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# Real Earnings Management in the Indonesian Sharia Capital Market

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### Abstract

This study investigates whether the firms in The Indonesian Sharia Capital Market conduct real earnings management (RM). By using Earning Distribution Analysis, we find that there is abnormal distribution of earning growth which is found high frequency of firms with around zero earnings. It shows that those firms have high intention of conducting earnings management because they want to avoid small losses by converting into small profit, so that firms are called suspect firm. Further, this study investigates whether any differences of RM between suspect firms and non suspect firms. The result shows that the suspect firm conduct RM aggressively than non suspect firm.

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Keywords: real earnings management; Indonesian Sharia Capital Market

### 1. Introduction

Earnings management is the popular and interested research issue. Managers' concerns over current performance, motivate them to engage in earnings management by manipulating current period earnings at the expense of future period earnings (e.g., Stein, 1989; Fudenburg and Tirole, 1995; Pauwels et al., 2004; Graham et al., 2005; and Rodriguez-Perez and van Hemmen, 2010). This managerial myopia arises because outside investors and analysts typically rely on current period earnings when forming their expectations of future earnings, and a variety of contractual obligations (e.g., earnings-based bonus contracts and debt covenants) are linked in most cases to current period reported earnings.

\* Corresponding author. Tel.: +85234964520. E-mail address: yuliana\_rita@yahoo.co.id The common researches on earnings management develop in the issues straightly, methodologies, and earnings management techniques. Classic issues of earnings management researches investigate the pattern of earnings management, such as income increasing (e.g. Chih et al., 2008), income decreasing (e.g. Jones 1991; Boynton et al. 1992; and Guenther 1994), as well as income smoothing (e.g. Holthausen et al. 1995 and DeFond and Park 1997). The other issues discussed in the research of earnings management are about the type of earnings management. There are several earnings management techniques, which is accrual-based earnings management that is most broadly applied in the researches (Jones, 1991 and Dechow, 1994). Several current earnings management techniques are real earnings management (Roychowdhury, 2006 and Gunny, 2010) and classification shifting (MacVay 2006).

Real earnings management is one of optional earning managements that is conducted through a business decision of company managers (Rankin *et al.*, 2012:260) and influence indirect or direct to the cash flow (Roychowdhury, 2006). Manager chooses this kind of earnings management because RM are more difficult for average investors to understand, and are normally less subject to monitoring and scrutiny by board, auditors, regulators, and other outside stakeholders (Kim and Sohn, 2013). Besides, RM is not just manipulating the accrual accounting, but it manipulates the business. Therefore, the company managers take a responsible because RM in line with the flow of company resources.

This research aim is to detect RM in the Indonesian Islamic Stock Market. To our knowledge, however, none of the previous RM research investigates the RM practices in the Sharia Stock Market, whereas the existence of this market have relatively large proportion (more than 60% in Indonesia). Besides, this kind of earnings management is consistent with the Islamic business principles refered by the companies in the Islamic Stock Market. Detection on RM is still rare in Indonesia and has never been conducted on Sharia Capital Market. RM has a good side based on considerations of reputation, risk and control for the company.

### 2. Real Earnings Management

RM is one of optional earnings management conducted through the company's operational decisions (Rankin et al. 2012: 260). According to Roychowdhury (2006), RM influence directly or indirectly on cash flow. Thus, the RM is one of the types of earnings management consequently on the company's operations and cash flows. RM is also one of the managers consideration to convey their interests to the investors. Graham et al. (2005), states that after the Enron case, the managers prefer doing earnings management by using real variables than the aggressive accounting policies that risks legally as well as consequences for the reputation of the company.

Furthermore, Roychowdhury (2006) mentions two reasons for the company's managers conduct RM. First, auditor and the government are more accurate to the accrual of management than real policy on pricing and production. Second, the risk of real earnings management was smaller than accrual earnings management because the real earnings management affected to the short-term making control easier.

Empirical evidence about the detection of RM is performed by Burgstahler and Dichev (1997) by conducting earnings distribution analysis (EDA) approach. Burgstahler and Dichev (1997) explain the managers' reasons conduct RM, one of them is by referring to the prospect theory (Kahneman and Tversky, 1979). The theory explains that the decision maker provided a value based on the reference, not the total asset value. Burgstahler and Dichev (1997) use the profits/losses as a reference point in explaining the investment decision strategy.

Based on prospect theory, in the same amount of wealth, decision makers give the utility to the profit in greater value than the loss. Based on prospect theory, Burgstahler and Dichev (1997) explain that the effort to maintain earnings in positive conditions, although of a little value, becomes important to get a good market value. In the context of that study, the managers push the profit in positive by doing RM.

The EDA examines the pattern of earnings distribution around zero. Zero is critical point as reference that differs between profit and loss. Burgstahler and Dichev (1997) showed empirical evidence that there is small frequency of profits and losses. On the other hand, there is a large frequency for small positive earnings (0 - 0.005). The evidence showed abnormal distribution of earnings. It makes a conclusion that the smallest positive earnings' company are suspect-firms that doing earnings management. They do earnings management because they want to avoid in reporting losses, although in small value.

Several studies have used EDA techniques for detecting earnings management (Shen and Chih, 2005; Roychowdhury, 2006; Chih, 2008; Gunny, 2010; Aflatooni and Mokaromi, 2013 and Chen, 2013). EDA is applied to test accrual earnings management (Shen and Chih Chih, 2005 and 2008) and RM (Roychowdhury 2006, Gunny 2010, Aflatooni and Mokaromi 2013, and Chen 2013).

Earnings management is closely linked to the actions of management in running the company's strategy through accounting approach. The action caused by the desire of managers to maintain or improve the performance of the company. The earnings position becomes one of the company performance indicators in order to the company sustainability kept awake. Therefore, the manager seeks to maintain the position of the company's earnings from decline or being loss. This is a same with prospect theory which states that the advantages of being a positive signal for investment decision-makers. Based on these descriptions, this study hypothesized that companies that have earnings around zero (suspect-firms) conduct RM.

### 3. Research Methods

This study uses a company listed in DES (Daftar Efek Syariah/The List of Islamic Stock) during 2007 to 2012 as the unit of analysis. This study uses data in annual profit. Samples of this research are a company that has a ratio between net income per total assets beginning of the year in the interval -0.075 to +0.075. The interval refers to research Burgstahler and Dichev (1997) and Roychowdhury (2005). There are 528 firm-years that fulfill the criteria of the interval. Testing of RM performed on suspect firm determined by the ratio between net incomes per total assets beginning of the year. Suspect firm is a company that has such a ratio with values between 0 and 0.005.

The main variable of this study is RM, measured by identification of three abnormal activities. Those activities are abnormal sales, abnormal production, and abnormal discretionary expenses. The measurement of RM is based on the difference between real activities with normal activities. Normal activity was measured by using the model of RM proposed by Roychouwdhury (2006). The model is conducted by industry and year level, which minimum data is 15 firms. The following is model of RM:

a. Normal Sales

$$\frac{s_{-}N_{t}}{A_{t-1}} = \alpha_{0} + \alpha_{1} \left(\frac{1}{A_{t-1}}\right) + \beta_{1} \left(\frac{S_{t}}{A_{t-1}}\right) + \beta_{2} \left(\frac{\Delta S_{t}}{A_{t-1}}\right) + \varepsilon_{t}^{S}$$

$$\tag{1}$$

b. Normal Production

$$\frac{PROD_{-}N_{t}}{A_{t-1}} = \alpha_{0} + \alpha_{1} \left(\frac{1}{A_{t-1}}\right) + \beta_{1} \left(\frac{S}{A_{t-1}}\right) + \beta_{2} \left(\frac{\Delta S_{t}}{A_{t-1}}\right) + \beta_{3} \left(\frac{\Delta S_{t-1}}{A_{t-1}}\right) \varepsilon_{t}^{PROD}$$
(2)

c. Normal discretionary costs

$$\frac{DE_{-}N_{t}}{A_{t-1}} = \alpha_{0} + \alpha_{1} \left( \frac{1}{A_{t-1}} \right) + \beta_{1} \left( \frac{S_{t-1}}{A_{t-1}} \right) + \varepsilon_{t}^{DE}$$
(3)

Where  $A_{t-1}$ , is an asset of beginning of the year,  $S_t$  is selling proxied by cash flow from operation, and  $\Delta S_t$  is the difference sales this year's and previous year. As the research hypothesis, then the data analysis in this research is different test independent t-test. The different test conducted on the RM between the suspect firm and non-firm suspect. The hypothesis will not be rejected if it is proven there are difference averages of earnings management in both groups.

### 4. Result and Discussion

The following is data description, divided into two groups of observations, namely the *suspect firm* and non-firm suspect.

Table	1	Des	crin	tive	Stat	istic
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	Suspect firm	Non Suspect firm	Difference
	Average	Average	(t stat)
Assets (billion)	1.011	2.127	-3,130
Sales (billion)	4.836	1.427	-4,283
Operating Cash Flow (billions)	1.964	1.753	-2,538
Net Income (million)	1.978	2.205	-6,316
Net Income / Total Assets	0,003	0,031	-13,824
Production / Total Assets	0,507	1,302	-3,456
Discretionary costs / Total Assets	0,819	0,181	-4,773
Operating Cash Flow / Total Assets	0,016	1,889	-1,263
N (company-year)	67	476	

Table 1 shows that the financial performance as well as the company's operations. Suspect firm has average assets that are lower than non suspect firm, and the difference is significant. Similarly, it is with the data of net incomes per total assets and total production per asset. These facts indicate that the financial performance of suspect firm is lower than the non suspect firm. On the other hand, average sales suspect firm is higher than non suspect firm. These facts indicate that the suspect firm selling aggressively than non suspect firm. Thus, suspect firm has a financial performance as well as the performance of operations that is different with non suspect firm.

The differences in financial and operational performance become the first initial clues about the condition of the company that may conduct RM. Furthermore, the need of proof regarding the earnings condition between suspect firm and non suspect firm to be an early indication that the suspect firm has a strong motivation to conduct earnings management, when the company's earnings is close to zero. It is probably that real earning (earnings before RM) is negative (loss) event in small value, so manager boost that earning to be positive event in small value either.

This study used a sample of companies with earnings ratio per total assets between -0.075 to +0.075. The sample was divided into 30 interval groups with a long interval group was 0.005. Thus, the firm suspect is in the interval to 16 (with earnings ratio per total assets is between 0 to 0.005), while the other interval categorized non suspect firm. The illustration 1 shows the frequency of the earnings of all firm-years by group interval:

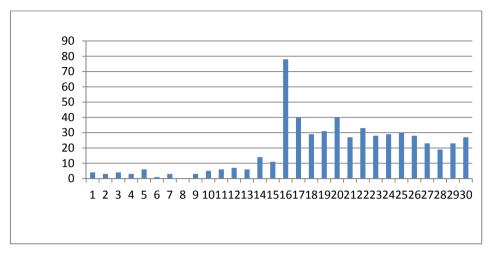


Fig 1. Earnings Frequency

Illustration 1 shows the histogram of the distribution pattern of single-Peaked bell shape where there are irregularities in the distribution of current earnings ratio per total assets beginning of the year around zero (interval 16). Interval 16 shows a condition in which the company has positive earnings, although its value is very small. This is consistent with the hypothesis that there is earnings management around that point as the company strives to avoid losses.

Based on the results of descriptive statistical analysis and histogram of frequency of such earnings, there is relatively strong argument that the suspect firms have potential strong motivation to conduct earnings management. Empirical evidences about RM are shown in Table 2 which includes three different test manipulation of real activity, between the suspect firm and non-firm suspect. The evidence is supported by a histogram illustration of the value of each manipulation of real activity.

Table2. t-Test Results of Real Earnings Management

	Suspect firm	Non Suspect firm	t statistic
Abnormal sales	-0,0302	0,0033	-2,485
Abnormal production	0,0351	-0,0027	2,287
Abnormal discretionary costs	-0,0400	0,0037	-2,965

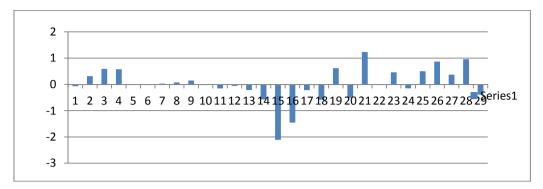


Fig. 2.a. Real Earnings Management through Manipulation of Sales Activity

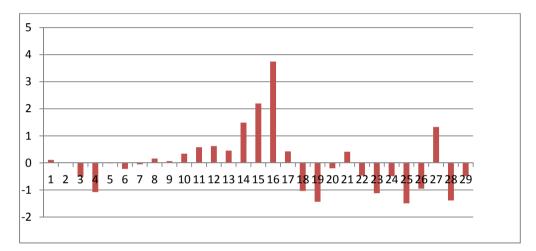


Fig. 2.b. Real Earnings Management through Manipulation of Production Activity

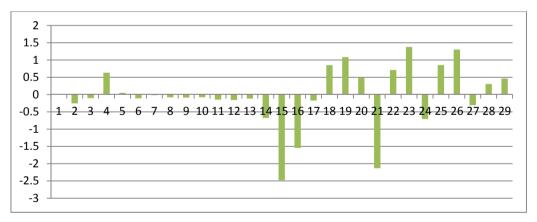


Fig. 2.c. Real Earnings Management through Manipulation of Discretionary Cost

The Table 2 and Fig 2.a, 2.b, and 2.c, show empirical evidences that there are significant differences of RM between suspect firm and non-firm suspect. In the table 2 appears the average value of abnormal sales on a suspect firm is negative, while the non suspect firm is positive, with a significant difference. The evidence is also supported by Fig. 2A that shows the value of abnormal sales for suspect firm (at intervals 16th) more negative relatively than average.

The results show that suspect firm experiences a negative cash flow for the company to increase sales aggressively than any other company.

The increase of sales is actually negative implications on cash flow because the company sold products with the strategy of giving massive discounts and facilitating more lenient credit sales terms. The sales strategy make the company earns a lower margin and less inflows cash. On the other hand, the company issued cash to finance expenses related to the aggressive sales strategy. It makes the cash flow to be negative. The empirical evidence is consistent with the arguments of Roychouwdhury (2006) which states that RM directly impacts the company's cash flow.

These results are consistent with the following empirical evidence which shows that there are different average of production activity between the suspect firm and non suspect firm. At the suspect firm, the average of production activities was 0.0351, while in non suspect firm of value -0.0027 (see Fig. 2c for understanding visually). The significance of these figures is that the suspect firm is proven to increase production with reason to adjust the aggressive sales strategy which definitely requires amount of sufficient products. On the other hand, the strategy of increasing production is intended to increase the production cost. When production is enhanced with the company assuming in normal capacity, the fixed cost per unit becomes smaller, as well as the total cost per unit also becomes smaller. The condition causes an increase in earnings, although sales is under normal conditions.

The third evidence also supports the hypothesis that the suspect firm conducts RM by reducing discretionary expenses. Suspect firm has an average value of negative discretionary costs, while the non-suspect firm otherwise with significant differences (see Fig. 2c for understanding visually). The negative value indicates that the discretionary cost to the suspect firm is smaller than the normal discretionary costs. Thus it can be said that the suspect firm reduce discretionary costs to increase the earnings figures. In addition, strategies to reduce disretionary costs also impacted to the decrease in cash outflows, if it is assumed that these costs are paid in cash. If the cash outflows can be reduced, then the cash may be allocated to finance other expenses that support RM, namely increased sales and increased production.

### 5. Conclusions and Further Researches

This study shows empirical evidence of earnings management detection through EDA also confirms application of prospect theory in the Islamic capital market in Indonesia. Results of this research data analysis using earnings data show that there is an increase of positive earnings frequency in large numbers, despite the earnings of small value. Thus, this study is consistent with research on RM (Burgstahler and Dichev 1997, Roychowdhury Gunny 2006 and 2010) as well as prospect theory (Kahneman and Tversky 1979).

Furthermore, this study also showed that the suspect firm conducts RM activities. The activities are increasing sales, increasing production and reducing discretionary expenses. The findings are consistent with research of Roychowdhury (2006) and Gunny (2010) which states that the real activity manipulation can also be used as a strategy to conduct earnings management.

This study shows that there is empirical evidence to the existence of RM in Indonesian Islamic Stock Market. The earnings management is one of optional earnings management strategies that promote the company's ability to bear risks directly related to the company's operations and cash flows. Therefore, this type of management requires good consideration related to the readiness of companies to bear the risk. The considerations become further research opportunities in order to investigate the influence of the company's ability to earnings management strategy options. The ability of the company is not merely the ability financially, but also the company's ability to provide a relatively safe situation for the implementation of the earnings management strategies, such as certainty of supply of raw materials, the readiness of resources, the right timing, the possibility of an investigation by regulators and auditors, and others forth.

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