THE IMPACT OF CORPORATE DISCLOSURE
ON THE COST OF CAPITAL IN MANUFACTURING COMPANIES
LISTED ON INDONESIAN STOCK EXCHANGE YEAR 2014-2016

Undergraduate Thesis

By

PROBO SUTEJO

FACULTY OF ECONOMICS AND BUSINESS
THE UNIVERSITY OF LAMPUNG
BANDAR LAMPUNG
2018
ABSTRACT

THE IMPACT OF CORPORATE DISCLOSURE ON THE COST OF CAPITAL IN MANUFACTURING COMPANIES LISTED ON INDONESIAN STOCK EXCHANGE YEAR 2014-2016

BY

PROBO SUTEJO

This research aims to analyze the nature relationship of corporate disclosure to the cost of capital by using asymmetric information as an intervening variable. The role of asymmetric information is to mediate the relationship between corporate disclosure and cost of capital. Better quality of disclosure could reduce the cost of capital by reducing asymmetric information. Corporate disclosure that is used in this study is mandatory disclosure which is regulated by BAPEPAM-LK. This research was conducted with data of manufacturing company in Indonesian Stock Exchange (IDX) year 2014-2016.

Sampling was done by purposive sampling, the number of sample that fulfill the criteria is equal to 40 companies. Hypothesis testing is done by using multiple regression analysis. The results of this study show that corporate disclosure has a significant negative effect to asymmetric information and cost capital, while asymmetric information has significant negative effect to cost capital and does not support the hypothesis of this research. The finding of this study is asymmetric information can not mediates the relationship between corporate disclosure to the cost of capital.

Keyword: Signalling Theory, Mandatory Disclosure, Cost of Capital
THE IMPACT OF CORPORATE DISCLOSURE ON THE COST OF CAPITAL IN MANUFACTURING COMPANIES LISTED ON INDONESIAN STOCK EXCHANGE YEAR 2014-2016

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Undergraduate Thesis

As One of Requirements to Achieve
BACHELOR OF ECONOMICS

In

Management Department
Faculty of Economics and Business University of Lampung

FACULTY OF ECONOMICS AND BUSINESS
THE UNIVERSITY OF LAMPUNG
BANDAR LAMPUNG
2018
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Hereby declare that:

1. Research titled “The Impact of Corporate Disclosure on The Cost of Capital in Manufacturing Companies Listed on Indonesian Stock Exchange Year 2014-2016”, is my own and I do not plagiarize or quoting on works by other author except in my writing clearly listed in the References.

2. Submit entirely the result of my research in the form of hard copy and soft copy research to be published to the print and electronic media to the Management of Economics and Business Faculty, The University of Lampung.

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So, I make this affidavit truthfully, to be used as appropriate.

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BIOGRAPHY

The researcher was born on August 2nd, 1996 in Gunung Sugih, Central Lampung, Indonesia. The first child of Rusini and Sri Wahyuti and the brother of Ramadhan Hidayatulloh and M. Surya Firdaus.

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In 2014, the researcher was accepted in Faculty of Economics and Business, University of Lampung, majoring in Financial Management. In 2015, the researcher was accepted in International Class.
“Develop a passion for learning. If you do, you will never cease to grow.”
— Anthony J.D’Angelo

“Start from where you are. Use what you have and do what you can.”
— Arthur Ashe

“The only thing we have to fear is fear itself.”
— Franklin D.Roosevelt

“Be good. Because whenever good is a part of something, it will make look more beautiful. But when the good is gone, it leaves only stains”
— Prophet Muhammad SAW

“The worst mistake is our attraction to the mistakes of others”
— Ali bin Abi Thalib
DEDICATIONS

Alhamdulillahi robbilalamin

Praise be to Allah SWT for blessing and grace so great to the author.

I dedicate this thesis to:

My dear parents, Rusini and Sri Wahyuti. Thanks for all supports, endless prayer, motivation, and advice during my academic activity. May Allah always protect our live and dreams until the end of the time.

My dear brothers, Ramadhan Hidayatulloh and M. Surya Firdaus. Thanks for supporting and helping me in many conditions and situations. May Allah realize our dreams and life’s goals.

My dear Almamater, The University of Lampung.

I will try so hard to keep the value of my Almamater as well.
Praise and gratitude to Allah SWT for its blessings and directions, thus the research can finish this undergraduate thesis entitled “The Effect of Corporate Disclosure to The Cost of Capital in Manufacturing Companies Listed on Indonesian Stock Exchange Year 2014-2016”. This undergraduate thesis is one of requirements to receive the Undergraduate Degree in Faculty of Economic and Business, University of Lampung.

In writing this undergraduate thesis, the researcher realized that this achievement would never have come into existence without any supports, encouragements, and assistance by several important people. Thus, the researcher would like to express gratitude to:

1. Prof. Dr. H. Satria Bangsawan, S.E., M.Si., as the Dean of the Faculty of Economics and Business, University of Lampung.

2. Mrs. Dr. Rr. Erlina S.E., M.Si. as Chairman of Management Major and Academic Advisor.

3. Mr. Habibullah Jimad, S.E., M.Si. as Academic Advisor for the willingness to help my academic process and problems and support to finish my study.

4. Mrs. Dr. Ernie Hendrawaty, S.E., M.Si., as Advisor for the willingness to provide guidance, knowledge, direction and advice given in the preparation of this thesis.

5. Mr. Prakarsa Panji Negara, S.E., M.E., as co-advisor, who had provided guidance, support, motivation and input for the finalization of this thesis.
6. Prof. Dr. Mahatma Kufepaksi, S.E., M.Sc., as Main Examiner who gives suggestions, criticism, and advices that has been given to this thesis so it can be completed.

7. Mr. Muslimin, S.E., M.Si., as the Third Examiners in proposal and result seminar, that already spent his time to give the researcher inputs for my undergraduate thesis.

8. All lecturers and academic staffs of Economics and Business Faculty, Management Major, University of Lampung.

9. My dearest family, who always be the support system for the researcher. Thank you for the endless prayers, motivation, suggestion, and advices so the researcher able to finish this undergraduate thesis. Thank you for everything.

10. Widya Yunita Indarti, my beloved friend for 9 years. Thanks for your advice, support, motivation, and our relationship. Thanks for helping me in many conditions during our academic life. May Allah give you best things in the future.

11. Boejil. Thanks for always being kind to me. Thanks for accepting me in your group. May Allah help you in many situations and realize your dreams.

12. Management BC 2014, Adinda, Ratih, Robert, Surya, Tia and Zakia who made memorable thing in my college life. Thank you for all warmth from the beginning until the end of my college life. See you on top.

13. Bumblebee 1617, Kak Nabila, Zakia, and Cindy who give me good experience as a team. Thank you for having problem solving together. Let’s see on top.
14. KUIS team, Tia, Rume, Gilda, Intan, Lupita. Thank you for the most memorable trip to Japan. Thanks for always doing unexpected things during our trip and make it be joy and fun trip.

15. All member of AIESEC 16/17 who cannot be mentioned one by one, thank for all the lesson and experience.

16. KKN Omay, Kak Jen, Kak Sita, Angga, Abdau, Uuk, Anyes, Bang Wira, Yossi, Nia, Rentî, Sindi, Jo, Rahmad. Thanks for being a team for 40 days. Thanks for giving me memorable experience in living without my parents. You all are really wonderful.

17. Special thanks to Inggit Cahyani. Thanks for being my spirit and my second woman in my life until now. Thanks for your support, advice and your dreams. May Allah realize our hopes.

18. All parties who gave support for the researcher during the writing of this undergraduate thesis. May Allah grant mercy and blessings and may this undergraduate thesis become useful and meaningful.

The researcher realized that the writing of this undergraduate thesis is still far from perfect. Hopefully, this thesis would give a positive contribution for those who are interested to conduct the further research.

Bandar Lampung, November 2018

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I. INTRODUCTION

A. Background of Research

Companies have a very important role in economy and social life in this globalization era. The better performance of the company will drive greater amount of output. It leads to a big number of gross domestic product and economic growth. Growth and development of manufacturing industry nowadays has leading to rapid economic growth and increasing consumers demand of the products. Data from Indonesia Statistics showed that the role of the manufacturing industry in GDP remains the highest, at 20.5% by 2016. Increased consumer demand for products causing high competition in manufacturing industry in Indonesia. This can be seen from the number of manufacturing companies listed on the Indonesian Stock Exchange (IDX). Based on IDX’s data until 31 December 2016, there are 147 manufacturing companies. It consists of three divisions namely basic industry and chemicals (66 companies), miscellaneous industry (42 companies), consumer goods industry (39 companies).

Competition among manufacturing companies can not be separated form information technology and market openness. Advances in information technology and market openness have forced existing companies to become serious and open with regard to the impact or behavior of the company itself in environmental and social. Every public company must provide information about
its company through corporate disclosure. The company may provide disclosure of information through annual reports regulated by BAPEPAM-LK (mandatory disclosure), or through voluntary disclosure in addition to the prescribed minimum disclosure.

All company activities related to the value of shares must be informed to the public. Information is an important element for investors and business people because information essentially presents information, notes, or images, whether for the past, present or future circumstances (Anoraga and Pakarti, 2003). Information disclosed in annual reports can be grouped into two, which are mandatory disclosure and voluntary disclosure. Mandatory disclosure is information disclosure required by applicable regulations, which is regulated by BAPEPAM-LK in Indonesia. Mandatory disclosure according to BAPEPAM-LK is disclosure which is arranged according to the chairman's decree BAPEPAM-LK No. Kep-431/BL/2012 (regulations VIII.G.11). In regulation number VIII.G.11, confirmed that other than those regulated in the regulation, BAPEPAM requires public companies to follow the Financial Accounting Standards (SAK).

In this case, benefits of corporate disclosure are not only aimed at the point of view of stakeholders but also for the company itself. Corporate disclosure can be affected by agency relationship. The agency relationship is a contract, either explicit or implicit, Where one or more persons (called principals) ask others (the so-called agent) to take action on behalf of the principal. On the contract, there is the delegation of some decision-making authority to the agent. In the context of company, the principal is the owner of the company (shareholder) and its agent is management team. The management team is authorized to make decision related
to the operation and strategy of the company and hope of those decisions which has taken will maximize the value of the company.

Agency theory implies the presence of asymmetric information between managers as agents and owners as principals. This asymmetry information occurs because of the difference of interest between manager and company owner. Eisenhard (1989) argues that one of the basic assumptions of human nature is self-interest, meaning selfish and not willing to sacrifice for others. The owner of the company has an interest to improve his welfare through the distribution of dividends or increases the company's stock performance. On the other hand, managers have their own interests through increased compensation. This condition causing managers will not provide information that give negative influence to their interests.

Market participant in the capital market are also faced with the agency problem. They are act as seller or buyer of securities. The activities of market participants are influenced from information received. Dealers or market makers as one of the capital market participants have limited thinking power over future perceptions and face potential losses when dealing with informed traders because they do not have superior information as well as informed traders. The presence of inequality of information held between traders leads to the emergence of asymmetric information. The existence of this asymmetry information problem encourages the dealer to cover the losses of the informed trader by increasing the spread on the illiquid trader. So it can be said that the asymmetry information that occurs between the dealer and the trader is reflected in the spread he specified. This is in accordance with research conducted Halim & Hidayat (2000) which states that the effort to cover the risk of loss is reflected by the bid-ask spread.
Cost of capital, information asymmetry, and corporate disclosures are topics studied previously in literature. Under the agency conflict, the general idea is that information asymmetry among investors creates trading frictions by introducing adverse selection, leading to lower levels of stock liquidity and higher expected returns (Leuz and Verrecchia, 2000). In this context, corporate disclosures play a fundamental role in the market, since dissemination of such information increases firms’ credibility, which combats these market frictions and instigates the optimal functioning of an efficient capital market (Healy and Palepu, 2001). Information differences among investors lead them to lose confidence in firms, and investors will demand a higher return for investing in firms with wide information asymmetries.

The effect of the level of disclosure for a company is increasing in the number of investors and reduces information asymmetry (Wulandari, P. P. and Atmini, S., 2012). There is no clear explanation about how mandatory disclosure affects cost of capital but if an investor evaluates a company has high risk based on information published in financial statements, the rate of return expected by investors as well high, and will cause a high cost of equity capital to be spent by the company (Wulandari, P. P. and Atmini, S., 2012).

A number of studies have suggested that corporate disclosures can reduce information asymmetry (e.g. Welker, 1995; Healy et al., 1999; Leuz and Verrecchia, 2000; Cormier et al., 2011; Bhattacharya et al., 2013) while other studies have analyzed the impact of corporate disclosures on the cost of capital (e.g. Bloomfield and Wilks, 2000; Richardson and Welker, 2001; Hail, 2002; Petrova et al., 2012; Core et al., 2015) and the impact of information asymmetry
could reduce the cost of capital (Komalasari, 2001 and Mardiyah, 2002). It is supported by Maysar (2008) found that disclosure have negative correlation to the cost of capital while other research from Riduan (2010) didn’t find any significant effect between disclosure and cost of capital. From their findings, this research will examine a relationship between these three issues—i.e. the cost of capital will be reduced by a reduction of information asymmetries derived from larger corporate disclosures.

As previously indicated, Healy et al. (1999), Leuz and Verrecchia (2000) and Russell, M. (2015) argues that corporate disclosures could reduce information asymmetry, as a component of the cost of capital, but such relationship is more complex. The central assumption is that the demand for corporate disclosures that reduces the information advantages of some investors (who are more informed) arises from agency conflicts (Healy and Palepu, 2001), and these information differences in turn, determine the cost of capital. In other words, information asymmetry could be seen as a mediator in the relationship between corporate disclosures and the cost of capital. This issue has been previously studied by independent models, by using different samples, methodologies, and different proxy variables. In addition, the research focused on both financial and social disclosures (Bhattacharya et al., 2013).

Information quality is highly appreciated by investors, because if it is not readily available, wellformatted and salient, investors may not able to evaluate their investment opportunities (Barberis and Thaler, 2003). Focussed on how corporate disclosures affect information asymmetries. Information asymmetries arise from differences in information among investors. Informed investors have access to
more information than uninformed investors, who only have access to public information (Ballesteros et al., 2016). Since quality of information affects prices, how information is provided to the markets is highly important for the company, in terms of cost of capital (Easley and O’Hara, 2004). Informed investors will hold assets where their information disadvantage is lower, i.e., when the information asymmetry between insiders and the market is lower. But investors demand a higher return to hold assets with greater private information (Easley and O’Hara, 2004).

Thereon, this essay is replication of Nuryatno et al. (2007), Lambert, et al. (2007), Core et al. (2015), and Ballesteros et al. (2016) research which analyze the relation of corporate disclosure to the cost of capital but using different proxies of variables, and different periods of the research. Lambert et al. (2007), Core et al. (2015), and Ballesteros et al. (2016) argues that better quality of disclosure could reduces the cost of capital by reducing information asymmetry while the other research found that there is no significant effect between disclosure to the cost of capital by using asymmetric information as mediator component indirectly (Nuryatno et al., 2007). The relationship between these three issues can be seen as a mediated link - i.e. information asymmetry is determined by the degree of corporate disclosure and and it in turns affects the cost of capital (Ballesteros et al., 2016). Specifically, this study empirically test three links: corporate disclosure quality – information asymmetry; information asymmetry – cost of capital; and corporate disclosure quality – cost of capital. Based on this background, the author is interested in doing research in the thesis entitled “The Effect of Corporate Disclosure to The Cost of Capital in Manufacturing Firms Listed on IDX Year 2014 - 2016”.
B. Problem Formulation

Based on the description above, the main issues to be studied are:

1. Does corporate disclosure has negative effect to asymmetric information?
2. Does asymmetric information has positive effect to the cost of capital?
3. Does corporate disclosure has negative effect to the cost of capital?

C. Research Purposes and Benefit of Research

1. Research Purposes

The purpose of this paper is to analyze empirically the fundamental role that information asymmetry plays in the functioning of an efficient capital market as mediator in the relation between corporate disclosures and cost of capital. The specific purpose of this study is to answer the questions contained in the formulation of the problem, among others:

1. To find the effect of corporate disclosure to the asymmetric information.
2. To find the effect of asymmetric information to the cost of capital.
3. To find the effect of corporate disclosure to the cost of capital.

2. Benefit of Research

The results of this study are expected to provide benefits to:

1. Academics can use the results of this study for their references in making future research. This can also be considered to understand the effect of corporate disclosure in company’s stock price by comparing it to the signalling theory.
2. Company should be able to disclose better information in the market. Better disclosure reduce the gap of information and lower gap of information will reduce company’s cost of capital.

3. Investor will understand the importance of needed information in the annual report to know about the prospect of the company before decide to invest.
II. LITERATURE REVIEW, FRAMEWORK AND HYPOTHESIS

A. Literature Review

1. Asymmetric Information and Signalling Theory

Asymmetric Information

Information affects the decision-making processes used by individuals in households, businesses, and governments. Individuals make decisions based on public information, which is freely available, and private information, which is available to only a subset of the public. Stiglitz (2002) explained that information asymmetries occur when “different people know different things”. Because some information is private, information asymmetries arise between those who hold that information and those who could potentially make better decisions if they had it. Despite the well-known imperfections of information, economists had largely assumed that markets with minor information imperfections would behave substantively the same as markets with perfect information (Stiglitz, 2000).

Stiglitz (2000) highlights two broad types of information where asymmetry is particularly important: information about quality and information about intent. In the first case, information asymmetry is important when one party is not fully aware of the characteristics of another party. In the second case, information asymmetry also is important when one party is concerned about another party’s behavior or behavioral intentions (Elitzur & Gavious, 2003).
The asymmetry information perspective implies that the manager seeks to reducing asymmetric information to maximize corporate value in an opportunistic manner. Asymmetric information is a condition where a party has information which is not known to other parties so that certain consequences will only be known by a party without known to others who also need that information.

When asymmetric information arises, disclosure decisions are made by managers can affect stock prices because asymmetric information between the more informed investors and less-informed investors raises transaction costs and reduces the expected liquidity in the market for stocks of companies (Murni, 2004).

Quality accounting information is useful for investors to lower Information imbalance (asymmetry information). It is supported by Gonedes (1980) which says that the regulation of accounting disclosure has potential to reduce asymmetric information. Asymmetry information should be reduced At the time the company announces public information and company-specific information (Nuryatno et al., 2007).

Imbalanced information between informed traders and merchants which is not informed leads to advantages and disadvantages for market participants who another, namely the dealer. Dealer as the party conducting the business of buying and selling shares for Interests or for the benefit of others know of asymmetric information so that he tried to cover up the losses caused by the trader Informed with the benefits gained from uninformed traders.
These gains and losses are reflected in the spreads it earns. Greater spreads occur in thin markets (Nuryatno et al., 2007). Capital market which is one of the characteristics of emerging capital markets. Indonesian Stock Exchange is a burgeoning capital market (Nuryatno et al., 2007).

Articles written by Copeland and Galai (1983) try to explain Influence of information to spread. According to Copeland and Galai (1983), the first spread theory raised by Demsetz (1968) who treats spreads as cost (Transactions) for immediacy purposes. The focus of research on spreads exists two, namely :

a) Focusing on the relationship between the spread and the stock (dealer)

b) Focuses on the relationship between spreads by type of trader (informed traders and uninformed traders) There are two trading mechanisms that have implications for spreads. First, The instantaneous quote model means that the dealer will offer the price securities, if there is a purchase request from the investor. Dealers expect that that price offered will change if trading with informed investors and illiquid traders. Second, open price model mechanism (open quote interval model) meaning that the dealer offers the price of the securities it holds for a certain period. The bid price is valid until the new information.

There are two forms of relationship between spread and trade volume, namely (a) a negative relationship, it means a small trading volume will enlarge spread relatively, because the possibility of market participants prefer to hold shares rather than sell; (b) a positive relationship, it means if there is an increase in the size of information, the transactions also increased.
**Signalling Theory**

Signalling theory states that the manager (agent) or company has advantages compared to external information and they use some measurements or specific facilities imply its quality. If shareholders or investors are not trying to find information related to signals, they will not be able to take maximum benefit. This kind of situation called by asymmetric information.

According to Jama'an (2008), Signalling theory suggests that how a company should give the signal to users of financial statements. This signal is information about what has been done by the management to realize the desire of the owner. Signals may be promotions or other information that the company is better than other companies. The signal theory explains that signals are performed by managers to reduce information asymmetry. Managers provide information through financial statements that they implement a conservative accounting policy that results in higher-quality profits because this principle prevents companies from exaggerating earnings and helps users with financial statements presenting profits and assets that are not overstate.

According to Maria Immaculatta (2006), the quality of investor decisions are influenced by the quality of information disclosed by the company in the financial statements. The quality of the information aims to reduce the information asymmetry that arises when managers are more aware of internal information and prospects of the company in the future than the company's external parties. Information in the form of rating of published corporate bonds is expected to signal the financial condition of a particular company and illustrate the possibility that there is associated with debt owned.
Managers are generally motivated to convey good information about their company to the public as quickly as possible, for example through a press conference. However, outside the company does not know the truth of the information submitted. If the manager can give a convincing signal, then the public will be impressed and this will be reflected on the price of the security. So it can be concluded because of the asymmetric information, signaling to investors or the public through management decisions becomes very important (Atmaja, 2008).

2. Disclosure of Information in Financial Statements

Understanding the disclosure according to Syahrul and Nizar (2000) is:

Information provided as an attachment or supplement to the financial report, in the form of footnotes or extras. This information provides explanation of the financial position and operation results of a company. Explanation about information related to the financial health of the company can also be expressed in inspection report. Everything that is material will be expressed in reports, including qualitative information (such as the Rupiah component in inventory) and Quantitative (such as lawsuits that benefit the users of financial statements).

According to Downes and Goodman (1994), disclosure is the provision of information by the company, both positive and negative, that may have an effect on an investment decision, as required by the SEC and the stock exchange.

Statement of Financial Accounting Concept (SFAC) No. 1 states that financial statements should provide useful information to potential investors and creditors, as well as other users in investment decision making, credit and other rational
decisions. The information presented in the financial statements should be adequate, it means that the information presented is not excessive and also not less so as not to mislead people who read it. The results of research in various countries prove that the annual financial statements is an appropriate medium to convey disclosure of financial and non-financial information (Mardiyah, 2001).

According to PSAK No.1, the financial statements consist of the components (1) Balance Sheet, (2) Income statement, (3) Statement of changes in equity, (4) Statement of cash flows, and (5) Notes to financial statements. The financial statements should apply PSAK properly with disclosure which PSAK requires in the notes to the financial statements. Other information remains disclosed to result in reasonable presentation even if such disclosure is not required by the Accounting Standard.

In addition to notes on financial statements, companies are also encouraged to provide additional information. Referred to in PSAK No.1, par .08 and par .09, additional supplementary information includes:

1. A financial review that explains the key characteristics that affect performance company
2. The company's financial position
3. Conditions of uncertainty
4. Report on the environment
5. Value added report

From the source of PSAK it can be concluded that: (1) note on the financial report is a disclosure required by the Accounting Standard; (2) other information
(additional information) is a recommended and necessary disclosure in order to provide a reasonable and relevant presentation to the needs of the user. Disclosure of financial information should be sufficient to be used as a basis for decision making resulting in a careful and precise decision. The company is expected to be more transparent in disclosing the company's financial information so that it can assist decision makers in anticipating the changing economic conditions.

According to Ahmed Riahi-Belkaoi (2000), the purpose of the disclosure are:

1. To explain the items that are recognized and to provide relevant measures for those items, in addition to the size in the financial statements.
2. To explain unrecognized items and to provide a useful measure for the items.
3. Provide information to assist investors and creditors in determining risks and potential items to be recognized and unrecognized.
4. To provide important information that can be used by users of financial statements to compare between companies and between years.
5. To provide information on future cash inflows and outflows.
6. To assist investors in determining return and investment

3. **Regulations and Information Disclosure Law**

Some of the rules and regulations relating to the disclosure of corporate financial statements in Indonesia include:

1. Law no. 3 of 1983 concerning Company Registration stating that the company must provide publicly accessible information consisting of a company name, information on the members of the board of commissioners and board of directors as well as the capital gained.
2. PP. 64 year 1999 on Annual Financial Reports that extend the reach of companies that are required to provide financial statements to the public.

3. Other regulations issued by Bapepam include regulations concerning Information Disclosure Standards in annual reports for companies that have conducted public offerings and public companies, namely regulation No. VIII.G.11.

Bapepam as the regulatory agencies of capital market as issued several regulations on disclosure of information to be performed by public companies. The company may provide disclosure of information through annual reports that have been regulated by Bapepam, as well as through voluntary disclosure in addition to the prescribed minimum disclosure.

4. **The Type of Disclosure**

Disclosures are grouped into 2, namely mandatory disclosure and voluntary disclosure. Mandatory disclosure is disclosure of information regulated by the standard regulatory body and other regulators, this rule is a minimum disclosure requirement to be met by public companies. While voluntary disclosure (voluntary disclosure) is an out-of-obligation disclosure, it is a free choice of the management of a public company to provide accounting information and other information deemed relevant as a basis for decision-making by the users.

Disclosure of financial statement information to companies listed on The Indonesia Stock Exchange is a mandatory disclosure of the company. Full disclosure requires that the financial statements be designed and made for accurately describes the economic events that have affected the company for a period and contains sufficient information to make useful reports and is not misleading to the average
Schroeder and Clark (1995), said the type of disclosure can be classified as follows:

1) Financial Statement
2) Notes to Financial Statements
3) Report and Schedule (Supplementary Statement & Schedule)
4) Accountant Opinion (The Auditor Certificate)

The general concept of disclosure is 3, namely:

1. Full disclosure, is a minimum disclosure presented by a company that aims to convey the minimum amount of information required. This disclosure refers to all information provided by the company, whether financial or non-financial information. Full disclosure covers not only financial statements, but also includes information provided on management letters, company prospects, and so forth.

2. Adequate disclosure is the disclosure made by the company by presenting some information that includes minimum and additional information to produce reasonable presentation of financial statements even though such disclosure is not required.

3. Fair disclosure is a disclosure which includes reasonable disclosure and other additional disclosures which are voluntary disclosures.

Accounting standards anticipate the impact of asymmetric information with requires management to fully disclose the company's financial condition in the financial statements. The principle of full disclosure is expected to help users of financial statements, primarily investors of company owners, to assess the condition of the company before making an economic decision. This is consistent
with the research of Chow & Wong Boren (1987); Healy & Palepu (1993); Welker (1995) who stated that disclosure is one important tool to overcome the agency problem between management and owners, because it is seen as efforts to reduce asymmetric information.

Ballesteros et al. (2016) suggest that high-quality financial and social disclosures quality may reduce cost of capital by decreasing the asymmetric information. This statement is supported by Russell, Mark (2015) research; and Maysar (2008) which found that disclosure has negative correlation to the cost of capital.

Based on previous studies, it can be said that better disclosure of information made by public companies will improve the quality of decision making resulting in less asymmetric information and is expected to bring down the bid-ask spread.

5. **Cost of Capital**

Every company always needs funds to finance operations company. Funds used by the company can be met from the owner of the form own capital or other party loans or debts. Any funds used by the company has a capital cost to bear. The definition of cost of capital according to Martono. Dand Harjito, A. (2003) is:

“Costs incurred by the company to acquire and whether derived from debt, preferred stock, or retained earnings to fund an investment or an enterprise operation.” Understanding Capital Costs by Aliminsyah and Padji (2003) : “The cost of which issued the company to obtain funds to increase its capital.”

According to Farah Margarethta (2005): “cost of capital is the cost incurred because the company uses the source of funds incorporated in the capital structure”. The cost of capital is a certain rate that the company must achieve in
order to fulfill the expected return by ordinary shareholders (common stockholder) on the funds invested in the company in accordance with risks to be received. Cost of equity together with cost of preferred stock and Cost of debt is an element to calculate cost of capital (cost of capital).

The cost of capital is a rate that companies must achieve in order to meet the satisfaction of various combinations of benefits expected by the investors company. Despite the theoretical and analytical review of interrelationships disclosure, liquidity, and cost of capital are significant, but appear to be few once empirical research supports this.

More previous theoretical and empirical research is to test the relationship between information disclosure and cost of capital (eg, Core et al., 2015). The research found that better disclosure quality can reduce the cost of capital by using firm’s cash flow as mediation variables.

Focussed on financial and accounting information, Lambert et al. (2007) noted that quality accounting information reduces the cost of capital—i.e. raising quality accounting information moves the cost of capital closer to the risk-free rate. Barthet et al. (2005) found that firms with more earnings transparency enjoy a lower cost of capital, and similarly, Bhattacharya et al. (2003) showed that earnings opacity —i.e. the difference between observable accounting earnings and unobservable economic earnings—is positively associated with the cost of equity. Li (2010) evidenced that the use of the International Financial Reporting Standards (IFRS) mandatorily reduces the cost of equity. And theoretically, Apergis et al. (2011) provided a model to show that an increase in expected cash flows
derived from improvements in accounting disclosurequality, leads to a decrease in the cost of capital.

6. **Previous Research**

Previous studies have been done in this research:

**TABLE 2.1 SUMMARY OF PREVIOUS STUDIES**

<table>
<thead>
<tr>
<th>No.</th>
<th>Researcher</th>
<th>Research Variable</th>
<th>Research Methods</th>
<th>Research Result</th>
</tr>
</thead>
</table>
Dependent Variable: Cost of equity capital (Capital Asset Pricing Model) | Simple Linear Regression Analysis | Voluntary disclosure has no significant effect to the cost of capital. This implies to management that the extent of voluntary disclosure submitted is still inadequate so it has no impact on the cost of equity capital |
Dependent Variable: Cost of capital (Capital Asset Pricing Model) | Simple Linear Regression Analysis | There is no significant relationship between disclosure of information with asymmetric information, there is positive relationship between asymmetric information with cost of capital, there is negative relationship between disclosure with cost of capital. |
Moderating Variables: Size, Audit Quality, and Financial Distress  
Dependent Variable: Cost of equity capital (Capital Asset Pricing Model) | Simple Linear Regression Analysis | The level of disclosure is negatively correlated with cost of equity capital. |
Continued......

4. Riduan, Zikriati (2010) | Independent Variable: Voluntary Disclosure (Disclosure Index) | Simple Linear Regression Analysis | Voluntary disclosure has no significant effect to the cost capital.
---|---|---|---
| Mediation Variables: Stock liquidity | | |
| Dependent Variable: Cost of equity capital (Capital Asset Pricing Model) | | |

5. Russell, Mark (2015) | Independent Variable: Disclosure (Price-sensitive disclosure) | Regression Analysis of Panel Data | High information asymmetry disclose more information. Further, the study finds that disclosure in the presence of high information asymmetry increases asymmetry. Finally, while bad news increases information asymmetry, the disclosure of firm-specific good and bad news is associated with reduced information asymmetry.
---|---|---|---
| Dependent Variable: Information Asymmetry (Bid-Ask Spread) | | |

---|---|---|---
| Dependent Variable: Cost of Capital (Price-earning-growth) | | |

Source: Various Journal

B. Theoritical Framework

The inequality of information among capital market actors results in asymmetric information. By making better disclosure of information, it is expected to decrease the asymmetry information which in turn will bring down the cost of capital. This
study attempts to examine the relationship between information disclosure with asymmetry information, asymmetry information with cost of capital, and disclosure relationships with cost of capital directly.

![Diagram of theoretical framework]

**FIGURE 2.1 THEORITICAL FRAMEWORK**

**Explanation**:
- \( X \) = Independent Variable
- \( Y \) = Dependent Variable
- \( Z \) = Intervening/Mediator Variable

**Statistical Model**:

\[
Y = a + \beta_1 X + \beta_2 Z \quad \cdots \quad (1)
\]

\[
Z = a + \beta_1 X \quad \cdots \quad (2)
\]

This research uses a path analysis method by using intervening variable, which is a model that provides a way to identify the mechanism or process that underlies an observed relationship between an independent variable and a dependent variable by the conclusion of a third hypothetical variable. Rather than a direct causal relationship between the independent variable and dependent variable, a mediation model proposes that the independent variable influences the mediator variable, which in turn influences the dependent variable. Thus, the mediator variable serves to clarify the nature of the relationship between the independent and dependent variables.
C. Hypothesis of research

1. **The effect of corporate disclosure to asymmetric information**

Several studies have been conducted to examine the relationship between disclosure and information asymmetry. Information asymmetries arise from differences in information among investors. Informed investors have access to more information than uninformed investors, who only have access to public information. By increasing corporate disclosure, companies could reduce the gap of information between informed and uninformed investors. High-quality financial and social disclosures quality reduce the cost of capital, by decreasing information asymmetry (Ballesteros *et al.*, 2016).

Other studies that specifically use disclosure levels are conducted by Cormier *et al.* (2011), which examines the relationship between disclosure and information asymmetry. The results show that disclosure has a negative relationship with information asymmetry (Bertomeu *et al.*, 2011; Ballesteros *et al.*, 2016; and Cui *et al.*, 2016). Thus, the results of the previous studies, suggesting a negative link between corporate disclosure and information asymmetry. Because, the central assumption is that corporate disclosure will reduce the information advantages of some informed investors (Ballesteros *et al.*, 2016)

**H1 : Corporate disclosure has negative effect to asymmetric information**

2. **The effect of asymmetric information to the cost of capital**

Cost of capital is the desired rate of return by the fund provider, both the investor (cost of equity) and the creditor (cost of debt). Cost of equity capital relates to
investment risk on the company's shares. Informed investors will hold assets when the information asymmetry between insiders and the market is lower (Easley and O’Hara, 2004). Information differences among investors lead them to lose confidence firms and investors will demand a higher return (cost of capital) for investing in firms with wide information asymmetry. Lambert et al. (2011) developed atheoretical model to explain how information asymmetry impacts on the cost of capital. They show that illiquidity influences the amount of information that is reflected in prices, which in turn reduces investors’ average precision, increasing the cost of capital—withimperfect competition. This relation is empirically tested by He et al. (2013), who found that cost of capital increases with a higher level of information asymmetry, by using a sample of firms listed on the Australian Securities Exchange.

Ballesteros et al. (2016) has also found that disclosures give incentive to minimize asymmetric information and decrease the cost of capital. It is supported by other studies (Diamond and Verrecchia, 1991., Handa and Linn, 1993., Komalasari and Baridwan, 2001., Mardiyah, 2002., and Murni, 2004) that examined the relationship of asymmetric information with cost of capital.

**H2 : Asymmetric information has positive effect to the cost of capital**

3. **The effect of corporate disclosure to the cost of capital**

Ballesteros et al. (2016) study found that high quality financial and social disclosures quality reduce the cost of capital. Several studies that examined the effect of information disclosure on cost of capital have been done, among others,
by Nuryatno et al. (2007), Maysar (2008), and Riduan, Zikriati (2010) which states that increasing disclosure will reduce the cost of capital.

Petrova et al. (2012) examines the relationship between quantity/quality financial and social disclosures and cost of capital. The results of this study indicate that there is a negative relationship between disclosures and cost of capital for Swiss companies. More recently, Core et al. (2015) show that better disclosure quality improves investors’ predictions of expected cash flows; thus the covariance between the firms’ cash flows and the cash flows of stocks in the market portfolio decrease, which in turn reduces the cost of capital.

From a “liquidity perspective,” disclosures reduce the firms’ costs of equity financing through an improvement of future liquidity (Bloomfield and Wilks, 2000). But there is another view, called “estimation risk perspective,” to explain the association between disclosures and the cost of capital (Hail, 2002). “Risk perspective” defines the cost of capital as the minimum rate of return equity investors require for providing capital, comprised of the risk-free rate of interest and a premium for the non-diversifiable risk (Botosan, 2006). So, reducing differences in information by using disclosure decreases at least part of the estimation risk component which means a reduction in the final cost of equity capital.

H3 : Corporate disclosure has negative effect to the cost of capital
III. Research Methods

A. The Types of Research Data

This research is a type of causal research that is to test the hypothesis about the influence of one or several variables (independent variables) to other variables (dependent variable) by using asymmetric information as mediation variable.

B. Identification and Operational Definition of Variables

Corporate disclosure will be used as independent variable of this research. Annual report of each company will be analyzed to find the disclosure index. Price-earning to growth ratio will be used to estimate the cost of capital as dependent variable. And to analyze indirect effect between independent and dependent variable, this research will use bid-ask spread to estimate asymmetric information as mediation variable.

1. Cost of Capital

Refers to the opportunity cost of making a specific investment. It is the rate of return that could have been earned by putting the same money into a different investment with equal risk. Thus, the cost of capital is the rate of return required to persuade the investor to make a given investment.

Cost of capital is determined by the market and represents the degree of perceived risk by investors. When given the choice between two investments of equal risk,
investors will generally choose the one providing the higher return. Botosan and Plumlee (2005) and Botosan et al. (2011) recommended cost of capital estimation is done by using price-earning to growth ratio (PEG ratio) model as did by Easton (2004) as one of the best proxies. This formula is used because it is considered more representative to test the linkage between the level of disclosure with Cost of Capital (COC) and due to its practicality compared to other COC proxies such as CAPM where CAPM calculation relies heavily on long-term market data, where the data is not available for all companies in this research sample (Thamrin and Harahap, 2013). The scale of measurement of the dependent variable is the ratio scale. The author use five years growth rates from REUTERS to calculate these earnings per share forecasts in years 4 and 5. The model requires positive four-year-ahead and five-year-ahead earnings forecasts as well as positive change in the earnings forecast. The author use long-term earnings forecasts (EPS₅ and EPS₄) following Botosan and Plumlee (2005), instead of EPS₂ and EPS₁, because if EPS₂ is less than EPS₁, we cannot solve the model and limit our sample. However, since EPS₅ always exceeds EPS₄, such a problem is avoided. In company side, the expected rate of return can be identified as cost of getting fund (cost of capital). The expected rate of return based on the PEG ratio is shown to be higher for firms with higher PEG ratios (Easton, 2004).

The formula used is as follows:

\[ r_{PEG} = \frac{EPS₅ - EPS₄}{P₀} \]

Explanation:

\( r_{PEG} \) : Price-earning to growth ratio

\( EPS₅ \) & \( EPS₄ \) : Expected earning per share for year t+5 and t+4

\( P₀ \) : Stock price for current year
2. **Corporate Disclosure**

Disclosure of this information uses the disclosure index, that is an index which describes the extent of disclosure of information in the financial statements. The extent of disclosure is measured from the level of compliance with mandatory disclosure set by Bapepam and the amount of voluntary disclosure. The list of information disclosure items used in this study is mandatory disclosure (depends on Bapepam-LK Regulation). The total number of expected mandatory disclosure based on BAPEPAM-LK Regulation X.K.6 are 138 items.

The calculation of the disclosure index is performed by the following procedure:

1. Assigns a value of one for each item disclosed and gives a zero value if the item is not disclosed.
2. The scores obtained by each firm are added to the score total.
3. Calculate the index of disclosure completeness of each company by means divide the total score gained by the expected total score.

The measurement scale of disclosure variables is the interval scale by using disclosure index used by Nuryatno *et al.* (2007). The formula for calculating the disclosure index is:

\[
\text{DISCL} = \frac{n}{K}
\]

Explanation:

DISCL: Disclosure Index

\(n\) : The number of disclosure items acquired per company

\(K\) : The total number of expected disclosure items
3. **Asymmetric Information**

Asymmetric information is mediation variable that mediates influencedisclosure of information to the cost of capital becomes an indirect effect. The mediation variable measurement scale is the ratio scale. The data will be used by using 15 days period during the publication date of annual report. This study measures the asymmetry information by using bid-ask spreads used by Nuryatno et al. (2007).

The formula used:

\[
\text{SPREAD}_{i,t} = \frac{(\text{ask}_{i,t} - \text{bid}_{i,t})}{\frac{(\text{ask}_{i,t} + \text{bid}_{i,t})}{2}} \times 100\%
\]

Explanation:

- \(\text{SPREAD}_{i,t}\): Relative bid-ask spread of company \(i\) on the date \(t\)
- \(\text{Ask}\): Highest ask price of company \(i\) on the date \(t\)
- \(\text{Bid}\): Lowest bid price of company \(i\) on the date \(t\)

Bid-ask spreads are usually associated with a level of information asymmetry occurs, because bid-ask spreads are considered to reflect how conditions of information asymmetry. Low and high of information asymmetry between agents and principal can be described from how big the bid-ask spread (Tengko et.al., 2014). Investors who want to invest against a stock of the company, need to see how the difference bid-ask spread at that time, because if the bid-ask spread is high then the level of information asymmetry will also be high, and vice versa (Rahardjo, 2004).
C. Population dan Sample

1. Population

Population is a generalization area consisting of objects / subjects that have certain qualities and characteristics set by researchers to be studied and then drawn conclusions (Sugiyono, 2011). The population used in this study is a manufacturing company listed on the Indonesia Stock Exchange period 2014 to 2016, amounting to 147 companies.

2. Sample

The sample is part of the number and characteristics possessed by the population (Sugiyono, 2011). The sample in this study was taken by purposive sampling, which is a method of sampling based on certain criteria and considerations (Sugiyono, 2011). Sample determination criteria are as follows:

1. The company has listed on the Indonesia Stock Exchange for the period 2014 - 2016.
2. The companies should have positive income for the period 2014 - 2016.
3. The companies should have positive 5 years EPS Growth Rates.

Based on those criteria, then the number of samples used in this study are as follows:

**TABLE 3.1 SAMPLE DETERMINATION CRITERIA**

<table>
<thead>
<tr>
<th>No.</th>
<th>Criteria</th>
<th>Number of companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Total number of population for the period 2014 - 2016.</td>
<td>147</td>
</tr>
<tr>
<td>2.</td>
<td>The company has delisted on the Indonesia Stock Exchange for the period 2014 - 2016.</td>
<td>(6)</td>
</tr>
<tr>
<td>3.</td>
<td>The companies have negative income for the period 2014 - 2016.</td>
<td>(76)</td>
</tr>
<tr>
<td>4.</td>
<td>The companies have negative EPS Growth Rates</td>
<td>(25)</td>
</tr>
<tr>
<td></td>
<td>Total number of companies that meet all the criteria</td>
<td>40</td>
</tr>
</tbody>
</table>

Source: [www.idx.co.id](http://www.idx.co.id) and processed data
After having those criteria, found 40 companies that meet all the criteria to be sampled research. And within 3 years period of the research, it will be 120 observations.

D. Method of Analysis

1. Descriptive Statistics Test

Descriptive statistical analysis is used to provide a description or description of a data. This analysis is intended to analyze data accompanied by calculations in order to clarify the circumstances and characteristics of the data. Measurements seen from descriptive statistics include mean, standard deviation, variance, maximum, minimum, sum, range, kurtosis, and skewness (Ghozali, 2011).

2. Classic Assumption Test

a. Normality Test

Normality test aims to test whether data on dependent variables, independent variables, or both have a normal distribution or not. Test Normality of data using histogram and graph Normal P-Plot. A good regression model is to have normal or near normal data distribution, whereas normal distribution can be known by looking at the spread of statistical data on the diagonal axis of the normal distribution graph (Ghozali, 2011). The basis for decision-making fulfills normality or not, as follows:

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

b. Multicolinearity Test

Multicollinearity test is used to determine whether there is correlation between independent variables one to other independent variables. According to Ghozali (2011), this test aims to test whether the regression model found a correlation between independent variables.

The basis of the multicollinearity test is as follows:

1) If tolerance value \( > 5 \) percent and VIF value \( < 5 \), it can be concluded that there is no multicollinearity between independent variables in the regression model.

2) If tolerance value \( < 5 \) percent and VIF \( > 5 \), it can be concluded that there is multicollinearity between independent variables in the regression model.

c. Autocorrelation Test

The autocorrelation test aims to test whether in a linear regression model there is a correlation between the confounding error in year \( t \) period with the annoying error in the period \( t-1 \) (previous) (Ghozali, 2011). If there is correlation, then there is called an autocorrelation problem. A good regression model is a regression independent of autocorrelation.

One way of autocorrelation test is Durbin-Watson (D-W test). Decision-making whether there is autocorrelation or not, as follows:

1) If the DW value lies between the upper bound (du) and \((4-du)\), then the autocorrelation coefficient is zero, meaning there is no autocorrelation.
2) If the DW value is lower than the lower bound (dl), then the autocorrelation coefficient is greater than zero, meaning there is a positive autocorrelation.

3) If the DW value is greater than (4-dl) then the autocorrelation coefficient is smaller than zero, meaning there is negative autocorrelation.

4) If the DW value lies between the upper bound (du) and below the lower limit (dl) or DW is between (4-du) and (4-dl) then the result can not be inferred.

d. Heteroscedasticity Test

Heteroscedasticity test aims to test whether in the regression model there is a variant inequality of the residual one observation to the observation other. If the variant of the residual one observation to another observation remains, it is called homoscedasticity and if different is called heteroscedasticity. The best model is homoscedasticity or no heteroscedasticity (Ghozali, 2011).

Heteroscedasticity test method with Spearman's rho correlation is correlate independent variable with unstandardized residual value. The test used a 0.05 significance level with a 2-sided test. If correlation between independent variables with residuals in the significance of more than 0.05 it can be said that there is no problem of heteroscedasticity on the model regression.

3. Hypothesis Testing

a. Partial Significance Test (T-Test)

The statistical T-Test is used to indicate how far the explanatory or independent variables individually explain the variation of the dependent variable (Ghozali, 2011). This test is performed to test the partial independent variable with a probability level of 5%. If the probability level is less than 5% then the hypothesis
is accepted. In t test can also be seen the value of coefficient or beta which shows how big each independent variable in explaining the dependent variable, and the positive or negative influence based on positive or negative sign on the coefficient.

This test is conducted on condition:

1) If t-table < t-count, the independent variable is significant to the dependent variable.

2) If t-table > t-count, the independent variable is not significant to the dependent variable.

4. **Multiple Linear Regression Analysis**

According to Ghozali (2011), multiple linear regression is to test the influence of two or more independent variables on one dependent variable. Multiple called because of the many factors (in this case variables) that may affect the dependent variable. Regression analysis aims to determine whether the resulting regression is good for estimating the value of the dependent variable. Before performing multiple regression analysis, this method requires to test the classical assumption to get good result. To test the effect of intervening variable, this research will used path analysis method (Ghozali, 2011) and based on the figure 2.1, the formula of multiple linear regression is as follows:

\[
\begin{align*}
\text{COC} & = a + \beta_1 \text{DISCL} + \beta_2 \text{SPREAD} + e \\
\text{SPREAD} & = a + \beta_3 \text{DISCL} + e
\end{align*}
\]  
\hspace{1cm} (1)

\hspace{1cm} (2)

The total influence of the relationship from DISCL to COC (correlation between DISCL and COC) is the same as the direct influence of DISCL to COC (path coefficient or regression $\beta_1$) plus the indirect influence of path coefficient from
DISCL to SPREAD is $\beta_3$ multiplied by coefficient path from SPREAD to COC is $\beta_2$ or can be written as follows:

**Direct effect DISCL to COC**

$= \beta_1$

**Indirect effect DISCL to COC**

$= \beta_2 \times \beta_3$

**Total effect DISCL to COC**

$= \beta_1 + (\beta_2 \times \beta_3)$

Explanation:

SPREAD  = Asymmetric Information (Bid-Ask Spread)

DISCL  = Corporate Disclosure (Disclosure Index)

COC  = Cost of Capital (PEG Ratio)

$\alpha$  = Constants

e  = Error term
V. CONCLUSION AND SUGGESTION

A. Conclusions

Conclusions of this study can be described as follows:

1. Corporate disclosure has a negative effect on asymmetric information in manufacturing companies listed on the Indonesian Stock Exchange year 2014-2016 is supported.

2. Asymmetric information has a positive effect on the cost of capital in manufacturing companies listed on the Indonesian Stock Exchange year 2014-2016 is not supported.

3. Corporate disclosure has a negative effect on the cost of capital in manufacturing companies listed on the Indonesian Stock Exchange year 2014-2016 is supported.

Based on the hypothesis test results, it can be concluded that the relationship between corporate disclosure and cost of capital is direct effect. Asymmetric information cannot mediate the relationship between those two variables.

Corporate disclosure index which used in this study has been identified into a part signalling theory process. Companies can give signals to the market by using mandatory disclosure regulated by BAPEPAM LK and depend on the results of this study, better quality disclosure can reduce the gap of information between informed and uninformed traders and reduce the cost of capital. Although, gap of information that happen in the market is not affect the cost of capital but investor in
stock market is still affected by the signal of the company in the context of this study. So, it is important for management to provide better quality disclosure in order to reduce the expected rate of return or cost of capital.

B. Suggestions

Based on the conclusions obtained, the author want to give some advice for stakeholders as follows:

1. For practitioners
   a. Company, this research can be used as a part of decision making before disclose the information. The better quality disclosure will reduce the gap of information and cost of capital. So that company can be more aware about their annual report and corporate governance.
   
   b. Investor, this research can be used as source of information about the effect of corporate disclosure to the determine the expected return and stock valuation, so that investors can consider the decision to invest in these sample companies.

For the future researcher, the author suggest to use different proxies for cost of capital variable (i.e. CAPM, Dividend Valuation Model, Ohlson Model) and use the longer and newest periods of research. So that is expected to be more comprehensive results of research.
REFERENCES


