Factors That Influence Voluntary Disclosure and Implications on Cost of Capital
(In Banking Industry on Indonesia Stock Exchange for Period 2015 – 2017)

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Abstract—This study aims to examine profitability, public share ownership, and size of voluntary disclosure and cost of capital. In addition to examining direct effects, this study considers indirect effects, namely the voluntary disclosure mediating the relationship between profitability, public share ownership, and firm size with the cost of capital. This research was conducted on 41 banking companies listed on the Indonesia Stock Exchange in the observation period 2015 - 2017 with a total sample of 123 banking companies. Data collection techniques used documentation methods on the official website of Indonesia Stock Exchange and Yahoo Finance. This research data uses panel data, and to test intervening variables with path analysis. The results are profitability has no influence on voluntary disclosure; public share ownership has a negative influence on voluntary disclosure; firm size has an influence on voluntary disclosure; profitability, public share ownership, and size has no influence on cost of capital; voluntary disclosure has no influence on cost of capital; and voluntary disclosure cannot mediate relationship between profitability, public share ownership, and firm size to cost of capital.

Keywords—cost of capital; firm size; profitability; public share ownership; voluntary disclosure

I. INTRODUCTION

The capital market is a means to get long-term capital by issuing shares or bonds. As the capital market develops and needs of investors or shareholders increase for information disclosure, companies are required to improve the quality of information disclosure through annual reports. Disclosure of information in financial statements is important because it is one of main information in the means of public accountability. Annual report an issuer or public company is an important source of information for investors or shareholders as one of the basic considerations in making investment decisions and means of supervision of the company.

When financial crisis occurred in Indonesia began in mid-1997 which resulted in loan rates ranging from 60 percent and depreciation of rupiah against US dollar of approximately 300 percent. In such a crisis situation many companies reduce production and even stop completely. Furthermore, the volume and value of sales decreased, bad credit, reduced number of employees and so on. The prolonged monetary crisis with adverse consequences for the company is expected to provide broader disclosures than before crisis. Voluntary disclosure is one way to increase the credibility of a company's financial reporting and help investors understand the company's strategy.

Investment risks and yields are taken into account by investors when investing. When providing capital, shareholders certainly expect a return at a certain level. Investors' expectation of a certain rate of return on investments made will have implications for the company. The implication of the rate of return from invested capital is called the cost of capital. The rate of return is related to the level of risk borne by the investor. At the same time the level of risk borne by shareholders relates to information that can be absorbed by shareholders.

A. Theoretical Framework

The basis for the need for the practice of disclosing financial statements by management to shareholders / investors is explained in the agency theory. Agency theory describes the relationship between shareholders as principals and management as agents. According to Jensen and Meckling, exposure, agency relations are as follows: "... a contract in which one or more of the perpetrators (s) fry another person (the agent) to perform some service on their behalf which involves delegating some decision-making authority to the agent. If both parties to the relationship are maximize utility, there is good reason to believe that the agent will not always act in the best interests of the principal" [1].

In signaling theory, managers use accounts to signal future hopes and goals. According to the theory, if managers expect a high level of company growth in the future, they will try to signal the signal through accounts. Managers of well-performing companies will be encouraged to signal these expectations and managers of companies that have neutral news will also be encouraged to report good news so that they are not suspected of poor performance. Managers of poorly performing companies choose not to report anything. However, managers of poorly performing companies may be encouraged to report the bad news in order to maintain their credibility in the capital market. Assuming that these things encourage the
delivery of information to the capital market, signaling theory predicts that companies will disclose more information than required [2].

According to Christine Botosan cost of equity capital is rate of return expected by investors from capital invested in the company. The expected rate of return is related to estimated risk faced. High risk estimates cause investors to expect high returns. When companies disclose more information, investors can be more confident about their predictions so that there is a decrease in risk estimates. Low risk estimates cause low cost of equity capital because estimated risk is directly proportional to the expected rate of return [3].

Companies with high profitability will encourage managers to provide more detailed disclosure information, because they want to convince shareholders, investors and creditors that the company is in a position of strong competition and good performance. Simanjuntak & Widiastuti and Wardani give results that profitability of the company has a positive effect on voluntary disclosure [4, 5]. This shows that the higher the profitability of a company, the greater voluntary disclosure made by the company. This is because profitability is associated with sufficient financial rewards to provide attraction and maintain corporate funding [6]. Thus, profit is a manifestation of the results of operations or performance of management. So that can be interpreted high profit margins managers tend to reveal information in detail, because managers want to convince investors of the profitability of the company. Based on description, the first hypothesis that will be tested in this study is profitability has positive influence on voluntary disclosure.

Stakeholders are parties who need information about the company's prospects in the future. Public shareholders are part of stakeholders who need information to analyze returns on stock investments invested in the company, so that public shareholders also have an interest in the company's business continuity information [5]. The results of research by Hardininghis, Prijanto & Noer Widianingsih, Muhammad & Veronica Siregar, and Mubarok et al show that public share ownership has a significant influence on voluntary disclosure [7-10]. Positive direction shows that the ownership of shares by a larger public tends to provide more complete voluntary disclosure. The greater portion of public ownership of the company's shares, the company will bear the agency's potential costs [1]. Share ownership by the public can trigger companies to disclose broader information, because it relates to public trust in the company. Based on description, the second hypothesis that will be tested in this study are public share ownership has a positive influence on voluntary disclosure.

Agency theory can be used to explain the relationship between firm size and voluntary disclosure. Large companies may have more potential conflicts between management and stakeholders [11], thus the company will disclose more information voluntarily to reduce agency costs. The results of the study by Oktaviani Setyaningrum & Zulaikha, Ousam & Fatima, and Abdu Rauf [12-14] show that firm size has a significant positive influence on voluntary disclosure. Large companies may reveal more information in an effort to reduce agency costs [12]. Large companies tend to do a lot of voluntary disclosure because they believe they will benefit from the disclosure, but small companies feel that too much disclosure can complicate their position [14]. Large companies tend to have conflicts between management and larger stakeholders compared to small companies. This causes the larger a company, more information requested by users of financial statements. So that the larger the size of a company, the greater voluntary disclosure made by the company. Based on description, the third hypothesis that will be tested in this study is firm size has a positive influence on voluntary disclosure.

Companies with high profitability tend to use a small proportion of debt. This is because high profitability will provide a large amount of internal funds to finance the company's operations and have the opportunity to invest from retained earnings [15]. The results of research by Purwaningtias and Surifah show that profitability negatively influence on cost of equity capital, which means that when profitability increases, the cost of equity capital can be reduced [16]. Profitability is one of the factors considered in determining the cost of the company's equity capital. The higher profitability of the costs borne by the company's equity capital is lower. Based on descriptions, the fourth hypothesis which will be tested in this study is Profitability negatively influence on cost of capital.

Equity issuance is usually in the form of shares, the company sells form of ownership to public. Issuance of equity or sale of equity to public will increase funds from public. Shares that are in demand by public will have a high price. When public shareholding provides capital to invest, it means that the public believes and understands the risks and investment returns that will be obtained, so that the cost of capital borne by the company decreases. So that when public ownership increases, it can be interpreted that cost of capital is decreasing, and when there is little public ownership, the cost of capital will increase. Based on description, the fifth hypothesis that will be tested in this study are public share ownership negatively influence on cost of capital.

The study conducted by Christine Botosan gives results that size of company has a significant influence on cost of capital, large-scale companies will more easily obtain loans compared to small companies. The larger size of a company, investor will have a large opportunity, so that it can influence decision to invest more and reduce cost of capital. Based on the description, the sixth hypothesis that will be tested in this study are the size of public companies negatively influence on cost of capital [3].

Based on FASB, financial statements must be useful for parties with an interest in company, so financial statements must be able to help investors and creditors to interpret state of company [17]. Managers can give signals about condition of company. The signals given can be made through disclosure of accounting information in financial statements. The more extensive disclosures made by company as a given signal to investors will reduce transaction costs and risks are set by the investor to the company that will ultimately lower the cost of equity capital of the company [18]. This is consistent with research conducted Petroza et al about relationship of cost of
equity capital and voluntary disclosure, suggesting that the company's equity capital costs low and increase the level of voluntary disclosure [19]. Wider voluntary disclosure made by the company as a given signal to investors. Additional information can be used by investors to estimate company's performance in future which will ultimately reduce level of certainty and cost of equity capital borne by company. Based on description, the seventh hypothesis to be tested in this study are voluntary disclosure negatively influence on cost of capital.

In condition that company has high profitability tends to have a low cost of capital, so when low profitability tends to have a high cost of capital. So company management tries to give signals to investors by disclosing more voluntary information. Based on description, the eighth hypothesis that will be tested in this study are voluntary disclosure mediate relationship between profitability and cost of capital.

The greater voluntary disclosure in company's annual report, more information investors get, especially public investors, who generally do not know much about company's information, so that public investors believe in future performance prospects of company and invest more shares. So that it can impact on declining cost of capital. Based on description, the ninth hypothesis to be tested in this study are voluntary disclosure mediate relationship between public share ownership and capital costs.

Company size is a measure of information availability. The risk of investing in a company will increase when information about company is difficult to obtain and usually information is more available to large companies than smaller companies [18]. The larger company, greater costs incurred by company to provide information to public so that it will have an impact on increasing cost of capital. Based on description, the tenth hypothesis to be tested in this study are voluntary disclosure mediate relationship between firm size and cost of capital.

II. METHOD

A. Data and Samples

The research subjects examined in this study are industrial banking companies listed on the Indonesia Stock Exchange in period 2015 - 2017. The data used is secondary data. Data collection techniques use documentation techniques, namely collecting secondary data in the form of annual reports and historical stock data. The annual report is downloaded through the Indonesia Stock Exchange official website and through official website of banking company that is research sample. And historical data of banking company shares is downloaded through official website of Yahoo Finance. Sampling uses purposive sampling. This research is for direct testing using panel data regression and for intervening testing using path analysis.

B. Operationalization Variable

1) Voluntary disclosure (IPS)

Voluntary disclosure in this study was measured using a voluntary disclosure index with the method developed by Christine Botosan [3]. Voluntary disclosure index can be obtained from each company using the following methods: (1) Giving a score from a list of voluntary disclosure items for each dichotomous disclosure. The item disclosed is given a value of 1 (one) and if not disclosed then given a value of 0 (zero). This score is given no weighting on disclosure items; (2) The score obtained by each company is added to get the total score; (3) Measurement of disclosure index of each company is done by dividing the total score obtained by the total score expected by the company.

2) Cost of capital (CEC)

The cost of capital in this study uses cost of equity capital as measured by using Capital Asset Pricing Model (CAPM) approach. CAPM is inseparable from risk factors and use of this approach is not limited by constant dividend growth, so it is applied to a wider environment.

3) Profitability (ROA)

Profitability in this study is proxy by Return on Assets.

4) Ownership of public shares (KSP)

Ownership of public shares is measured by percentage of the number of shares held by public from all outstanding common stock capital of company.

5) Firm size (SIZE)

Company size is a company scale that is seen from total assets of the company at end of the year. The greater assets, more capital is invested. The total asset value is usually very large when compared to other variables, then the company size variable is refined by using the Natural Log.

C. Research Model

- Equation Model 1 (H1, H2, H3)
  \[ \text{IPS} = \alpha + \beta_1 \text{ROA} + \beta_2 \text{KSP} + \beta_3 \text{SIZE} + \varepsilon \]
- Equation Model 2 (H4, H5, H6)
  \[ \text{CEC} = \alpha + \beta_1 \text{ROA} + \beta_2 \text{KSP} + \beta_3 \text{SIZE} + \varepsilon \]
- Equation Model 3 (H7)
  \[ \text{CEC} = \alpha + \beta_1 \text{IPS} + \varepsilon \]
- Equation Model 4 (Path Analysis, H8, H9, H10)
  \[ \text{IPS} = \alpha + \beta_1 \text{ROA} + \beta_2 \text{KSP} + \beta_3 \text{SIZE} + \varepsilon \]
  \[ \text{CEC} = \alpha + \beta_1 \text{IPS} + \beta_2 \text{ROA} + \beta_3 \text{KSP} + \beta_4 \text{SIZE} + \varepsilon \]

III. RESULTS AND DISCUSSION

A. Examination Influence of Profitability, Public Share Ownership, and Firm Size to Voluntary Disclosures (H1, H2 dan H3)

The results of examining best hypothesis in this model based on Chow Test, Hausman Test, and LM Test shows that for the appropriate testing model is Fixed Effect Model. Overall, this model is significant with Prob. F (stat) of 0.000000 which means that all independent variables in this model together statistically significant influence dependent variable. This shows that profitability, share ownership, and firm size together represent a significant explanation on voluntary disclosure.
1) Examination influence of profitability to voluntary disclosures (H1)

The results of data calculation for first hypothesis that tests influence profitability on voluntary disclosure shows coefficient value -1.556610 with prob. t-stat 0.1236 (sig at $\alpha = 5\%$). The significance value of profitability is above 0.05, so it can be concluded that profitability does not influence on voluntary disclosure, this means that the first hypothesis is rejected.

The results of this study indicate that profitability has no influence on voluntary disclosure. The variability of disclosures made by company does not emphasize much on profitability of company. Emphasis on profits or profits obtained by company does not reflect the clarity of the expected acceptance of investors [20].

These results are consistent with previous studies such as in Oktaviani Setyaningrum & Zulaikha and [12, 20]. However, this result is not in accordance with the research conducted by Simanjuntak & Widiastuti, Wardani, and Khairiah & Fuadi [4, 5, 21] which give results that profitability of a company influences voluntary disclosure.

2) Examination influence of public share ownership to voluntary disclosures (H2)

The results of data calculation for testing the second hypothesis that examines the influence of public share ownership on voluntary disclosure shows a coefficient of -4.061713 with prob. t-stat 0.0001 (sig at $\alpha = 5\%$). The significance value of public share ownership is below 0.05, so it can be concluded that public share ownership has a significant negative influence on voluntary disclosure, this means that second hypothesis is rejected.

The results of this study indicate that the greater public share ownership, the lower voluntary disclosure, and conversely the smaller public share ownership, the greater voluntary disclosure. This may be due to majority shareholding of majority banking companies controlled by the Indonesian government and investors, so that public ownership is less impactful on voluntary disclosure. So that public ownership is also less impactful to oversee the company's performance.

These results are consistent with previous studies such as in research of Hardiningsih, Prijanto & Noer Widianingsih, Muhammad & Veronica Siregar, and Mubarak et al [7-10]. However, the results of this study are not in accordance with research of Wardani, Nor Hadi & Sabeni, and Benardi et al [5, 22, 23] which give results that public ownership does not influence on voluntary disclosure.

3) Examination influence of firm size to voluntary disclosures (H3)

The results of data calculation for testing third hypothesis that examines influence of firm size on voluntary disclosure shows a coefficient of 3.345280 with prob. t-stat 0.0013 (sig at $\alpha = 5\%$). The significance value of firm size is below 0.05, so it can be concluded that firm size has a significant positive influence on voluntary disclosure, this means that third hypothesis is accepted.

The results of this study indicate that the greater firm size, the more extensive voluntary disclosure made by the company. Large companies tend to have conflicts between management and larger stakeholders compared to small companies. In the current digital era, people prefer large medium banks to deposit or apply for credit. The reason is that large medium banks are considered safer and provide cheaper credit interest.

These results are consistent with previous studies such as the Oktaviani Setyaningrum & Zulaikha, Ousam & Fatima, and Abdu Rauf [12-14] studies. Large companies may reveal more information in an effort to reduce agency costs [12]. Large companies tend to do a lot of voluntary disclosure because they believe they will benefit from the disclosure, but small companies feel that too much disclosure can complicate their position [14].

However, it is different from the results of Murdoko Sudarmadji and Sularto research which states that firm size does not influence voluntary disclosure [24].

B. Examination Influence of Profitability, Public Share Ownership, and Firm Size to Cost of Capital (H4, H5 dan H6)

The results of examining best hypothesis in this model based on Chow Test, Hausman Test, and LM Test shows that for the appropriate testing model is Random Effect Model. Overall, this model is not significant with Prob. F (stat) of 0.322259, which means that all the independent variables in this model together are not statistically significant affecting the dependent variable. This shows that profitability, share ownership, and company size together are not a significant explanation on cost of capital.

1) Examination influence of profitability to cost of capital (H4)

The results of data calculation for testing the fourth hypothesis that tests influence of profitability on cost of capital shows a coefficient of 1.646156 with prob. t-stat 0.1024 (sig at $\alpha = 5\%$). The significance value of profitability is above 0.05, so it can be concluded that profitability does not influence on cost of capital, this means that the fourth hypothesis is rejected.

According to Christine Botosan cost of equity capital is the rate of return expected by investors from capital invested in the company. The results of this study indicate that profitability is not one of the factors that make investors immediately give their capital to invest, so it does not influence cost of capital in banking companies [3].

This result is not in line with research by Purwaningtias and Surifah research shows that profitability negatively influence on cost of capital, which means that when profitability increases, the cost of capital can be reduced [16].

2) Examination influence of public share ownership to cost of capital (H5)

The results of data calculation for testing the fifth hypothesis that tests influence public share ownership on cost of capital shows a coefficient of 1.325514 with prob. t-stat 0.1875 (sig at $\alpha = 5\%$). The significance value of public share ownership is above 0.05, so it can be concluded that public
share ownership does not influence on cost of capital, this means that fifth hypothesis is rejected.

The results of this study indicate that public share ownership does not influence cost of capital. Ownership of public shares is generally an ownership by investors individually, thus allowing less impact on cost of capital. There are other factors that increase banking cost of capital, namely the right issue, inviting strategic investors and new strategic partners, increasing capital from profit allowances, and reducing the dividend payout ratio.

3) Examination influence of firm size to cost of capital (H6)

The results of data calculation for testing the sixth hypothesis that examines the influence of public share ownership on cost of capital shows a coefficient of 0.160130 with prob. t-stat 0.8731 (sig at α = 5%). The significance value of the company size is above 0.05, so it can be concluded that firm size does not cost of capital on cost of capital, this means that sixth hypothesis is rejected. The results of this study indicate that firm size does not influence on cost of capital. This may be because firm size is not a major consideration for investors in investing.

The results of this study are in line with research of Murdoko Sudarmadji & Sularto, Gulko, and Wulandari & Atmimi [24-26] which state that firm size does not influence on cost of equity capital. The probable cause of this is that investors pay more attention to the level of company liquidity compared to firm size when making [26]. But the results of this study are not in line with the research conducted by Christine Botosan which results in firm size has a significant influence on cost of equity capital, large-scale companies will more easily obtain loans compared to small companies [3].

C. Examination Influence of Voluntary Disclosure to Cost of Capital (H7).

The results of examining best hypothesis in this model based on Chow Test, Hausman Test, and LM Test shows that for the appropriate testing model is Random Effect Model. The results of testing the data for seventh hypothesis that examines the broad influence of voluntary disclosure on cost of capital shows the coefficient value of -0.551468 with prob. t-stat of 0.5823 (sig at α = 5%). The significance value of profitability is above 0.05, so it can be concluded that the voluntary disclosure does not influence on cost of capital, this means that seventh hypothesis is rejected.

The results of this study do not support signaling theory which provides an explanation that the information issued by the company is a signal that is shown to external parties of the company, especially for shareholders to reduce transaction costs and risks that are estimated by investors. Voluntary disclosure by the company is voluntary disclosure, not mandatory disclosure, mandatory disclosure contains more informative information about the company because it has been regulated by POJK, so that mandatory disclosure is considered sufficient to estimate the company's performance so that it can reduce the level of certainty and cost of equity capital borne.

This result is consistent with previous research, namely the results of research by Prima Dewi & Setiady Chandra and Silma Barvidi which show voluntary disclosure does not influence on cost of equity [27, 28]. Investors in Indonesia still cannot use information contained in company's annual report, which causes no extent to level of voluntary disclosure by company that will not have an impact on reduction of its cost of equity capital. The information conveyed by the management in the company's annual report is still not in accordance with the needs of investors so that what the company contends in the annual report does not affect the cost of equity capital that must be issued by the company as a reciprocal of the capital deposited by investors into the company to finance the company's business activities [27].

However, these results are inconsistent in FASB and Murni research which states that voluntary disclosure influence on cost of equity capital of a company [17, 18].

D. Examination of Voluntary Disclosure Mediating Relationships Between Profitability, Public Shareholding and Firm Size With Cost of Capital (H8, H9, H10)

The results of examining best hypothesis in this model based on Chow Test, Hausman Test, and LM Test shows that for the appropriate testing model 4.1 is Fixed Effect Model and model 4.2 is Random Effect Model.

1) Examination of voluntary disclosure mediating relationships between profitability with cost of capital (H8)

The data testing results for eighth hypothesis show that p1 (0.1236) and p2 (0.5079) in indirect research and p3 (0.1337) in direct research between profitability and cost of capital. This shows that two probabilities of indirect influence are not significant, so it is concluded that the extent of voluntary disclosure is not a mediating variable, this means that eighth hypothesis is rejected.

The results of this study indicate that the extent of voluntary disclosure cannot mediate the relationship between profitability and cost of capital. Providing signals by the company to investors about profitability is usually sufficient to do the disclosure required by OJK in SEOJK stating that the form and content of the annual report of the issuer or public company is regulated by the OJK, so that voluntary disclosure has less impact on forecasting company performance, and has no influence on cost of capital.

2) Examination of voluntary disclosure mediating relationships between public shareholding with cost of capital (H9)

The results of testing data for the ninth hypothesis indicate that p1 (0.0001) and p2 (0.5079) in indirect research and p3 (0.2172) in direct research between public ownership of capital costs. This shows that one of the probabilities of indirect effect is not significant, so it is concluded that the extent of voluntary disclosure is not a mediating variable, this means that the ninth hypothesis is rejected.

The results of this study indicate that extensive voluntary disclosure cannot mediate the relationship between public share ownership and cost of capital. It is possible that voluntary information disclosure does not help investors to understand
the risks and results of investment, so that it does not influence the cost of equity capital borne by the company.

3) Examination of voluntary disclosure mediating relationships between firm size with cost of capital (H10)

Data testing results for the tenth hypothesis show that p1 (0.0013) and p2 (0.5079) in indirect research and p3 (0.7092) in direct research between firm size and cost of capital. This shows that one of the probabilities of indirect effect is not significant, so it is concluded that the extent of voluntary disclosure is not a mediating variable, this means that tenth hypothesis is rejected.

The results of this study indicate that extensive voluntary disclosure cannot mediate the relationship between firm size and cost of capital. It is possible that firm size is not a determinant in reducing the level of certainty faced by investors, so the size of the company is not a measure of the availability of information in a company and does not influence on cost of capital.

IV. CONCLUSION

Based on the testing, processing, and analysis that has been carried out, it can be concluded from this study that profitability has no influence on voluntary disclosure; public share ownership has a negative influence on voluntary disclosure; size has an influence on voluntary disclosure; profitability, public share ownership, and size has no influence on cost of capital; voluntary disclosure has no influence on cost of capital; and voluntary disclosure cannot mediate relationship between profitability, public share ownership, and size to cost of capital.

REFERENCES