3) other further research that can be done is using another proxy of independent directors, for example, the number of directors meeting that attended by independent directors on one year; (4) finally, it is suggested that further research using longer research period and examines other variable that effected intellectual capital disclosure, such as the factors to uphold the law as often used in similar research in Europe.

References

- Akhtaruddin, M 2005, 'Corporate mandatory disclosure practice in Bangladesh', *International Journal of Accounting*, vol. 48, pp. 399-422.
- Anderson, RC, Mansi, SA, and Reeb, DM 2004, 'Board characteristics, accounting report integrity, and the cost of debt', *Journal of Accounting and Economics*, vol. 37, pp. 315-342.
- Bank Indonesia 2006, *Peraturan Bank Indonesia No. 8/4/PBI/2006*, Pelaksanaan Good Corporate Governance Bagi Bank Umum.
- Beattie, VA 2000, 'The future of corporate reporting: A review article', *Irish Accounting Review*, vol. 7, no. 1, pp. 1-36.

Falikhatusun, Aryani & Prabowo

- Beretta, S and Bozzolan, S 2004, 'Assessing the quality of narrative disclosure', Working Paper, University of Padova.
- Bontis, N 2000, *Assesing knowledge assets: A review of the models used to measure intellectual capital*, <<http://www.business.queensu.ca/kbe>>.
- _____. 2001, 'Assesing knowledge assets: A review of the models used to measure intellectual capital', *International Journal of Management Reviews*, vol. 3, no. 1, pp. 41-60.
- Bontis, N, Crossan, M, and Hulland, J 2001, 'Managing an organizational learning system by aligning stocks and flows', *Journal of Management Studies*, forthcoming.
- Bontis, N, Keow, WCC, and Richardson, S 2000, 'Intellectual capital and business performance in Malaysian industries', *Journal of Intellectual Capital*.
- Bornemann, M. and Leitner, KH 2002, 'Measuring and reporting intellectual capital: the case of a research technology organization', *Singapore Management Review*, vol. 24, no. 3, pp. 7-19.
- Brooking, A 1996, *Intellectual capital, core assets for the third millennium enterprise*, London: International Thomson Business Press.
- Bryman, A and Bell, E 2007, *Business research methods*, UK: Oxford University Press.
- Budiyawati, Ayu 2009, 'Pengaruh karakteristik dewan komisaris terhadap pengungkapan intellectual capital: studi pada perbankan syariah di Asia', Skripsi, Fakultas Ekonomi, Universitas Sebelas Maret Surakarta.
- Bukh, PN 2003, 'Commentary: the relevance of intellectual capital disclosure: A paradox?', *Accounting, Auditing & Accountability Journal*, vol. 16, no. 1, pp. 49-56.
- Canibano, L, Garcia-Ayuso, M, and Sanchez, P 2000, 'Accounting for intangibles: A literature review', *Journal of Accounting Literature*, vol. 19, pp. 102-130.
- Cerbioni, F and Parbonetti, A 2007, 'Exploring the effects of corporate governance on intellectual capital disclosure: An analysis of European biotechnology companies', *European Accounting Review*, vol. 16, no. 4, pp. 791-826.
- Chau, GK and Gray, SJ 2002, 'Ownership structure and corporate voluntary disclosure in Hong Kong and Singapore', *The International Journal of Accounting*, vol. 37, no. 2,, pp. 247-265.
- Chen, CJP and Jaggi, B 2000, 'Association between independent non-executive directors, family control and financial disclosures in Hong Kong', *Journal of Accounting and Public Policy*, vol. 19, no. 4, pp. 285-310.
- Conger, JA, Finegold, and Lawler, EE 1998, 'Appraising boardroom performance', *Harvard Business Review*, vol. 76, pp. 136-148.
- Craswell, AT and Taylor, SL 1992, 'Discretionary disclosure of reserves by oil and gas companies: An economic analysis', *Journal of Business Finance and Accounting*, vol. 19, no. 2, pp. 295-308.
- Edvinsson, L and Malone M 1997, *Intellectual Capital: realising your company's true value by finding its hidden brain power*, Harper Collins, New York, NY.
- Eng, LL and Mak YT 2003, 'Corporate governance and voluntary disclosure', *Journal of Accounting and Public Policy*, vol. 22, pp. 325-345.
- Gul, FA and Leung, S 2004, 'Board leadership, outside directors' expertise and voluntary corporate disclosures', *Journal of Accounting and Public Policy*, vol. 23, pp. 351-379.
- Guthrie, James and Petty, R 2000, 'Intellectual capital: Australian annual reporting practices', *Journal of Intellectual Capital*, vol. 1, no. 3, pp. 241-251.
- Haniffa, RM and Cooke TE 2005, 'The impact of culture and governance on corporate social reporting', *Journal of Accounting and Public Policy*, vol. 24, pp. 391-430.

Falikhatusun, Aryani & Prabowo

- Healy, PM and Palepu, KG 2001, 'Information asymmetry, corporate disclosure, and the capital market: A review of the empirical disclosure literature', *Journal of Accounting and Economics*, vol. 31, pp. 405-440.
- Hermalin, BE and Weisbach, MS 2003, 'Boards of directors as an endogenously determined institution: A survey of the economic literature', *FRBNY Economic Policy Review*, vol. 9, pp. 7-26.
- Ho, Simon SM and Wong, Kar Shan 2001, 'A study of the relationship between corporate governance structures and the extent of voluntary disclosure', *Journal of International Accounting, Auditing & Taxation*, vol. 10, pp. 139-156.
- Hossain, M and Taylor, PJ 2007, 'The empirical evidence of the voluntary information disclosure in the annual reports of banking companies: the case of Bangladesh', *Corporate Ownership & Control*, vol. 4, no. 3, pp. 111-125.
- Hossain, M, Perera, MHB, and Rahman, AR 1994, 'Voluntary disclosure in the annual report of new Zealand companies', *Journal of International Financial Management and Accounting*, vol. 6, no. 1, pp. 70-86.
- Hossain, Muhammed 2008, 'The extent of disclosure in annual report of banking companies: the case of India', *European Journal of Science and Research*, vol. 23, no. 4, pp. 660-681.
- Hudson, W 1993, *Intellectual capital: how to build it, enhance it, use it*. New York: John Wiley.
- Jensen, MC and Meckling, WH 1976, 'Theory of the firm: managerial behavior, agency cost, and ownership structure', *Journal of Financial Economics*, vol. 3, pp. 305-360.
- Jensen, MC 1993, 'The modern industrial revolution, exit, and the failure of internal control systems', *Journal of Finance*, vol. 48, pp. 831-880.
- Klein, A 2006, 'Audit committee, board of director characteristics, and earnings management', Working Paper No. 06-42, NYU Centre for Law and Economic.
- La Porta, R, Lopez-de-Silanes, F, Shleifer, A, and Vishny, RW 2000, 'Investor protection and corporate governance', *Journal of Financial Economics*, vol. 58, no. 1-2, pp. 3-27.
- Lakhal, F 2003, 'Earning voluntary disclosures and corporate governance: Evidence from France', < www.ssrn.com >.
- Lev, B 2001, *Intangibles: Management, Measurement and Reporting*, Washington: The Brookings Institution.
- Lev, B and Zarowin, P 1999, 'The boundaries of financial reporting and how to extend them', *Journal of Accounting Research*, vol. 37, no. 2, pp. 353-386.
- Li, Jing., Pike, R, and Haniffa, R 2008, 'Intellectual capital disclosure and corporate governance structure in UK firms', *Accounting and Business Research*, vol. 38, no. 2, pp. 137-159.
- Lim, S, Matolcsy, Z, and Chow, D 2007, 'The association between board composition and different types of voluntary disclosure', *European Accounting Review*, vol. 16, no. 3, pp. 555-583.
- Mintara, YH 2008, 'Pengaruh implementasi corporate governance terhadap pengungkapan informasi', Skripsi, Fakultas Ekonomi, Universitas Islam Indonesia.
- Mouritsen, J, Larsen, HT, and Bukh, PND 2001, 'Intellectual capital and the 'capable firm': narrating, visualising and numbering for managing for managing knowledge', *Accounting, Organisation and Society*, vol. 26.
- Mujiyono 2004, 'Pengaruh karakteristik perusahaan terhadap luas pengungkapan sukarela dalam laporan tahunan (studi empiris di Bursa Efek Indonesia)', Tesis, Magister Sains Akuntansi, Universitas Diponegoro.

Falikhatusun, Aryani & Prabowo

- Nasir, MN and Abdullah, SN 2004, 'Accrual management and the roles of boards of directors and audit committees among Malaysian listed companies: Evidence during the Asian financial crisis', *IJUM Journal of Management & Economics*, vol. 12, no. 1, pp. 49-80.
- Nasution, Marihot and Setiawan, Doddy 2007, 'Pengaruh corporate governance terhadap manajemen laba di industri perbankan Indonesia', Simposium Nasional Akuntansi (SNA) X Makasar.
- Owusu-Ansah, S 1998, 'The impact of corporate attributes on the extent of mandatory disclosure and reporting by listed companies in Zimbabwe', *International Journal of Accounting*, vol. 33, no. 5, pp. 605-631.
- Petrash, G 1996, 'Dow's journey to a knowledge value management culture', *European Managemnt Research*, vol.14, no. 4, pp. 365-373.
- Rachmawati, Andri and Triatmoko, Hanung 2007, 'Analisis faktor-faktor yang mempengaruhi kualitas laba and nilai perusahaan', Simposium Nasional Akuntansi (SNA) X Makasar.
- Roos, Johan, Roos, Goran, Edvinsson, Leif, and Dragonetti, Nicola C 1997, *Intellectual Capital: Navigating the new business landscape*, Macmillan Press Ltd.
- Saleh, Norman Mohd. Rahman, Mara Ridhuan Abdul, and Hasan Mohamat Sabri 2007, 'Ownership structure and intellectual capital performance in Malaysian companies listed in Mesdaq, <www.ssrn.com>.
- Singhvi, SS and Desai, HB 1971, 'An empirical analysis of the quality of corporate financial disclosure', *The Accounting Review*, vol. 46, no. 1, pp. 129-138.
- Starovic, D and Marr, B 2004, *Understanding corporate value : managing and reporting intellectual capital*, Chartered Institute of Management Accountants.
- Stewart, TA 1997, *Intellectual capital-the new wealth of organization*, London: Nicholas Brealey.
- Sullivan, Jr PH and PH Sullivan Sr 2000, 'Valuing intangible companies, an intellectual capital approach', *Journal of Intellectual Capital*, vol.1, no. 4, pp. 328-340.
- Sveiby, KE 2001, 'Measuring Competence, available online: the <<http://www.sveiby.com/articles/MeasureCompetence.html>>.
- Swartz, NP and Firer, S. 2005. *Board Structure and Intellectual Capital Performance in South Africa*. *Meditari Accountancy Research*, 13 (2): 145-166.
- Tan, G 2000, *The Asian Crisis*, Singapore: Times Academic Press.
- Wallace, RSO and Naser, K 1995, 'Firms specific determinants of comprehensiveness of mandatory disclosure in the corporate annual report of listed firms on the stock exchange in Hong Kong', *Journal of Accounting and Public Policy*, vol. 14, pp. 311-368.
- Yermack, D 1996, 'Higher market valuation of companies with a small board of directors', *Journal of Financial Economics*, vol. 40, pp. 185-221.
- Zhou, J and KY Chen 2004, 'Audit committee, board characteristics and earnings management by commercial banks', <www.ssrn.com>.
- Zhou, MM and Panbuyen, P 2008, 'The association between board composition and different types disclosure', Unpublished Thesis.

www.wikipedia.com

www.idx.co.id