

Internet Financial Reporting, Financial Development, and the Cost of Equity Capital: Evidence from Indonesia

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Abstract The purpose of this research is to examine effect of direct and indirect consequences of internet financial reporting, earning power, and investment opportunity set in cost of equity capital as well as through earnings management as a mediating variable. The data used in this research from Indonesia Stock Exchange and analyzed using partial least square. The results of this research can contribute in minimizing capital costs by conducting financial reporting through website to develop business and avoid earnings management practices.

Keywords—*Internet, Financial, Cost of Equity Capital*

I. INTRODUCTION

1. Introduction

The investor's decision will invest amount of capital into company, if investors get confidence about company's performance which will generate a refund (return) of benefits. Investor confidence indicates that investors are valuing company has low risk. It affects rate of return that is presupposed by investors (Core et al., 2014; Ming and Ming 2014). When investment higher risk, investor will increase rate of return which is affect to increase cost of equity capital (Jo and Kim, 2007).

Increasing of earnings management activity and effort to minimize cost of equity capital had encouraged public attention on accurate information disclosure. The use of internet as a media reporting will facilitate investors in assessing company's performance (Kumar and Jain, 2012). Most stakeholders often paying attention to profit information without regard to how profit generated, which is creates opportunities for management to do earnings management practice.

Investors assumed that a high earning power will guarantee to return on investment and give a decent profit. The focus of the assessment of company performance is not only profit information in financial report. Investors considered that value of a company is also from investment grade to be issued in the future known as investment opportunity set (Mittal and Chopra, 2006).

2. Literature Review

Several studies have examined how agency theory problems can be reduced by increasing disclosure. Ball (2006) stated that increased transparency and disclosure will contribute to aligning the interests of managers and shareholders. Disclosures are a mechanism for controlling managers performance, reduce the occurrence of information asymmetry, monitor the cost of supplies and that will affect the cost of capital (Ohadi and Shamsjahan, 2013). The use of the internet as a media disclosure of companies can improve the quality of disclosure (Hunton et al., 2006).

Signal theory argued about how should a company give signals to users of financial statements. A probability level of information is a positive signal to investors that the company is able to generate a profit that allows the sharing of compensation in the form of a dividend. Investment opportunity set company will be a signal for investors as information in an attempt to classify these companies in the category of companies grow or not grow and that will affect the cost of capital.

A. Cost of equity capital

The cost of equity capital is the rate of return requested by a company that will satisfy all capital providers. In this study, to determine the cost of equity capital using the Ohlson Model (1995) which has been modified by Utami (2005).

B. Earnings management

Earnings management is an ability to manipulate available options and make the right choice to achieve the expected level of profit. In this research, earnings management is calculated using the specific model of accrual formula that is working capital accrual.

C. Internet financial reporting

Internet financial reporting consists of four components are content, timeliness, technology utilization, and user support.

D. Earnings power

Earning power is the company's ability to generate profits over a certain period. Profitability ratio as an earning power measurement using Net Profit Margin and Return On Assets.

E. Investment opportunity set

The investment opportunity set serves as a predictor of a company's growth measured by analysis of variable factors used are price-based proxies and investment-based proxies. Price-based proxies are based on the difference between assets and the value of the company. This proxy is very dependent on stock price, consisting of a ratio of market to book equity and ratio of stock price to earnings per share. Investment-based proxies show a high level of investment activity positively related to the company's investment opportunity set, consisting of investment to sales ratio and capital to total asset ratio.

3. Hypothesis Development

A. The direct and indirect relationship of content on cost of equity capital

Measurement of internet financial reporting with the content index will make financial reporting be transparent so that to encourage managers to reduce the earnings management practices. Ease of information obtained will make financial information more reliable for parties using financial reports (Hunton et al., 2006). Investor confidence in the information given by the company affects the estimation of risk and determination of the desired rate of return investors (Core et al., 2014; Ming and Ming, 2014). Based on the description, the proposed hypothesis is:

H1c. Content affects the cost of equity capital through earnings management.

B. The direct and indirect relationship of timeliness on cost of equity capital

In order that the financial statements were relevant, then it must meet the criteria on time. If there is a delay in reporting, then the resulting performance information will lose its relevance (Permatasari, 2005). The company was late in disclosing financial information allegedly doing management profit. Financial statements disclosure on time will make it easier for investors to obtain information that is relevant. Based on the description, the proposed hypothesis is:

H2c. Timeliness affects the cost of equity capital through earnings management.

C. The direct and indirect relationship of technology utilization on cost of equity capital

The increase in technology utilization has a lot of changing data processing of accounting activities that were originally manually into automatic (Frestilia, 2013). It will improve the performance of managers and ultimately affect earnings management practices and cost of equity capital. Based on the description, the proposed hypothesis is:

H3c. Technology utilization affects the cost of equity capital through earnings management.

D. The direct and indirect relationship of user support on cost of equity capital

The existence of user support then reduces the communication gap between users and providers of information. Decision making is done the manager would be more accurate so that planning is done the more exact will further improve managerial performance or it means that the characteristics of management accounting information affect managerial performance (Frestilia, 2013). It will reduce earnings management practices with good managerial performance. Based on the description, the proposed hypothesis is:

H4c. User support affects the cost of equity capital through earnings management.

E. The direct and indirect relationship of net profit margin on cost of equity capital

The net profit margin ratio indicates a net profit with total sales, which can be obtained from any cent sale (Purnomo and Pratiwi, 2009). The higher net profit margin ratio indicates that the better companies generate profits so that the higher the portion of dividends which can also be paid by the company. Stock market investors need to know the company's ability to generate profits. Based on the description, the proposed hypothesis is:

H5a. Net Profit Margin affects the cost of equity capital.

H5b. Net Profit Margin affects earnings management.

H5c. Net Profit Margin affects the cost of equity capital through earnings management.

F. The direct and indirect relationship of return on asset on cost of equity capital

Return on assets was used as a proxy indicator of earning power calculation where the return on assets is one of the financial ratios are often used by would-be financiers (Omid, 2012). The higher income or profits of the company, this will gain an appreciation for investors that the company is capable of providing a positive benefit for shareholders of the company. The higher profitability of a large number of dividends distributed. It will affect the cost of equity capital of the company (Core et al., 2014; Ming and Ming 2014). Based on the description, the proposed hypothesis is:

H6a. Return on Asset affects the cost of equity capital.

H6b. Return on Asset affects earnings management.

H6c. Return on Asset affects the cost of equity capital through earnings management.

G. The direct and indirect relationship of market to book equity on cost of equity capital

Market to book equity proxy showed that firms with higher growth rates will tend to be doing more earnings management. This can be caused by high growth firms have an incentive to

maintain high growth rates by doing earnings management (Gul et al., 2003). Mittal and Chopra (2006) stated that the investment opportunity set exists for the company is a major factor, which determines the movement of stock prices and dividends issued by companies are part of the cost of equity capital. Based on the description, the proposed hypothesis is:
 H7a. Market to Book Equity affects the cost of equity capital.
 H7b. Market to Book Equity affects earnings management.
 H7c. Market to Book Equity affects the cost of equity capital through earnings management.

H. The direct and indirect relationship of price earnings ratio on cost of equity capital

Price-earnings ratio describes how much earning power company-owned. The highest price-earnings ratio will increase investor confidence in the company's future (Anugrah, 2009). These effects have required rate of return investors and an impact on the cost of equity capital of the company. Based on the description, the proposed hypothesis is:
 H8a. Price Earnings Ratio affects the cost of equity capital.
 H8b. Price Earnings Ratio affects earnings management.
 H8c. Price Earnings Ratio affects the cost of equity capital through earnings management.

I. The direct and indirect relationship of investment to sales on cost of equity capital

The ratio of investment to sales indicates the company's ability to generate sales from existing assets. The higher sales or revenue generated forms, then the greater rate of return that is shared. It will impact on the cost of equity capital borne by the company (Ming and Ming 2014). Based on the description, the proposed hypothesis is:
 H9a. Investment to Sales affects the cost of equity capital.
 H9b. Investment to Sales affects earnings management.
 H9c. Investment to Sales affects the cost of equity capital through earnings management.

J. The direct and indirect relationship of capital to total asset on cost of equity capital

The ratio of capital to total assets to link the presence of additional share capital flow company for earning assets. It is potentially an indicator of growing companies. The higher revenue generated forms, then the greater rate of return that is shared. It will impact on the cost of equity capital borne by the company (Core et al., 2014). Based on the description, the proposed hypothesis is:
 H10a. Capital to Total Asset affects the cost of equity capital.
 H10b. Capital to Total Asset affects earnings management.
 H10c. Capital to Total Asset affects the cost of equity capital through earnings management.

K. The direct relationship of earnings management on cost of equity capital

Investors will expect that the company could provide confidence. They will receive a return over the funds, which are invested. In this case, the owner or investor could have been harmed by the existence of earnings management. This is because financial statements due to fraud management apocryphal, that have affected the figures cost of equity capital in financial statement presentation (Stolowy and Breton, 2000). Based on the description, the proposed hypothesis is:
 H11. Earnings management affects the cost of equity capital.

4. Research Methods

We use the following model of research:

$$COEC = Y1. CONT + Y2. TIME + Y3. TECH + Y4. USER + Y5. NPM + Y6. ROA + Y7. MTBE + Y8. PER + Y9. INVOS + Y10. CAPTA + Y11. MBLA + COEC \epsilon 1$$

$$MBLA = Y12. CONT + Y13. TIME + Y14. TECH + Y15. USER + Y16. NPM + Y17. ROA + Y18. MTBE + Y19. PER + Y20. INVOS + Y21. CAPTA + Y2 \epsilon 2$$

Where:

Hypotheses	Independent variables	Mediation variables	Dependent variables	Path coefficient	t-value
H1c	Content	Earnings management	Cost of equity capital	0.036	0.22
H2c	Timeliness	Earnings management	Cost of equity capital	-0.021	-0.22
H3c	Technology utilization	Earnings management	Cost of equity capital	0.007	0.21
H4c	User support	Earnings management	Cost of equity capital	0.001	0.07
H5a	Net profit margin		Cost of equity capital	-1.143	-1.29
H5b	Net profit margin		Earnings management	0.213	2.52
H5c	Net profit margin	Earnings management	Cost of equity capital	0.027	0.22
H6a	Return on asset		Cost of equity capital	0.845	1.16
H6b	Return on asset		Earnings management	-0.192	-2.76
H6c	Return on asset	Earnings management	Cost of equity capital	-0.024	-0.22
H7a	Market to book equity		Cost of equity capital	0.001	0.85
H7b	Market to book equity		Earnings management	-0.000	-0.24
H7c	Market to book equity	Earnings management	Cost of equity capital	0.000	-0.16
H8a	Price earning ratio		Cost of equity capital	1.039	4.16
H8b	Price earning ratio		Earnings management	0.115	4.95
H8c	Price earning ratio	Earnings management	Cost of equity capital	0.014	0.22
H9a	Investment to sales		Cost of equity capital	0.312	2.06
H9b	Investment to sales		Earnings management	-0.008	-0.56
H9c	Investment to sales	Earnings management	Cost of equity capital	-0.001	-0.21
H10a	Capital to total asset		Cost of equity capital	-0.499	-0.87
H10b	Capital to total asset		Earnings management	0.072	1.31
H10c	Capital to total asset	Earnings management	Cost of equity capital	0.009	0.22
H11	Earnings management		Cost of equity capital	0.125	0.22

COEC = (book value per share (t) + earnings per share (t+1) + price per share (t)) / price per share (t)

MBLA = working capital accruals (t) / sales (t)

CONT = dummy variable, 2 for HTML and 1 for PDF, maximum score is 50.

TIME = dummy variable, scale 0 to 3 for disclosure of press releases and stock prices, maximum score is 17.

TECH = dummy variable, scale 1 to 4 for technology utilization, maximum score is 18.

USER = dummy variable, scale 0 to 3 for a number of clicks to get financial information, search and navigation tools, consistency of web page design, maximum score is 15.

NPM = net income after tax (t) / revenue (t)

ROA = earning after tax / total assets

MTBE = (outstanding shares x share price) / total equity

PER = stock price / earning per share

INVOS = total tangible fixed assets / net sales

CAPTA = change in fixed assets / total asset book value

The population of this research is a manufacturing company listed on the Indonesia Stock Exchange during the period from 2010 to 2015 are 56 companies x 6 years = 336 observation data. The data used in this study were analyzed using partial least squares and carried out with the help of software LISREL 9.2. Research data collection techniques using nonprobability sampling by using purposive sampling methods. This research uses the type of secondary data or data derived from financial and nonfinancial information published on the Indonesia Stock Exchange (www.idx.co.id) or the company's website.

The data analysis methods in this study include descriptive statistical analysis, normality testing and path analysis. Assumptions of normality can be tested with Z statistical values for skewness and kurtosis. If Z value, good and/or significant (less than 0.05 or 5%), it can be said that data distribution is abnormal. Conversely, if Z value, good and/or insignificant (greater than 0.05 or 5%), it can be said that data distribution is normal. The test concluded normality expected the result is not significant (Ghozali & Fuad, 2008:37).

Hypothesis tests are based on research objectives, which is to assess the influence of independent variables separately. The significance (two-tailed) in this study is 5% or 0.05. If the p-value is greater than α (0.05), H_0 is accepted and H_a is rejected. If the p-value is smaller or equal to α (0.05), H_0 is rejected and H_a is accepted.

Based on Hooper et al. (2008), assess the fit model by looking at values of chi-square test, RMSEA, CFI and RMSR. The fit test indicates a fit model, then it can be concluded that the model used in this research can be used as an analytical basis of this research problem.

5. Results and Discussions

Normality assumption can be tested with statistical value z for skewness and kurtosis. The result show that COEC, MBLA,

CONT, TIME, TECH, USER, NPM, ROA, MTBE, PER, INVOS, dan CAPTA has the value of significance test of normality of 0.241; 0.326; 0.205; 0.568; 0.997; 0.999; 0.997; 0.997; 0.997; 0.997; 0.997. The overall variables this research has a p-value Skewness and Kurtosis greater than 0.05.

In addition, fit model testing is also done to find a model that fit with the original data so it can determine the quality of model research. In appendix A, goodness of fit test in this research has chi-square of 0.0486. Size goodness of fit on this model, chi-square has p-value 0.8256 can be said model in this research has a fit model.

In table 1, t-value for research sample is 1.96 which are PER and INVOS on COEC; and CONT, TIME, NPM, ROA, PER on MBLA have t-value greater than 1.96. It can be inferred that PER and INVOS have a significant relationship on COEC as follows 4.16; 2.06. The result supports the findings from previous studies (Mittal and Chopra, 2006). CONT, TIME, NPM, ROA, PER have a significant relationship on MBLA as follows 2.20; -2.43; 2.52; -2.76; 4.95. The result supports the findings from previous studies (Jo and Kim, 2007; Hunton *et al.*, 2006; Omid, 2012; Gul *et al.*, 2003).

Testing to analyze whether a mediation variable (earnings management) affects the cost of equity capital indicating the coefficient value of path MBLA-COEC is 0.22 with t-value < 1.96 (significance level 5%), the path is not significant. This means that hypotheses state that earnings management has a significant direct effect on the cost of equity capital is not supported. The earnings management hypothesis testing procedure as a mediation variable of the relationship between content and cost of equity capital is by two steps as follows.

First, do an estimate of direct effect content on the cost of equity capital without inserting a mediating variable. This direct influence should be significant. This stage has been conducted when conducting H1a (0.33) is insignificant at < 1.96 (significance level 5%) and H1b (2.20) is significant at > 1.96 (significance level 5%), indicating that there is a significant direct effect. Second, do the estimation of indirect effect simultaneously with the triangle PLS-SEM model, namely CONT-COEC, CONT-MBLA, and MBLA-COEC. The requirements of the mediation effect that must be met are that path CONT-MBLA and MBLA-COEC must be significant. Based on these provisions, it can be concluded that H1c is rejected so that the content is not proven to affect the cost of equity capital through earnings management as a mediating variable. For a test of indirect effect, hypothesis H2c, H3c, H4c, H5c, H6c, H7c, H8c, H9c, H10c is not supported.

6. Conclusion

Based on the analysis and testing results shows that: (1) Price earning ratio and investment to sales have a direct effect on cost of equity capital of 4.16; 2.06, (2) Content, timeliness,

technology utilization, user support, net profit margin, return on asset, market to book equity, capital to total asset, and earnings management has no direct effect on cost of equity capital, (3) Content, timeliness, net profit margin, return on asset, and price earning ratio have a direct effect on earnings management of 2.20; -2.43; 2.52; -2.76; 4.95, (4) Technology utilization, user support, market to book equity, investment to sales, and capital to total asset has no direct effect on earnings management, (5) Content, timeliness, technology utilization, user support, net profit margin, return on asset, market to book equity, price earning ratio, investment to sales, and capital to total asset have no indirect effect on cost of equity capital through earnings management.

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REFERENCES

1. Anugrah, A.D. (2009), "Analysis of the influence of investment opportunity set on return of the company manufacturing sector", *Journal of Accounting*, Vol. 1, pp. 1-23.
2. Ball, R. (2006), "International financial reporting standards (IFRS): pros and cons for investors", *Accounting and Business Research*, Vol. 36, pp. 5-27.
3. Core, J.E., Hail, L. and Verdi, R.S. (2014), "Mandatory disclosure quality, inside ownership, and cost of capital", *European Accounting Review*, Vol. 24 No.1, pp. 1-29.
4. Frestilia, N. (2013), "The influence of information technology utilization, characteristics of management accounting information system, and environmental uncertainty on managerial performance", *Journal of Accounting*, Vol. 1 No. 1, pp. 1-12.
5. Ghozali dan Fuad. (2008), *Theory, Concept, & Application with Program LISREL 8.54*, Diponegoro University, Semarang.
6. Gul, F.A., Leung, S. and Srinidhi, B. (2003), "Informative and opportunistic earnings management and the value relevance of earnings: some evidence on the role of IOS", *Journal of Accounting Research*, pp. 1-15.
7. Hooper, D., Coughlan, J. and Mullen, M. (2008), "Structural equation modelling: guidelines for determining model fit", *Journal of Business Research Methods*, Vol. 6 No.1, pp. 53-60.
8. Hunton, J.E., Libby, R. and Mazza, C.L. (2006), "Financial reporting transparency and earnings management", *The Accounting Review*, Vol. 81 No.1, pp. 135-157.
9. Jo, H. and Kim, Y. (2007), "Disclosure frequency and earnings management", *Journal of Financial Economics*, Vol. 84 No. 2, pp. 561-590.
10. Kumar, P. and Jain S.K. (2012), "Corporate financial reporting on internet - a study of BSE sensex companies", *Pacific Business Review International*, Vol. 4 No. 3, pp. 64-72.
11. Ming, J. and Ming, X. (2014), "Disclosure level and cost of equity capital of IPO firms: evidence from Singapore", *Journal of Accounting Research*, pp. 1-20.
12. Mittal, S. and Chopra. M. (2006), "A study of payer and no payer firm in india impact of investment opportunities, growth, cost of equity and ownership structure", *Delhi Business Review*, Vol. 7 No. 2, pp. 1-5.
13. Ohadi, F. and Shamsjahan, T. (2013), "Information disclosure quality and earnings management evidence from tehran stock

- exchange", *Interdisciplinary Journal of Contemporary Research In Business*, Vol. 5 No 1, pp. 1-5.
14. Omid, A.M. (2012), "Type of earnings management and the effects debt contracts, future earnings growth forecast and sales growth: evidence from iran", *European Journal*, Vol. 1, pp. 1-10.
 15. Permatasari, I. (2005), "Earnings management and status of company's delay in presenting annual financial statements", *Journal of accounting and finance Indonesia*, Vo.2 No2, pp. 49-72.
 16. Purnomo, B.S. and Pratiwi, P. (2009), "The influence of earning power on earning management practice", *The Journal of Media Economics*, Vol. 14 No. 1, pp. 1-13.
 17. Stolowy, H. and Breton, G. (2000), "A framework for the clasification of account manipulations an international comparation", Working Paper, HEC School of Management, pp. 1-18.
 18. Utami, W. (2005), "The influence of earnings management on cost of equity capital (study in public company manufacturing sector)", *National Symposium on Accountancy*, Vol. 8, pp. 1-17.

APPENDIX A.

GOF	Index Model	Description
Chi-Square	0.0486 (p=0.8256)	Good
GFI	1.00	Good fit
RMSR	0.054	Good fit
RMSEA	0.054	Good fit
CFI	1.00	Good fit