THE INFLUENCE OF CORPORATE GOVERNANCE TOWARD INTELLECTUAL CAPITAL DISCLOSURE

(Empirical Studies on LQ45 Companies Listed on the IDX

from the Period of 2015 – 2017)

A THESIS

Presented as a Partial Fulfillment of the Requirements

to Obtain the Bachelor Degree in Accounting Department

By:

IMMELLITA BUDIARTI

Student Number: 14312566

DEPARTMENT OF ACCOUNTING

INTERNATIONAL PROGRAM

FACULTY OF ECONOMICS

UNIVERSITAS ISLAM INDONESIA

YOGYAKARTA

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DECLARATION OF AUTHENTICITY

Herein I declare to the originality of this thesis; I have not presented someone's work to obtain my university degree, nor have I presented anyone else's words, ideas, or expression without acknowledgment. All quotation is cited and listed in the bibliography of the thesis. If in the future this statement is proven to be false. I am willing to accept any sanction complying with the determined regulation or its consequences.

Yogyakarta, 14 May, 2018

Immelita Budiarti

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ACKNOWLEDGEMENT

Assalamualaikum Wr. Wb.

"All perfect praise is due to Allah, the Lord of the worlds. I bear witness that none is worthy of worship but Allah, alone with no partners. And I bear witness that Muhammad is His Messenger, may Allah exalt his mention."

Alhamdulillahi rabbil'alamin, the thesis which entitled "The Influence of Corporate Governance toward Intellectual Capital Disclosure" as partial requirements to obtain the bachelor degree in Accounting Department, International Program, Faculty of Economics, Universitas Islam Indonesia is finally finished. Appreciation and gratitude are sincere to everyone who takes a part in giving contribution and making this thesis a success. Hopefully, this thesis can bring benefits for the upcoming studies. Though this occasion, I would like to address my regards to:

1. Allah SWT for the blessings and guidance, for giving me this beautiful life, this experience of joy, pain, sadness, so that there is nothing left I could ask for more.
2. Muhammad SAW who has established the conditions for the awakening and enlightenment of humanity, both individually and collectively.
3. My parents, Budiono and Sumarsih, billion thanks even it is not enough, for all of the prayer, support, kindness, the up-and-down journey and all of the things you have sacrificed for me. Thank you for always convincing me that none is

impossible if Allah give His ridha for us. Thank you for always being my super supporting system. You both are the best gift that Allah give to me. Thank you!

4. Yanuar Wibawadi, the one and only brother. Thank you for being a good brother, thanks for being reliable when needed, thank you for praying and supporting me, let's make our parents proud of us.
5. Mr. Hadri Kusuma, Prof., Dr., MBA. as my content advisor who always give me constructive advices, idea, inspiration and his precious time to make this thesis more meaningful. Thank you so much for your help and kindness. May Allah always bless you.
6. Ms. Nihlah Ilhami, S.Pd as my language advisor. Thank you for your time, help and kindness to help me finish this thesis on time. May Allah always bless you.
7. Mr. Nandang Sutrisno, S.H., LL.M., M.Hum., Ph.D. as the Rector of Universitas Islam Indonesia.
8. Mr. Dr. Drs. Dwipraptono Agus Hardjito, M.Si as the Dean of the Faculty of Economics, Universitas Islam Indonesia.
9. Mr. Dekar Urumsah, S.E., S.Si., M.Com., Ph.D. as the Head of the Accounting Department, Faculty of Economics, Universitas Islam Indonesia.
10. Mr. Anas Hidayat, Drs., M.Bus., Ph.D. and Mr. Rokhedi Santoso, S.E., MIDEc. as the Head and Deputy Head of Business and Economics Department IP UII for facilitating and accommodating me during my academic process.
11. All of International Program Faculty of Economics Office Staffs (Pak Ahmad Budiharjo, Pak Erwanto, Mas Kandri, Pak Kusnoto, Mbak Alfi, Mbak Rindang, Mbak Arina), thank you for the helps and a very warm welcome and friendliness during my bachelor journey.

12. All the Lecturer at Faculty of Economics UII, who had taught me many things, thank you for every discussion during and outside the classes.
13. Ayu Dwi, my 24 hours-mate, thank you for accompanying my entire campus life. Qonita, people behind every my key-in moment. Yovila and Dhea Nada, even we are far, you both are the best listener and advicer. My BH Squad (Ayu Dwi, Tri Hidni, Selly Arentia, Fajmei, Zukhrufa, Naswa), Banyak Sekawan Squad (Hanan, Samih, Dedek dwi, Wimas, Dipo, Ayu), the other friends, Lucky, Ria, Zahra, Riza, Zakiyah, Rahmania. Thank you for complete my wonderful life.
14. Ekonomika UII period 2016/2018 especially Rara, Ulfa, Fenny, Aprik, Dina, Mas Ridho, Anita for being a place for me in developing my organizational skill during my time in UII.
15. Tiyas Kurnia Sari, thank you for being a friend of all conditions, academic and personal problems, since we are in the first semester in 2014 till now. So much thank to you. May Allah reply all your kindness. Assita, thank you for all your help and all of my classmates in Accounting International Program 2014, Universitas Islam Indonesia, who had welcomed me as your big family. Thank you for the unexpected journey, for all the joy and tears, see you on top guys!
16. Rafani Adhyapaka S. and Laela Musdawati, the most helpful people during my writing thesis. Thank you your help. May your kindness be rewarded by Allah SWT.
17. My KKN friends (Susan, Mayu, Echa, Thessy, Al, Ardi, Achad, Ufik) for the friendliness. Thank you for the experience and help.
18. All the parties who have helped in the process of writing this essay that cannot authors mention one by one.

Finally, the author realizes that this thesis still needs suggestions and constructive criticisms for the sake of perfection. Therefore, the author wants to thank you to everyone who has not been mentioned above for helping the researchers completing this thesis. Hopefully, this thesis is useful for the academic purpose. Aamiin.

Wassalamu'alaikum Wr.Wb.

Yogyakarta, May 14, 2018

Immellita Budiarti

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ABSTRACT

This study aims to analyze the influence of corporate governance on proxies of board size, independent directors, board meetings, profitability, types of auditor and management ownership toward intellectual capital disclosure. The population in this study are the companies on the index LQ45 listed on the Indonesia Stock Exchange (IDX) from the period of 2015-2017. The type of data collected was secondary data. This research used purposive sampling method and 40 companies were selected. Methods of data analysis used descriptive statistics, classical assumption test, and multiple linear regression with EViews9. The results of this study indicate that the variables of board size, board meetings, profitability and management ownership have positive and significant effects on intellectual capital disclosure. While types of auditor have negative effects on intellectual capital disclosure and independent directors have no effects on intellectual capital disclosure.

Keywords: corporate governance, board size, independent directors, board meetings, profitability, types of auditors, management ownership, intellectual capital disclosure

ABSTRAK

Penelitian ini bertujuan untuk menganalisis pengaruh *corporate governance* pada proksi ukuran dewan, direktur independen, jumlah rapat, profitabilitas, tipe auditor dan kepemilikan manajerial terhadap pengungkapan modal intelektual. Populasi dalam penelitian ini adalah perusahaan pada indeks LQ45 yang tercatat di Bursa Efek Indonesia (BEI) pada periode tahun 2015-2017. Jenis data yang dikumpulkan adalah data sekunder. Teknik pengambilan sampel adalah metode *purposive sampling* yang menghasilkan sampel sebanyak 40 perusahaan. Metode analisis data menggunakan statistik deskriptif, uji asumsi klasik, dan regresi linier berganda dengan *EViews9*. Hasil penelitian ini menunjukkan bahwa variabel ukuran dewan, jumlah rapat, profitabilitas dan kepemilikan manajerial berpengaruh positif signifikan terhadap pengungkapan modal intelektual. Sedangkan variabel, tipe auditor berpengaruh negative terhadap pengungkapan modal intelek dan direktur independen tidak berpengaruh terhadap pengungkapan modal intelektual.

Kata Kunci: *corporate governance*, ukuran dewan, direktur independen, jumlah rapat, profitabilitas, tipe auditor, kepemilikan manajerial, pengungkapan modal intelektual**.**

CHAPTER I

INTRODUCTION

1.1 BACKGROUND

Every company has a responsibility to submit a company report to its stakeholders. Reports that have been done by many companies are the financial statements. Financial statements as well as a company's performance measurement are used as a responsibility of the board of company to the owner of company. Nowadays, sometimes, financial statements are not sufficient to measure company performance. Canibano et al. (2000) stated that specifically, traditional accounting reports do not have enough potential to show the true value established in firms not to cover the gap between market and book value in many of today's companies. So, the company needs a report other than the financial statements that support the needs of stakeholders as additional information that can be used as consideration in making decisions, one of which is intellectual capital disclosure (Bhattacharjee et al., 2017).

Intellectual capital disclosure is a voluntary disclosure. Rahim et al (2001) stated that there is no universally accepted regulation or guideline on intellectual capital disclosure. Meca et al. (2010) stated the term voluntary disclosure according to the FASB (2001) describes disclosure that is not explicitly required by generally accepted accounting principles (GAAP) or specific country rules. There is one statement that comprehensively reflects the definition of IC disclosure by CIMA (2004) as follows:

"The possession of knowledge and experience, professional knowledge and skill, good relationships, and technological capacities, which when applied will give organizations a competitive advantage' (as cited in Li et al. 2008, p.137). A broad consensus has developed that IC can be characterized in terms of a tripartite model comprising structural capital, relational capital and human capital (Sveiby, 1997)."

The Chartered Institute of Management Accountants (CIMA) (2004) explains more deeply 3 characteristics of intellectual capital disclosure based on guidelines produced by researchers from universities across Europe, collectively known as the Meritum Project, namely:

1. Human capital

   Human capital is defined as the knowledge, skills and experience taken by employees when they leave. Some of the knowledge is unique to the individual, some may be generic. The examples include innovation capacity, creativity, prior knowledge and experience, teamwork capacity, employee flexibility, tolerance for ambiguity, motivation, satisfaction, learning capacity, loyalty, formal training, and education.

2. Relational capital

   Relational capital is defined as all resources associated with external corporate relationships - with customers, suppliers or partners in research and development. It consists of parts of human and structural capital involved with firm relationships with stakeholders (investors, creditors, customers, suppliers), plus with the perceptions they hold about the company. The examples of rational capital are image, customer loyalty, customer

satisfaction, supplier relationships, commercial strength, negotiating capacity with financial entities and environmental activities.

3. Structural capital

   Structural capital is defined as knowledge within the firm. It consists of organizational routines, procedures, systems, cultures, and databases. The examples of structural capital include organizational flexibility, documentation services, the existence of a knowledge center, the use of information technology and the organization's overall learning capacity. Some of them may be legally protected and become intellectual property rights, legally owned by companies with separate titles.

Saleh et al. (2010) revealed through interviews, pointed out some of the reasons underlying intellectual capital disclosure. First, they found that the main reason was to provide information about corporate culture and strategic direction of the future. Then several other reasons, are namely: attracting and retaining labor quality, attracting and retaining customers of products or services produced by the company, entering a stronger strategic and synergetic alliance with partners for society and for capital markets.

The problem that arises is the importance of intellectual capital which is not in line with the extent of information of intellectual capital disclosed by the company. According to Bruggen et al. (2009), information on intellectual capital is still lacking. The lack of disclosure about intellectual capital would precisely result in disclosed information being unclear and ineffective. Consequently, there is a potential increase in information asymmetry between firms and users

of financial statements. In the end, it can lead to decisions taken by stakeholders to be less precise (Prabowo & Purwanto, 2014).

It is also similar with Guthrie et al. (1999) and Petty and Cuganesan (2005), they argued that traditional financial accounting reports do not require the company to report its intellectual capital**.** This creates information asymmetry between shareholders and other stakeholder groups and possible confusion about what is truly valuable in business. To compensate for the limitations of the traditional accounting reporting environment, it is recommended that the intellectual capital is voluntarily reported by the company to better addres**s** stakeholder information needs (Baldini & Liberatore, 2016).

Several previous studies have also discussed the disclosure of intellectual capital within the company. There are some researchers who have been researching related topics done by Bhattacharjee et al. (2017), Mubaraq & Haji (2014), Ramadan & Majdalany, (2013), Scaltrito (2015), Ahmed Haji (2015), Tejedo-Romero et al. (2017), Ferreira et al. (2012), Muttakin et al. (2015), Rodrigues et al. (2017), Whiting & Birch (2016), Baldini & Liberatore (2016), and Uzliawati & Djati (2015).

Several previous studies have suggested that intellectual capital disclosure is influenced by several consistent variables, namely audit committee size by Bhattacharjee et al. (2017), Ahmed Haji (2015), and Uzliawati & Djati (2015), independent non-executive directors, director ownership, government ownership by Mubaraq & Haji (2014), firm size by Ramadan & Majdalany (2013), Scaltrito (2015), and Ferreira et al. (2012), audit committee size, audit committee independence, and audit committee financial expertise by Ahmed

Haji (2015), women directors by Tejedo-Romero et al. (2017), Rodrigues et al. (2017), and Uzliawati & Djati (2015), company's industry by and Ferreira et al. (2012), family ownership and foreign ownership by Muttakin et al. (2015), board independence by (Muttakin et al. (2015) and Uzliawati & Djati (2015), nomination committee by Whiting & Birch (2016), educational background board of commissioners (BOC), independent audit committee, audit committee's educational background by Uzliawati & Djati (2015).

Meanwhile, ownership structure by Bhattacharjee et al. (2017), Ramadan & Majdalany (2013), Scaltrito (2015), and Ferreira et al. (2012), and Baldini & Liberatore (2016), shareholder dispersion by Scaltrito (2015), level of intellectual capital by Ferreira et al. (2012), CEO duality by Muttakin et al. (2015), Rodrigues et al. (2017), and Baldini & Liberatore (2016), family duality by (Muttakin et al. (2015), remuneration committee by Whiting & Birch (2016) are the factors that do not consistently and significantly affect toward intellectual capital disclosure.

In addition, there are some variables that showed inconsistent results toward intellectual capital which are board size by Bhattacharjee et al. (2017), Mubaraq & Haji (2014), Ramadan & Majdalany (2013), Rodrigues et al. (2017), Whiting & Birch (2016), Baldini & Liberatore (2016), Uzliawati & Djati (2015), independent directors by Bhattacharjee et al. (2017), Rodrigues et al. (2017), Whiting & Birch (2016), Baldini & Liberatore (2016), board meetings by Bhattacharjee et al. (2017), Mubaraq & Haji (2014), Rodrigues et al. (2017), leverage by Ramadan & Majdalany (2013), Ferreira et al. (2012), profitability by Ramadan & Majdalany (2013), Ferreira et al. (2012), type of auditor by

Scaltrito (2015), Ferreira et al. (2012), Whiting & Birch (2016), Baldini & Liberatore (2016), audit committees by Muttakin et al. (2015), Whiting & Birch (2016). The results of this study are considered as inconsistent because there are several studies that support and do not support factors that influence on intellectual capital disclosure.

The differences between this research and the previous research are in the focus of research variables such as board size, independent directors, board meetings, profitability, types of auditors as independent variables while in this research, the researcher makes a renewal of this research by adding management ownership variable in accordance with the suggestion from Ramadan & Majdalany (2013), to test whether there is a difference between managers who have ownership in the company and managers who do not on intellectual capital disclosure. The additional variables and measurements will be the newness of this research because it has not been done or still rarely done by the previous studies. Therefore, the title of this research is "**The Influence of Corporate Governance toward Intellectual Capital Disclosure**" with the research objects are all companies listed on the LQ45 index on the Indonesia Stock Exchange from the period of 2015 to 2017.

1.2 STATEMENTS OF THE PROBLEM

Based on the background description of the problem, then the issues to be discussed in this study are:

1. How does board size influence intellectual capital disclosure?
2. How does independent directors influence intellectual capital disclosure?
3. How does board meetings influence intellectual capital disclosure?

4. How does profitability influence intellectual capital disclosure?
5. How does types of auditor influence intellectual capital disclosure?
6. How does management ownership influence intellectual capital disclosure?

1.3 OBJECTIVES OF THE RESEARCH

Based on the formulation of the problem, this research aims to:

1. Analyze the effect of board size on intellectual capital disclosure.
2. Analyze the effect of independent directors on intellectual capital disclosure.
3. Analyze the effect of board meetings on intellectual capital disclosure.
4. Analyze the effect of profitability on intellectual capital disclosure.
5. Analyze the effect of types of auditor on intellectual capital disclosure.
6. Analyze the effect of management ownership on intellectual capital disclosure.

1.4 SIGNIFICANCES OF THE RESEARCH

The researcher hopes that the results of this study provide benefits to:

1. The government

   This research can provide information and input on the importance of the company in disclosing intellectual capital information considering that there is no rule requiring disclosure of intellect capital information.

2. Companies

   This research is expected to be a consideration of the management in providing intellectual capital disclosure.

3. Further Researchers

This study is expected to provide benefits in providing references for further research on intellectual capital disclosure.

1.5 SYSTEMATICS OF WRITINGS

This study was prepared by considering the systematic of writings, starting from the explanation of the background of the problem to the conclusion. The systematic of writings are as follows:

CHAPTER I INTRODUCTION

This chapter describes the background of factors affecting intellectual capital disclosure on companies listed in LQ45. This chapter also explains the statement of problem, objective of research, the significance of research, and systematics of research writings.

CHAPTER II LITERATURE REVIEW

This chapter discusses the theories that will be used as the basis for discussion of this research which includes the influence of corporate governance, especially on board size, independent directors, board meetings, profitability, types of auditors and management ownership toward intellectual capital disclosure.

CHAPTER III RESEARCH METHODS

This chapter describes the research methods used in this study. The things described in this chapter include population and sample to be used in research, data collection methods, the definition of research variables, and data analysis techniques.

CHAPTER IV DATA ANALYSIS AND DISCUSSION

This chapter discusses the results of data processing that has been done and explains the interpretation of the results. In this chapter will also discuss the results of research whether the hypothesis that has been made has been proven or not.

CHAPTER V CONCLUSIONS AND RECOMMENDATIONS

This chapter contains the conclusions of this study which are the essence of the research results and are the answers to the problem formulation and research objectives. While the suggestion of this research consist of recommendations of what can be applied for improvement related to the research topics both in academic field and to society widely.

CHAPTER II

LITERATURE REVIEW

2.1 LITERATURE REVIEW

Financial statements as well as a company's performance measurement are used as a responsibility of the board of company to the owner of company. Nowadays, sometimes, financial statements are not sufficient to measure the company performance. Canibano et al. (2000) stated that specifically, traditional accounting reports do not have enough potential to show the true value established in firms not to cover the gap between market and book value in many of today's companies. In addition, Mouritsen & Roslender (2009) argue that the emergence of knowledge-based societies and economies has shifted the organizational value drivers from tangible assets into intangible assets, called intellectual capital (IC) which then emerged a discourse on the urgency of uncovering intangible assets and knowledge assets (Bhattacharjee et al., 2017).

Intellectual capital disclosure is a voluntary disclosure. Rahim et al (2001) stated that there is no universally accepted regulation or guideline on intellectual capital disclosure. Meca et al. (2010) stated that the term voluntary disclosure according to the FASB (2001) describes disclosures that are not explicitly required by generally accepted accounting principles (GAAP) or specific country rules. There is one statement that comprehensively reflects the definition of IC disclosure by CIMA (2004) as follows:

"The possession of knowledge and experience, professional knowledge and skill, good relationships, and technological capacities, which when applied will give organizations a competitive advantage' (as cited in Li et al. 2008, p.137). A broad consensus has developed that IC can be characterized in terms of a tripartite model comprising structural capital, relational capital and human capital (Sveiby, 1997)."

It also similar with the European Commission (2006) that define that ICs as a combination of human, organizational and relational resources, and organizational activities - which include employees' knowledge, skills, experience and abilities; R & D activities, corporate routines, procedures, systems, databases and corporate intellectual property rights; and all resources associated with external corporate relationships, such as with customers, suppliers and R & D partners (Rodrigues et al., 2017).

Camphell et al (2011) revealed voluntary disclosure in the annual report is always visible to reflect good corporate governance as it is the company's efforts to promote transparency by providing as much relevant information to users as possible (Bhattacharjee et al., 2017). Several studies have been conducted to determine the factors that may affect to intellectual capital disclosure. There are some researchers who have been studied the related topics, such as the research by Bhattacharjee et al. (2017), Mubaraq & Haji (2014), Ramadan & Majdalany, (2013), Scaltrito (2015), Ahmed Haji (2015), Tejedo-Romero et al. (2017), Ferreira et al. (2012), Muttakin et al. (2015),

Rodrigues et al. (2017), Whiting & Birch (2016), Baldini & Liberatore (2016), and Uzliawati & Djati (2015).

In these studies, there are several factors that affect intellectual capital disclosure and also have different results. Factors that have different result among these studies are board size, independent directors, board meetings, leverage, profitability, type of auditor, and audit committees. Furthermore, factors that are significant and positive toward intellectual capital disclosure are board size by Bhattacharjee et al. (2017), Mubaraq & Haji (2014), Whiting & Birch (2016), Baldini & Liberatore (2016) and Uzliawati & Djati (2015), independent directors by Whiting & Birch (2016) and Baldini & Liberatore (2016), board meetings by Mubaraq & Haji (2014) and Rodrigues et al. (2017), leverage and profitability by Ramadan & Majdalany (2013), type of auditor by Ferreira et al. (2012) and Baldini & Liberatore (2016), audit committees by Muttakin et al. (2015). While board size by Ramadan & Majdalany (2013) and Rodrigues et al. (2017), independent directors by Bhattacharjee et al. (2017) and Rodrigues et al (2017), board meetings by Bhattacharjee et al. (2017), leverage and profitability by Rodrigues et al. (2017), type of auditor by Scaltrito (2015) and Whiting & Birch (2016), audit committees by Whiting & Birch (2016) are insignificant toward intellectual capital disclosure.

Board Size

Jensen et al. (1976) claimed board size referring to the number of directors serving in the board of directors. While Li et al. (2008) stated that the board may consist of executive directors and independent, non-expressed executive

directors. The Resource Dependence Theory (RDT) recommended directors to be more independent on the board, arguing that they provide 'wider expertise, prestige and contact and play a key role in influencing disclosure'. Abeysekera (2010) revealed that larger board sizes will bring a wider experience and a greater diversity of skills and perspectives to boards that compensate for individual shortcomings (Whiting & Birch, 2016). However, Yermack (1996) found that larger boards are likely to be less effective in monitoring top managers, a too large board may actually have a lower ability to monitor and may increase the opportunity by the management to carry out the manipulations (Baldini & Liberatore, 2016).

Research on the effect of board size on IC disclosure has been studied by previous researchers, namely: Bhattacharjee et al. (2017), Mubaraq & Haji (2014), Whiting & Birch (2016), Baldini & Liberatore (2016), Uzliawati & Djati (2015), Ramadan & Majdalany (2013) and Rodrigues et al. (2017). Bhattacharjee et al. (2017), Mubaraq & Haji (2014), Whiting & Birch (2016), Baldini & Liberatore (2016), and Uzliawati & Djati (2015) have concluded that the board size have positive significantly affect IC disclosure because larger board sizes will bring a wider experience and a greater diversity of skills and perspectives to boards that compensate for individual shortcomings.

In line with RDT, increased skills, resources and networks provided by a large number of directors will increase IC in the enterprise and IC disclosure. Meanwhile, Ramadan & Majdalany (2013) and Rodrigues et al. (2017) argued that board size has no effect on IC disclosure because they stated large boards

should be avoided if IC disclosure is considered important. Although the board's monitoring capacity is increasing the number of directors, the costs required (such as slower decision-making and dishonest discussion of managerial performance) can outweigh the benefits.

Independent Directors

Fama (1980) revealed that the combination of executive and non-executive directors who are board of corporations is important to their performance. An independent director may act as a "professional referee" to ensure that the competition among the executive directors stimulates actions consistent with the shareholder value maximization. Fama and Jensen (1983) argued the presence of a large number of independent directors (defined as administrators who are not involved in direct transactions with companies), it is important to ensure a separation between management decisions and control decisions, which in this way is the most effective control.

The board that consists of a larger proportion of independent directors than the executive director is encouraged to exercise more control to maintain their reputation capital, which is affected in their capacity to perform control tasks (Baldini & Liberatore, 2016). While Li et al. (2008) stated fewer independent directors on the board are expected to be associated with superior financial performance and thus larger ICDs (Whiting & Birch, 2016). Research that has effect on independent directors toward IC disclosure has been studied by previous researchers, namely Whiting & Birch (2016), Baldini & Liberatore (2016), Rodrigues et al. (2017) and Bhattacharjee et al. (2017). Whiting &

Birch (2016) and Baldini & Liberatore (2016) have concluded that independent directors have positive and significant affect toward IC disclosure because companies with a higher proportion of independent directors have a higher voluntary disclosure.

The presence of larger independent directors in the board of directors becomes more effective oversight supervisors regarding the non-financial information presented in the annual financial statements. Whereas Bhattacharjee et al. (2017) argued that independent directors has no effect on IC disclosure and Rodrigues et al. (2017) have concluded that independent directors have negative but significant affect toward IC disclosure because the increase in the independent director reduces the need to disclose more information and that the increase in monitoring by independent directors results in lower levels of voluntary disclosure.

Board Meeting

Vefeas (1999) claimed that the effectiveness of the board depends on how often board members meet to discuss various issues faced by the company. The frequency of board meetings measures the intensity of board activities and the effectiveness of its monitoring. Brick and Chidambaram (2007) stated that the more frequent meetings of the board are held, the greater the company's performance. It is expected that the frequency of board meetings helps the board monitor the performance of the IC and consolidate synergies for strategic direction (Bhattacharjee et al, 2017). Research that has been done by Bhattacharjee et al. (2017) argued that the board meeting has no effect on IC

disclosure. While the research by Rodrigues et al. (2017) and Mubaraq & Haji (2014) showed positive and significant effects toward IC disclosure. An active board of directors is likely to provide more effective management control of IC and disclose more information about IC to publicize works undertaken.

Types of Auditor

Jensen and Meckling (1976) and Watts and Zimmerman (1986) expressed that audit activities can reduce information gaps, improve disclosure effectiveness and reduce agency costs. Hakim (2010) and Azizkhani et al. (2010) stated that big 4 audit firms provide higher quality audits compared to non-big 4 audit firms and this is valued by equity markets. Companies that face high agency costs will contract high quality audit firms. The big 4 audit firms are considered to have more resources than other companies and arguably provide higher quality audits (Ferreira, Branco, & Moreira, 2012). Auditors of big and well-known companies called the big four (Price Waterhouse Coopers, KPMG, Ernst & Young and Deloitte & Touche), encourage companies to provide more information for two reason which are they maintain their reputation and to ensure customer maintenance (Whiting & Birch, 2016). Research that has been done by Whiting & Birch (2016) and Scaltrito (2015) argued that types of auditor has no effect on IC disclosure. Thus, no matter companies use the big 4 audit firms or not, it will not affect the intellectual capital disclosure. While the research done by Ferreira et al. (2012) and Baldini & Liberatore (2016) showed positive and significant effects toward IC disclosure because the companies' reports audited by the big 4 audit firms give

greater intellectual capital disclosure. The larger audit firms encourages their clients to provide more information in the annual report because they want to maintain their reputation and develop their skills in intellectual capital disclosure.

Profitability

Profitability can be measured through calculating earnings before interest and tax (EBIT) in millions of currency (Ramadan & Majdalany, 2013). Khlif and Souissi (2010) argued that a positive relationship between disclosure and profitability can be justified on the basis of two theoretical arguments. First, as suggested by agency theory, higher performance makes it easier for managers to convince shareholders of their superior managerial skills. They tend to use voluntary disclosure to gain a higher level of trust from investors, which may be reflected in higher compensation. Second, profitable companies have an incentive to reveal more information to filter themselves out of less profitable companies. In addition, profitable corporate managers have an incentive to use information to gain personal benefits such as their continued position and compensation arrangements (Ferreira et al., 2012).

It is different perspective from Watts and Zimmerman (1978) and Li et al. (2008). They argued that bad attention toward high profits can lead to increased political costs. Profitable companies are more likely to use voluntary disclosure to reduce political costs. Another important aspect is that profitability may be the result of sustained investment in intellectual capital and companies tend to be involved in the ICD to signal the importance of the investment. (Ferreira et

al., 2012). Research that has been done by Ferreira et al. (2012) argued that profitability has no effect on IC disclosure. While the research done by Ramadan & Majdalany (2013) showed positive and significant effects toward IC disclosure because the more profitable the company the more company will disclose the information. Beside that, the company usually use voluntary disclosure to reduce the cost.

Leverage

Leverage can be measured through calculating total assets / total liabilities of firm (Ramadan & Majdalany, 2013). Prencipe (2004) stated that firms with higher levels of leverage expend more agency costs (the potential transfer of wealth from debt holders to shareholders and managers), they seek to reduce the cost and asymmetry of this information by disclosing more information to meet creditor needs for information, Brügen et al. (2009) also revealed that voluntary disclosure is essential in knowledge-based enterprises where large sums of money are invested in intangible assets, which are not fully recognized in the financial statements (Ferreira et al., 2012). Research that has been done by Ferreira et al. (2012) argued that leverage has no effect on IC disclosure. While research done by Ramadan & Majdalany (2013) showed positive and significant effects toward IC disclosure because company with higher leverage need more agency cost so that to reduce the cost, the companies will provide more information by disclosing more disclosure like intellectual capital disclosure.

Audit Committee

Ho and Wong (2001) claimed that the audit committee plays a key role to ensure the validity of the company's internal controls, the integrity of financial reporting and the audit process. In line with agency theory, the function of audit committee will result in improved quality of information disclosure. Using the RDT lens, the committee provides specialized expertise and improved IC and effective decision-making (Whiting & Birch, 2016). The same argument as Li et al. (2012) and Ho & Shun Wong (2001), as an internal governance mechanism, an effective audit committee must improve internal controls, act as a means to dilute agency costs, and become a powerful monitoring tool for improving ICD. In particular, audit committees have been found associated with more reliable financial reporting, improved quality, and increased disclosure (Muttakin et al., 2015). The research done by Whiting & Birch (2016) argued that profitability has no effect on IC disclosure. While the research done by Muttakin et al. (2015 showed positive and significant effects toward IC disclosure because the audit committee acts as a powerful monitoring tool to increase voluntary disclosure such as intellectual capital disclosure and also the audit committee's monitoring function will lead to improved disclosure quality.

In addition, there are also studies that have positive or significant results or significant positive consistently that affect intellectual capital disclosure namely audit committee size by Bhattacharjee et al. (2017), Ahmed Haji (2015), and Uzliawati & Djati (2015), independent non-executive directors, director ownership, government ownership by Mubaraq & Haji (2014), firm size by Ramadan & Majdalany (2013), Scaltrito (2015), and Ferreira et al.

(2012), audit committee size, audit committee independence, and audit committee financial expertise by Ahmed Haji (2015), women directors by Tejedo-Romero et al. (2017), Rodrigues et al. (2017), and Uzliawati & Djati (2015), company's industry by and Ferreira et al. (2012), family ownership and foreign ownership by Muttakin et al. (2015), board independence by (Muttakin et al. (2015) and Uzliawati & Djati (2015), nomination committee by Whiting & Birch (2016), educational background board of commissioners (BOC), independent audit committee, audit committee's educational background by Uzliawati & Djati (2015).

Meanwhile, ownership structure by Bhattacharjee et al. (2017), Ramadan & Majdalany (2013), Scaltrito (2015), and Ferreira et al. (2012), and Baldini & Liberatore (2016), shareholder dispersion by Scaltrito (2015), Level of intellectual capital by Ferreira et al. (2012), CEO duality by Muttakin et al. (2015), Rodrigues et al. (2017), and Baldini & Liberatore (2016), family duality by (Muttakin et al. (2015), remuneration committee by Whiting & Birch (2016) are the factors that have no consistent and significant effects toward intellectual capital disclosure.

In these previous studies, some studies showed inconsistent results, such as board size by Bhattacharjee et al. (2017), Mubaraq & Haji (2014), Ramadan & Majdalany (2013), Rodrigues et al. (2017), Whiting & Birch (2016), Baldini & Liberatore (2016), Uzliawati & Djati (2015), independent directors by Bhattacharjee et al. (2017), Rodrigues et al. (2017), Whiting & Birch (2016), Baldini & Liberatore (2016), board meetings by Bhattacharjee et al. (2017),

Mubaraq & Haji (2014), Rodrigues et al. (2017), leverage by Ramadan & Majdalany (2013), Ferreira et al. (2012), profitability by Ramadan & Majdalany (2013), Ferreira et al. (2012), type of auditor by Scaltrito (2015), Ferreira et al. (2012), Whiting & Birch (2016), Baldini & Liberatore (2016), audit committees by Muttakin et al. (2015), Whiting & Birch (2016). The results of this study are called inconsistent because there are several studies that support and does not support factors that influence on intellectual capital disclosure.

Research done by Bhattacharjee et al. (2017), Ferreira et al. (2012) and Ahmed Haji (2015) has limitation because the study arises from the use of content analysis. Bhattacharjee et al. (2017) also give suggestion that further research can be done by using other firm with specific features like industry type, leverage, firm size, listing age, auditor type etc. While Mubaraq & Haji (2014) give suggestion for future research to make a comparative study between countries with similar regulatory changes, or governance restructuring might enable a more comprehensive validation on the association between IC disclosures and corporate governance attributes. Different from Ramadan & Majdalany (2013) and Uzliawati & Djati (2015), their study has limitation namely limited proxies of corporate governance so that they suggest to include more proxies of corporate governance such as board independence, ownership management, audit committee independence, frequency of audit committee meetings, chairman/CEO role duality, and ownership concentration. Tejedo-Romero et al. (2017) suggested by using different samples, or drawn from similar and dissimilar cultural and environmental contexts. Muttakin et al.

(2015)'s study has limitation that their study only focused on corporate annual reports and did not consider information from other forms of media, due to unavailability of some data. This study was unable to directly assess the effectiveness of one factor. Rodrigues et al. (2017) suggested that future research may use larger samples, less visible companies and companies in countries facing deep financial crises (for example, Spain, Italy and France) to better understand whether levels of IC information disclosures are maintained during periods of financial crisis.

Based on the description and explanation of the weaknesses, the researcher makes a renewal of this research by adding management ownership variable in accordance with the suggestion from Ramadan & Majdalany (2013). This study aims to identify the factors that influence the intellectual capital disclosure in the company. The main variables used in this research are board size, independent directors, board meetings, profitability, types of auditor, and management ownership. Board size variable aims to test whether there are differences in the number of directors serving in the board of directors toward the intellectual capital disclosure. Moreover, the independent director variable aims to test whether there is a difference of a large proportion of independent directors of the executive directors of intellectual capital disclosure. The board meetings variable aims to know whether the frequency of board meetings has an influence on firms in disclosing intellectual capital information. The profitability variable aims see whether the amount of profits earned by the firm influences intellectual capital disclosure. The types of auditors variable aims to test whether there is a difference between firms audited by the big 4 audit firms

and firms audited by non-big 4 audits on intellectual capital disclosure. While management ownership variable aims to test whether there is a difference between managers having company shares and managers who do not have in the company of intellectual capital disclosure. The addition of variables and measurements will be the newness of this research because it has not been done or was still rarely done by previous studies.

2.2 THEORITICAL REVIEW

2.2.1 Agency Theory

Uzliawati & Djati (2015) stated that agency theory is used to understand basic corporate governance related to agreement between principal and agent in company. While Aljifri (2008) stated that based on agency theory, managers are agents of shareholder and adequate disclosure will provide the means to achieve optimal contracts. Jensen and Meckling (1976) define agency relationships as a contract established between the principle that employing agency services to run the business and work for the principal benefits, including delegation of agency the decision-making authority. The existence of a contract between the principal and the agent accompanying the delegation raises the possibility that an agent makes a decision that benefits himself so that the agency can cause problems (Uzliawati & Djati, 2015). Moreover, agency theory is generally based on the assumption that there are owner-manager conflicts which mainly arises from the pursuit of personal gain and personal interest. Agency theory suggested that the separation between ownership and control in the firm

creates a moral hazard situation in which managers' act on their economic interests.

Gul & Leung (2004) argued based on the agency theory, agency costs will vary according to firm attributes and by revealing more; managers will reduce agency costs to ensure trust to shareholders (Bhattacharjee et al, 2017). Agency theory can be used to reduce potential conflicts of interest between agents and principals to exercise oversight of corporate governance and ICD reduce information asymmetry between management and stakeholders (Uzliawati & Djati, 2015). Agency costs are generated from mitigation efforts to counter the impact of the agent's personal interests. Disclosure can help alleviate agency costs by giving more information to owners to the company (Whiting & Birch, 2016).

2.2.2 Stakeholder Theory

Guthrie et al. (2004) revealed according to stakeholder theory states that stakeholders have the right to be informed of how corporate activity affects the stakeholders (Bhattacharjee et al, 2017). Omran and El-Galfy (2014) claimed that the rationale of the stakeholder theory is that the existence of a company continues depending on the support of its stakeholders and therefore the company's management will be involved and report the activities expected by the stakeholders (Whiting & Birch, 2016). While Ghozali and Chariri (2007) argued according to stakeholder theory, it is stated that a company is not an entity that operates only for its own sake, but must benefit their stakeholders. The company's stakeholders consist of

shareholders, creditors, customers, suppliers, governments, communities, analysts and others (Prabowo & Purwanto, 2014).

According to Guthrie and Petty (2000) and Abhayawansa and Azim, (2014), in the case of the ICD, stakeholder theories suggested that businesses choose to voluntarily disclose information about their intellectual, social and environmental performance, above the requirement to improve and manage stakeholders (Whiting & Birch, 2016). Suttipun (2012) revealed the importance of stakeholders' influence on corporate reputation and to gain comparative advantage, companies will try to manage relationships with stakeholders through the provision of information, usually in the form of voluntary disclosure in the annual report or company website. Voluntary disclosure in the form of intellectual capital reporting can be taken into consideration by the company. Intellectual capital disclosure can be a tool for companies to manage harmonious relationships with their stakeholders. In addition, through intellectual capital disclosure is expected to provide a positive image for the company (Prabowo & Purwanto, 2014).

2.2.3 Resource Dependent Theory

Pfeffer and Salancik (1978) explained that resource dependency theory focuses the company's symbiotic relationship with environmental resources. Companies are dependent on other companies that have control over resources. Companies are always interacting with other companies that control resources within their environment to acquire those resources (Pratiwi, 2005). Pfeffer and Salancik (1978) stated that resource

dependence theory (RDT) has become one of the most influential theories in organizational theory and strategic management. RDT features corporations as open systems, depending on the possibilities in the external environment (Hilman et al, 2009).

Ulrich & Barney (1984) stated that the RDT recognizes the influence of external factors on organizational behavior and, although limited by its context, managers can act to reduce environmental uncertainty and dependence. The essence of this action is the concept of power, which is the control of the vital resources. Organizations seeking to reduce the power of others to them often try to increase their own power over others (Hilman et al, 2009). Grant (1991) revealed resource dependence theory has a perspective on entrepreneurship work, such as venture capitalists, regulators, and major consumers who are described as forming companies and outcomes through the control of important resources. This theory views the firm's resources as inherent which cannot be quickly added or eliminated (Suhendah, nd).

2.3 HYPOTHESES DEVELOPMENT

2.3.1 The Effect of Board Size on Intellectual Capital Disclosure

Jensen et al. (1976) claimed that board size refers to the number of directors serving in the board of directors. While Li et al. (2008) stated that the board may consist of executive directors and independent, non-expressed executive directors. Abeysekera (2010) revealed that larger board sizes will bring wider experience and a greater diversity of skills and perspectives to boards that compensate for individual shortcomings

(Whiting & Birch, 2016). John and Senbet (1998) argued that while the ability to control the board of directors increases with the number of board members, these benefits can be offset by weak communication cost increases and the effectiveness of decision making often associated with large groups (Baldini & Liberatore, 2016).

According to resource dependency theory (RDT), Abeysekera (2010) stated that larger boards are more likely to include increased skills that will improve the information processing capabilities of the board. Furthermore, larger boards tend to enhance the company's ability to acquire and secure important resources from their environment such as IC resources (Bhattacharjee et al, 2017). In line with agency theory, the agency theory can reduce the asymmetry information between agent and principal, in this case, because management and stakeholders have more information about the company than the investors or other stakeholders, whether information about the company's performance or on the decisions to be taken. Good management should provide transparency of information about the company's condition to investors and the public. Thus, based on the research done by Bhattacharjee et al. (2017), Mubaraq & Haji (2014), Whiting & Birch (2016), Baldini & Liberatore (2016), and Uzliawati & Djati (2015), the result showed that board size has a positive effect toward intellectual capital disclosure. This suggested that the larger the number of board, it will make the larger board. If the firm has larger board, the firm will engage in more voluntary disclosure. In this case, it is intellectual capital disclosure.

H1: Board Size has a positive effect toward intellectual capital disclosure

2.3.2 The Effect of Independent Directors on Intellectual Capital Disclosure

Fama (1980) revealed that the combination of executive and non-executive directors who are board of corporations is important to their performance. An independent director may act as a professional referee to ensure that the competition among the executive directors stimulates actions consistent with the shareholder value maximization. Li et al. (2008) stated that fewer independent directors on the board are expected to be associated with superior financial performance and thus larger ICDs (Whiting & Birch, 2016).

Resource dependent theory recommends independent directors on the board because that they provide wider expertise, prestige and contact and play a key role in influencing disclosure (Whiting & Birch, 2016). This argument is in line with Eng and Mak (2003) said that independent directors can further influence the company to disclose more information to outside investors. Jensen and Meckling, (1976) stated that based on agency theory, independent directors can increase the effectiveness of the board of directors (Falikhatun et al, 2010). Thus, based on the research that has done by Whiting & Birch (2016), Baldini & Liberatore (2016), Rodrigues et al. (2017) and Bhattacharjee et al. (2017), Bhattacharjee et al. (2017) argued that independent directors has no effect on IC disclosure, while Rodrigues et al. (2017) have concluded that independent directors have negative but

significantly affect toward IC disclosure because increase in number of the independent directors reduces the need to disclose more information and increased monitoring by independent directors results in lower levels of voluntary disclosure.

H2: Independent directors has a negative effect toward intellectual capital disclosure.

2.3.3 The Effect of Board Meetings on Intellectual Capital Disclosure

Vefeas (1999) claimed that the effectiveness of the board depends on how often board members meet to discuss various issues faced by the company. The frequency of board meetings measures the intensity of board activity and the effectiveness of its monitoring. Brick and Chidambaram (2007) stated that the more frequent meetings of the board are held, the greater the company's performance. The active board of directors tends to provide more effective IC management control and reveal more information about ICs to publish the work done. Based on agency theory, disclosing more information about voluntary disclosure especially intellectual capital disclosure will reduce information asymmetry between management and stakeholders. According to stakeholder theory, intellectual capital disclosure can be a tool for companies to manage harmonious relationships with their stakeholders. Based on the research done by Rodrigues et al. (2017) and Mubaraq & Haji (2014), it has a positive and significant effect toward IC disclosure. An active board of directors is likely to provide more effective management control of IC and disclose more information about IC.

H3: Board meetings has a positive effect toward intellectual capital disclosure.

2.3.4 The Effect of Profitability on Intellectual Capital Disclosure

Profitability can be measured by calculating earnings before interest and tax (EBIT) in millions of currency (Ramadan & Majdalany, 2013). Profitable companies have an incentive to reveal more information to filter themselves out of less profitable companies. In addition, profitable corporate managers have an incentive to use information to gain personal benefits such as their continued position and compensation arrangements. Profitable companies are more likely to use voluntary disclosure to reduce political costs (Ferreira et al. (2012).

According to the agency theory, higher performance makes it easier for managers to convince shareholders of their superior managerial skills. They tend to use voluntary disclosure to gain a higher level of trust from investors, which may be reflected in higher compensation (Ferreira et al. (2012). Based on the research done by Ramadan & Majdalany (2013), it has a positive and significant effect toward IC disclosure because the more profitable the company the more the company will disclose the information.

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

2.3.5 The Effect of Types of Auditor on Intellectual Capital Disclosure

Auditors of big and well-known companies, called the big four, are Price Waterhouse Coopers, KPMG, Ernst & Young and Deloitte & Touche.

Jensen and Meckling (1976) and Watts and Zimmerman (1986) expressed that audit activities can reduce information gaps, improve disclosure effectiveness and reduce agency costs. Hakim (2010) and Azizkhani et al. (2010) stated that the big 4 audit firms provide higher quality audits compared to non-Big 4 audit firms and this is valued by equity markets. The big 4 audit firms encourage companies to provide more information for two reasons which are maintain their reputation and to ensure customer maintenance (Whiting & Birch, 2016).

Agency theory's purpose is to reduce agency cost and reduce information asymmetry. Companies that face high agency costs will contract high quality audit firms. The big 4 audit firms are considered to have more resources than other companies and arguably provide higher quality audits (Ferreira, Branco, & Moreira, 2012). In this case, high quality audit firm is in line with the agency theory. The research done by Ferreira et al. (2012) and Baldini & Liberatore (2016) showed a positive and significant effect toward IC disclosure because companies that their reports are audited by the big 4 audit firm give greater intellectual capital disclosure.

H5: Types of auditor has a positive effect toward intellectual capital disclosure.

2.3.6 The Effect of Management Ownership on Intellectual Capital Disclosure

Management ownership means that the manager in the company has a share ownership in the company. Ahmed and Siddiqui (2011) revealed that

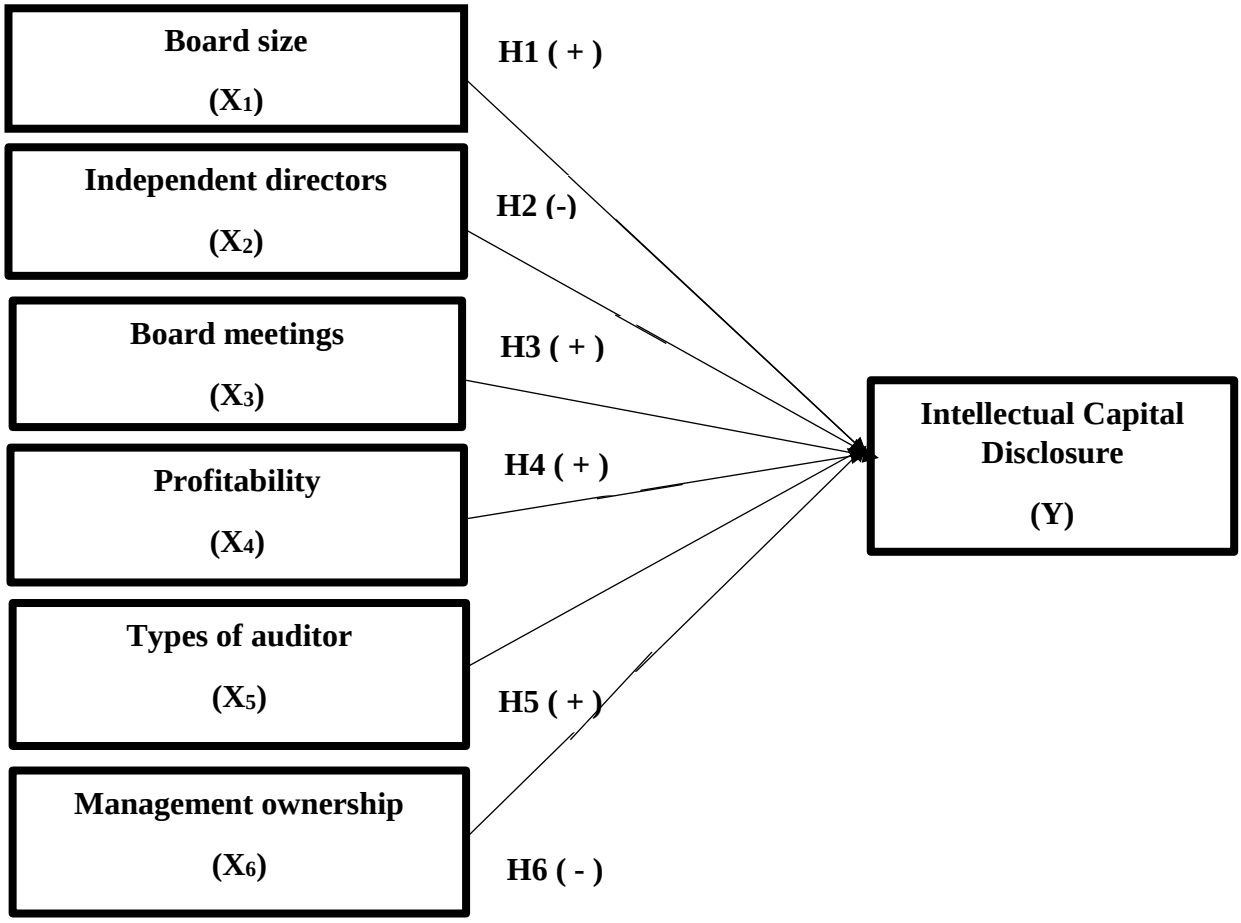
managerial ownership allows managers to concentrate on dominating the firm and deciding on strategies and policies about the organization's social behavior. Dewi (2008) argued that managerial ownership is one aspect of corporate governance that can reduce agency costs if the share in the ownership structure in the company is improved. Giving managers the opportunity to engage in shareholding aims to equalize the interests of managers with shareholders. The involvement of the manager encourages managers to act cautiously because they will share the consequences of their decisions. In addition, managers will be motivated to improve their performance in managing the company (Pujiati, 2015).

In line with agency theory, the ownership of management of the company's shares is considered to align the potential difference of interests between the outside shareholders and management so that the problem of the agent is assumed to be lost if a manager is also an owner (Fitriani, 2016). If the agency conflict can be reduced, the manager is motivated to improve the company's performance. Other opinion, the level of information disclosure will decrease when there is management ownership because information disclosure requirements also decrease. Someone who holds two shared roles will tend to store information and not disclose it to outsiders.

H6: Management ownership has a negative effect toward intellectual capital disclosure.

2.4 RESEARCH FRAMEWORK

Figure 2.1: Research Framework



CHAPTER III

RESEARCH METHODS

3.1 POPULATION AND SAMPLE

The population of this study are all companies listed on the LQ45 index on the Indonesia Stock Exchange from the period 2015 to 2017. Sampling of this study was conducted by using purposive sampling method, which is a sampling technique of the population based on certain criteria. The specific criteria are:

1. Companies listed on the LQ45 index on the Indonesia Stock Exchange from the period 2015 to 2017.
2. Companies that issue annual financial statements during 2012 to 2016 respectively.
3. Companies that present financial statement are denominated in Rupiah currency.
4. Companies that provide complete data of variables that will be investigated in the company's financial statements during 2012 to 2016 respectively.

3.2 RESOURCE AND METHOD OF DATA COLLECTION

3.2.1 Resource and Data Type

The type of data used in this study is secondary data in the form of quantitative data obtained from the annual financial statements of companies listed on LQ45 index in the Indonesia Stock Exchange from 2012 to 2016. Annual financial statement data obtained from the Indonesia Stock

Exchange by accessing through the website namely www.idx.co.id and companies websites.

3.2.2 Method of Data Collection

Methods of data collection is the way used to obtain data used in research. Data collection method used in this research used secondary data collected by documentation study on annual financial report of companies during 2012 until 2016.

3.3 OPERATIONAL DEFINITION AND VARIABLE MEASUREMENT

This study aims to analyze the effect of board size, independent directors, board meetings, profitability, types of auditors, and management ownership toward intellectual capital disclosure. Therefore, there are 2 types of variables that will be defined in this study, namely independent and dependent variables.

3.3.1 Independent Variables

3.3.1.1 Board Size

Jensen et al. (1976) claimed a board size refers to the number of directors serving in the board of directors. While Li et al. (2008) stated that the board may consist of executive directors and independent, non-expressed executive directors. This study used proxies that have been used by previous research namely Bhattacharjee et al. (2017), Mubaraq & Haji (2014), Whiting & Birch (2016), Baldini & Liberatore (2016), Uzliawati & Djati (2015), Ramadan & Majdalany (2013) and Rodrigues et al. (2017) that can be measured by :

Board size = Total of members of board

3.3.1.2 Independent Directors

Independent directors is the number of independent directors in the board that aims to test whether the number of independent directors affects the disclosure of intellect capital. This study used proxies that have been used by previous research namely Bhattacharjee et al. (2017), Whiting & Birch (2016), Baldini & Liberatore (2016), and Rodrigues et al. (2017) that can be measured by:

Independent directors =	**Percentage of independent directors comprising the board of directors.**

3.3.1.3 Board Meetings

Board meetings is the frequency of board meetings measures the intensity of board activity and the effectiveness of its monitoring in a year. Vefeas (1999) claimed that the effectiveness of the board depends on how often board members meet to discuss various issues faced by the company. This study used proxies that have been used by previous research namely Bhattacharjee et al. (2017), Mubaraq & Haji (2014), and Rodrigues et al. (2017) that can be measured by:

Board meetings =	**Number of meetings of the board of directors during a financial year.**

3.3.1.4 Profitability

Profitability (profitability) is an indicator used to measure the company's performance in generating profit (profit). Profitability

analysis is useful for assessing financial compensation to equity and financing providers, evaluating profit margins from operating activities, and assessing the effectiveness and intensity of assets in generating sales (Prabowo, 2014). This study used proxies that have been used by previous research namely Ramadan & Majdalany (2013) and Ferreira, Branco, & Moreira (2012) that can be measured by:

Profitability =	**Ratio of net profit before taxation to total assets.**

3.3.1.5 Types of Auditor

Types of auditor means whether the company is using audit services from the big 4 audit firms or not to test whether there is a difference between firms audited by the big 4 audit firms and firm audited by non the big 4 audits on intellectual capital disclosure. This study used proxies that have been used by previous research namely Scaltrito (2015), Ferreira, Branco, & Moreira (2012), Whiting & Birch (2016), and Baldini & Liberatore (2016) that can be measured by:

Types of auditor = Dummy variable, where

1 = Companies that use the big 4 audit firms.

0 = Companies that do not use the big 4 audit firms.

3.3.1.6 Management Ownership

Management ownership means the manager in the company has a sharing ownership in the company to test whether there is a difference between managers having the company shares and managers

who do not have in the company of intellectual capital disclosure. Research that discusses the management ownership of intellectual capital disclosure is still very rare. Therefore, to measure this proxy, the researcher used references from the research conducted by Khan, Muttakin, Siddiqui (2012) and Fitriani (2014) namely:

Management ownership =	**Percentage of shares owned by the directors to total share owned by the company.**

3.3.2 Dependent Variable

3.3.2.1 Intellectual Capital Disclosure

Intellectual capital disclosure is a voluntary disclosure. Intellectual capital disclosure is a non-financial disclosure that encompasses 3 characteristics: structural capital, relational capital and human capital. The importance of intellectual capital disclosure is due to the needs of stakeholders for non-financial information in order to make the right decision. According to Guthrie et al. (2006), measurement of this variable by using content analysis method is a method of how to read information containing IC item. The code used the dichotomous model by giving a score of 1, if the IC item is disclosed in the annual report and a score of 0, if the attribute is not disclosed in the company's annual report. The index used is:

$$ICD_i = \frac{\Sigma \text{Score of disclose ICD of intellectual capital}}{\Sigma \text{Score of total framework ICD}}$$

3.4 DATA ANALYSIS METHOD

3.4.1 Descriptive Statistics

Descriptive statistics are data collected and processed using descriptive statistical techniques presented in the form of frequency distribution, including standard deviation, average, minimum value, maximum value, and variables studied. Descriptive statistics describe the data into a clearer and easily understood information.

3.4.2 Classic Assumption Test

3.4.2.1 Normality Test

Normality test aims to test whether in the regression model, residual has a normal distribution. Normality test is required to perform other variable tests by assuming that the residual value follows the normal distribution. If this assumption is violated then the statistical test becomes invalid and the parametric statistics cannot be used. The basic retrieval for the data normality test is:

1. If the data spreads the diagonal line and follows the diagonal line or the histogram graph shows the normal distribution so that the regression model meets the assumption of normality.
2. If the data spreads far from the diagonal and/or does not follow the direction of the diagonal line or histogram graph does not show the normal distribution so that the regression model does not meet the assumption of normality.

3.4.2.2 Heteroscedasticity test

Heteroscedasticity test is used to test whether in the regression model there is an inequality variance between the residuals of one observation to another observation. A good regression model shows no heteroscedasticity. Heteroscedasticity test in this research used ARCH. If p value is greater than 5%, it can be stated that there is no heteroscedasticity (does not contain ARCH element), meaning that the data is homogeneous. Vice versa, if p value is less than 5% then it means there are symptoms of heteroscedasticity (contain ARCH elements).

3.4.3 Multiple Regression Analysis

This research used multiple regression analysis method for hypothesis testing. Multiple regression method is a statistical method to test the relationship between several independent variables to one dependent variable. The model in multiple regression to see the influence of corporate governance with the proxy using board size, independent directors, board meetings, profitability, types of auditors, and management ownership toward intellectual capital disclosure in this research is:

$$ICD_i = \alpha + \beta 1\ BSIZE + \beta 2\ INED + \beta 3\ BMET + \beta 4\ PROF + \beta 5\ BIG4 + \beta 6\ MGOWN + e \quad \text{..... (3.1)}$$

Where,

ICDi = Intellectual capital disclosure index

α = Constants

β = Regression coefficient

BSIZE = Board size

INED = Independent directors

BMET = Board meetings

PROF = Profitability

BIG4 = Types of auditor

MGOWN = Management ownership

e = Coefficient error

3.5 OPERATIONAL HYPOTHESIS

3.5.1 Board Size

Ho1; $\beta_1 \leq 0$: Board size has no positive effect on intellectual capital disclosure.

HA1; $\beta_1 > 0$: Board size has a positive effect on intellectual capital disclosure.

3.5.2 Independent Directors

Ho2; $\beta_2 \leq 0$: Independent directors have no negative effect on intellectual capital disclosure.

HA2; $\beta_2 < 0$: Independent directors has a negative effect on intellectual capital disclosure.

3.5.3 Board Meetings

Ho3; $\beta_3 \leq 0$: Board meetings has no positive effect on intellectual capital disclosure.

HA3; $\beta_3 > 0$: Board meetings has a positive effect on intellectual capital disclosure.

3.5.4 Profitability

Ho4; $\beta_4 \leq 0$: Profitability has no positive effect on intellectual capital disclosure.

HA4; $\beta_4 > 0$: Profitability has a positive effect on intellectual capital disclosure.

3.5.5 Types of Auditor

Ho5; $\beta_5 \leq 0$: Types of auditor has no positive effect on intellectual capital disclosure.

HA5; $\beta_5 > 0$: Types of auditor has a positive effect on intellectual capital disclosure.

3.5.6 Management Ownership

Ho6; $\beta_6 \leq 0$: Management ownership has no negative effect intellectual capital disclosure.

HA6; $\beta_6 < 0$: Management ownership has a negative effect on intellectual capital disclosure.

3.6 DETERMINATION COEFFICIENT TEST (R2)

The coefficient of determination (R2) essentially measures how far the model's ability to explain variations of independent variables. The coefficient of determination is between zero and one. The small value of R2 means the ability of independent variables to explain the variation of dependent variable is limited. A value close to one means that the independent variables provide almost all the information needed to predict the variation dependent variable.

3.7 STATISTICAL T-TEST

The statistical T-test is used to test partially between the independent variables to the variables associated with the assumption that other variables are considered as constant. The highest regression coefficient is the most dominant coefficient affecting the dependent variable of the research. Testing is done by using significance level of 0.05 (α = 5%). Acceptance or rejection of the hypothesis is done by following the criteria:

1. If p value> 0.05 then Ho is accepted and Ha is rejected. It is stated that the partial independent variable has no significant effect on the dependent variable.
2. If p value <0.05 then Ho is rejected and Ha is accepted. It is stated that the partial independent variables have a significant effect on the dependent variable.

CHAPTER IV

DATA ANALYSIS AND DISCUSSION

In this chapter, the researcher will explain about data analysis and research result about the analysis of corporate governance's influence, especially on board size, independent directors, board meetings, profitability, types of auditor, and management ownership toward intellectual capital disclosure. Based on the theory that the researcher have explained before, the researcher will analyze the data collected. The analysis of the data is in accordance with problem formulation and hypothesis that the researcher has presented previously in chapter 2. This is to test whether the hypothesis the researcher has put forward is acceptable or rejected.

4.1 DESCRIPTION OF OBJECT OF THE RESEARCH

This study aims to determine the effects of board size, independent directors, board of meetings, profitability, types of auditor, and management ownership toward intellectual capital disclosure. The objects of this study are companies listed on LQ45 category in Indonesia Stock Exchange in 2015-2017. The research used purposive sampling technique as mentioned in the previous chapter. Based on the criteria that have been determined, then 40 companies successfully selected, so that the number of data obtained were 200 data (40 companies x 5 years of research). The sample selection is described in Table 4.1 as follows:

Table 4.1

Sample Selection

NO.	CRITERIA	TOTAL
1.	Companies listed on the LQ45 index on the Indonesia Stock Exchange from the period 2015 to 2017.	54
2.	Companies that do not issue annual financial statements during 2015 to 2017 respectively.	(4)
3.	Companies that present financial statements are not denominated in Rupiah currency.	(6)
4.	Companies that provide complete data of variable variables that will be investigated in the company's financial statements during 2015 to 2017 respectively.	(4)
Number of Corresponding Companies Criteria		**40**
Total Data for 5 years (40 x 5)		**200**

4.2 DESCRIPTIVE STATISTICS

Descriptive statistical analysis is used to provide description of sample data. Descriptive statistics include mean, median, maximum, minimum, and standard deviation of each variable in the study. The descriptive statistics consisting of board size (BSIZE), independent directors (INED), board meetings (BMET), profitability (PROF), types of auditor (BIG4), management ownership (MGOWN) and intellectual capital disclosure (ICDi) are described as follows:

Table 4.2

Descriptive Statistics Analysis Results

	ICDI	BSIZE	INED	BMET	PROF	BIG4	MGOWN
Mean	0.415333	7.040000	0.074266	32.32500	0.126017	0.760000	1.54E-05
Median	0.433333	7.000000	0.000000	31.50000	0.081301	1.000000	0.000000
Max	0.566667	11.00000	0.333333	138.0000	0.577180	1.000000	0.001134
Min	0.200000	4.000000	0.000000	0.000000	-0.054972	0.000000	0.000000
Std. Dev.	0.089782	1.906983	0.088313	21.86159	0.128634	0.428155	8.65E-05
Sum	83.06667	1408.000	14.85328	6465.000	25.20348	152.0000	0.003084
Obs	200	200	200	200	200	200	200

Source: Output EViews9, 2018.

Based on the results of descriptive statistical analysis shown in the table above, it can be concluded as follows:

1. In the Intellectual Capital disclosure (ICDI) variable, the mean value is 0.415333 with the standard deviation of 0.089782. This value shows the mean value of sample companies disclosed intellectual capital information in the amount of 0.415333 (42%). The standard deviation value is smaller than the mean value, indicating that the ICDI data is homogeneous. The highest ICDI score of the sample firms is 0.566667, which is close to 1, indicating that firms tend to disclose intellectual capital information. The median of ICDI is 0.433333, while the lowest value of ICDI is 0.200000 which is far from the number 1. This indicates that the company tends to undisclose intellectual capital information.
2. In the board size variable (BSIZE), the mean value is 7.040000 with a standard deviation of 1.906983. The standard deviation value is smaller

than the mean value. This indicates that the BSIZE data is homogeneous. The mean value shows that the number of board members in Indonesia is 7 persons. The maximum value of BSIZE in the sample company is 11. The middle value of BSIZE is 7, while the minimum value of BSIZE is 4.

3. In the independent directors (INED) variable, the mean value is 0.074266 with the standard deviation of 0.088313. This value shows the mean of the companies to have independent directors in board with the value of 0.074266 (7.4%). The standard deviation value is bigger than the mean value indicating that the INED data is heterogeneous. The maximum value of the sample firms is 0.333333, which is close to 1, indicating that firms have independent directors. The greater the value indicates the more independent directors in board. The median of INED is 0.000000, while the minimum value of INED is 0.000000 which is far from the number 1, which indicates that the company has no or fewer independent directors in board.
4. In the board meetings (BMET) variable, the mean value is 32.32500 with the standard deviation of 21.86159. This value shows that the mean value of the companies do meetings during the financial years is 32 times. The standard deviation value is smaller than the mean value, indicatig that the BMET data is homogeneous. The maximum value of the sample firms is 138 times, the median of BMET is 31.5, while the minimum value of BMET is 0 times.

5. In the profitability (PROF) variable, the mean value is 0.126017 with the standard deviation of 0.128634. This value indicates that the mean ability of the companies to generate profits is 0.126017 (12%) from the assets used. The standard deviation value whivh is bigger than the mean value indicates that the PROF data is heterogeneous. The maximum PROF value of the sample company is 0.577180. The median PROF value is 0.081301, while the minimum PROF value is -0.054972.
6. In the types of auditor (BIG4) variable, the mean value is 0.760000 with the standard deviation of 0.428155. This value means that the companies using the big 4 audit firms to audit their report are 76%. The standard deviation value is smaller than the mean value indicates that the BIG4 data is homogeneous. The maximum and minimum BIG4 value of the companies are 1 and 0. The companies that have the minimum value means that the company did not use the big 4 audit firms and the companies with maximum value used the big 4 audit firms to audit their company.
7. In the management ownership (MGOWN) variable, the mean value is 1.54E-05 with the standard deviation of 8.65E-05. This value indicates that the level of managerial ownership in Indonesia is still relatively low because it only has the ownership value of 0.00154%. The standard deviation value which is bigger than the mean value indicates that the MGOWN data is heterogeneous. The maximum MGOWN value of the sample company is 0.001134, while the minimum MGOWN value is 0.

Homogeneous data is a set of data with almost similar values and characteristics and is considered not to have a significant difference between one another. Homogeneity itself must be mined partially but it is extraneous and accumulates in the population. While the heterogeneous data is a source of data whose elements have different characteristics or circumstances (diverse) so that it needs to set limits, both qualitatively and quantitatively (Dahlan, 2014).

4.3 CORRELATION ANALYSIS

Correlation is a testing tool used to measure the existence of a linear relationship between one variable and other variables. Two correlated variables will affect each other so that if there is a change in one variable it will be followed by changes in other variables, either with the same direction or the opposite. Here are the results of correlation test relationships between variables:

Table 4.3

Correlation Test Result

	BSIZE	INED	BMET	PROF	BIG4	MGOWN
BSIZE	1.000000	-0.261055	0.029700	0.006394	0.338010	-0.018763
INED	-0.261055	1.000000	-0.346304	0.040909	-0.213785	-0.021618
BMET	0.029700	-0.346304	1.000000	-0.353048	0.023944	0.064304
PROF	0.006394	0.040909	-0.353048	1.000000	0.277794	-0.047986
BIG4	0.338010	-0.213785	0.023944	0.277794	1.000000	0.046773
MGOWN	-0.018763	-0.021618	0.064304	-0.047986	0.046773	1.000000

Source: Output Eviews9, 2018.

Based on the results of correlation analysis shown in the table above, it can be concluded as follows:

1. BSIZE variable has the same direction or positive correlation as BMET of 0.029700, PROF of 0.006394 and BIG4 of 0.338010. In addition, BSIZE variable also has an opposite correlation or negative correlation with INED of -0.261055 and MGOWN of -0.018763.
2. INED variable has the same direction or positive correlation as PROF of 0.0409090. In addition, INED variable also has an opposite correlation or negative correlation with BSIZE of -0.261055, BMET of -0.346304, BIG4 of -0.213785 and MGOWN of -0.021618.
3. BMET variable has the same direction or positive correlation as BSIZE of 0.029700, BIG4 of 0.023944, and MGOWN of 0.064304. In addition, BMET variable also has an opposite correlation or negative correlation with INED of -0.346304 and PROF of -0.353048.
4. PROF variable has the same direction or positive correlation as BSIZE of 0.006394, INED of 0.040909 and BIG4 of 0.277794. In addition, PROF variable also has an opposite correlation or negative correlation with BMET of -0.353048 and MGOWN of -0.047986.
5. BIG4 variable has the same direction or positive correlation as BSIZE of 0.338010, BMET of 0.023944, PROF of 0.277794 and MGOWN of 0.046773. In addition, BIG4 variable also has an opposite correlation or negative correlation with INED of -0.213785.
6. MGOWN variable has the same direction or positive correlation as BMET of 0.064304 and BIG4 of 0.046773. In addition, MGOWN variable also has an opposite correlation or negative correlation with BSIZE of -0.018763, INED of -0.021618 and PROF of -0.047986.

4.4 CLASSIC ASSUMPTION TEST

4.4.1 Normality test

Normality test aims to test whether in the regression model, residual has a normal distribution. Normality test is required because to perform other variable tests by assuming that the residual value follows the normal distribution. If this assumption is violated then the statistical test becomes invalid and the parametric statistics cannot be used. One of the methods used for normality test is by using Jarque-Bera Test. Test results of normality of Jarque-Bera test (JB-test) as follows:

Table 4.4

Normality Test Result

Jarque-Bera	0.979159
Probability	0.612884

Source: Output Eviews9, 2018.

Based on the results of the normality test can be seen in the Table 4.4, the probability value of Jarque-Bera is 0.612884. It is bigger than $\alpha = 0.05$. The result can be concluded that the residual data in this regression model is stated to have normal distribution because the probability value is greater than 5% (percent) or 0.05.

4.4.2 Heteroscedasticity Test

Heteroscedasticity test is used to test whether in the regression model there is an inequality variance of the residual from one observation to another observation. A good regression model is having no heteroscedasticity. Heteroscedasticity test in this research used ARCH. If p

value is greater than 5%, then it can be stated there is no heteroscedasticity (does not contain ARCH element), meaning that the data is homogeneous. Vice versa, if p value is less than 5% then it means there are symptoms of heteroscedasticity (contain elements ARCH). The results of the heteroscedasticity test using ARCH are as follows:

Table 4.5

Heteroscedasticity Test Results

Heteroscedasticity Test: ARCH

F-statistic	1.478011	**Prob. F(1,197)**	0.2255
Obs*R-squared	1.481898	**Prob. Chi-Square(1)**	0.2235

Source: Output Eviews9, 2018.

Based on the Table 4.5, the result of the heteroscedasticity test presents the examination of ARCH lag component 1. From the calculation of lag 1, it showed that the value of Obs * R-squared is 1.481898 with probability value (Prob Chi-Square) of 0.2235 (greater than 0.05). Thus, in lag 1, it is not statistically significant to accept the null hypothesis (Ho) which means that there is no heteroscedasticity on the constant residual variant or the model used in this research (not containing ARCH elements). In other words, the data is homogeneous.

4.5 MULTIPLE LINEAR REGRESSION ANALYSIS

This research used multiple regression analysis method for hypothesis testing. Multiple regression method is a statistical method to test the relationship between several independent variables to one dependent variable.

The model used in multiple regression to see the influence of corporate governance with the proxy used is board size, independent directors, board meetings, profitability, types of auditors, and management ownership toward intellectual capital disclosure. The results of multiple linear regression analysis are as follows:

Table 4.6

Results of Multiple Linear Regression Analysis

Variable	Coefficient	z-Statistic	Prob.
C	0.267697	15.47701	0.0000
BSIZE	0.010333	3.669019	0.0002
INED	-0.086569	-0.709989	0.4777
BMET	0.002295	6.883491	0.0000
PROF	0.146321	3.971626	0.0001
BIG4	-0.020631	-4.157555	0.0000
MGOWN	157.0448	5.380621	0.0000
R-Squared	0.191433		
Adjusted R-squared	0.166297		

Source: Output Eviews9, 2018.

Based on the output from Table 4.6 above, the model of multiple linear regression equation is as follows:

ICD*i* = 0.267697 + 0.010333 *BSIZE - 0.086569 *INED + 0.002295 *BMET + 0.146321* PROF - 0.020631 *BIG4 + 157.0448 *MGOWN

The multiple linear regression equation above explains that in this research, board size (X1), board meetings (X3), profitability (X4) and management ownership (X6) have positive influence toward intellectual capital disclosure (Y) and independent directors (X2) and types of auditor (X5) have negative influences on intellectual capital disclosure (Y).

From the result of the model of regression equation above, the conclusions that can be drawn are as follows:

1. Conversion value of constant is 0.267697. This result can be interpreted that if the value of all independent variables is 0, then the magnitude of (Y) will be 0.267697.
2. The value of regression coefficient of board size (BSIZE) is equal to 0.010333. This result can be interpreted that if BSIZE rises to one unit, then intellectual capital disclosure (Y) will increase by 0.010333 assuming that all other independent variables of the regression model are constant.
3. The value of regression coefficient of independent directors (INED) is equal to -0.086569. This result can be interpreted that if INED rises to one unit, then intellectual capital disclosure (Y) will decrease by -0.086569 assuming that all other independent variables of the regression model are constant.
4. The value of regression coefficient of board meetings (BMET) is equal to 0.002295. This result can be interpreted that if BMET rises to one unit, then intellectual capital disclosure (Y) will

increase by 0.002295 assuming that all other independent variables of the regression model are constant.

5. The value of regression coefficient of profitability (PROF) is equal to 0.146321. This result can be interpreted that if PROF rises to one unit, then intellectual capital disclosure (Y) will increase by 0.146321 assuming that all other independent variables of the regression model are constant.
6. The value of regression coefficient of types of auditor (BIG4) is equal to -0.020631. This result can be interpreted that if BIG4 rises to one unit, then intellectual capital disclosure (Y) will decrease by -0.020631 assuming that all other independent variables of the regression model are constant.
7. The value of regression coefficient of management ownership (MGOWN) is equal to 157.0448. This result can be interpreted that if MGOWN rises to one unit, then intellectual capital disclosure (Y) will increase by 157.0448 assuming that all other independent variables of the regression model are constant.

4.6 DETERMINATION COEFFICIENT TEST (R2)

The coefficient of determination (R2) essentially measures how far the model's ability to explain variations of independent variables. The coefficient of determination is between zero and one. The small value of R2 means that the ability of independent variables to explain the variation of limited dependent variable. A value close to one means the independent

variables provide almost all the information needed to predict the variation dependent variable.

Based on the test results using EViews9 that can be seen in table 4.5 Adjusted R2 value is 0.166297. This means that the independent variables (board size, independent directors, board meetings, profitability, types of auditor, and management ownership) used in this study can explain intellectual capital disclosure variable proxies by ICD*i* with the percentage of 16.6297%, while the rest of 83.37% means that Intellectual Capital Disclosure can be influenced by other variables that are not involved in the study.

4.7 HYPOTHESIS TESTING

4.7.1 Effect of Board Size on Intellectual Capital Disclosure

Based on the tests that have been done, the results can be obtained that the board size has a coefficient value of 0.010333. This explains that the value of beta coefficient board size of 0.010333 can explain the intellectual capital of 0.010333 or can be interpreted that every change into one unit of BSIZE can cause changes in intellectual capital disclosure with the value of 0.010333. It is also obtained the result that board size has z-Statistic of 3.669019 with p-value of 0.0002 (< 0.05). This shows that the board size has a significant positive effect on corporate intellectual capital disclosure measured by ICD*i*. Based on the test, it can be concluded that H1 hypothesis which expects board size through the number of directors in board positively affects the company's intellectual capital disclosure is

accepted. Therefore, it can be interpreted that the number of boards of directors can increase the company's intellectual capital disclosure.

Jensen et al. (1976) claimed board size refers to the number of directors serving in the board of directors. While Li et al. (2008) stated that the board may consist of executive directors and independent, non-expressed executive directors. According to Resource Dependency Theory (RDT), Abeysekera (2010) stated that larger boards are more likely to include increased skills that will improve the information processing capabilities of the board. Furthermore, larger boards tend to enhance the company's ability to acquire and secure important resources from their environment such as IC resources (Bhattacharjee et al, 2017). In line with agency theory, agency theory can reduce the asymmetry information between agent and principal namely management and stakeholders because management has more information about the company than the investors or other stakeholders, whether information about the company's performance or on the decisions to be taken. Good management should provide transparency of information about the company's condition to investors and the public. The more directors on board, the easier the increase of intelletual capital disclosure for investors and the public to obtain the necessary information from a company and the company will have a good image on the community.

The studies of Bhattacharjee et al (2017), Whiting & Birch (2016), Baldini & Liberatore (2016) and Uzliawati & Djati, (2015) supported this research in proving that the larger the number of board, it will make the

larger board. If the firm has the larger board, the firm will engage in more voluntary disclosure which in this case is intellectual capital disclosure. In Whiting & Birch (2016)'s research, it is explained that larger boards revealed more tactical internal capital and strategic human capital. Good corporate management will be more confident in informing the company's circumstances. It will encourage the company to disclose all corporate activities including intangible assets poured through intellectual capital disclosure. Thus, the larger board will make the board have more attention on intangible asset. It means that they will disclose more the intellectual capital information to fulfill the needs of stakeholders to reduce asymmetry information. On the other hand, the research by Ramadan & Majdalany (2013) and Rodrigues et al (2017) contradict with this research stating that the board size has no effect on intellectual capital disclosure. Rodrigues et al (2017) stated the opposite result that there is no association between the level of disclosure and board size. They argued that large boards lead to decrease in monitoring capabilities, the small size of the board of directors will function more effectively than the larger board and also can reduce the agency cost.

4.7.2 Effect of Independent Directors on Intellectual Capital Disclosure

Based on the tests that have been done, the results can be obtained that the independent directors has a coefficient value of -0.086569. This explains that the value of beta coefficient independent directors of -0.086569 can explain the intellectual capital of -0.086569 or can be

interpreted that every change into one unit of INED can cause changes in intellectual capital disclosure with the value of -0.086569. It is also obtained that independent directors has z-Statistic of -0.709989 with p-value of 0.4777 (> 0.05). This shows that the INED does not affect the disclosure of the company's intellectual capital so that H2 expecting independent directors to negatively affect the disclosure of intellect capital is not proven in this study or rejected.

In the research done by Whiting & Birch (2016), resource dependent theory recommended for more independent directors on the board, arguing that they provide wider expertise, prestige and contact and play a key role in influencing disclosure. This argument is in line with what Eng and Mak (2003) said that independent directors can further influence the company to disclose more information to outside investors. Jensen and Meckling, (1976) stated that based on agency theory, independent directors can increase the effectiveness of the board of directors (Aryani & Prabowo, 2011).

In Indonesia, the provisions on independent directors are discussed in OJK Regulation no. 33 / POJK.04 / 2014 regarding the Board of Directors and Board of Commissioners of Issuers or Public Companies. An independent director is a director who has no affiliation relationship with the principal shareholder no later than 6 months prior to appointment, has no affiliation relationship with the Board of Directors and Board of Commissioners, does not serve as a Board of Directors or Board of Commissioners at another company and not an insider of an institution or capital market supporting institutions or professions that have been hired by

issuers. The independent director has the responsibility for maintaining the independence of board so that the decisions taken are not one-sided. Haniffa and Cooke (2005) stated that the proportion of independent directors is a control mechanism, not only to ensure the company acts for the benefit of shareholders but also for other stakeholders by providing more information about the company's activities and performance (Aryani & Prabowo, 2011).

The results of this study contradict the research Whiting & Birch (2016) and Baldini & Liberatore (2016) concluded that independent directors have positive significant affect toward IC disclosure because companies with a higher proportion of independent directors have a higher voluntary disclosure. The independent director makes better monitoring and management works to protect the best interests of the property in connection with the board controlled by the internal director. A larger presence of independent directors in the board of directors plays a more effective "supervisor" oversight of non-financial information presented in the annual financial statements. On the other hand, in line with the research that has been done by Bhattacharjee et al (2017) that independent directors have no effect on IC disclosure. Independent directors do not seem to monitor the behavior of managers to ensure managers operate in the interests of shareholders. Therefore, the amount of independent director composition is not very significant toward intellectual capital disclosure.

The result of the research is different from that the expectation because the p-value of 0.4777 shows the significance value which is greater than 0.05 ($> \alpha = 0.05$). This result may be due unstable capital market

climate factors so that directors and companies prioritize reporting directly related to the company's performance and override its voluntary report. The policy to override these voluntary reports may be due to factors still lacking the information on the importance of a voluntary report in describing the circumstances of a company. This limitation can be seen from the average index of the annual report area of the IC that is approximately less than 50% of the component used as a reference. This may be due to the limited research that examines this and may also occur because of the limited efforts of stakeholders to assess the importance of reports on intellectual capital. Thus, the composition of the independent board of directors has no effect on the extent of the disclosure of Intellectual Capital, illustrating that although there is an independent board of directors directly involved in the company's operational activities and having sufficient information about the intellectual capital owned by the company does not affect the extent of disclosure as outlined in the report annual ((Zulkarnaen & Mahmud, 2013).

4.7.3 Effect of Board Meetings on Intellectual Capital Disclosure

Based on the tests that have been done, the results can be obtained that the board meeting has a coefficient value of 0.002295. This explains that the value of beta coefficient board meetings which is 0.002295 can explain the intellectual capital disclosure with the value of 0.002295 or can be interpreted that every change into one unit of BMET can cause changes in intellectual capital disclosure 0.002295. It is also obtained the result that board meeting has z-Statistic of 6.883491 with p-value of 0.0000 (< 0.05). This shows that the board meetings has a significant positive effect on

corporate intellectual capital disclosure measured by ICD*i*. Based on the test, it can be concluded that H3 hypothesis which expects that board meetings conduct the number of board meetings during financial year positively affects the company's intellectual capital disclosure is accepted. Thus, it can be interpreted that the number of board meetings during the financial years can increase the company's intellectual capital disclosure.

Vefeas (1999) claimed that the effectiveness of the board depends on how often board members meet to discuss various issues faced by the company. The frequency of board meetings measures the intensity of board activity and the effectiveness of its monitoring. Based on the agency theory, disclosing more information about voluntary disclosure especially intellectual capital disclosure will reduce information asymmetry between the management and stakeholders. According to the stakeholder theory, intellectual capital disclosure can be a tool for companies to manage harmonious relationships with their stakeholders. Stakeholders have the right to be informed of how corporate activities affect them even if they are not used, or have no significant role in the enterprise because based on the stakeholder theory, a company is not an entity that only operates for its own benefit but must provide benefits to its stakeholders (Prabowo & Purwanto, 2014).

This study is in line with the research conducted by Rodrigues et al. (2017) and Mubaraq & Haji (2014) that concluding that board meetings have positive and significant effects toward IC disclosure. In Rodrigues et al. (2017) research, this can be explained that the more frequent the

meetings, the more active the board. The active board have many opportunities to convey information to the public. The information includes the message that the company is well-managed, that the interests of the stakeholders are taken into account and that the board of director functions well as a value-protection mechanism, thus legitimizing the behavior of the company. Board of directors who meet more often than others argued that the management will be more diligent and will monitor the management more effectively. It is expected that the frequency of board meetings helps the board monitor IC performance and consolidate synergies for strategic directions. An active board of directors is likely to provide more effective IC management control and reveal more information about the IC, to publish the work done. The results of this study contradict the research done by Bhattacharjee et al. (2017) argued that independent directors has no effect on IC disclosure. There may be factors that play a more important role in increasing intellectual capital disclosure than the number of board meetings in the company that the number of board meeting, many or few, does not affect the disclosure of intellectual capital.

4.7.4 Effect of Profitability on Intellectual Capital Disclosure.

Based on the tests that have been done, the results can be obtained that the profitability has a coefficient value of 0.146321. This explains that the value of beta coefficient profitability of 0.146321 can explain the intellectual capital of 0.146321 or can be interpreted that every change into one unit of PROF can cause changes in intellectual capital disclosure of 0.146321. It also obtained the result that profitability has z-Statistic of

3.971626 with p-value of 0.0001 (< 0.05). This shows that the profitability has a significant positive effect on corporate intellectual capital disclosure measured by ICD*i*. Based on the test, it can be concluded that H4 hypothesis which expects that profitability through how the company maximize the use of assets to generate profits positively affects the company's intellectual capital disclosure is accepted. Thus, it can be interpreted that profitability can increase the company's intellectual capital disclosure.

Profitability can be measured by calculating earnings before interest and tax (EBIT) in millions of currency (Ramadan & Majdalany, 2013). According the agency theory, higher performance makes it easier for managers to convince shareholders of their superior managerial skills. They tend to use voluntary disclosure to gain a higher level of trust from investors, which may be reflected in higher compensation (Ferreira et al. 2012). The results of this study contradict the research by Ferreira et al. (2012) argued that profitability has no effect on IC disclosure. Thus, it can be said that high financial performance is not a guarantee that the company will disclose more intellectual capital in its annual report. Annual reports are not the only means of communicating information. Other tools, such as press releases can also be used by companies to bring the good news (Purnomosidhi, 2006).

In line with the research that has been done by Ramadan & Majdalany (2013), the results have concluded that profitability have positive and significant effects toward IC disclosure. Profitability is the ability of a company to generate profits from its business activities. Profitability is a

measure of the performance of management in managing corporate wealth viewed from the company's earnings. The higher the profitability of the company then the better the company performance. Profitable companies have an incentive to reveal more information to filter themselves out of less profitable companies. In addition, profitable corporate managers have an incentive to use information to gain personal benefits such as their continued position and compensation arrangements (Suhardjanto & Wardhani, 2010). Watts and Zimmerman (1978) and Li et al. (2008) argued that bad attention toward high profits can lead to increased political costs. Profitable companies are more likely to use voluntary disclosure to reduce political costs. Another important aspect is profitability may be the result of continued investment in intellectual capital and companies tend to be involved in the ICD to signal the importance of the investment (Ferreira et al., 2012). With the greater profitability of the company, the company's financial capability is increasing. Disclosure of information also needs cost so that increasing ability of the corporate finance will further enlarge the level of intellectual capital disclosure.

4.7.5 Effect of Types of Auditor on Intellectual Capital Disclosure.

Based on the tests that have been done, the results showed that the types of auditor has a coefficient value of -0.020631. This explains that the value of beta coefficient types of auditor of -0.020631 can explain the intellectual capital of -0.020631 or can be interpreted that every change into one unit of BIG4 can cause changes in intellectual capital disclosure of -0.020631. It is also obtained that types of auditor has z-Statistics of -

4.157555 with p-value of 0.0000 (< 0.05). Based on the test, it can be concluded that H5 hypothesis expecting that types of auditor, either using thr big 4 or not to audit the company positively affects the company's intellectual capital disclosure is not proven or rejected in this study. The result shows that the type of auditor has negative and significant effects on corporate intellectual capital disclosure measured by ICD*i* so that it can be interpreted that types of auditor decrease the company's intellectual capital disclosure.

Jensen and Meckling (1976) and Watts and Zimmerman (1986) expressed that audit activities can reduce information gaps, improve disclosure effectiveness and reduce agency costs. Agency theory's purpose to reduce agency cost and reduce information asymmetry. Companies that face high agency costs will contract high quality audit firms. Auditors of big and well-known companies, called the big four consist of Price Waterhouse Coopers, KPMG, Ernst & Young and Deloitte & Touche (Whiting & Birch, 2016).

The results of this study are not as expected. The result stated that the type of auditor has negatively affected intellectual capital disclosure because the company that hired high quality audit firm needed high cost, so that they might decrease the intellectual capital disclosure because it also need costs. The more the intellectual capital disclosure, the more the cost. It can be said that high financial performance is not a guarantee that the company will disclose more intellectual capital in its annual report. Annual reports are not the only means of communicating information. Other tools,

such as press releases can also be used by companies to bring the good news. Thus, the companies that used the big 4 audit firms tend to be low in disclosing intellectual capital information.

The results of this study contradict the research Whiting & Birch (2016), Scaltrito (2015), Ferreira et al. (2012) and Baldini & Liberatore (2016). Whiting & Birch (2016) and Scaltrito (2015) argued that that type of auditor has no effect on IC disclosure probably because the company does have a responsibility to report the company's activities. Then, the company does not think that the quality of the firm's audit has no effect in disclosing intellectual capital information because the company should properly report its activities. On the other hand, Ferreira et al. (2012) and Baldini & Liberatore (2016) have concluded that independent directors have positive significantly affect IC disclosure. Ferreira et al. (2012) revealed that larger companies with higher follow-up by investors and with higher political costs of non-compliance or litigation threats have higher quality disclosures, as expected. Large audit firms pay more attention to their reputation and will encourage their clients to disclose high quality information. Big 4 auditors tend to have greater independence and have a better HR auditor so that in auditing the company, it will be much investigated by the auditor. By providing a broader disclosure of ICs, the company seeks to reduce the existing agency problem so that information will increase investors' confidence to the company. In this case, at least the big 4 auditors provide a larger role in encouraging companies to provide greater transparency (Stephani & Yuyetta, 2013).

4.7.6 Effect of Management Ownership on Intellectual Capital Disclosure.

Based on the tests that have been done, the results showed that the management ownership has a coefficient value of 157.0448. This explains that the value of beta coefficient management ownership which is 157.0448 can explain the intellectual capital which is 157.0448 or can be interpreted that every change into one unit of MGOWN can cause changes in Intellectual capital disclosure which is 157.0448. It has also been found that the management ownership has z-Statistics of 5.380621 with p-value of 0.0000 (< 0.05). Based on the test, it can be concluded that H6 hypothesis which expects the management ownership through the director's have ownership in the company negatively affects the company's intellectual capital disclosure is not proven or rejected in this study. The result shows that the management ownership has a significant positive effect on corporate intellectual capital disclosure measured by ICD*i*. Therefore, it can be interpreted that management ownership increases the company's intellectual capital disclosure.

Management ownership means that the manager in the company has shared ownerships in the company. Ahmed and Siddiqui (2011) revealed that managerial ownership allows managers to concentrate on dominating the firm and deciding on strategies and policies about the organization's social behavior. The greater the proportion of managerial ownership the manager will be motivated to fulfill the interests of shareholders in which the managerial party acts as a shareholder as well. In order to realize good

governance in managerial ownership, the principle of transparency and responsibilities need to be more emphasized in order to provide information needed by stakeholders so that the company will increase intellectual capital disclosure. In line with agency theory, the ownership of management of the company's shares is considered to align the potential difference of interests between the outside shareholders and management so that the problem of the agent is assumed to be lost if a manager is also an owner (Fitriani, 2016). If the agency conflict can be reduced, the manager is motivated to improve the company's performance.

The results of this study are not as expected, because the company's proportion of shares is still very small which is around 0.00154%, but almost 50% of the companies, the director has ownership in the company. The dual roles of the management who are also stakeholders will make the management more cautious in making decisions because the management will share benefits both directly and indirectly from the decisions taken. The management will also share the loss if the decision is wrong. Giving managers the opportunity to engage in shareholding aims to equalize the interests of managers with shareholders. The involvement of the manager encourages managers to act cautiously because they will share the consequences of their decisions. In addition, managers will be motivated to improve their performance in managing the company (Pujiati, 2015).

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

5.1 CONCLUSIONS

This study was conducted based on the inconsistent results between the previous studies. This happens because of differences in perspectives between researchers on factors affecting intellectual capital disclosure. The purpose of this study is to prove whether corporate governance with the proxies used are board size, independent directors, board meetings, profitability, types of auditors, and management ownership can detect the influence on intellect capital disclosure by knowing how much the variable affect the disclosure of capital intellect. Therefore, this study aims to analyze the influence of board size, independent directors, board meetings, profitability, types of auditors, and management ownership of intellectual capital disclosure at LQ45 companies listed in Indonesia Stock Exchange (IDX) from the period of 2015 to 2017 by using the company's annual report from the period 2012 to 2016 as the years of observation. From the results of hypothesis testing that have been done, then the conclusions that can be drawn from this study are as follows:

1. Board size positively affects intellectual capital disclosure by measuring the number of directors in board owned by the company.
2. Independent directors have no effect on intellectual capital disclosure measured by the comparison between the numbers of independent directors and total directors in board owned by the company.

3. Board meetings positively affect intellectual capital disclosure by measuring the number of total meetings that has been done by the directors during financial years.
4. Profitability positively affects intellectual capital disclosure measured by by comparison between net profits before tax and total shared owned by the company.
5. Types of auditor negatively affect intellectual capital disclosure measured by the use of the big 4 audit firms or not by the companies.
6. Management ownership positively affects intellectual capital disclosure measured by the comparison between total shared owned by directors and total share owned by the company.

5.2 RESEARCH IMPLICATIONS

The results of this study are expected to contribute both to companies, society and researchers next, namely:

1. For Companies

   This research is expected the company's management to do more of intellectual capital disclosure. Management should improve its performance in the future especially on board size, board meetings, profitability, and management ownership. In this study, board size, board meetings, profitability, management ownership proved affect the disclosure of intellectual capital positively and significantly. It can be interpreted that the more directors on board, the more the number of meetings in the financial years, the higher

the profitability and the more number of ownership owned by the director of a company, the higher the likelihood that the company will disclose the intellectual capital. This study did not find independent directors or find a negative effect on the types of auditors on intellectual capital disclosure, the management needs to take into account these factors. Although these factors have no positive effect on intellectual capital disclosure, the company is expected to develop other factors that have an effect on improving intellectual capital disclosure. Management should keep improving intellectual capital disclosure because nowadays financial statements are not enough to judge company performance.

2. For Future Researchers

This research is expected that the future researcher can get additional insights related to variables analyzed which are board size, independent directors, board meetings, profitability, types of auditors, and management ownership. This research can add information that board size, board meetings, profitability, management ownership have effects toward intellectual capital disclosure. On the other hand, there is no effect from independent directors' variable and negative effect from types of auditor toward intellectual capital disclosure. There is a renewal in this research that is by adding the variable management ownership, the suggestion from previous research namely from Ramadan and Majdalany (2013), management ownership is to test whether there

is a difference between managers having company shares and managers who do not have toward intellectual capital. The results in the study stated that the management ownership positively affects the disclosure of intellectual capital. It can provide benefits as the reference to further research on intellectual capital disclosure conducted by the company.

5.3 LIMITATIONS AND SUGGESTIONS

This study has limitations and suggestions that may affect the results of research, among others are as follows:

1. This research has low R2 which is equal to 16.6297% that can be explained by independent variables (board size, independent directors, board meetings, profitability, types of auditors, and management ownership), while the rest of 83.37% can be influenced by other variables that are not explained in this research. Future researchers are expected to add other variables influencing tax avoidance behavior of companies like industry type and audit committee.
2. This research used the component of intellectual capital disclosure by the Chartered Institute of Management Accountants (CIMA) in 2004 consisting of 30 items of intellectual capital disclosures. The researcher suggests to use another version of component of intellectual capital disclosure to know the differences, such as the intellecual capital disclosure in research Bruggen *et al.*, (2009) or Purnomosidhi (2006).

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APPENDICES

APPENDIX 1

List of Company Samples

No.	CODE	COMPANIES	TYPE OF INDUSTRY
1	AALI	Astra Agro Lestari Tbk.	Plantation
2	ADHI	Adhi Karya (Persero) Tbk.	Building Construction
3	AKRA	AKR Corporindo Tbk.	Wholesale (Durable and Non-Durable Goods)
4	ANTM	Aneka Tambang Tbk.	Metal and Mineral Mining
5	ASII	Astra International Tbk.	Automotive and Components
6	ASRI	Alam Sutera Realty Tbk.	Property and Real Estate
7	BBCA	Bank Central Asia Tbk.	Bank
8	BBNI	Bank Negara Indonesia (Persero) Tbk.	Bank
9	BBRI	Bank Rakyat Indonesia (Persero) Tbk.	Bank
10	BBTN	Bank Tabungan Negara (Persero) Tbk.	Bank
11	BJBR	BPD Jawa Barat dan Banten Tbk.	Bank
12	BMRI	Bank Mandiri (Persero) Tbk.	Bank
13	BSDE	Bumi Serpong Damai Tbk.	Property and Real Estate
14	CPIN	Charoen Pokphand Indonesia Tbk.	Animal Feed
15	CTRA	Ciputra Development Tbk.	Property and Real Estate
16	ELSA	Elnusa Tbk.	Crude Petroleum & Natural Gas Production
17	EXCL	XL Axiata Tbk.	Telecommunication
18	HMSP	HM Sampoerna Tbk.	Tobacco Manufacturers
19	ICBP	Indofood CBP Sukses Makmur Tbk.	Food and Beverages
20	INDF	Indofood Sukses Makmur Tbk.	Food and Beverages
21	INTP	Indocement Tunggal Prakasa Tbk.	Cement
22	JSMR	Jasa Marga (Persero) Tbk.	Toll Road, Airport, Harbor and Allied Products
23	KLBF	Kalbe Farma Tbk.	Pharmaceuticals
24	LPKR	Lippo Karawaci Tbk.	Property and Real Estate
25	LPPF	Matahari Department Store Tbk.	Retail Trade,
26	LSIP	PP London Sumatera Tbk.	Plantation
27	MNCN	Media Nusantara Citra Tbk.	Advertising, Printing and Media
28	MPPA	Matahari Putra Prima Tbk.	Retail Trade
29	PGAS	Perusahaan Gas Negara (Persero) Tbk.	Energy
30	PPRO	PP Properti Tbk.	Property and Real Estate

31	PTBA	Tambang Batubara Bukit Asam (Persero) Tbk.	Coal Mining
32	PTPP	PP (Persero) Tbk.	Building Construction
33	PWON	Pakuwon Jati Tbk.	Property and Real Estate
34	SMGR	Semen Indonesia (Persero) Tbk.	Cement
35	SMRA	Summarecon Agung Tbk.	Property and Real Estate
36	TLKM	Telekomunikasi Indonesia (Persero) Tbk.	Telecommunication
37	UNTR	United Tractors Tbk.	Durable and Non-Durable Goods
38	UNVR	Unilever Indonesia Tbk.	Cosmetics and Household
39	WIKA	Wijaya Karya (Persero) Tbk.	Building Construction
40	WSKT	Waskita Karya (Persero) Tbk.	Building Construction

APPENDIX 2

Board Size Data Period 2012-2016

No.	CODE	BOARD SIZE (BSIZE)				
		2012	2013	2014	2015	2016
1	AALI	6	6	6	6	6
2	ADHI	5	5	6	6	6
3	AKRA	7	7	7	8	8
4	ANTM	6	6	6	6	6
5	ASII	9	8	9	10	11
6	ASRI	5	5	5	4	4
7	BBCA	10	10	10	10	11
8	BBNI	11	10	10	9	10
9	BBRI	11	11	11	11	11
10	BBTN	7	7	6	8	8
11	BJBR	6	6	7	7	7
12	BMRI	11	11	10	11	10
13	BSDE	10	9	9	8	8
14	CPIN	7	7	7	7	7
15	CTRA	8	8	8	5	5
16	ELSA	4	5	5	5	5
17	EXCL	7	7	5	4	4
18	HMSP	7	7	7	7	8
19	ICBP	9	9	9	9	9
20	INDF	8	9	9	10	10
21	INTP	9	9	9	9	10
22	JSMR	5	5	5	6	6
23	KLBF	5	5	5	5	5
24	LPKR	8	6	7	8	8
25	LPPF	6	6	5	4	5
26	LSIP	8	7	6	5	5
27	MNCN	4	4	7	8	8
28	MPPA	5	6	6	5	4
29	PGAS	6	6	6	6	6
30	PPRO	5	4	4	4	4
31	PTBA	6	6	6	6	6
32	PTPP	5	5	6	6	6
33	PWON	6	7	7	7	6
34	SMGR	7	7	7	7	7
35	SMRA	7	9	9	8	8

36	TLKM	8	8	8	8	7
37	UNTR	6	5	5	6	7
38	UNVR	10	10	9	9	10
39	WIKA	6	6	6	7	6
40	WSKT	6	6	6	6	6

APPENDIX 3

Independent Directors Data Period 2012-2016

No.	CODE	INDEPENDENT DIRECTORS (INED)				
		2012	2013	2014	2015	2016
1	AALI	0,00000	0,00000	0,00000	0,16667	0,16667
2	ADHI	0,00000	0,00000	0,00000	0,00000	0,00000
3	AKRA	0,14286	0,14286	0,14286	0,12500	0,12500
4	ANTM	0,00000	0,00000	0,00000	0,00000	0,00000
5	ASII	0,00000	0,00000	0,00000	0,10000	0,09091
6	ASRI	0,20000	0,20000	0,20000	0,25000	0,25000
7	BBCA	0,10000	0,10000	0,10000	0,10000	0,09091
8	BBNI	0,00000	0,00000	0,00000	0,00000	0,00000
9	BBRI	0,00000	0,00000	0,00000	0,00000	0,00000
10	BBTN	0,00000	0,00000	0,00000	0,00000	0,00000
11	BJBR	0,00000	0,00000	0,00000	0,00000	0,00000
12	BMRI	0,00000	0,00000	0,00000	0,00000	0,00000
13	BSDE	0,10000	0,11111	0,11111	0,12500	0,12500
14	CPIN	0,14286	0,14286	0,14286	0,14286	0,14286
15	CTRA	0,00000	0,25000	0,12500	0,20000	0,20000
16	ELSA	0,25000	0,00000	0,00000	0,20000	0,00000
17	EXCL	0,00000	0,00000	0,00000	0,25000	0,25000
18	HMSP	0,00000	0,00000	0,14286	0,14286	0,12500
19	ICBP	0,00000	0,11111	0,11111	0,11111	0,11111
20	INDF	0,00000	0,00000	0,11111	0,10000	0,10000
21	INTP	0,00000	0,00000	0,11111	0,11111	0,10000
22	JSMR	0,00000	0,00000	0,00000	0,16667	0,16667
23	KLBF	0,20000	0,20000	0,20000	0,20000	0,20000
24	LPKR	0,12500	0,16667	0,14286	0,25000	0,25000
25	LPPF	0,00000	0,33333	0,20000	0,25000	0,20000
26	LSIP	0,00000	0,00000	0,00000	0,20000	0,20000
27	MNCN	0,00000	0,00000	0,14286	0,12500	0,12500
28	MPPA	0,20000	0,16667	0,16667	0,20000	0,25000
29	PGAS	0,00000	0,00000	0,00000	0,00000	0,00000
30	PPRO	0,00000	0,00000	0,25000	0,25000	0,25000
31	PTBA	0,00000	0,00000	0,00000	0,00000	0,00000
32	PTPP	0,00000	0,00000	0,00000	0,00000	0,00000
33	PWON	0,00000	0,00000	0,00000	0,00000	0,00000
34	SMGR	0,00000	0,00000	0,00000	0,00000	0,00000
35	SMRA	0,14286	0,11111	0,11111	0,12500	0,12500

36	TLKM	0,00000	0,00000	0,00000	0,00000	0,00000
37	UNTR	0,00000	0,00000	0,00000	0,00000	0,14286
38	UNVR	0,00000	0,00000	0,00000	0,09091	0,10000
39	WIKA	0,00000	0,00000	0,00000	0,00000	0,00000
40	WSKT	0,16667	0,16667	0,16667	0,16667	0,16667

APPENDIX 4

Board Meetings Data Period 2012-2016

NO	CODE	BOARD MEETINGS (BMET)				
		2012	2013	2014	2015	2016
1	AALI	37	18	33	38	32
2	ADHI	52	45	54	52	52
3	AKRA	51	51	54	58	56
4	ANTM	48	52	39	24	22
5	ASII	36	30	30	34	31
6	ASRI	52	0	3	3	10
7	BBCA	49	43	45	40	38
8	BBNI	48	50	40	41	39
9	BBRI	43	56	40	56	58
10	BBTN	105	138	116	100	104
11	BJBR	43	33	14	23	22
12	BMRI	51	53	59	50	53
13	BSDE	12	12	12	12	12
14	CPIN	9	10	10	12	12
15	CTRA	14	15	15	15	12
16	ELSA	47	43	34	39	44
17	EXCL	75	57	45	37	43
18	HMSP	12	12	12	12	12
19	ICBP	12	11	11	14	18
20	INDF	12	11	11	15	19
21	INTP	3	3	3	22	22
22	JSMR	50	45	48	47	50
23	KLBF	30	37	29	25	23
24	LPKR	10	9	16	38	43
25	LPPF	4	4	4	12	13
26	LSIP	9	10	11	15	12
27	MNCN	10	9	2	2	4
28	MPPA	12	12	12	12	12
29	PGAS	58	49	61	58	32
30	PPRO	50	48	52	13	24
31	PTBA	27	42	82	44	14
32	PTPP	50	48	48	48	31
33	PWON	12	12	15	12	12
34	SMGR	24	24	24	51	66
35	SMRA	21	17	22	22	20

36	TLKM	48	46	46	47	48
37	UNTR	36	38	39	31	35
38	UNVR	21	19	22	19	21
39	WIKA	42	39	39	39	43
40	WSKT	48	37	41	35	30

APPENDIX 5

Profitability Data Period 2012-2016

NO	CODE	PROFITABILITY (PROF)				
		2012	2013	2014	2015	2016
1	AALI	0,28381	0,17410	0,19883	0,05464	0,09117
2	ADHI	0,05377	0,07349	0,05685	0,04451	0,03049
3	AKRA	0,06869	0,05010	0,06715	0,08498	0,07066
4	ANTM	0,19766	-0,00608	-0,03779	-0,05497	0,00791
5	ASII	0,15306	0,12862	0,11464	0,07998	0,08498
6	ASRI	0,12280	0,07498	0,08188	0,04056	0,02930
7	BBCA	0,03315	0,03590	0,03755	0,03812	0,03818
8	BBNI	0,02670	0,02917	0,03247	0,02254	0,02372
9	BBRI	0,04328	0,04457	0,03848	0,03699	0,03385
10	BBTN	0,01667	0,01632	0,01071	0,01479	0,01555
11	BJBR	0,02135	0,02470	0,01897	0,01991	0,01431
12	BMRI	0,03226	0,03282	0,03042	0,02898	0,01788
13	BSDE	0,10125	0,14527	0,15306	0,06557	0,05394
14	CPIN	0,27028	0,21977	0,09989	0,09157	0,16458
15	CTRA	0,06852	0,08499	0,07830	0,07179	0,04560
16	ELSA	0,04915	0,07715	0,13183	0,11520	0,09981
17	EXCL	0,10581	0,03450	-0,01679	-0,01072	0,00338
18	HMSP	0,50989	0,52946	0,48337	0,36655	0,40019
19	ICBP	0,17051	0,13951	0,13604	0,15096	0,17263
20	INDF	0,10637	0,05976	0,07366	0,05403	0,08987
21	INTP	0,27420	0,24787	0,23506	0,20423	0,13750
22	JSMR	0,08303	0,04671	0,05719	0,05632	0,04953
23	KLBF	0,24507	0,22735	0,22243	0,19866	0,20302
24	LPKR	0,06342	0,06150	0,09785	0,03109	0,03416
25	LPPF	0,39559	0,51879	0,54294	0,57718	0,52125
26	LSIP	0,18169	0,12502	0,13737	0,09249	0,08231
27	MNCN	0,25228	0,24893	0,18678	0,11612	0,11612
28	MPPA	0,03624	0,08892	0,12542	0,04505	0,01509
29	PGAS	0,29382	0,24681	0,15747	0,06734	0,05633
30	PPRO	0,06378	0,00942	0,04799	0,05660	0,04172
31	PTBA	0,30730	0,21078	0,18058	0,15768	0,14518
32	PTPP	0,06378	0,06177	0,06292	0,06720	0,05455
33	PWON	0,11910	0,14317	0,17049	0,07589	0,08376
34	SMGR	0,23656	0,22474	0,20614	0,15335	0,11497
35	SMRA	0,09069	0,09660	0,10950	0,05683	0,02961

36	TLKM	0,21755	0,21218	0,20175	0,18861	0,21262
37	UNTR	0,14804	0,11484	0,10983	0,06794	0,10517
38	UNVR	0,53957	0,56353	0,53756	0,46755	0,51189
39	WIKA	0,07381	0,08072	0,07200	0,03833	0,03957
40	WSKT	0,05497	0,06955	0,06025	0,03686	0,03509

APPENDIX 6

Types of Auditor Data Period 2012-2016

NO	CODE	TYPES OF AUDITOR (BIG4)				
		2012	2013	2104	2015	2016
1	AALI	1	1	1	1	1
2	ADHI	0	0	0	0	0
3	AKRA	1	1	1	1	1
4	ANTM	1	1	1	1	1
5	ASII	1	1	1	1	1
6	ASRI	0	0	0	0	0
7	BBCA	1	1	1	1	1
8	BBNI	1	1	1	1	1
9	BBRI	1	1	1	1	1
10	BBTN	1	1	1	1	1
11	BJBR	1	1	1	1	1
12	BMRI	1	1	1	1	1
13	BSDE	0	0	0	0	0
14	CPIN	1	1	1	1	1
15	CTRA	1	1	1	1	1
16	ELSA	1	1	1	1	1
17	EXCL	1	1	1	1	1
18	HMSP	1	1	1	1	1
19	ICBP	1	1	1	1	1
20	INDF	1	1	1	1	1
21	INTP	1	1	1	1	1
22	JSMR	0	0	0	1	1
23	KLBF	1	1	1	1	1
24	LPKR	0	0	0	0	0
25	LPPF	1	1	1	1	1
26	LSIP	1	1	1	1	1
27	MNCN	1	1	1	1	1
28	MPPA	0	0	0	0	0
29	PGAS	1	1	1	1	1
30	PPRO	0		0	0	0
31	PTBA	1	1	1	1	1
32	PTPP	0	0	0	0	0
33	PWON	1	1	1	1	1
34	SMGR	1	1	1	1	1
35	SMRA	1	1	1	1	1

36	TLKM	1	1	1	1	1
37	UNTR	1	1	1	1	1
38	UNVR	1	1	1	1	1
39	WIKA	0	0	0	0	0
40	WSKT	0	0	0	0	0

APPENDIX 7

Management Ownership Data Period 2012-2016

NO	CODE	MANAGEMENT OWNERSHIP (MGOWN)				
		2012	2013	2014	2015	2016
1	AALI	0,00000	0,00000	0,00000	0,00000	0,00000
2	ADHI	0,00000	0,00000	0,00000	0,00000	0,00006
3	AKRA	0,00000	0,00000	0,00000	0,00000	0,00000
4	ANTM	0,00000	0,00000	0,00000	0,00000	0,00000
5	ASII	0,00000	0,00000	0,00001	0,00001	0,00000
6	ASRI	0,00000	0,00000	0,00000	0,00000	0,00000
7	BBCA	0,00000	0,00000	0,00000	0,00000	0,00000
8	BBNI	0,00000	0,00000	0,00000	0,00000	0,00000
9	BBRI	0,00000	0,00000	0,00000	0,00000	0,00000
10	BBTN	0,00000	0,00000	0,00000	0,00000	0,00000
11	BJBR	0,00000	0,00000	0,00000	0,00000	0,00000
12	BMRI	0,00000	0,00000	0,00000	0,00046	0,00012
13	BSDE	0,00000	0,00000	0,00000	0,00000	0,00000
14	CPIN	0,00000	0,00000	0,00000	0,00002	0,00002
15	CTRA	0,00000	0,00000	0,00006	0,00006	0,00006
16	ELSA	0,00000	0,00000	0,00000	0,00000	0,00001
17	EXCL	0,00000	0,00113	0,00000	0,00000	0,00000
18	HMSP	0,00000	0,00000	0,00000	0,00000	0,00000
19	ICBP	0,00000	0,00000	0,00000	0,00000	0,00000
20	INDF	0,00016	0,00016	0,00016	0,00000	0,00000
21	INTP	0,00000	0,00000	0,00000	0,00000	0,00000
22	JSMR	0,00000	0,00000	0,00000	0,00000	0,00004
23	KLBF	0,00009	0,00009	0,00009	0,00009	0,00009
24	LPKR	0,00000	0,00000	0,00000	0,00000	0,00000
25	LPPF	0,00000	0,00000	0,00000	0,00000	0,00001
26	LSIP	0,00000	0,00000	0,00000	0,00000	0,00000
27	MNCN	0,00000	0,00000	0,00000	0,00000	0,00000
28	MPPA	0,00000	0,00000	0,00000	0,00000	0,00000
29	PGAS	0,00007	0,00001	0,00001	0,00001	0,00001
30	PPRO	0,00000	0,00000	0,00000	0,00000	0,00000
31	PTBA	0,00003	0,00003	0,00003	0,00006	0,00002
32	PTPP	0,00000	0,00000	0,00000	0,00000	0,00002
33	PWON	0,00000	0,00000	0,00000	0,00000	0,00000
34	SMGR	0,00000	0,00000	0,00000	0,00000	0,00000
35	SMRA	0,00000	0,00000	0,00000	0,00000	0,00000

36	TLKM	0,00000	0,00000	0,00000	0,00000	0,00000
37	UNTR	0,00000	0,00000	0,00000	0,00000	0,00000
38	UNVR	0,00000	0,00000	0,00000	0,00000	0,00000
39	WIKA	0,00000	0,00000	0,00000	0,00000	0,00000
40	WSKT	0,00000	0,00000	0,00031	0,00000	0,00000

APPENDIX 8

Intellectual Capital Disclosure Data Period 2012-2016

NO	CODE	INTELLECTUAL CAPITAL DISCLOSURE (ICD*i*)				
		2012	2013	2014	2015	2016
1	AALI	0,26667	0,36667	0,26667	0,33333	0,33333
2	ADHI	0,53333	0,53333	0,53333	0,56667	0,56667
3	AKRA	0,56667	0,56667	0,56667	0,56667	0,56667
4	ANTM	0,50000	0,50000	0,50000	0,53333	0,53333
5	ASII	0,50000	0,50000	0,50000	0,50000	0,50000
6	ASRI	0,23333	0,50000	0,46667	0,46667	0,50000
7	BBCA	0,43333	0,43333	0,43333	0,43333	0,43333
8	BBNI	0,53333	0,53333	0,53333	0,46667	0,46667
9	BBRI	0,56667	0,56667	0,56667	0,56667	0,56667
10	BBTN	0,50000	0,50000	0,53333	0,53333	0,53333
11	BJBR	0,46667	0,46667	0,46667	0,43333	0,53333
12	BMRI	0,43333	0,43333	0,46667	0,46667	0,50000
13	BSDE	0,36667	0,43333	0,43333	0,43333	0,40000
14	CPIN	0,30000	0,30000	0,30000	0,30000	0,30000
15	CTRA	0,33333	0,33333	0,33333	0,33333	0,36667
16	ELSA	0,46667	0,46667	0,46667	0,43333	0,46667
17	EXCL	0,53333	0,56667	0,53333	0,53333	0,46667
18	HMSP	0,20000	0,20000	0,26667	0,30000	0,26667
19	ICBP	0,36667	0,36667	0,36667	0,36667	0,36667
20	INDF	0,40000	0,40000	0,40000	0,40000	0,40000
21	INTP	0,40000	0,36667	0,40000	0,40000	0,36667
22	JSMR	0,43333	0,46667	0,46667	0,43333	0,46667
23	KLBF	0,46667	0,46667	0,46667	0,50000	0,36667
24	LPKR	0,23333	0,23333	0,23333	0,26667	0,30000
25	LPPF	0,46667	0,46667	0,46667	0,46667	0,46667
26	LSIP	0,30000	0,30000	0,30000	0,30000	0,26667
27	MNCN	0,33333	0,33333	0,33333	0,33333	0,36667
28	MPPA	0,30000	0,30000	0,30000	0,30000	0,30000
29	PGAS	0,43333	0,46667	0,46667	0,50000	0,50000
30	PPRO	0,36667	0,36667	0,36667	0,36667	0,36667
31	PTBA	0,40000	0,33333	0,33333	0,36667	0,40000
32	PTPP	0,26667	0,26667	0,26667	0,26667	0,43333
33	PWON	0,30000	0,30000	0,30000	0,30000	0,36667
34	SMGR	0,40000	0,43333	0,43333	0,43333	0,43333
35	SMRA	0,33333	0,33333	0,33333	0,33333	0,33333

36	TLKM	0,46667	0,46667	0,46667	0,46667	0,46667
37	UNTR	0,40000	0,40000	0,40000	0,40000	0,40000
38	UNVR	0,46667	0,46667	0,46667	0,46667	0,46667
39	WIKA	0,43333	0,43333	0,43333	0,43333	0,43333
40	WSKT	0,43333	0,43333	0,43333	0,43333	0,43333

APPENDIX 9

Component of Intellectual Capital

Organisational (structural) capital	Relational (customer) capital	Human capital
Intellectual property: • Patents • copyrights • design rights • trade secrets • trademarks • service marks Infrastructure assets: • management philosophy • corporate culture • management processes • information systems • networking systems • financial relations	• brands • customers • customer loyalty • company names • backlog orders • distribution channels • business collaborations • licensing agreements • favourable contracts • franchising agreements	• know-how • education • vocational qualification • work-related knowledge • occupational assessments • psychometric assessments • work-related competencies • entrepreneurial elan, innovativeness, proactive andreactive abilities, changeability

Source: CIMA (2004)

APPENDIX 10

Multiple Linier Regresion Analysis

Dependent Variable: ICDI
Method: ML ARCH - Normal distribution (BFGS / Marquardt steps)
Date: 04/25/18 Time: 12:30
Sample: 1 200
Included observations: 200
Convergence achieved after 37 iterations
Coefficient covariance computed using QML sandwich with observed
Hessian
Presample variance: backcast (parameter = 0.7)
GARCH = C(8) + C(9)*RESID(-1)^2 + C(10)*GARCH(-1)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.267697	0.017296	15.47701	0.0000
BSIZE	0.010333	0.002816	3.669019	0.0002
INED	-0.086569	0.121930	-0.709989	0.4777
BMET	0.002295	0.000333	6.883491	0.0000
PROF	0.146321	0.036842	3.971626	0.0001
BIG4	-0.020631	0.004962	-4.157555	0.0000
MGOWN	157.0448	29.18711	5.380621	0.0000
Variance Equation				
C	6.35E-05	8.60E-05	0.738203	0.4604
RESID(-1)^2	0.773882	0.180880	4.278416	0.0000
GARCH(-1)	0.407275	0.088285	4.613200	0.0000

R-squared	0.191433	Mean dependent var	0.415333
Adjusted R-squared	0.166297	S.D. dependent var	0.089782
S.E. of regression	0.081977	Akaike info criterion	-2.707798
Sum squared resid	1.297013	Schwarz criterion	-2.542883
Log likelihood	280.7798	Hannan-Quinn criter.	-2.641060
Durbin-Watson stat	0.815022		