

CHAPTER II

THEORITICAL BACKGROUND AND HYPOTHESES DEVELOPMENT

2.1. Agency Theory

The rise of earnings management can be explained with agency theory. This theory is started when owner of the firm cannot manage his firm alone; so that there is a need to execute contracts with the executives to operate the firm. As an agent, the executives have responsibility to optimize the benefits of the principals and as a result, they will receive appropriate compensation.

Agency theory describes the relationship between the principal and agent. Jensen and Meckling (1976) define the relationship as a contract which happens when the principal gives an authorization to the agent to make a decision. In firms which capital structure based on stock, the stockholders are the principal and the board of directors is their agent. The board of directors is working for the importance of stockholders.

According to Eisenhardt that cited by Arin (2006), agency theory is based by three assumptions, they are:

1. Human characters assumption

This assumption points out that human have a characteristic of egoistic, beside they have a limitation of rationality and do not like risk.

2. Organizational assumption

This assumption says that in every firm conflict happens between the members of the organization, the efficiency as the production measurement, and there is asymmetry information between the principal and agent.

3. Assumption of information

This assumption says that information is a commodity which can be sold and bought.

In financial accounting theory, the management as an agent must do something in a favor to the principal, but on the other hand the management usually makes a decision to their own benefits. An agent can make the principal have a general loss and if it is continued to happen, it will make the firm suffer.

This conflict of interest between the principal and agent is called an agency problem, and it happens because there is an asymmetry of information. This problem also happens because the principal has difficulties to overview and control the actions of the agent.

Jensen and Meckling (1976) propose that the problems below can happen continuously in a long term if the firm cannot control the agent:

1. Moral hazard

Moral hazard is a problem that happens when the agent does not manage the company as the contract says.

2. Adverse selection

Adverse selection is a problem that happens when the principal does not have any knowledge regarding the decision which is made by the agent.

2.2. Earnings Management

2.2.1. Earnings Management Definition

Financial reports will convey more useful and valuable information to users if managers are permitted at some degree of judgment to select reporting methods, estimates and disclosures appropriate to the underlying business economics of the firm (Fong, 2006 as cited in Healy and Wahlen, 1999). However, neither accounting nor auditing is an exact science. As it is the firm's management which decides how information contained in financial reports is presented, there is a risk of earnings management, whereby managers select estimates and reporting methods, which do not accurately reflect the firm's underlying economics (DeAngelo, 1986 as cited in Fong, 2006). Scott (2011) states, "Earnings management is the choice done by a manager of accounting policies, or actions affecting earnings, to achieve some specific reported earnings objective." Moreover, Gumanti (2000) also states that earnings management is performed by a manager because they expect benefit from the actions taken. Earnings management could give a description about a manager's behavior in order to report their business activities in a certain period of time, in which there is a

possibility of particular motivation which push managers to manage or set financial data reported. While according to Setiawati and Na'im (2000), earnings management arise as a result of the use of accounting as an information and communication tool between company's internal and external corporate parties.

2.2.2. Motivations of Earnings Management

According to Scott (2011), motivations for earnings management is explained as follows:

1. Bonus plan purposes

Profit is often used by company to measure management performance. Commonly, firms set the targeted profit to be achieved in the certain period, so that the managers are forced to achieve the target. All others are being equal; managers of the firms with bonus plans are more likely to choose accounting procedures that shift reported earnings from future periods to current period. Managers, like everyone else, would like to have high remuneration. If their remuneration depends on a bonus related to the reported net income, then they tend to report the net income as high as possible, in order to get higher current bonus.

2. Covenant purposes

Earnings management for covenant purposes is predicted by debt covenant hypothesis of positive accounting theory. Because

covenant violation can impose heavy costs, firm managers are expected to avoid them. They will also try to avoid being close to violation, because it will constrain their freedom of action in operating the firm. Therefore, earnings management appear as a device to reduce the probability of covenants violation in debt contracts.

3. Implicit contracting purposes

The investigation of earnings management for implicit contracting purposes is done by Bowen, DuCharme, and Shores (1995). It is said that implicit contracting purposes can be bolstered by high reported profits. This high reported profits will increase stakeholders' confidence that the manager will continue to meet contractual obligations. Implicit contracting purposes arise from continuing relationship between the firm and its stakeholders and represent expected behavior based on past business dealings.

4. Investors earning expectation

Investors' earning expectation can be formed through several strategies. For example, the strategy may be based on earnings for the same period last year or on recent analyst or company forecast. Firms which report earnings more than what is expected will enjoy a significant increase of share price, as investors revise upwards their probabilities of good future performance. As a result, managers have a strong incentive to ensure that earnings

expectations are met, particularly if they hold share-related compensation.

5. Companies' reputation

To maintain companies' reputation, the managers have to be able to show to the investors that companies have a good performance. To do this, at least managers must be able to ensure that the companies meet investors' expectation and give the financial statement on time without implausible explanation (Barton and Mercer, 2005).

6. Initial public offerings

In definition, firms which make initial public offerings do not have an established market price. This raises question of how to value the shares of such firms. The assumption that financial accounting information is included in the prospectus is a useful information source. There is an empirical evidence that the market responds positively to earnings forecasts as a signal of firm value (Clarkson, Dontoh, Richardson and Sefcik, 1992). This raises the possibility that the managers of firms going public may manage the earnings reported in their prospectuses in order to receive higher price of their shares.

2.2.3. The Patterns of Earnings Management

According to Scott (2011) there are four patterns of earnings management. They are described as follows:

1. Taking a bath

This pattern can take place during periods of organizational stress or restructuring. If a firm must report a loss, management may feel it might as well report a big one.

2. Income minimization

This pattern may be chosen by a politically visible firm during periods of high profitability. Policies that suggest income minimization include rapid write-off of capital assets and intangibles, and the expensing of advertising and R&D expense to minimize income.

3. Income maximization

According to positive accounting theory from Scott (2011), managers may engage in a pattern of maximization of reported net income for bonus purposes. Firms that are close to debt covenant violations may also maximize income.

4. Income smoothing

Managers may smooth the reported earnings over time so as to receive constant compensation. Efficient compensation contracting may exploit this effect and condone some income smoothing as a low-cost way to attain the manager's reservation utility.

2.2.4. The Methods of Earnings Management

There are two methods to manage earnings. They are accrual-based manipulation and real activities manipulation. Those methods are described below:

1. Earnings management through real activities

Real activities manipulation is a purposeful action to alter reported earnings in a particular direction which is achieved by changing the timing or structuring of an operation, investment, or financing transaction and which has suboptimal business consequences. The idea that firms engage in real activities manipulation is supported by the survey evidence in Graham et al. (2005).

2. Earnings management through accounting policies and estimates

Earnings management through accounting policies is explained as manipulation of earnings by choosing specific principles, bases, conventions, rules, and practices while preparing and presenting financial reports. Earnings management through accounting estimates can also be defined as manipulation of earnings by adjusting the carrying amount of an asset or a liability, or the amount of the periodic consumption of an asset. Mostly, firms prefer to use combination of both accounting policies and estimates. Accounting policies-based earnings management is achieved by changing the accounting methods which is used when the given

transaction in the financial statements is presented. For example by changing the depreciation method for fixed assets. The example of accounting estimate-based earnings management is by changing the estimate for provision for doubtful accounts which can bias reported earnings in a particular direction without changing the underlying transactions (Zang, 2010).

Table 1 shows the comparison between the use of real activities and accrual-based manipulation and the use of accrual-based manipulation only.

Table 1
Real Activities and Accrual-Based Manipulation versus Accrual-Based Manipulation

Real Activities and Accrual-Based	Accrual Based Only
Losses	Losses
<ul style="list-style-type: none"> • The implication to cash flow because of expensive real activities manipulation may spread outside the current period. • There is no assurance that the manipulation will meet the exact earnings target in the current period. 	<ul style="list-style-type: none"> • Accrual-based manipulation is limited by GAAP and accrual management from the previous period. If in the end of the period the discretionary accrual is decreasing more than expected and not meet its target, manager will lose its chance to improve earnings. • Accrual-based manipulation can be detected easily by the auditor, investor, and regulator. And if that happen, the company will implicated by low share price and there is possibility to become bankrupt.
Benefits	Benefits
<ul style="list-style-type: none"> • Meet the earnings target easily • Detection of manipulation is hard 	<ul style="list-style-type: none"> • The manipulation can be done in the end of the period, after the managers know the earnings before manipulation. • There is no impact to cash flow.

(Roychowdhury, 2006)

2.3. Earnings Management through Real Activities

Because this research is based on earnings management through real activities, therefore it is important to have a dedicated section for this matter when reviewing the literature for this research.

2.3.1. Definition and Explanation

Roychowdhury (2006) propose the definition of earnings management through real activities, “Earnings management through real activities is an activity that happen from normal business practice that motivated to mislead stakeholders to believe that the earnings report has been meet its target in normal course of operation.” He also points out that manipulation of real activities actually does not give any contribution to firm’s value even though there is a possibility that manager’s objective has been met.

There are benefits of managing earnings through real activities manipulation than depends on accrual-based earnings management alone; (1) accrual manipulation is more likely to draw auditor or regulator attention than real decisions about pricing and production and (2) the use of accrual manipulation alone entails a risk, because if the reported income falls below the threshold and all accrual based strategy is exhausted, managers will have no option (Bruns and Merchant, 1990 and Graham et al, 2005). The reason why managers have no option if the accrual based strategy exhausted is that the real activities cannot be adjusted at or after the end of fiscal period (Cohen

and Zarowin, 2008). Beside, firms may have limited flexibility to manage their accrual, for example a limitation to report discretionary accrual (Graham et al, 2005).

2.3.2. Real Activities Manipulation Methods

In order to detect earnings management through real activities, Roychowdhury (2006) use a model from Dechow et al. (1998) and focus on three methods of manipulation:

1. Sales manipulation

Sales manipulation is defined as managers' attempt to temporarily increase sales in a short-term by offering price discount or more lenient credit terms. The increased sales volumes as a result of the discounts are likely to disappear when the firm re-establishes the old prices. The cash inflow per sales, net of discounts, from these additional sales is lower as price margins decline. Total earnings in the current period is higher as the additional sales which are booked. The lower the price margins due to the price discounts, the production costs relative to sales are abnormally high.

Another way to temporarily boost sales volume to increase earnings is to offer easier credit terms. For example, retailers and electronic manufacturers often offer lower interest rates toward the end of their fiscal years. These are essentially price discounts and

lead to lower cash inflow over the life of the sales, as long as suppliers to the firm do not offer matching discounts on firm inputs.

2. Manipulation of discretionary expenditure

Discretionary expenditure such as R&D, advertising, and maintenance are generally expensed in the same period that they are incurred. Therefore, firms can reduce the reported expenses, and increase earnings, by reducing discretionary expenditure. This is most likely to occur when such expense do not generate immediate revenues and income. If managers reduce discretionary expenditure to meet earnings targets, they should exhibit unusually low discretionary expenditure, where discretionary expenditure are defined as the sum of R&D, advertising, and SG&A expenses. If outlays on discretionary expenditure are generally in the form of cash, reducing such expenses lowers cash outflows and has a positive effect on abnormal CFO in the current period, possibly at the risk of lower cash flows in the future.

3. Overproduction to report lower COGS

To increase earnings, managers of manufacturing firms can produce more goods than necessary to meet expected demand. With higher production levels, fixed overhead costs are spread over a large number of units, lowering fixed costs per unit. As long as the reduction in fixed costs per unit is not offset by any increase in marginal cost per unit, total cost per unit declines. This implies that

reported COGS is lower, and the firm reports better operating margins. Nevertheless, the firm incurs production and holding costs on the over-produced items that are not recovered in the same period through sales. As a result, cash flow from operations is lower than normal given sales levels.

2.4. Cash Flow

Cash flow in this research is one of important variables that is used to detect earnings management through real activities, so it is needed to review this variable.

According to PSAK No. 2, the information about firms' cash flow is useful for financial statement user as a basic to value the capability of firms to generate cash and also the need of firms to use that cash flow. In process of economic decision making, the financial statement users evaluate the capability of firms to generate cash and the earnings assurance. The objective of cash flow statement is to give historical information about the changes in cash from a firm which had been clarified based on operating activities, investing activities, and financing activities in an accounting period.

Cash flow statement is a component of financial statement. Financial statement is useful for managers to evaluate and plan future financial activities for the firm. Financial statement is also useful for investors,

creditors, and a lot of people to value the firms' capability in generating profit and pay loan.

Cash flow statement have three activities, they are:

1. Cash flow from operating activities is cash flow from transaction that has implication to net profit.
2. Cash flow from investing activities is cash flow from transaction that has implication on asset investment.
3. Cash flow from financing activities is cash flow from transaction that has implication to equity and firm's loan.

Cash flow from operating activities usually is served first, followed by cash flow from investing and financing activities. By reporting cash flow from operating, investing, and financing activities, therefore the relationship between those activities can be evaluated.

Cash flow from operating activities is an indicator of companies' capabilities to pay loan, maintain companies' operating capabilities, pay dividend, and make a new investment without depend on outside financial resources.

PSAK No. 2 explained that cash flow from operating activities is transaction and phenomenon which have an impact to net profit or net loss.

Some example of cash flow from operating activities:

1. Cash received after sales.
2. Cash received from royalty, fee, commission, or other resources.
3. Payment to suppliers.

4. Salary payment
5. Cash received and payment by insurance company in regards of premium, claim, annuity, or other benefits of insurance.
6. Cash payment or cash received after tax, except it can be identified specially as a part of financing and investing activities.
7. Cash received and payment from contract which have been made in business and trading.

Cash flow from operating activities can be reported in two ways, they are:

- a. Direct Method

This method report sources of cash from operating activities. It also report the use of the cash. The primary resource of cash from operating activities is from the customers which is primarily use to pay supplier and employees. The benefits of this method is the report shows the use of cash from operating activities, in the other hand the weakness of this method is difficulties of finding data.

- b. Indirect Method

This method report cash flow from operating activities begin with net profit and then match it with sales received and expense which do not have any relationship with cash received or cash payment. The benefits of this method is centralization of differentiation between net profit with cash flow from operating activities, it shows the relationship between income statement, balance statement, and cash flow statement.

2.5. Production Cost

According to Daljono (2009:13) cost is an economic sacrifice which is measured in term of money with an objective to gain things or services that give benefits on current or future situation. Cost is happen when a product is produced to make income (Chariri, 2007:320).

Mulyadi (2005:14) there are several cost in a company, they are:

1. Production Cost

Production cost is a cost to process raw materials to become goods to be sold.

2. Marketing Cost

Marketing cost is a cost to spread a product in market.

3. Sales, General and Administration Cost

SG&A cost is a cost to coordinate production activities and product marketing.

Production cost is needed to make operational activities in a business unit happen. Cost which are related to production process are:

a. Raw material cost

Raw material cost is costs that expensed to direct materials.

b. Labor cost

Labor cost is costs that spent to pay salary of labor.

c. Manufacturing overhead cost

Manufacturing overhead cost is costs that spent to support production process. For example electricity expense, telephone expense, water expense, depreciation expense, etc.

Based on production volume or output, costs related to production process are:

a. Fixed cost

Fixed cost is costs which do not depend on the volume of production output. Even if the output is smaller than before, the company must pay the same amount of money.

b. Variable cost

Variable cost is costs which depend on the volume of production output. The bigger the output, the bigger the costs must be paid.

c. Semi-variable cost

Semi-variable cost is costs that have two parts, in which part with a relevant fixed cost and the other one has a variation comparable to the output changes. This happens because there are costs that have fixed characteristic and variable characteristic. The sum of this cost changes in regards of production process, but the characteristic of the changes is not proportional.

2.6. Discretionary Expenditure

Cost is an economic sacrifice to gain things and services. Cost characteristics that related to its output can be divided into three, they are:

a. Engineered expense

Engineered expense, which is usually called technique cost, is cost that has physical relations with output.

b. Discretionary expense

Discretionary expense is cost that does not have accurate relations with output.

c. Committed expense

Committed expense or capability cost is cost that happens in order to hold the capacity or capability of organization in production activities, marketing, and administration.

Discretionary expenditure is cost which have monetary immeasurable output. This expenditure shows the management decision that related to certain policy. Discretionary expenditure consists of advertisement expense, R&D expense; SG&A expense (Roychowdhury, 2006).

2.7. Previous Researches

Nowadays, there is an increase in appreciation for understanding and documenting earnings management through real activities. Graham et al. (2005) held survey study on 401 financial executives manager about key elements that support the decision to report income statement and

voluntary exposition. The result shows that 78% executives manager have a willingness to sacrifice economic value in order to control the perception of financial statement. The possibilities to manipulate earnings through real activities has been discussed in academic literatures, like Dechow and Sloan (1991), Bartov (1993), Bushee (1998), Barton (2002), and Thomas and Zang (2006). Dechow and Sloan (1991) finds evidence that CEO decreases R&D expense to increase earnings in short-term end period.

Bartov (1993) points out that manager sold company's asset to avoid losing and breaking the contract of loan. And then Bushee (1998) testing a companies which tried to meet earnings target and found evidence that management reduce R&D expense if the management have low institutional ownership.

Barton (2002) found evidence that companies tried to spread the profit evenly by investing in derivative asset, and this action is considered as accrual-based earnings management. Thomas and Zang (2006) found consistent evidence that companies do overproduction to increase reported earnings.

Graham et al. (2005) say that manager prefers to use earnings management through real activities to accrual-based earnings management. This is happen because real activities manipulation is hard to be differentiated from normal business decisions. Cohen (2007) found evidence which is consistent with Graham et al. about management decisions to change earnings management method after Sarbanes-Oxley

Act (SOX). This change in method happens after a publication of huge accounting scandal like Enron and World.com.

Zang (2006) predict that the companies with high level of earnings management prefer to use real activities manipulation than accrual-based manipulation. Furthermore, Roychowdhury (2006) introduces earnings management through real activities which is defined as departures from normal operational business practices, motivated by manager's desire to mislead at least some stakeholders into believing certain financial reporting goals, which have been met in the normal course of operations.

Gunny (2005) studies the implication of earnings management through real activities. His research found four primary activities in real activities manipulation; (1) decrease R&D expense, (2) decrease SG&A expense, (3) timing sales on long-term asset to increase profit, and (4) overproduction, which can boost the discount or give more lenient credit terms to improve sales and reduce COGS. The result of his research shows that real activities manipulation has significant relations with low future cash flow.

Oktorina (2008) succeeded to found evidence that company do manage earnings through real activities by using cash flow from operating activities. Moreover, the evidence that she found has an impact on market in 50 top companies according to SWA100, these companies have an asset more than 1 trillion rupiahs from 2001 to 2006.

2.8. Hypotheses Development

According to Graham et al.'s survey (2005), the companies manipulate these three real activities to manage earnings:

1. Sales manipulation, which is accelerating the timing of sales and generating additional unsustainable sales through increased price discounts or easier credit terms;
2. Manipulation of discretionary expenditure; and
3. Overproduction to report lower COGS.

2.8.1. Earnings Management through Sales Manipulation

Sales Manipulation is defined as managers' attempts to temporarily increase sales during the current year in order to increase reported earnings by offering price discounts (Chapman and Steenburgh, 2010) or more lenient credit terms (Roychowdhury, 2006). By giving more lenient credit terms, the company will increase its sales volume and it means its earnings will also increase. However, lenient credit terms entails risks. It gives the company lower customer quality and longer payment of accounts receivables, thus, the cash received by the company will decrease. If the cash received by the company decrease, then the cash flows from operations will also decrease.

Jackson & Wilcox (2000), Roychowdhury (2006), Yu (2008), Gunny (2010), Fazeli & Rasouli (2011), Ghaemi et al. (2012), and

Enomoto et al. (2012) found that companies boost sales by grant sales price reductions or give more lenient credit terms in order to meet the earnings target that had been set. By granting price reductions (discount) or giving more lenient credit terms then the companies will generate low cash flow from operation than what is normal condition given.

This thesis measure cash flows from operation to detect earnings management through real activities in a company, therefore it needs sales and changes in sales to estimate normal cash flows from operation.

Therefore the hypothesis based on the preceding discussion is:

H1a. *Firms manage earnings through sales manipulation.*

2.8.2. Earnings Management through Manipulation of Discretionary Expenditure

Companies can increase earnings by reducing discretionary expenditure. Discretionary expenditure is a cost which can be limited or eliminated in short-term without immediate impact on companies' short-term profitability. In this thesis, the discretionary expenditure consists of advertising expenses, research and development expenses (R&D) and selling, general and administrative expenses (SG&A). Advertising expenses and research and development expenses (R&D) are largely

discretionary items and companies which try to boost earnings to meet targets can reduce outlays on advertising and R&D below what is normal given their sales level. Some items are usually classified as SG&A, for example, employee training expenses, maintenance and travel, are also likely to be discretionary.

Baber et al (1991), Perry & Grinaker (1994), Bange & De Bondt (1998), Gunny (2005), and also Roychowdhury (2006) found that companies reduce their discretionary expenditure to meet companies' earnings target.

Then the hypothesis based on the preceding discussion is:

H1b. *Firms manage earnings through manipulation of discretionary expenditure.*

2.8.3. Earnings Management through Overproduction

Companies can produce more goods than necessary to meet expected demand to manage earnings upward. With higher production levels, fixed overhead costs are spread over a larger number of units, which will reduce the average unit cost and cost of goods sold (COGS) per unit. This improves the operating margins and reduces cost of goods sold as percentage of sales in the current period. Operating margins is a measurement of what proportion of a company's left over after paying for variable costs of production such as labor cost, raw material cost, etc. Operating

margins is calculated by scaled operating income with net sales. If COGS is lower, then the earnings will be higher.

Cook et al. (2012), Dhaliwal et al. (1994), Roychowdhury (2006), and Gunny (2010) found that companies manipulate production activities in order to meet the earnings target that had been set.

The hypothesis based on the explanation above is:

H1c. *Firms manage earnings through overproduction.*