EFFECT OF EARNINGS MANAGEMENT, INTELLECTUAL CAPITAL DISCLOSURES, INFORMATION ASYMMETRY AND FIRM SIZE TO COST OF EQUITY CAPITAL *

Noer Sasongko,  
Economics Faculty, Magister Accounting Program  
Muhammadiyah University of Surakarta  
Jl A Yani tromol pos 1 Pabelan Surakarta, Central Java, Indonesia  
E mail : noer.sasongko@gmail.com

Haris Novy Admadianto,  
Economics Faculty, Magister Accounting Program  
Muhammadiyah University of Surakarta  
Jl A Yani tromol pos 1 Pabelan Surakarta, Central Java, Indonesia

Rina Trisnawati,  
Economics Faculty, Magister Accounting Program  
Muhammadiyah University of Surakarta  
Jl A Yani tromol pos 1 Pabelan Surakarta, Central Java, Indonesia

Wiyadi  
Economics Faculty, Magister Accounting Program  
Muhammadiyah University of Surakarta  
Jl A Yani tromol pos 1 Pabelan Surakarta, Central Java, Indonesia

ABSTRACT

Cost of Equity Capital as a proxy of the value of firm based on the assessment of accounting and capital markets. This assessment is more towards the fair value of the equity, as associate book value, earnings, stock prices and firm valuations. This firm valuation model in accordance with the ohlson model. This study examined the effect of earnings management, disclosure of intellectual capital, information asymmetry, and firm size to the firm value is proxied by the cost of equity capital. The case study on stock indexes in Indonesian go public companies in the form of JII and LQ 45 during the years 2004 to 2015. The sample used in this study were 183 companies on the index JII and 231 companies for LQ 45 index. The sampling technique purposive sampling method. Data analysis method used is multiple linear regression. The results showed that the asymmetry of information and firm size affect the cost of equity capital in the JII and LQ45. Meanwhile, earnings management, and disclosure of intellectual capital is not proven effect on the cost of equity capital. Means that research on both the stock index in Indonesia results are consistent.

Key words: Firm value, cost of equity capital, firm size, information asymmetry, earnings management, and intellectual capital disclosure.
INTRODUCTION

In conducting its business continuity, companies need funds from lenders and investors. The funds obtained from stocks or bonds are traded in the capital market. Investors have a goal in investing funds to companies that earn high returns on funds invested. Stock exchange or the stock market is a place that provides the facility to bring together two interests—those who need the funds (issuer) and those who need the funds (investor), so that the company can obtain additional needed funds through the capital market by issuing stocks or bonds to be traded. As a result of the issuance of these shares the company must pay a good return on the provision of funds provided by investors and creditors which is called the cost of equity capital. Cost of equity capital is the required return by the fund providers, both investors and creditors in the company (Ifoni, 2012). Therefore the cost of equity capital can also be used to assess the company. The cost of equity capital can be influenced by several factors: the asymmetry of information and earnings management.

Asymmetry of information is the imbalance of information between managers and shareholders or other stakeholders, where managers know internal information and the company's prospects in the future rather than shareholders. Purwanto (2013) of information asymmetry affect the cost of equity capital. The results show when incurred asymmetry of information, the disclosure of decisions made by managers may affect the stock price, because the information asymmetry between investors more informed and less informed investors raises transaction costs and reduce market liquidity is expected in the company's stock. Means less information asymmetry occurs among capital market participants the less the cost of equity capital is borne by the company. Earnings management is the company's managers attempt to influence the information in the financial statements with the intention to deceive stakeholders who want to know the performance and condition of the company (Sulistyanto, 2008). The intervention of the cause opportunistic behavior that is raised or lowered according to the interests of management accounting profit that investors gave a positive assessment of the company. Research on the effect of earnings management on the cost of equity capital has been done by previous studies. Most studies of earnings management is associated with positive accounting hypothesis (Watts and Zimmerman, 1990) about the motivation of managers in earning management is to get bonuses, avoid breaching debt covenants and to avoid political costs. Earnings management caused a lot of information that must be disclosed by the company, so the consequence of the increased costs incurred by the company to provide information to the public (cost of equity capital). Disclosure of interest and concern is the role of intellectual capital in the organization or company. Intellectual capital is an integral part of the process of value creation and maintain a competitive edge are classified into three categories of internal structure, external structure, human capital (OECD; Holland in Mangena et al., 2010). Disclosure of intellectual capital is an important and useful way to bridge the discrepancy information (information gap) arising between the managers and owners of companies thus reducing their cost of equity capital. The magnitude of the cost of equity capital is also affected by the size of a company. Vendor size is the size of the company (Nuryaman, 2008). The larger the size of a company, the greater the costs incurred by the company. Imran Research (2012), Purwaningtias and Surifah (2015) showed that the size of the company's positive effect on the cost of equity capital. It shows the larger the company, the higher cost of equity capital.

Research Ifonie (2012) on the effect of asymmetry of information and the management of profit to the cost of equity capital. The results showed that the asymmetry of information and profit management does not affect the cost of equity capital. Other studies conducted by David and Jeffrey (2016) examined the effect of voluntary disclosure, information asymmetry, and management of profit to the cost of equity capital in companies listed in Indonesia Stock Exchange during the years 2012-2014. The results showed that the asymmetry of information and earnings management has an influence on the cost of equity capital, while the voluntary disclosure does not have an influence on the cost of equity capital. While research Purwanto (2013) on the effect of earnings management, information asymmetry and voluntary disclosure of the cost of capital. Research results show that information asymmetry positive and significant impact on the cost of equity capital while earning management did not significantly affect the cost of equity capital. The other study was conducted by Jumirin (2011), Utami (2005) and Caecilia and sigit (2012), as well as Heriyanti (2013) which concluded that earnings management has a significant influence on the cost of equity capital. This shows that investors are already anticipating correctly the information related to their earnings management. Research Mangena, et al (2010) concluded that the company's overall disclosure of intellectual capital is greater in the annual report will have a lower cost of equity capital than companies that disclosure of intellectual capital is lower, especially at companies in industries with intensive intellectual capital. The other study was also conducted by Izadi and Abbas (2015), Kochi and Hamid (2015) and Lee and Whiting (2011) which has the result that the disclosure of intellectual capital affect the cost of equity capital.
According to the descriptions above regarding the effect of earnings management, disclosure of intellectual capital, information asymmetry, and the size of the company cost of equity capital there are inconsistencies in the results of the study, the authors are keen to re-examine the factors that influence the cost of equity capital. In this study, researchers used the factors that influence the cost of equity capital in the form of earnings management, disclosure of intellectual capital, information asymmetry and the size of the company on the companies belonging to the JII Index and the LQ-45 during the years 2004 to 2015.

Based on the background of the problems described above, the authors conducted the study by taking the title influence earnings management, disclosure of intellectual capital, information asymmetry and size of the company cost of equity capital (the empirical studies on the companies belonging to the index JII and LQ 45 during 2004 -2015).

Hypothesis Development

Earnings management caused a lot of information that must be disclosed by the company, so that the consequence of the increased costs incurred by the company to provide information to the public (cost of equity capital), where the cost of equity capital is the required return by the fund providers, both investors and creditors. The greater the indication of earnings management means the greater the cost of equity capital.

In accordance with Jumirin study (2011) that earnings management has a significant influence on the cost of equity capital, as well as research conducted by Utami (2005), Dewi and Jeffry (2016) and Caecilia and Sigit (2012). This shows that investors are already anticipating correctly the information related to their earnings management. The higher the earnings management by management, the higher the cost of equity capital. But the results of other studies that Ifonie (2012), Purwanto (2013) concluded that the earnings management does not affect the cost of equity capital.

Based on the description above, the hypothesis in this study are:

H1: Earnings management effect to Cost of Equity Capital

The importance of voluntary disclosures made by the management of one of them is to reduce the investment risk is estimated by investors, resulting in lower cost of equity capital. Wider disclosure is a good signal for investors because it helps investors to understand the company's strategy and critical success factor. Besides better disclosure will make the process more efficient allocation of capital and reduce the average cost of capital. Theory suggests a negative relationship between the level of disclosure and cost of equity capital for two main reasons. Firstly, greater disclosure increase the liquidity of the stock market, thereby reducing the cost of equity either through reduced transaction costs or an increase in the demand for the securities of a company. Secondly, greater disclosure reduces the risk arising from the estimation of investors on the stock return and payoff distribution (Botosan in Lee and Whiting, 2011). Research on the effect of intellectual capital disclosure of the cost of equity capital had previously been done by several researchers. Mangena et al (2010) concluded that the company's overall disclosure of intellectual capital is greater in the annual report will have a lower cost of equity capital than companies that disclose of intellectual capital is lower, especially at companies in industries with intensive intellectual capital. The other study was also conducted by Izadi and Abbas (2015), Kochi and Hamid (2015) and Lee and Whiting (2011) which has the result that the disclosure of intellectual capital affect the cost of equity capital. This suggests that investors use the disclosed information to predict future profits in determining the present value of their investments. Great uncertainty arises when a low-level information. Disclosure of information will help reduce uncertainty and reduce the risk estimation, resulting in lower cost of equity capital.

Based on the description above, the hypothesis in this study are:

H2: Intellectual capital disclosure effect to cost of equity capital

Asymmetry of information is the imbalance of information between managers and shareholders or other stakeholders, where managers know internal information and the company's prospects in the future rather than shareholders. When raised asymmetry of information, the disclosure of decisions made by the manager can influence stock prices because of information asymmetry between investors more informed and less informed investors raises transaction costs and reduce the expected liquidity in the market for the company's shares.

Research on the effects of information asymmetry on the cost of equity capital had previously been done by several researchers. Purwanto (2013) examined the effect of earnings management, information asymmetry and voluntary disclosure of the cost of capital. The results showed asymmetry of information positive and significant impact on the cost of equity capital. The research was supported by research conducted by Heriyanthi (2013), Dewi and Jeffry (2016).
and Nuryaman (2014) which concluded that the information asymmetry affect the cost of equity capital. This shows the higher the asymmetry of information of a company, the more risky the company's stock so that investors will think twice to invest and investors will expect a larger return. The cost of equity capital used to determine the rate of return of an investment. When investment increases, the cost of equity capital will decline. Impact of the existence of information asymmetry can also be seen on stock trading volume and spreads occur. When the asymmetry of information increases, it can cause small trading volume as investors doubted the accuracy of their financial statements that influence the level of return expected by investors.

Based on the description above, the hypothesis in this study are:

H3: Information Asymmetry effect to the cost of equity capital

Company size is the size of the company (Nuryaman, 2008). Company size is a measure of the availability of information. Large companies that make the activity more and usually have different business units which may be the determining factor of success and have the potential for long term value creation as well as showing the number of investors invested in the company. Therefore, as an owner, investor demand as the relevant information on the use of investment management accountability and delegation of authority given. In accordance with the results of Imran (2012), Purwaningtias and Surifah (2015) and Pure (2004) showed that the size of the company's positive effect on the cost of equity capital. It shows the larger the company, the higher cost of equity capital. Based on the description above, the hypothesis in this study are:

H4: Firm Size effect to cost of equity capital

RESEARCH METHODS

Population and Sample

The population in this study are all companies incorporated in the index JII and LQ-45 index during the years 2004-2015. Sample selection is done by using purposive sampling method with the following criteria:

1. The company went public listed on the Indonesia Stock Exchange during the period 2004 to 2015 incorporated in syariah index, Jakarta Islamic Index (JII) and conventional or index, Liquid-45 (LQ-45).
2. The Company publishes annual financial statements for the period 31 December 2004- 31 December 2015 respectively and expressed in rupiah (IDR).
3. Data provided complete (the overall data provided in the publication period 31 December 2004-31 December 2015, data on earnings management, disclosure of intellectual capital, information asymmetry, the size of the company and the data needed to measure the cost of equity capital).

Data Analysis Method

Multiple linear regression equation in this study was formulated as follows:

\[ \text{CEC} = \alpha + \beta_1 \text{DA} + \beta_2 \text{ICD} + \beta_3 \text{SPREAD} + \beta_4 \text{FS} + \epsilon \]

Where,

- CEC : Cost Of Equity Capital
- \( \alpha \) : Constanta
- DA : Discretionary Accrual (Earnings Management)
- ICD : Intellectual Capital Disclosure
- SPREAD: Information Asymmetry
- FS : Firm Size
- \( \beta \) : Koefisien Regresi
\( \epsilon \): error

RESULTS AND DISCUSSION

Description of Sample
Based on the criteria set before it obtained a sample of 183 companies and 231 companies of index JII and LQ-45 index. The sample used in this study can be seen in Table 4.1 below.

<table>
<thead>
<tr>
<th>No</th>
<th>Information</th>
<th>JII</th>
<th>LQ-45</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The Company is incorporated in the index JII during the period 2004-2014</td>
<td>330</td>
<td>495</td>
</tr>
<tr>
<td>2</td>
<td>Companies that do not publish annual financial statements for the period 31 December 2004-31 December 2014 in consecutive and not expressed in Rupiah (Rp)</td>
<td>63</td>
<td>84</td>
</tr>
<tr>
<td>3</td>
<td>Companies were categorized as non-manufacturing (banking, insurance and other financial)</td>
<td>0</td>
<td>74</td>
</tr>
<tr>
<td>4</td>
<td>Company data is incomplete</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Data Outlier</td>
<td>46</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td></td>
<td>38</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>183</td>
<td>231</td>
</tr>
</tbody>
</table>

Hypothesis Testing and Discussion

Results of the test data indicate that the data passes the test classic assumptions. Furthermore, the multiple regression analysis with the aim to prove the influence of variables - the independent variable on the dependent variable. In this study, multiple linear regression testing is used to determine the effect of earnings management, disclosure of intellectual capital, information asymmetry and size of the company cost of equity capital in companies incorporated in the index JII and LQ-45 during the years 2004 to 2015. The calculation result can be seen in Table 2 below:

<table>
<thead>
<tr>
<th>Variabel</th>
<th>Indeks JII</th>
<th>Indeks LQ-45</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( \beta )</td>
<td>( \theta )</td>
</tr>
<tr>
<td>(Constant)</td>
<td>-0.797</td>
<td>-16.380</td>
</tr>
<tr>
<td>Earnings management</td>
<td>-0.007</td>
<td>-0.882</td>
</tr>
</tbody>
</table>
Table 2:

<table>
<thead>
<tr>
<th></th>
<th>CEC JII</th>
<th>CEC LQ-45</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intellectual Capital Disclosure</td>
<td>1.09E-4</td>
<td>-0.305</td>
</tr>
<tr>
<td>Information Asymmetry</td>
<td>0.022</td>
<td>2.432</td>
</tr>
<tr>
<td>Firm Size</td>
<td>-0.022</td>
<td>-3.429</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.001*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.001*</td>
</tr>
</tbody>
</table>

* = Significans 0.01 or 0.05

Source: Analysis, 2016

From table 2 which is the result of multiple linear regression testing can be created regression equation as follows:

\[ CEC_{\text{JII}} = -0.797 - 0.007 \text{DA} - 1.09E-4 \text{ICD} + 0.022 \text{SPREAD} - 0.022 \text{FS} + e \]

\[ CEC_{\text{LQ-45}} = -1.062 -0.002 \text{DA} - 4.41E-4 \text{ICD} + 0.029 \text{SPREAD} + 0.017 \text{FS} + e \]

The F test results indicate that the independent variables of earnings management, disclosure of intellectual capital, information asymmetry and firm size simultaneously towards the cost of equity capital. F-test index JII and LQ-45 index showed a significance value less than \( \alpha \) (0.000 < 0.05).

Based on the results of research on the effect of earnings management, disclosure of intellectual capital, information asymmetry and size of the company cost of equity capital (an empirical study on a company incorporated in the index JII and LQ-45 during the years 2004 to 2015) obtained the following results:

**Effect of Earnings Management To Cost of Equity Capital**

The regression results provide empirical evidence that earnings management does not affect the cost of equity capital in companies incorporated in the index JII and LQ-45 during the years 2004 to 2015. The greater the earnings management conducted by the firm will not affect the cost of equity capital is borne by investors. The results of this study contrast with the theory that the higher the value of earnings management, the higher the cost of equity capital. Earnings management is one of the factors that reduce the credibility of financial statements, profit management add bias in the financial statements and may interfere with users of financial statements believe the earnings numbers modified as actual earnings numbers (Setiawati and Naim, 2000 in Rahmawati, 2006). Under the rules of Bapepam (2011) stated that investors tend to be irrational in making decisions, such as inadequate knowledge and investors are less likely to follow the concept of capital market investment (for example, consider the risks and returns and invest for the long term). CAPM proxy that describes the risks of investing in stocks is also not related to the behavior of managers to manage earnings to the company. Yet another opinion expressed by Ifonie (2012) which states that investors have been anticipating their earnings management conducted by the company, so investors do not only see the results of the financial statements but look at another factor in the decision to put money into the company. Earnings management perspective in view of the investor is not affecting the returns will be accepted in the future. The results of this study are consistent with the results of research conducted by Ifonie (2012), Purwanto (2013) which concluded that the earnings management does not affect the cost of equity capital.

**Effect of Intellectual Capital Disclosures to Cost of Equity Capital**

The regression results provide empirical evidence that the disclosure of intellectual capital does not affect the cost of equity capital in companies incorporated in the index JII and LQ-45 during the years 2004 to 2015. The greater the
intellectual capital disclosures made by the company will not affect the amount of the cost of equity capital borne by investors. This is due to the disclosure of intellectual capital that has not been considered relevant by investors in Indonesia to reduce the cost of equity capital. Disclosure of intellectual capital in some items due to the regulation of Bapepam LK No. KEP-431 / BL / 2012 dated 1 August 2012 on the submission of annual reports of listed companies or public companies. The regulation reporting obligations, the form and content of annual reports, so that the nature of such disclosure is mandatory or comply. Another opinion was also expressed by Hernita, Sri (2011) in which the annual report does provide company information is specific enough that it takes lenders and investors in decision-making. However, not all the required information contained in the annual report so that investors and creditors may utilize other information. In addition, the lender may assume that the disclosures contained in the annual report only as management's efforts to attract lenders to provide loans, so that the information presented may not reflect actual conditions. Another factor is the disclosure of other information in the annual reports required by investors to assess the company so that they are sure to invest into the company. Additional information is required of investors including the disclosure of corporate social responsibility (CSR) and sustainability report in the annual report in accordance with Bapepam LK No. KEP-431 / BL / 2012 on the submission of annual reports of listed companies or public companies. The results of this study are not consistent with the results of research conducted by Mangena et al (2010), Izadi and Abbas (2015), Kochi and Hamid (2015) and Lee and Whiting (2011) which concluded that the disclosure of intellectual capital affect the cost of equity capital.

Effect of Information Asymmetry to Cost of Equity Capital

The regression results provide empirical evidence that the information asymmetry affect the cost of equity capital in companies incorporated in the index JII and LQ-45 during the years 2004 to 2015. Information Asymmetry significant positive effect on the cost of equity capital. The smaller the company, the information asymmetry in the cost of equity capital will also be decreased so that investors will not hesitate to invest, and otherwise increasing information asymmetry will cause the cost of equity capital of companies to be increased. Decline in information asymmetry causes a reduction in transaction costs, where the transaction costs are represented by the bid ask spread (Murwaningsari, 2012). The cost of equity capital used to determine the rate of return of an investment. When investment increases, the cost of equity capital will decline. Impact of the existence of information asymmetry can also be seen on stock trading volume and spreads occur. When the asymmetry of information increases, it can cause small trading volume as investors doubted the accuracy of their financial statements that influence the level of return expected by investors. Another opinion on the significance of information asymmetry by Purwanto (2013) explains that when raised asymmetry of information, disclosure decisions made by the manager can influence stock prices because of information asymmetry between investors more informed and investors are less informed transaction costs, thereby reducing the liquidity is expected in the company's stock market. This means that the smaller the information asymmetries that occur among capital market participants will be smaller equity capital costs incurred by the company. The results are consistent with the results of research conducted by Purwanto (2013), Heriyanthi (2013), Dewi and Jeffry (2016), Nuryaman (2014) which concluded that the information asymmetry affect the cost of equity capital.

Effect of Firm Size Effect to Cost of Equity Capital

The regression results provide empirical evidence that firm size affect the cost of equity capital in companies incorporated in the index JII and LQ-45 during the years 2004 to 2015. Size companies significant positive effect on the cost of equity capital. The larger the size of a company, the cost of equity capital will also increase, and conversely the smaller the company, the cost of equity capital will also be smaller. The larger the company the greater the costs incurred by the company to provide information to the public so that the impact on the increased cost of equity capital (Arts, 2004).

The results are consistent with the results of research conducted by Imran (2012), Purwaningtias and Surifah (2015), Pure (2004) which concluded that the size of the effect on the company's cost of equity capital.
CONCLUSION

Based on the analysis of data and discussion that has been disclosed in the previous chapter, it can put forward some conclusions as follows:

1. Earnings management does not affect the cost of equity capital at JII Index and the LQ-45, then H1 is rejected. This means that earnings management practices by the company do not affect the amount of cost of equity capital.
2. Disclosure of intellectual capital does not affect the cost of equity capital at JII Index and the LQ-45, then H2 was rejected. This means that the higher the score the disclosure of intellectual capital in the company it does not affect the magnitude of the cost of equity capital.
3. The information asymmetry effect on earnings management in JII Index and the LQ-45, the H3 is accepted. This means the smaller the asymmetry of information in an enterprise it will reduce the cost of equity capital.
4. Firm size effect to cost of equity capital at JII Index and the LQ-45, the H4 is accepted. This means that the smaller the company, the cost of equity capital will also be smaller.

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