

## CHAPTER 1

### INTRODUCTION

#### 1.1 Background of Study

Business investment through capital markets is the one of many drivers of economic growth in many countries. Therefore capital market plays substantial role in rising capital and creating jobs. A stable capital market is then the concern of listed companies, investors and government. In order to make an informed investment decisions, the quality of financial reports has become the concern of investors as they are the sources of information for making decision. Given the importance of financial reports, it is no surprise that management has a vital interest in how a company's financial statement is reported. A company's management wants to show its best performance because it will affect its market value and investors' interest (Pae & Choi, 2011; Tseng & Lai, 2007). However, the management's motivation to meet market expectations has overtaken the fundamental duty of giving a truthful and reliable presentation of the company's financial reports. Investors, on the other hand, demand high financial report quality that reflects the real performance, risk and opportunities of the company for their optimal investment decisions.

There are many factors involved in maintaining the growth of capital market but the financial report quality of listed companies are the most important factors as they have been the research focus from different perspectives, such as the use of earnings management (Lo, 2008) and creative accounting (Stolowy & Bartov, 2004) to prepare the financial statements. One form of earning management is the income smoothing (IS) practice in which a company's management takes steps to reduce and store earnings during the good years and defer them for use during the business-downturn years or vice versa (Goel & Thakor, 2003). Smoothing of reported income may be defined as the intentional dampening or fluctuations about some level of income that is

currently considered to be normal for a firm. In this sense smoothing represents an attempt on the part of firm's management to reduce abnormal variations in income.

Furthermore, in comparison to their developed-country counterparts, IS practices in developing and emerging economies are higher (Bhattacharya et al., 2004; Habib, 2005; Ismail et al., 2009). To effectively constrain the IS practices which eventually will improve the financial report quality, attentions should be given to important factors influencing financial reporting: the accounting standards used in preparing the financial reports. Good accounting standards can limit the opportunistic discretion and may result in accounting earnings that are more reflective of a company's underlying economics and, therefore, are of higher quality (Athanasakou et al., 2007; Jeanjean & Stolowy, 2008). It is expected that accounting amounts determined by the International Financial Reporting Standards (IFRS) are of higher quality than those determined in domestic generally adopted accounting principles (Heflin et al., 2012; McAnally et al., 2010).

Therefore, the purpose of this research is to examine whether the convergence accounting standards to IFRS has effect on the creative accounting practices such as income smoothing (IS) practices. Time line research for Indonesia is before the convergence (2007-2008) and after the convergence to IFRS (2009- 2010) and for Thailand before the convergence (2009-2010) and after the convergence to IFRS (2011-2012). The second objective is to identify factors contributing on IS, such as: firm size and debt.

## **1.2 Research Contributions**

The contributions of this research could be viewed from at least four specific contexts. First, IFRS are developed in a developed capital market setting, so it is still unclear whether adopting such accounting standards in a developing country could reduce the IS practices. Therefore, at least two main parties will be interested in this study, the standards setters and the capital market regulators. They could use the

findings to take further steps for strengthening the application of accounting reforms (such as the adoption of IFRS) to achieve the intended objectives.

Second, for Indonesian and Thailand listed companies, the application of accounting reforms in general and the adoption of IFRS in particular will make the accounting process more complex because there are some major conceptual differences between the local GAAP and the IFRS. Therefore, the result of this study will be important for market participants to focus attention in analyzing their clients' financial statement to those areas where they should be most skeptical of high IS practices.

## CHAPTER 2

### LITERATURE REVIEW

#### 2.1 Theoretical Foundation for Income Smoothing Practices

Many theories have been applied to understand why income smoothing is practiced by many companies despite it is prone to financial fraud. Although theories underlying the concept of income smoothing are still waiting for detailed development (Stolowy & Bartov, 2004), three well-known theories will be presented, Agency Theory, Positive Accounting Theory and Public Interest Theory.

##### 2.1.1 Agency Theory

Agency Theory emerged from the seminal papers of Heath (2009) and also from Jensen and Meckling (1986). An agency is defined as a relationship by consent between two parties, whereby one party (agent) agrees to act on behalf of the other party (principal) (Jensen & Meckling, 1976). For example, the relationship between shareholders and managers of a corporation is an agency relationship. Agency Theory assumes there is a conflict of interest between the principal (such as the owners of a firm) and the agent (such as the manager) (Jensen and Meckling, 1986).

From the Agency Theory perspective, then, a company consists of a nexus of contracts between the owners of economic resources (the principals) and managers (the agents) who are charged with using and controlling those resources (Cohen et al., 2006; Jensen & Meckling, 1986). The principal and the agent enter into a contract that defines their relationship. In negotiating such a contract, both the principal and the agent will recognize that the other party is a self-interested individual. An agency problem arises because the agent may not act in the best interest of the principal and vice versa.

The concern of Agency Theory is resolving two problems that can occur in agency relationships. The first is the agency problem that arises when (a) the desires or goals of the principal and agent conflict and (b) it is difficult or expensive for the principal to verify that the agent is actually doing what the principal expects. The main problem here is that the principal cannot verify that the agent has behaved appropriately. The second problem concerns with the different attitudes of principal and agent toward risk. Here, the principal and the agent may prefer different actions because of the different risk preferences. To resolve those two problems, Agency Theory focuses on determining the most efficient contract governing the principal-agent relationship, given assumptions about people (e.g., self-interest, bounded rationality, risk aversion), organizations (e.g., goal conflicts among members), and information (e.g., information is a commodity which can be purchased).

### **2.1.2 Positive Accounting Theory (PAT)**

PAT was developed by Watts and Zimmerman (1986) and it refers to theory to explain and predict accounting practice that will be chosen by managers. According to Watts and Zimmerman (1986, p. 7), PAT is

“... concerned with explaining accounting practice. It is designed to explain and predict which firms will and which firms will not use a particular accounting method ...”

PAT focuses on the relationships between the various individuals involved in providing resources to an organization and how accounting is used to assist in the functioning of these relationships. Examples are the relationships between the owners (as suppliers of equity capital) and the managers (as suppliers of managerial labor), or between the managers and the firm's debt providers (the creditors). Many relationships involve the delegation of decision making from one party (the principal) to another party (the agent). PAT is based on the central economics-based assumption that all individuals' action is driven by self-interest and that individuals will always act in an opportunistic manner to the extent that the actions will increase their wealth (Watts &

Zimmerman, 1978). Notions of loyalty, morality and the like are not incorporated in this theory. PAT assumes that the economic consequences of the accounting choice explain the motivation behind the choice (Watts & Zimmerman, 1990).

To be able to explain accounting choice with PAT, one has to identify the actors engaged in making accounting choices (Watts & Zimmerman, 1990). In PAT, it is conveniently assumed that accounting is part of the contract between a principal and an agent. They agree voluntarily on the set of accounting choices that can be made, and the adherence to the accepted set is monitored by the external auditors (Watts & Zimmerman, 1990). It is further assumed that there is a separation between the agent and the principal which is so extensive that the discretion of making the accounting choice is assigned solely to the agent. The agent will make choices that maximize the wealth of the agent. Naturally, managers prefer accounting methods that maximize their salaries and bonuses; consequently, they oppose accounting methods that decrease those. Watts and Zimmerman (1986) believe that the management of the firm (the statements preparers) plays a central role in the determination of the accounting standards that the firm uses. Watts and Zimmerman believe that management acts its own self-interest in making these choices, lobbying for accounting standards that increase their share of the wealth in terms of their salary and salary option plans, such as bonuses.

PAT research has found at least three factors that influence accounting choices by the manager (agent): the compensation plan, the lending arrangements, and the political visibility of the organization. The agent will prefer accounting choices that (1) increase the level of compensation, (2) increase the discretion of the agent through safeguarding lending agreements, (3) to avoid political pressure on the organization through suspicious profits.

### 2.1.3 Public Interest Theory

Public interest theory is based on the assumption that economic markets are subject to a series of market imperfections or transaction failures, which, if left uncorrected, will result in both inefficient and inequitable outcomes (Hantke, 2003; Scott, 2009). The public interest theory suggests that regulation is the result of a public demand for correction of market failures. The central economic reason for this origin government intervention in the operations of various markets in the “public interest” is that market failure. Within this theoretical framework, regulation is intended by legislatures to protect consumer interest by securing improved economic performance compare with an unregulated situation. Consequently, regulation is thought of as a tradeoff between the costs of regulation and its social benefits in the form of improved operations of markets. An example of a potential failure is imperfect information gaps (information asymmetry) between buyers and sellers or certain market signals (e.g. seller reputation) (Gaffikin, 2005).

## 2.2 Motivation for IS Practices

The literature on the motivation of income smoothing begins with Gordon's (1964) hypothesis. In his hypothesis income smoothing arises as rational behavior based on the assumptions that: (a) managers maximize their utility; (b) managerial utility depends on firm value and shareholder satisfaction; and (c) shareholder satisfaction and stock price increase with earnings growth and stability. However, recent research shows that there are many possible motivations for doing income smoothing that include: (1) to have better relations with company owners, investors, creditors, and suppliers; (2) to have stable security prices and lower cost of capital; (3) to have benefit from tax advantage; (4) to have benefit from bonus compensation; and (5) to meet or beat stock market expectations. Each of them is described below.

1. To have better relations with company owners, investors, creditors, and suppliers.

In the earliest study on income smoothing, Hepworth (1953) states that owners will feel more confident toward a company that reports stable earnings. Sercu et al. (2002) examines a large sample of Belgian companies to see whether the strength of a firm relationship with various stakeholder groups is associated with income-increasing or income decreasing behavior. The stakeholder groups that were examined were creditors, investors, suppliers. They find that the level of bank debt and trade credit, as well as an increase in external financing are significantly associated with income smoothing behavior. This is consistent with the argument that firms which are more dependent on external financing have more incentives to report good financial performance than firms that are less dependent on external financing.

2. To have stable security prices and lower cost of capital.

Previously, most of the rationale offered for income smoothing practices was manager desire to enhance the value of a firm's stock (Gordon, 1964). Tucker and Zarowin (2006) suggest that management smooth (within the accounting rules) the reported income since stockholders satisfaction increases with the rate of growth and stability of its income. Tan & Jamal (2006) also suggest that a smoother level of income permits a higher dividend rate and therefore higher stock prices. According to Bao and Bao (2004) lower volatility in earnings lowers the assessment of the possibility of a firm's bankruptcy and, therefore, decreases the firm's cost of the borrowing. Lower borrowing costs, in turn, should have a positive effect on the firm's market value. Another research by Frankel et al. (2011) indicates that firms which do not smooth income have higher unexpected returns from earnings surprise than firms which smooth income. Bradshaw et al. (2004) argue that investors normally avoid companies that experience large variations in earnings or firms that are perceived as risky. Therefore, investors tend to prefer companies with smoother earning streams. Huang al. (2009) proposes that smoother income reduces the probability of financial ratio covenants and hence reduces the expected cost of default and negotiation.



3. To have benefit from tax advantage.

A research by Herman and Inoue (1996) concludes that taxes are an important factor in choosing accounting procedures due to the close relationship between financial reporting and tax systems. Companies have an incentive to smooth income to minimize the tax impact over time. Higher income is to be avoided since it results in higher tax payments. On the other hand, while lower income generally results in lower tax payments, it also increases the probability of investigation from the tax authorities. Bauwhede and Willekens (2003) and Tucker and Zarowin (2006) examine whether taxes play a role in the context of income smoothing practices. In particular, Bauwhede and Willekens (2003) investigate whether tax motivations affect income-increasing and income-decreasing behavior of their sample of listed Belgian companies. They find that tax-paying firms in particular (firms with no tax-loss carry forwards) reduce earnings significantly, more than firms that do not pay taxes in particular (firms with tax loss carry-forwards). This finding is consistent with the research by DeFond and Park (1997), Herman and Inoue (1996) that firms managing earnings downwards for tax reasons.

4. To have benefit from bonus compensation.

Early research by Moses (1987) provides evidence that firms with bonus compensation plans are more likely to smooth income. Significantly high reported income can raise the benchmark upon which future bonus amounts will be based. Lower reported income results in lower bonus payments. Therefore, bonus compensation plans provide an additional incentive for management to smooth income. A recent research by Belkaoui (2003) reports that income smoothing is affected by the terms of managers' bonus plan and whether these plans include any upper and lower limits of earnings from which bonus is taken. Recent studies (Kamarudin et al., 2009) explicitly incorporate the manager's desire to maximize his own utility into their hypothesis. By linking the manager's wealth into his expected

compensation that is contingent on his performance in the firm, these studies contend that under certain incentives packages, a manager's utility maximizing behavior implies the smoothing of income numbers. For example, managers may smooth their firm's income if the firm's compensation scheme is related to the steady growth of income. Weber (2006) documents the importance of the management compensation motive; when the management's choice of accounting procedures are unobservable to the shareholders, the management may choose to manipulate accounting income in order to affect its bonus income. More specifically, managers are more likely to increase reported earnings when these earnings are between the lower and upper limits (Cahan & Sun, 2008). However, managers are more likely to use income decreasing accruals when earnings are above the upper limit or below the lower limit to save these earnings for next periods and can increase their expected bonus in the future (Shuto, 2007).

5. To meet or beat stock market expectations.

Financial statements of listed firms are also scrutinized by financial analysts and investors, and firms may suffer from stock price declines if they do not meet market expectations (Aflatooni & Nikbakht, 2009). Listed firms may not only have incentives to avoid earnings declines and losses, they also have incentives to meet or beat market expectations in order to prevent declines in stock price. Bauwhede et al. (2003) and Cohen et al. (2000) examine whether there are differences in income smoothing behavior between listed and non-listed firms of comparable size, and hypothesize that listed firms have (even) more incentives to increase income than privately held firms (of comparable size). In their study of financial analysts' reports, Leuz et al. (2008) present evidence that analysts associate earnings quality with the capability of a company's managers to smooth income as to avoid negative earnings surprises.

### **2.3 Approaches to Detect Income Smoothing Practices**

Several approaches were undertaken by earlier researchers to detect income smoothing practices. In the income smoothing literature most of the studies may be

grouped into two according to the model they develop and use to detect income smoothing practices, which will be elaborated in the following.

1. The first group of studies applies the model firstly offered by Imhoff (1977) and then developed by Eckel (1981). According to this model, a firm is an income smoother when the coefficient of variation of its sales ( $CV_s$ ) is greater than the coefficient of variation of its income ( $CV_i$ ), or symbolically:

$$\text{Income smoothing index (CVIs)} = (CV_i / CV_s)$$

where:

$$CV_i = (\uparrow \text{ income}) / (\sim \text{ income})$$

$$CV_s = (\uparrow \text{ sales}) / (\sim \text{ sales})$$

If the  $CV_i$  (the coefficient of variation for income) is less than the  $CV_s$  (the coefficient of variation for sales), the CVIs ratio will be less than one, suggesting that the firm is an income smoother, therefore income smoothing is indicated by an index of less than 1. The studies of Abdullah et al. (2002), Ashari et al. (1994); Carlson and Bathala (1997), Imhoff (1977), Michelson et al. (2000) are the examples of the first group of studies.

2. The second group of studies accepts accounting changes as income-smoothing instruments and examines the effects of accounting changes to the net incomes of firms. This model was developed by Moses (1987). Examples for this group are the studies of Atik (2009), Herman and Inoue (1996) and Mohammad (2001). Smoothing was measured as the degree to which an accounting change shifts income toward expected earnings (EE). For each sample firm the earnings number that would have been reported had the firm not adopted the accounting change was determined and termed pre-change earnings (PE). A measure of smoothing behavior (SB) was calculated by comparing the deviations of pre change and reported earnings (RE) from expectations. Since PE, RE, and EE are all un-deflated measures and consequently dependent on firm size, sales was used here (and

later in other variables) as a deflator (Moses, 1987). Based on this model income smoothing is measured as the degree to which an accounting change shifts income toward expected earnings (EE). The calculation of pre-change earnings (PE) is the earnings number that would have been reported had the firm not adopted the accounting policy change or non-recurring items.

$$SB = \frac{|PE - EE| - |RE - EE|}{SALES}$$

Where:

SB = the smoothing behavior,

PE = the pre-change earnings,

EE = the expected earnings,

RE = the reported earnings.

Since PE, RE, and EE are all un-deflated measures and consequently dependent on firm size, sales are used here as a deflator, positive values of SB are consistent with smoothing.

## 2.4 Type of IS Practices

There are two different types of smoothed income streams: those that are naturally smoothed and those that are intentionally smoothed by management (Namazi & Khansalar, 2011; Atik, 2009; Habib, 2005). A broad perspective of income smoothing behavior is diagrammatically presented in Figure 2.1. From this diagram, intentionally smoothed income is further classified into two types of smoothing, artificial smoothing and real smoothing.

All these types of smoothing could be generally described as follow. A naturally smoothed income stream occurs when a firm's income generating process inherently produces a smoothed stream of reported income. For example, one would expect the income generating process of public utilities to be such that income streams would be

naturally smoothed (Eckel, 1981). An intentionally smoothed income stream can be the result of real smoothing or artificial smoothing. Real smoothing involves decisions that affect cash flows and dissipate firm value (Atik, 2009; Chong, 2008). Examples include changing the timing of investments and providing promotional discounts or vendor financing to risky customers to pump up sales toward the end of the quarter (Atik, 2009; Albrecht & Richardson, 1990). Meanwhile, artificial smoothing represents accounting manipulations taken by management using flexibility in the accounting standards to alter the reported number. These manipulations do not represent underlying economic events or affect cash flows, but shift costs and/or revenues from one period to another (Chong, 2008; Habib, 2005). For example, a firm could increase or decrease reported income simply by changing its actuarial assumptions concerning pension costs (Atik, 2009).

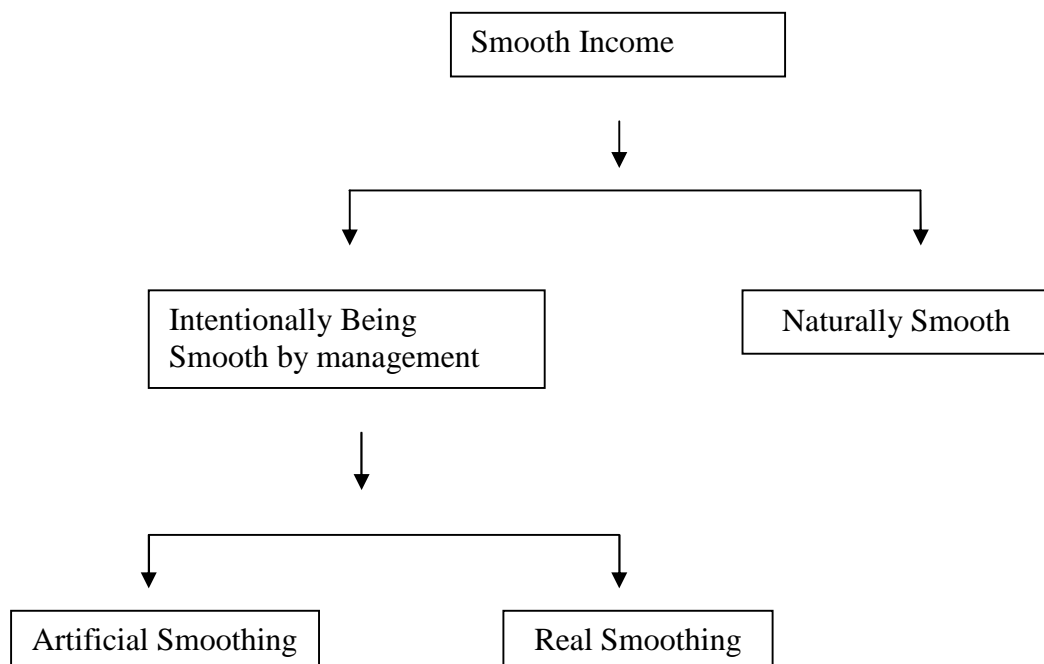


Figure 2.1: A Broad Perspective of Income Smoothing

Source: Eckel (1981), p. 29

## 2.5 The Smoothing Objects

The smoothing objects are the variables whose variations over time are to be controlled (Stolowy & Bartov, 2004). These variables usually include operating income and ordinary income (Athanasakou et al., 2007; Belkaoui & Picur, 1984). However, empirical studies dealing with income smoothing show that the concept of "income" has been interpreted in different ways: net income, earnings per share (EPS), ordinary income, extraordinary income, operating income (Stolowy & Bartov, 2004). Therefore, Athanasios et al. (2009) reports that the target of management's smoothing efforts may vary across firms. They indicate that since no smoothing research has considered more than one form of income, and since it is unclear in some research which form of income is used, it is difficult to infer how any particular form of income might affect the research results within or across studies.

## 2.6 The Smoothing Instruments

The smoothing instruments, also known as "smoothing variables" or "smoothing devices" are variables used by management at its discretion to smooth the object variable (Elgers et al., 2004; Jeanjean & Stolowy, 2008; Moses, 1987). According to Moses (1987), an accounting practice or measurement rule must possess certain properties before it can be used as a manipulative smoothing device. Earlier empirical studies (Hepworth, 1953) on smoothing consider only one manipulative instrument at a time. However, both Copeland (1968) and Gonedes (1972) acknowledge the weakness of concentrating on one instrument. Athanasakou et al. (2007) and DeFond and Park (1997) suggest that companies do not select accounting procedures independently, but they consider the overall effect of all accounting procedures on income.

There have been some suggestions in the literature to explain what constitutes as a good smoothing instrument. Copeland (1968) suggests five conditions necessary for a smoothing variable to be considered as a smoothing instrument. These are:

1. Once used, the smoothing decision must not commit the firm to any particular action
2. It must be based upon the exercise of professional judgment and be considered within the domain of Generally Accepted Accounting Principle (GAAP)
3. It must lead to material shifts relative to differences income
4. It must not require a “real” transaction with second parties, but only a reclassification of internal account balances
5. It must be used singularly or in conjunction with other practices over consecutive period

Furthermore, Beidleman (1973) suggests only two conditions that necessary for smoothing instruments. These are:

1. It must permit management to reduce the variability in reported earnings as it strives to achieve its long-run earnings (growth) objective;
2. Once used, it should not commit the firm to any particular future action.

It can be concluded that both of the conditions above agree that the smoothing instrument chosen should not be one that, once used, binds management to use it again in a way that would produce smoothing. Furthermore, some of the potential smoothing instruments have been investigated, which include the tax credit, foreign assets holding and derivatives, dividend payment (Fudenberg & Tirole, 1995; Heflin et al., 2002), the classification of extraordinary items (Abdullah et al., 2002; Gibbins, 1977), job security and compensation (Belkaoui, 2003), gains and losses on securities (Aflatooni & Nikbakht, 2009), pensions, R&D and advertising expense (Brown & Petersen, 2010), choice of the cost or equity method (), and changes of accounting method or regime (Athanasoku et al., 2007; Tan & Jamal, 2006), Bank loss provisions (Blasco & Pelegrin, 2007; Fonseca & Gonzalez, 2008).

## 2.7 The Smoothing Dimension

Smoothing dimensions are the methods through which smoothing is presumed to be accomplished, such as allocation over time or classification (Ding et al., 2007). Makarian and Alborno (2009) and Stolowy and Bartov (2004) indicate that smoothing can be accomplished along the following three dimensions.

1. Smoothing through events' occurrence and/or recognition.

Management can record actual transactions so that their effects on reported income would tend to dampen its variations over time. Mostly, the planned timing of events occurrences would be a function of the accounting rules governing the accounting recognition of the events (e.g., research and development expenses, advertising expenses) (Liu & Ryan, 2006; Mande et al., 2000).

2. Smoothing through allocation over time.

Given the occurrence and the recognition of an event, management has some discretionary control over the determination over the periods to be affected by the quantification of event. For example, manager discretion in choosing accounting method in computing income can choose either the straight-line or the accelerated method for depreciation of fixed assets (Stalebrink, 2007; Suh, 1990).

3. Smoothing through classification (hence, classificatory smoothing).

According to Moses (1987) management may have discretion to classify certain income items into different categories (e.g., between ordinary items and extraordinary items). Using an incentives-based framework, Abdullah et al. (2002), Cushing and Deakin (1974) and Das et al. (2002) examine classificatory smoothing via extraordinary items by Malaysian, Australian and British firms. Consistent with Moses (1987) and they find a significant association between classificatory smoothing, agency costs, and accounting risk.

The different types and dimensions of income smoothing behavior are diagrammatically presented in Figure 2.2. At the first line of Figure 2.2, there are two



different types of income smoothing streams: those that are naturally smoothed and those that are intentionally smoothed by management (Albrecht & Richardson, 1990; Eckel, 1981). An intentionally smoothed income stream can be the result of real smoothing or artificial smoothing techniques.

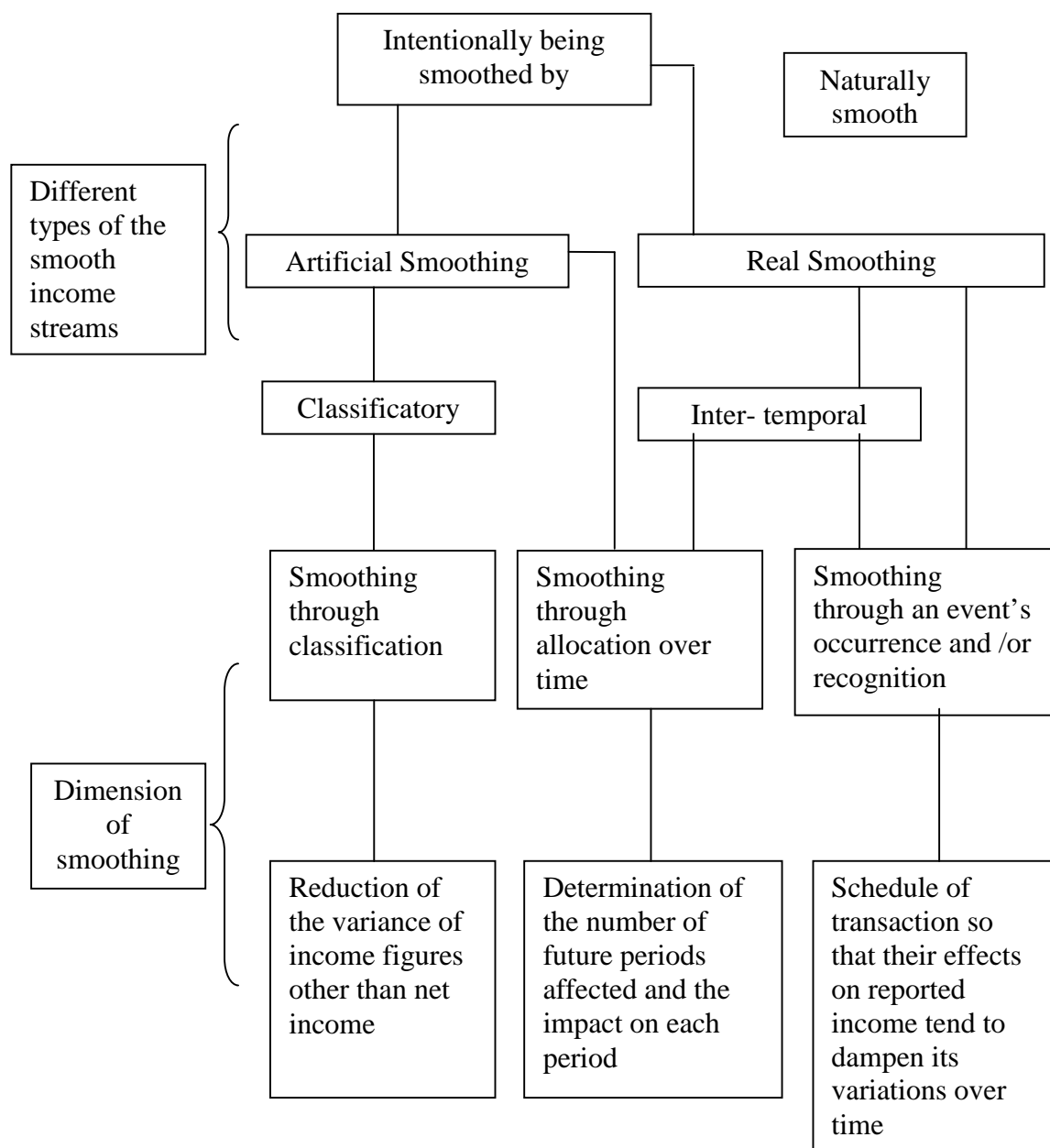


Figure 2.2: Different Type of Income Smoothing and Dimension of Smoothing

Source: Stolowy and Bartov (2004), pg.24

## 2.8 The Effects of Accounting Reform and IS Practices

Previous studies have shown that the practices of income smoothing happen because management has the discretion to choose accounting principles in preparing income statements (Barth et al., 2006). Flexibility when selecting accounting methods sometimes motivates managers to choose accounting methods or to change the employed ones in order to increase, decrease or smooth income figures (Athianos et al., 2011; Chen et al., 2010; Gassen et al., 2006). After accounting scandals (e.g. Enron, Worldcom and Parmalat), the need for high quality and complete international accounting standards for financial statement reporting has intensified, IFRS clearly address this issues and its goal is to create comparable, reliable and transparent financial statements (Dambra, 2004; Warsame, 2006).

Indonesian Accountants Association and Thailand Accountants Association which is responsible for developing and implementing the accounting standards has committed that Indonesia accounting standards gradually converge to IFRS start from 2005 for Indonesia listed firms and 2009 for Thailand listed firms. The adoption of IFRS is expected to reduce the barrier for Indonesia and Thailand listed firms in raising capital, reduce their cost of capital and allow investors from other countries to value and compare investments in Indonesia and Thailand listed firms using comparable financial statements. The other expectation is that the adoption of IFRS in an emerging market like Indonesia and Thailand listed firms will attract higher levels of portfolio equity investments to local markets especially for privatization issues that cannot be fully funded by local investors alone and thereby will increase the value of proceeds that these governments can hope to attain from their IPO's (IAI, 2009). Moreover, the actual benefits of mandatory adoption of IFRS across countries are a subject of debate among academics and practitioners (Fan et al., 2005; Billet et al., 2007). There are arguments that such adoption of IFRS brings about a significant improvement in accounting quality, but there are also arguments to the contrary (Goncharov & Zimmermann, 2009; Jeanjean & Stolowy, 2008). Those in favor of implementing IFRS

argue that a shared set of standards would make it easier to compare the financial performance of companies across different countries (Athanasios et al., 2009). This would enhance the effectiveness of competition for international funds and make international capital markets more efficient, leading to a lower cost of capital for firms. These expected benefits are based on the premise that mandating the use of IFRS increases transparency and improves the quality of financial reporting (Ball et al., 2003 & 2003; Jeanjean & Stolowy, 2008). However, there is evidence that accounting standards play only a limited role in determining observed reporting quality. The application of accounting standards involves considerable judgment and the use of private information, and as a result, IFRS (like any other set of accounting standards) provide managers with substantial discretion. How far this discretion is used depends on firm-specific characteristics (reporting incentives and operating characteristics) and national legal institutions.

Studies the adoption of IFRS in European Union (Aussenegg et al., 2008; Chen et al., 2010), Greek (Athanasios et al., 2009) show that earning management (EM) practices are lesser after the adoption of IFRS. Meanwhile, similar studies conducted in Germany (Van-Tendeloo & Vanstraelen, 2005), Australia, France and UK (Dambra, 2004; Jeanjean & Stolowy, 2008) show different results. EM practices of IFRS adopters in German listed companies are not different from companies reporting under German GAAP (Van-Tendeloo & Vanstraelen, 2005). Other studies using UK listed companies find that IFRS adoption does not significantly reduce EM practices (Dambra, 2004). Jeanjean and Stolowy (2008) find in France the pervasiveness of EM practices do not decline after the introduction of IFRS.

Indonesia and Thailand listed firms has experienced about accounting reform based on IAS in 1995 and gradually converged to IFRS since 2005 and 2009, it is an advantage to identify the income smoothing practices in this two different periods. Moreover, as an emerging capital market, Indonesia and Thailand listed firms face various problems such as unfavorable laws and regulations, weak capability of legal

enforcement, and weak accounting compliance. Therefore, the Indonesian and Thailand capital market provides a unique environment setting to study the impact of accounting reform to IS practices. It is expected that the income smoothing practices will decrease from the previous to succeeding periods.

## **2.9 Company Factors Affecting IS Practices**

The early literature focuses mainly on identifying whether income smoothing exists or not. These literatures are criticized for their failure to incorporate the motivations for smoothing (Ashari et al., 1994; Ball & Robin, 2003). Therefore Kamarudin et al. (2003) and Tseng and Lai (2007) suggest that the proper test for smoothing is to determine whether IS practices is happened when there is relatively greater incentive for it to exist. Several studies have also looked at possible determinants of income smoothing such as the company size, the type of industry sector, debt financing, firm profitability, external audit quality and institutional ownership (Ashari et al., 1994; Bao & Bao, 2004; Kamarudin et al. 2003; Tseng & Lai, 2007). The following are the explanations and identification of factors affecting IS practices.

### **2.9.1 Company Size**

In many studies, company size is hypothesized as one of the variables affecting income smoothing behavior. Firm size is often used as a proxy for information availability in the market. Information for large firms should be more available in the market than for small firms. Previous studies found that company size had an effect on income smoothing behavior. For example, Cahan et al. (2008) and Moses (1987) stated that large firms are subject to more public scrutiny than smaller firms, and large upward and downward fluctuations of the earnings of larger firms will attract more attention of regulators and financial analysts.

Ashari et al. (1994), Kamarudin et al. (2009), Makarian and Alborno (2009) have an opposite view and argue that more information is available about larger firms which are closely scrutinized by analysts and investors. Smoothed income signals from larger firms add little value. Therefore, they have less incentive to smooth income. Meanwhile smaller companies are likely to be subject to less public scrutiny than larger companies. Consequently, small companies are expected to smooth income significantly more than large companies.

### 2.9.2 Profitability

Some previous studies have also included the company's profitability among the set of potential predictors of the income smoothing phenomenon. Earlier research by Ashari et al. (1994) concludes that a high proportion of companies smoothed their income when their profitability was relatively low. Recent research by Makarian and Alborno (2009), Tseng and Lai (2007) provide evidence that companies with declining profitability tended to smooth their income. Presumably, fluctuations in income streams have a more severe impact on low profitability companies; hence, they have a stronger motivation to smooth income. On the one hand, other studies state that less profitable companies are more prone to smooth reported income (Ashari et al., 1994; Atik, 2009). This could be ascribed to that smoothing conveys the notion of a controlled decline, whereas a great variability attached to negative performances may trigger an enhanced perception of risk by investors and creditors, and, consequently, their loss of trust on management (Cohen et al., 2006; Fudenberg et al., 1995). Given these findings, it is hypothesized that companies with lower profitability tend to smooth their income more than companies with higher profitability. Thus, according to them, the ability of companies to smooth income is, to a large extent, dependent on the availability of revenue generating events, and so it depends on the company's profit potential.

On the other hand, according to some researchers (Goncharov et al., 2009) the manager's ability to smooth income is largely limited by the firm's profit potential even

though the conventional income smoothing studies have typically presupposed that a manager has unlimited ability to smooth income. Firm with successive years of poor performance will have fewer instruments available to smooth income. Hence, firms with higher profitability will have greater potential for smoothing income. Carlson and Bathala (1997) find evidence that the more profitable the companies, the more opportunities the managers have to assure the normalization of their income streams. Carlson and Bathala (1997) argument is that those companies exhibiting a recurring weak yearly performance usually find less tools available to smooth their income.

### **2.9.3 Type of Industry**

Previous research suggest that companies operating in different sectors or industries do smooth their income to differing extents (e.g. Ashari et al., 1994; Belkaoui & Picur, 1984; Iatridis, 2008; Ronen & Sadan, 1981). Firms from different industries face different economic and operational conditions. These differences may affect income-smoothing ability of the firms and their motivations to smooth income. The sector of industry in which companies operate is frequently referred to as a further potential determinant of the degree of income smoothing (Atik, 2009; Bao & Bao, 2004). Albrecht and Richardson (1990) and Hung et al. (2007) conclude that companies in different industries smoothed their income in varying degrees. It appears that companies in certain types (for example, type of business sectors defined as peripheral or services sectors) face a more restricted opportunity structure and a higher degree of environmental uncertainty. The business type such as peripheral or services sectors are noted for their low profits, low productivity, and intensive product market competition. Such companies have more opportunity and are more predisposed to smooth their income (Albrecht & Richardson, 1990). Therefore, Ashari et al. (1994) research concluded that companies in hotel/properties, trading and services sectors tend to smooth their income more as compared to other sectors. Such companies have more opportunities and are more predisposed to smooth their income.

#### 2.9.4 Debt Financing

Liliana et al. (2011) and Frankel and Litov (2011) say that income smoothing enables managers to reduce estimates of various claimants of the firm about the volatility of its earnings process and so lowers their assessment of the probability of bankruptcy. When firms raise money through debt financing (long-term bank loans or public debt), capital providers rely on lending agreements or debt covenants. This agreement restricts (many of these restrictions are expressed in terms of accounting numbers) certain managerial actions that could be detrimental to the interests of the lenders (like issuing more debt, paying out dividend in excess of a certain percentage of earnings, etc.). If the cost of violating this agreement is fairly high for the lender, then the party will in extreme cases engage in earnings management to avoid violating the debt covenant or will engage in smoothing to give the impression that the company maintains a steady flow of income, which will assure the payment due to the lenders (Habib, 2002; Nahar, 2010; Mohammad, 2001). This provides an opportunity to borrow at lower interest rates and decreases cost of capital.

Figure 2.3 shows the theoretical framework to understand income smoothing practices that include the theories to understand income smoothing practices, motivation for smoothing, the smoothing dimension, the smoothing instrument, and the smoothing objects, how to constrain income smoothing practices and also the company factors which will affect income smoothing practices.

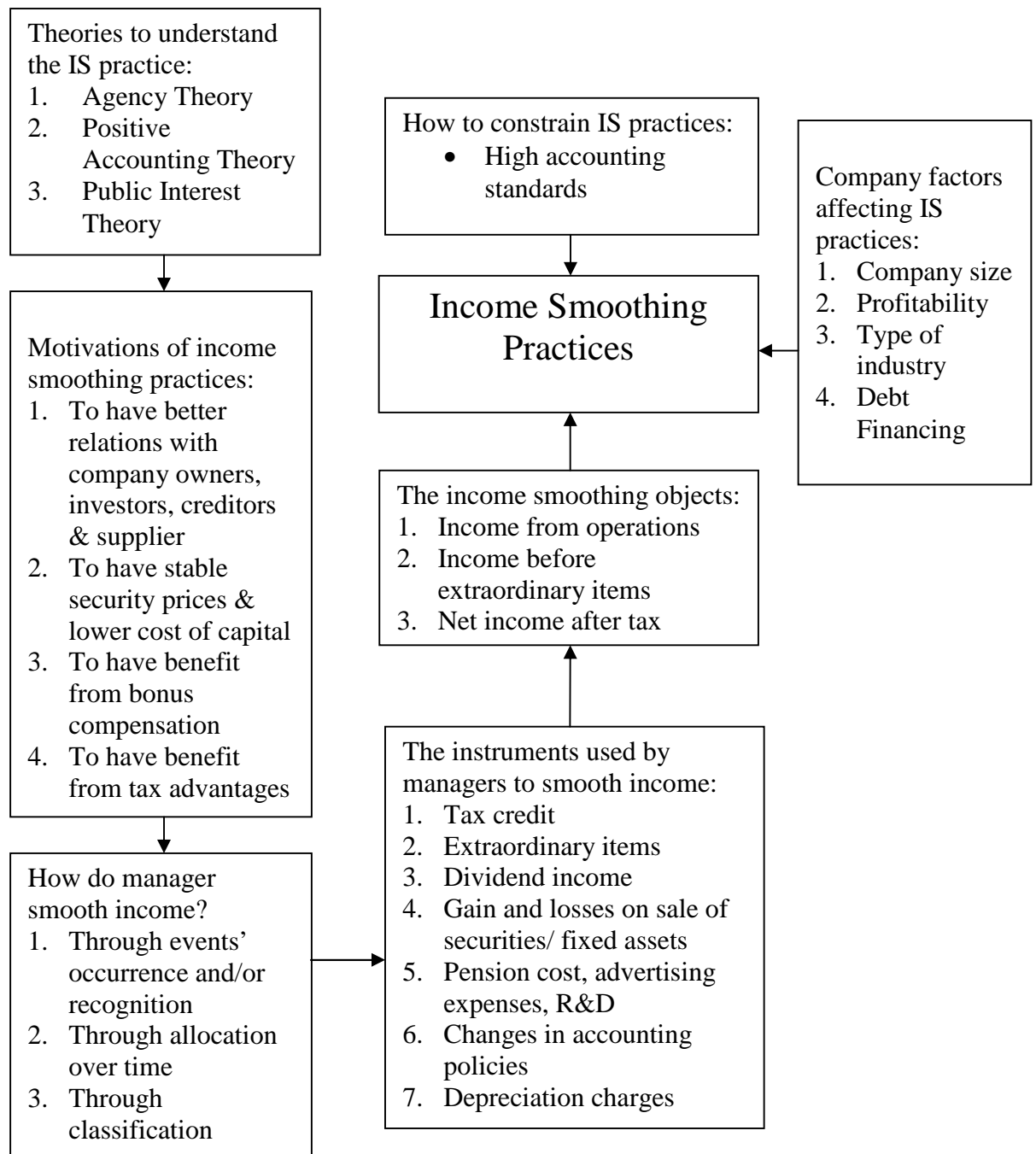


Figure 2.3: The Theoretical Framework to Understand Income Smoothing Practices



## CHAPTER 3

### RESEARCH METHOD

#### 3.1. Research Theoretical Framework

Based on the discussion of the relationship of three relevant theories in understanding the practice of IS described in Chapter 2, this study employs the following theoretical framework. The first research objectives of this study aim to justify whether Indonesian and Thailand accountant profession decision to introduce IFRS can significantly reduce IS practices. From the perspective of Public Interest Theory (PIT) (Schipper & Vincent, 2003; Riotto, 2008), Indonesian and Thailand government had taken the right decision. By introducing IFRS, government tries to control stock market players to behave accountably. However, it is still unclear if such decisions had significantly reduced IS practices in Indonesia and Thailand listed firms. These two research objectives were also formulated using PAT proposition that each market player has intrinsic motive to maximize its business benefits or profits (Watts & Zimmerman, 1990; Zmijewski & Hagerman, 1981). Therefore, market players might manipulate information using IS as its instrument. Accounting reform could then be placed as controlling and monitoring mechanisms to minimize IS practices. From Agency Theory perspective, the introduction of accounting and governance reform has put the relationship between government and firms as agent and principal relationship. Since one concern of Agency Theory is to minimize cost spent by principal to monitor or control agent in fulfilling its contract (Xie et al., 2003; Jensen & Meckling, 1976), therefore the first two research objectives were obtain the foundation from this theory. Nevertheless, new accounting standard cannot be viewed and positioned as a contract between principal (government) and agent (firms) for they have different scopes and functions.

The second research objective is to investigate the effect of companies' specific characteristic attributes (company size, type of industry, debt financing and profitability) on the IS practices by Indonesia and Thailand listed companies. The assumption used to relate these attributes to IS practices was drawn from PAT. The theory is based on the central economics-based assumption that all individuals' action is driven by self-interest and that individuals will always act in an opportunistic manner to the extent that the action will increase their wealth (Sinha, 2008; Watts & Zimmerman, 1986). The scope of individuals' action to smooth income will then depend on the companies' specific characteristic attribute. The selection of these attributes was based on previous research by Ashari et al. (1994), Bao and Bao (2004), Kamarudin et al. (2003), and Tseng and Lai (2007).

### **3.2 Identification of the IS Sample**

The process to identify which companies are practicing IS among all companies listed in Indonesia Stock Exchange (IDX) and Stock Exchange of Thailand (SET) was conducted in three stages. In the first stage, the income variability method was used to determine the income smoothing index. This index measures the coefficient of variation for income and sales. The index was used to classify the companies into two groups of smoother and non-smoother. In the second stage, both samples of smoother and non-smoother companies were analyzed to identify the direct smoothing instruments used to smooth their income. For this purpose, two types of instruments were used such as the accounting policy changes and non-recurring items. Based on these two instruments, the identified samples were analyzed using the expectancy model to determine whether they used them to smooth their income. Using these filtered samples, the multivariate analysis with logit model was performed to determine company factors that affected income smoothing practices.

### **3.3 Computing Smoothing Index**

In this first stage, the income variability approach was used to determine the income smoothing index. The index was computed by employing the coefficient of variation method developed by Eckel (1981). This index was used to determine the presence of income smoothing. In this method, the coefficients of variation were used to measure the variability of sales and income. This method had been used by many previous studies in determining the presence of income smoothing (Ashari et al., 1994; Habib, 2005; Mansor & Achmad, 2009; Yang & Ramadilli, 2009). Eckel's index measures income smoothing by aggregating the effects of several potential smoothing variables (instead of just one income smoothing variable at a time) and by investigating the pattern of income smoothing behavior over a period of time.

The smoothing index of Eckel (1981) compares income variability with sales variability to control for the effects of real smoothing (due to actual economic transactions/events) and naturally (inherently) smooth income streams. In particular, the measurement method relies on the analysis of income and sales variability as shown in the following:

$$\text{Income smoothing index (CVIs)} = (\text{CV}_i / \text{CV}_s)$$

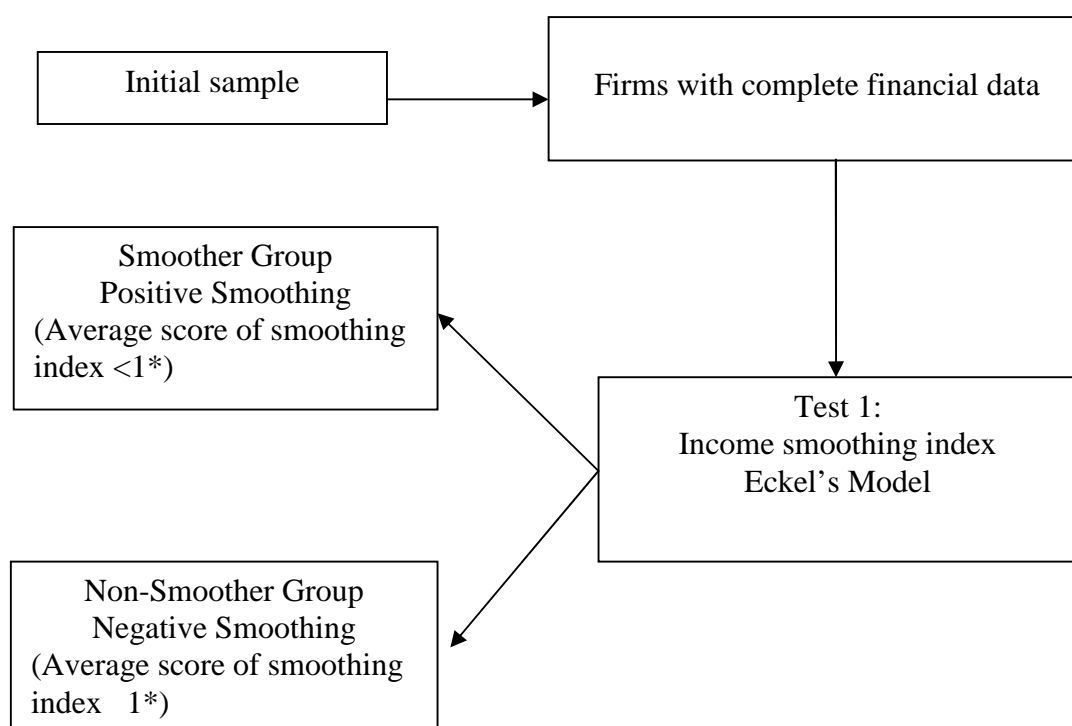
Where:

$$\text{CV}_i = (\uparrow \text{ income}) / (\sim \text{ income})$$

$$\text{CV}_s = (\uparrow \text{ sales}) / (\sim \text{ sales})$$

If the  $\text{CV}_i$  (the coefficient of variation for income) is less than the  $\text{CV}_s$  (the coefficient of variation for sales), the ratio will be less than one, then suggesting that the firm is an income smoother. Therefore, for the purpose of this study, the sample companies were classified as smoothers or non-smoothers, which depended on whether their income smoothing indices were respectively less than or more than 1 (Eckel, 1981; Mohammad, 2001). Such dichotomous measurement of income smoothing has been used successfully in some previous studies (Kamarudin et al., 2009; Mansor & Achmad, 2009).

Three types of income (smoothing objects) were examined in this study. They were income from operations (IFO), income before extraordinary items (IBE) and net income after tax (NIT). This means that income smoothing indices were computed for each of these income smoothing objects and tested separately. In this study, income from operations is defined as operating income plus depreciation and amortization (Albrecht & Richardson, 1990; Ashari et al., 1994). The main fixed cost is added back to control the volatility of income measures. This is due to the differences in operating leverage that may cause the differences in income smoothing index (Mohammad, 2001). Firms with average scores of less than 1 for all three smoothing objects (income from operations, net income before extraordinary items and net income after tax) were included as the sample of smoother firms needed for stage two. Accordingly, the non-smoother sample consisted of firms with average scores of more than 1 for average three smoothing objects. Figure 3.1 shows the diagram of sample selection.

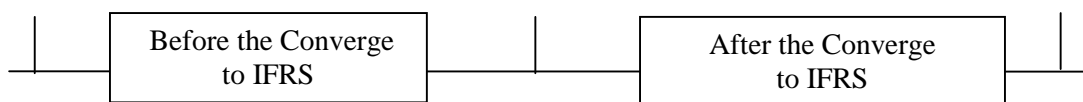


\*) Smoothing objects: Income from operation (IFO), Income before extraordinary item (IBE), Net income after tax (NIT)

**Figure 3.1:** Sample Selection in Step 1: Income Smoothing Index

### 3.4 Hypothesis Development and Identifying Factors Affecting Income Smoothing Practices

To reduce IS practices, government and market participants may use some mechanisms namely, the adoption of accounting standard (Goncharov & Zimmermann, 2009; Holthausen, 2003; Leuz et al., 2003). Indonesia and Thailand government has done many efforts to improve accounting practices and financial reporting quality. The aim of those accounting reforms is to enhance the quality of financial reports measured by the decreasing number of IS practices. Therefore, two main hypotheses in alternate form to ascertain whether the reforms have influenced income smoothing practices are formulated as follows.



**Figure 3.2:** Timeline of Study

#### 3.4.1 The Convergence to IFRS

As the rapid growth in international business and the globalization of capital markets, since 2000 there has been a growing movement in countries all over the world to adopt IFRS for listed and cross-listed companies. Under the Public Interest Theory (PIT) (Godfrey & Jones, 1999; Riotto, 2008), governments intervene in the regulation of financial reporting in response to market failure and 'in the public interest'. The basic argument is that market mechanisms have failed and government action is necessary for the greater good. PIT proposes that governments or their agents introduce regulation to compensate for market failure. Regulation is intended to protect the

interest of society, in other words, with regulation society is better off than otherwise. Related to financial reporting, the assumption is that regulation will improve information flows thus improving capital market efficiency (Godfrey & Jones, 1999).

By introducing IFRS, Indonesian and Thailand government endorses companies to use a tighter accounting standard that would limit reporting manipulation especially in reporting incomes. The expected consequences of IFRS adoption was the IS practices should decrease because IFRS are more precise, admit a limited number of options and hidden reserves are prohibited, therefore it is expected that accounting amounts determined by IFRS are of higher quality than those determined in domestic generally adopted accounting principles.

Prior studies have documented that accounting quality has improved after voluntary IFRS adoption (Ball et al., 2003; Mcanally et al., 2011; Niclas, 2011). The proponents contend that the current version of IFRS has reduced allowable accounting alternatives, limited the management's opportunistic discretions, and required accounting measurement and disclosure that can better reflect a company's financial position and economic performance. This will lead to higher quality financial reporting (Barth et al. 2006; Leuz & Holgerdaske, 2008; Li, 2010). Therefore, it is hypothesized that after the adoption of IFRS the IS practices will be lesser. Accordingly the hypothesis for this study is stated as follows:

H<sub>1</sub>: There is a significant difference on IS practice after the convergence to IFRS compared to the pre-period convergence.

### **3.4.2 Company Size**

Previous studies find that company size has an effect on income smoothing behavior (Atik, 2009; Habib, 2002; Mansor & Achmad, 2009; Tseng & Lai, 2007). For examples Habib (2002) and Tseng and Lai (2007) and conclude that small companies smooth income significantly more than large companies. One explanation is that smaller companies are likely to be subject to less public scrutiny than larger

companies, therefore small companies are expected to smooth income more than large companies. In other words, larger companies are likely to receive more attention from analysts and investors and thus more is known about them. Consequently, there is little additional value for a smoothed income signal and, accordingly, larger companies have less incentive to smooth income (Ashari et al., 1994; Mansor & Achmad, 2009; Siregar & Utama, 2008). In this study, the company size is measured by total assets (after taking logarithms).

From Positive Accounting Theory (PAT) perspective, those findings are aligned with the assumption that all individuals' action is driven by self-interest and that individuals will always act in an opportunistic manner to the extent that the action will increase their wealth (Watts & Zimmerman, 1990; Brown et al., 2009). PAT helps explain and predict management's choice of standards by analyzing the costs and benefits of particular financial disclosures in relation to various individuals. This implies that management (agent) is selecting the choice of the optimal accounting procedures for a given purpose. Since smaller companies need to look attractive for investors, they may smooth the rate of growth in income (Ashari et al., 1994). Conversely, larger companies may have higher risk to commit IS for they receive more attention from public and investors.

Consequently, small companies are expected to smooth income significantly more than large companies and small firms more likely to use accounting method that will shift future income to increase current period of reported income. Thus, the hypothesis tested in the study can be summarized as follows:

H<sub>2</sub>: There is a significant relationship between the IS practices and the company size.

### **3.4.3 Debt Financing**

Similar to company size, PAT is the most appropriate theoretical framework to understand the behavior of companies in dealing with debt. PAT propositions imply

that management (agent) is selecting the choice of the optimal accounting procedures to manage debts. The debt equity hypothesis maintains that the higher the firms' debt, which is equivalent to the close (i.e. 'tighter') the firms is to the constraints in the debt covenants and the greater the probability of a covenant violation and of incurrence of technical default cost, the more likely managers are to use accounting methods that increase income (Fonseca & Gonzalez, 2008).

When companies raise money through debt financing (be it in the form of long-term bank loans or public debt), capital providers rely on lending agreements or debt covenants (Kamarudin et al., 2009; Pe'rez et al., 2008). The objective of this process is to minimize the costs associated with agency relationship and thus maximize the shareholders and the bondholders' wealth. This proposition indicates that the higher the level of the debt, the more attention and monitoring are given by the capital providers to the firm activity (Fonseca & Gonzalez, 2008; Frankel & Litov, 2011; Heath, 2009).

PAT hypothesizes that the closer a firm is to violation of accounting-based debt covenants, the more likely the firm's manager is to select accounting procedures that smooth the income by shift reported earnings from future periods to the current period. Based on this hypothesis, Tan and Jamal (2006) and also Tseng and Lai (2007) suggest that the issuance of debts provides an incentive for a firm to smooth its reported income. They will do this to loosen the binds of any debt covenants that are expressed in terms of accounting-based numbers. Therefore, a positive association between income-smoothing behavior and total long-term debt to total assets ratio (TD/TA) is expected. However, like the other hypotheses of this study, this hypothesis implies the expected direction of the association between debt financing and IS practices; the relevant hypothesis is as follows:

H<sub>3</sub>:        There is a significant relationship between the IS practices and the total debt of the company.

#### **3.4.4 Profitability**



As PAT propositions imply that management will select the choice of the optimal accounting procedures for given the purpose, presumably, fluctuations in income streams have a more severe impact on low profitability companies. Hence, their management has a stronger motivation to smooth income. The management from low profitability companies is more likely to choose accounting rules that maximize income immediately rather than over time.

Tseng and Lai (2007) conclude that a high proportion of companies smooth their income when their profitability is relatively low. Also Atik (2009), Mansor and Achmad (2009) provide evidence that companies with declining profitability tend to smooth their income. Presumably, fluctuations in income streams have a more severe impact on low profitability companies; hence, they have a stronger motivation to smooth income.

Given these findings, it is hypothesized that companies with lower profitability tend to smooth their income more than companies with higher profitability (Ashari et al., 1999; Eckles et al., 2011; Habib, 2005). In this study, profitability is measured by the ratio of profit before interest and tax to total assets minus current liabilities (Ashari et al., 1999; Mansor & Achmad, 2009). Accordingly, the hypothesis is formulated as follows:

H<sub>4</sub>: There is a significant relationship between the IS practices and the profitability of the company.

#### **3.4.5 Type of Industry**

Positive Accounting Theory (PAT) suggests that a firm organizes itself in the most efficient way depending on factors such as the legal and institutional environment, technology, and degree of competition in its industry to maximize its future prospects (Watts & Zimmerman, 1986; Sinha, 2008). This implies that the competition in its industry will affect managerial behavior and accounting choices.

Albrecht and Richardson (1990) conclude that companies in different industries smooth their income in varying degrees. It appears that companies in certain industries (for example, industrial sectors are defined as peripheral industrial sectors by some researchers) face a more restricted opportunity structure and a higher degree of environmental uncertainty. It can be noted that the hotel, property and services sector in Indonesia and Thailand are highly competitive and is very reactive to national economic and political events (Ronen & Sadan, 1981; Roychowdhury, 2006). Based on PAT hypothesis the hotel/properties, trading and services have an incentive for firm to smooth its reported income compared to other industry sectors.

For this study, industrial sectors are categorized into industrial or manufacturing in line with classifications used by the Indonesia and Thailand Stock Exchange. Therefore, the association between income-smoothing behavior of the sample companies and the industrial type is positively related. Two dummy variables are used to capture the industrial or manufacturing sectors. The first dummy variable is used to categorize companies into the manufacturing type (1) and the others (0) for hotel/properties, trading, services and others. Accordingly, the relevant hypothesis is as follows:

H<sub>5</sub>: There is a significant relationship between the IS practices and the type of industrial sector of the company.

### **3.5 Measurement of Variables**

According McClave et al. (2011) and O'Connell (2010) when two samples are involved and the values for each sample are collected from the same individuals, or the samples come from matched pairs of individuals then a paired-samples t-test is an appropriate statistic to use. For this research, the paired t-test was used to compare the values of means from two related samples, for example in a 'pre and post' scenario. Therefore to facilitate the hypothesis testing for H<sub>1</sub> the study used a paired-samples t-test. In this test, IS index for each was collected from the same company before and after the convergence to IFRS respectively. Besides, to ensure a robust

hypothesis testing, the study also employed two types of statistical inference. The first inference used t-test and the second was logistic regression test (Siegel & Castellan, 1988).

For hypothesis  $H_1$ , which is about the difference of proportion of companies practicing IS before and after the convergence to IFRS,  $H_1$  is accepted if its null hypothesis is rejected. In other words,  $H_1$  is accepted if the statistical test managed to reject that the proportion of smoother companies has difference before and after the convergence to IFRS. For the three following hypotheses ( $H_2$  to  $H_4$ ) stated above, the dependent variable for the study is income smoothing, as measured by an index and the independent variables for this present study are the company size, profitability, institutional ownership, debt financing and types of industry. The measurements of the explanatory variables are explained as follows:

- Firm Size (Size), Habib (2005) and Tseng and Lai (2007) conclude that small companies smooth income significantly more than large companies. The explanation is that smaller companies are likely to be subject to less public scrutiny than larger companies, therefore small companies are expected to smooth income more than large companies. In other words, larger companies are likely to receive more attention from analysts and investors and thus more is known about them. For size effect on IS practices, this study uses natural logarithm of total assets and expects a positive association between IS practices and company size.
- Debt financing (Debt), Sercu et al. (2002) find that the level of bank debt and trade credit, as well as an increase in external financing are significantly associated with income smoothing behavior. This is consistent with the argument that firms which are more dependent on external financing have more incentives to report good financial performance than firms that are less dependent on external financing (Siregar & Utama, 2008; Callen et al., 2008).

Therefore, a positive association between income-smoothing behavior and total long-term debt to total assets ratio (TD/TA) is expected.

- Type Industry (TIN) previous researchers suggest that firms from different industries face different economic and operational conditions and these differences may affect income-smoothing ability of the firms and their motivations to smooth income. The business type such as peripheral or services sectors are noted for their low profits, low productivity, and intensive product market competitions, such companies have more opportunity and are more predisposed to smooth their income (Ashari et al., 1994; Atik, 2009; Mansor & Achmad, 2009). Ashari et al. (1994) research concluded that companies in hotel/properties, trading and services sectors tend to smooth their income more as compared to other sectors. Therefore, the association between income-smoothing behavior of the sample companies and the industrial type is positively related. In line with classifications used by the Indonesia and Thailand Stock Exchange, two dummy variables are used to capture the type of industry sectors, for the industrial/ manufacturing (1) and the others (0) for hotel/properties, trading, services and others.

Summarize of the explanatory variables is presented in the Table 3.1 below.

**Table 3.1:**The Explanatory Variables and Measurement

Variable	Represented by	Predicted	Measured as
Company Size	SIZE	(+)	Total assets (after taking logarithm)
Debt Financing	DEBT	(+)	The ratio of long term debt to total assets
Profitability	PRT	(+)	The ratio of profit before interest and tax (PBIT) to total assets minus current liabilities.

Type Industry	TIN	(+)	1 for industrial/ manufacturing and 0 for hotel/properties, trading, services and others
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### 3.6 Research Instruments

Logistic regression is a form of regression which is used when the dependent is a dichotomy (of 2 categories) and the independents are of any type (Elliot & Woodward, 2007). The goal is to find the best set of coefficients so that the cases that belong to a particular category will, when using the equation, have a very high calculated probability that they will be allocated to that category. This enables new cases to be classified with a reasonably high degree of accuracy as well (McClave et al., 2011; O'Connel, 2005).

According to Elliot and Woodward (2007) the assumptions of logistic regression are:

1. Logistic regression does not assume a linear relationship between the dependent and independent variables.
2. The dependent variable must be a dichotomy (2 categories).
3. The independent variables need not be interval, nor normally distributed, nor linearly related, nor of equal variance within each group.
4. The categories (groups) must be mutually exclusive and exhaustive; a case can only be in one group and every case must be a member of one of the groups.

For this study the logistic analysis is used in a multivariate setting to investigate the factors associated with income smoothing. The logistic model is considered appropriate because the dependent variable is nominally measured (dichotomous "0" and "1") and the independent variables are either interval or nominally measured.

The logistic regression model can be expressed as follows:

$$\text{Logit}(\pi_i) = \ln [\pi_i/1-\pi_i] = \alpha_0 + \alpha_1 \text{SIZE}_i + \alpha_2 \text{DEBT}_i + \alpha_3 \text{PRT}_i + \alpha_4 \text{TIN}_i$$

Where:

- $i=1, \dots, n$ ,
- $\pi_i$ = the probabilities values of  $i^{\text{th}}$  firm smooth its income
- SIZE= Size
- DEBT= Debt Financing
- PRT= Profitability
- TIN = Type of industry

### 3.7 Source of Data

The data for this study are the financial statements (income statements, balance sheet and notes to the financial statements) of publicly listed firms. The financial data that will be extracted include total assets, income from operations, income before extraordinary item, net-income after taxes, sales, depreciation, amortization, nonrecurring items, debt and equity. The population of interest comprises companies listed in the Indonesia and Thailand Stock Exchange. This four years' time frame is used with the justification to identify the variability and average absolute growth increments for companies that have opportunity to do income smoothing practices. This procedure is consistent with suggestion from presented in research by Kamarudin et al. (2002).

### 3.8 Sample Selection

The population of interest selected for this study comprised firms listed on the Indonesia Stock Exchange (IDX) and Stock Exchange of Thailand (SET), the Indonesia Capital Market Directory (ICMD) and the DataStream data base, for the four year period. According to Stolowy and Bartov (2004) the term smoothing implies adjustments to income in two or more consecutive periods and it required analysis of

data for at least four periods. The results of some studies suggest that an increase in the time period tends to reduce errors of misclassification of firms as smoothers and non-smoothers (Atik, 2009; Beidleman, 1973). The sample in the first stage was divided into 2 periods, in order to observe the income smoothing practices in these 2 different periods before and after the convergence. In this stage, the smoother firm sample consisted of those having average scores of less than 1 in the three objects; income from operation (IFO), income before extraordinary item (IBE), and income after tax (NIT). Similarly, the non-smoother sample consisted of those having average score of 1 in the three objects. Each sample should have a complete financial annual report for each period observed. Then, the occurrence of accounting changes and non-recurring items were scrutinized from the notes of financial reports. The final samples were smoother and non-smoother companies that had any occurrence of the above said smoothing instruments during the 4 years observation period.

## CHAPTER 4

### RESEARCH FINDING

#### 4.1 Descriptive Analysis

The research sample was drawn from the DataStream, the Indonesian Capital Market Directory (ICMD) and Stock Exchange of Thailand (SET) database, data were classified into two the different periods, the selection of the two different periods was motivated by the important event happening during each period. The first period was before the convergence to IFRS and the second period when enhancement was made to convergence the Indonesian and Thailand generally adopted accounting principles to IFRS. The final sample consisted of 115 firms for Indonesian listed firms and 102 firms for Thailand listed firms. Therefore, the data used for this study was time series data and were analyzed using quantitative method to facilitate statistical hypothesis testing. Table 4.1 presents the final selected samples after excluding bank and financial institutions and also firms with incomplete data.

**Table 4.1:** Description of the Sample Used in the Study

Description	Indonesia Listed Firms	Thailand Listed Firms
Selected Sample	138	121
Less: Bank and financial institution, incomplete data	(23)	(19)
Complete data for analysis	115	102

The next process was to identify companies practicing IS consisted of three stages. On the first stage, the IS sample was determined based upon the IS index developed by Eckel (1981). Using this method, the coefficient of variation is used to measure the variability of sales and income. If the CVi (the coefficient of variation for



income) is less than the CVs (the coefficient of variation for sales), the ratio of CVi over CVs will be less than one, and therefore the firm is a smoother firms (Kamarudin et al., 2009; Mansor & Achmad, 2009; Muhammad, 2001). There were three types of income smoothing objects examined in this study. They were income from operations (IFO), income before extraordinary items (IBE) and net income after tax (NIT). Income smoothing indices were computed for each of these income smoothing objects and tested separately. Firms that had average scores of less than one from the three smoothing objects (IFO, IBE, and NIT) were categorized as smoother firms and needed further analysis in the second stage. Accordingly, the non-smoother samples were firms that had average score  $\geq 1$  from all three smoothing objects.

#### 4.2 Research Objective 1: The Effect of Convergence to IFRS on IS Practices.

The first research objective which corresponds to the hypotheses of H1 aims to investigate the trend of income smoothing practiced by Indonesian listed firms and Thailand listed firms before and after the convergence to IFRS. For each of these firms was then analyzed its income smoothing practice use Eckel index at three different periods. In each period, the Eckel index of a firm was computed for all three smoothing objects (IFO, IBE, NIT). A firm was categorized as a smoother firm if the average of these three Eckel indexes were less than 1. Table 4.2 lists the number of smoothing and non-smoothing firms for three different periods. Since each firm was categorized as a smoother and non-smoother exclusively then each was labeled using 1 or 0 respectively. Table 4.2 shows the result of the number of income smoothing and non-smoothing companies in the first stage of analysis.

**Table 4.2:** The Smoothing and Non-smoothing Firms for two Different Periods

Indonesia Listed Firms				Thailand Listed Firms			
Before Convergence to IFRS		After Convergence to IFRS		Before Convergence to IFRS		After Convergence to IFRS	
Smoother	Non- Smoother	Smoother	Non- Smoother	Smoother	Non- Smoother	Smoother	Non- Smoother

40	75	23	92	31	71	18	84
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The first hypothesis of this study is to answer whether firms' IS practices significantly decreased after the Indonesian and Thailand GAAP converged to IFRS. The effect of the convergence of IFRS to IS practices was analyzed by comparing the proportion of smoother firms in two different periods these periods were before the convergence of Indonesian and Thailand GAAP. The proportion of smoother firms equals for two periods, therefore a statistical test for comparing two means can be used for this purpose (Nahar, 2010; Saudagaran & Sepe, 1996; Stefanescu, 2009). Table 4.3 provides the statistics results for each of the two groups, before convergence of Indonesian and Thailand GAAP to IFRS in which there were N= 115 and N= 102 pairs of observations.

In the Table 4.3, the column labeled "mean" is the difference of the two proportion of smoothing firms before and after the convergence of Indonesian and Thailand GAAP to IFRS. The proportion difference is 0.066 (0.66-0.60), which means that the proportion decrease. A paired sample *t* test (Table 4.3 and Table 4.4) showed a statistically significant difference between mean number before and after the convergence to IFRS for Indonesia listed firms (M=0.66, s= 0.312) and for Thailand listed firms after the convergence to IFRS with (M=0.76, s= 0.402) of the smoother firms,  $t(101) = 2.540$ ,  $p = 0.012$ ,  $\alpha = 0.05$ .

**Table 4.3:** Paired Differences Sample Test : Before and After Convergence to IFRS  
Indonesia Listed Firms

Description	Mean	Std. Deviation	Std. Error Mean	T	df	Sig. (2tailed)
Pair 2007-2008 with 2009-2010	0.066	0.312	0.006	2.546	114	0.012**

\* Notes: The table indicated significance at 0.01 (\*\*), 0.05(\*\*) and 0.1(\*) levels

**Table 4.4:** Paired Differences Sample T test: Before and After Convergence to IFRS

Thailand Listed Firms

Description	Mean	Std. Deviation	Std. Error Mean	T	df	Sig. (2tailed)
Pair 2009-2010 with 2011-2012	0.076	0.402	0.002	2.540	101	0.018**

\* Notes: The table indicated significance at 0.01 (\*\*\*), 0.05(\*\*) and 0.1(\*) levels

Therefore, the finding presented in the Table 4.3 and Table 4.4 supports the second hypothesis that there is a significant difference of IS practices before and after Indonesian and Thailand GAAP converged to IFRS. This result reveals the improvement of financial report quality as shown by the reduction of IS practices. Similar to the first hypothesis, this finding affirms the stand taken by Public Interest Theory that government could effectively help Indonesian and Thailand stock market correct its imperfections by imposing better accounting standard such as IFRS. It is hoped that the decreasing IS practices will improve the quality of firms' financial reports.

#### 4.3 Determinant of IS Practices

The logistic regression output with the logistic regression model which is as follows:

$$\text{Logit}(\pi_i) = \ln [\pi_i/1-\pi_i] = \alpha + \beta_1 \text{SIZE}_i + \beta_2 \text{DEBT}_i + \beta_3 \text{PRT}_i + \beta_4 \text{TIN}_i$$

The result of Table 4.4 and Table 4.5 also shows the model Chi-square which tests the joint null hypotheses that all slope coefficients are zero proves to be statistically significant at the 1% level for all three periods. This implies that the four model's predictors are able to predict the IS practices, the Nagelkerke R-square for Thailand listed firms was 0.742 before the convergence and 0.787 after the

convergence to IFRS. It means that on the average the model's predictors could explain 75% in the variation of the smoothing practices. This percentage indicates a moderately strong relationship of 75% between the predictors and the prediction (Nahar, 2010).

To test the reliability of the estimated model, the study used the Hosmer and Lemeshow (H-L) goodness-of-fit test in testing the difference between the model's predicted values and the observed values. If the H-L goodness-of-fit test is greater than 0.05, as wanted for well-fitting model, then one fails to reject the null hypothesis that there is no difference between the observed and model-predicted value. This implies that the model's estimates fit the data at an acceptable level. This means that well-fitting models show non-significance on the H-L goodness of fit test. This desirable outcome of non-significance indicates that the model prediction does not significantly differ from the observed. With these in mind, the p-value of 0.656 for the period after the convergence to IFRS, which is computed from the Chi-square distribution with 8 degrees of freedom, is not statistically significant and, therefore, the used model was quite a good fit. The same findings occurred for Thailand listed firms, which means that the used model is quite a good fit respectively. The Exp(B) value in Table 4.6 for Thailand Listed Firms indicates the increase or decrease in predicted probabilities if the corresponding predictor is increased by one unit. If the value of Exp(B) exceeds 1 then the predicted probability of occurrence increases, conversely if Exp(B) value is less than 1, any increase in the corresponding predictor leads to the decrease of the predicted probability. For example, the Exp (B) value associated with DEBT is 1.823 for the period before the convergence IFRS. Hence, when DEBT is raised by one unit the predicted probability of occurrence is 1.823 times large.

#### **4.4 Factor Affecting IS Practices**

Income smoothing behavior was hypothesized to be associated with several factors. As presented in chapter 4, the four alternate hypotheses correspond to the variables of the company size, profitability, total debt and the type of industry. Those

variables were treated as independent variables in the logistic model and each of these hypotheses will be discussed in the following subsections.

#### 4.4.1 Firm Size and IS Practices

As shown in H2, this study hypothesized that there is a significant relationship between the IS practices and the company size. Previous studies found that the company size had an effect on income smoothing behavior (Atik, 2009; Mansor & Achmad, 2009; Nuryanah et al., 2011). In this study, the firm size is measured by total assets, after taking logarithm. Logarithm is used for reduce wide-ranging quantities to smaller scopes (Nahar, 2010). Table 4.5 and Table 4.6 for Indonesia listed firms shows that before the convergence the firm size did not significantly affect to IS practices since at  $\alpha=0.1$ ,  $p=0.081$ , but there is a significant relationship at  $\alpha=0.05$ ,  $p=0.064$  for the period after the introduction of IFRS and also significant at  $p=0.026$  for the period after the convergence to IFRS for Thailand listed firms. This result supports the hypothesis of Positive Accounting Theory (PAT) that management (agent) selects optimal accounting procedures for maximizing its benefits. Since smaller companies in Indonesia and Thailand are likely to be subject to less public scrutiny than larger companies then they smooth income more than larger companies. In other words, smaller firms in Indonesia and Thailand are more likely to use accounting method to shift future income to increase current period of reported income. This adds new finding using Indonesian and Thailand context that PAT could be appropriately used to understand the relationship of company size and IS practices.

#### 4.4.2 Debt Financing and IS Practices

As seen in H3, this study hypothesized that there is a significant relationship between the IS practices and the total debt of the company. The previous literature suggests that leveraged firms engage in IS practices to avoid debt covenant defaults, and firm managers that have defaulted on debt contracts may choose to manage

company income to avoid heavy costs resulting from covenant violation (Johnson, 2003; Frankel & Litov, 2011). Table 4.5 shows a significant relation ( $\alpha=0.05$ ) between IS practices and debt financing on  $p=0.049$  before and after the convergence to IFRS. This indicated the high relationship between the debt financing factors and IS practices. Similar to  $H_3$ , the finding of this study on the relationship of debt financing and IS practices in Indonesia and Thailand could be appropriately understood using PAT. One hypothesis of PAT is that the closer a firm is to violate accounting-based debt covenants, the more likely the firm's manager is to select accounting procedures that smooth the company's income figure by shifting reported income from future periods to the current period. The finding of this study provided evidence in Indonesian and Thailand stock market context on the relationship of debt financing and IS practices from the perspective of PAT. This finding can also be explained by referring to the previous research as follows.

#### 4.4.3 Profitability and IS Practices

Presumably, fluctuations in income streams have a more severe impact on low profitability companies; hence, they have a stronger motivation to smooth income figure. Therefore, this study hypothesized that  $H_4$ : There is a significant relationship between the IS practices and the profitability of the company. Table 4.5 shows the effect of profitability factor to income smoothing and there is significant relationship in all two periods. It was statistically significant at  $\alpha=0.05$  with  $p=0.016$  and  $p=0.027$  before and after the convergence to IFRS. This study concludes that the incidence of IS practices is greater in a less profitable company. Research by Ionescu (2011), and Mansor and Achmad (2009) indicate that, when the company is in a good condition with high profit, managers will report the profit as it is to gain the positive impression from the stockholders. In turn, the financial crisis caused listed companies to experience financial insolvency and therefore the income smoothing practice was highly considered by managers if the company were in a less profitable or in a loss position in order to reduce the significant decrease of profit or to reduce the amount of losses.

#### 4.4.4 Type of Industry and IS Practices

Some research concluded that companies in different industries smoothed their income in varying degrees (Srinidhi et al., 2001; Makarian & Albornoz, 2009; Mansor & Achmad, 2009). It appears that companies in certain industries (for example, hotel, real estate and service industries) face a higher degree of environmental uncertainty and such companies have more opportunity to smooth their income. As shown in H5, this study hypothesizes that there is a significant relationship between the IS practices and the type of industrial sector of the company. Table 4.5 shows that in all the two periods the type of industry has no significant relationship with the behavior of IS practices at  $p = 0.403$  before the convergence and at  $p = 0.539$  after the convergence to IFRS. These negative significant results allow the present researcher to confirm the null hypothesis and this leads the researcher to discard the industry type factor as an explanatory variable. This evidence therefore is not consistent with PAT arguments. The explanation is that for Indonesian and Thailand listed firms, the IS practices do not depend to the type of industry but do on firm's performance and income smoothing practices are more likely to be present when a firm's performance is usually bad or in loss condition. This interesting finding affirms that at least in Indonesian and Thailand context, PAT may not be used appropriately to explain the relationship between types of industry and IS practices.

**Table 4.5: Logistic Regression Analysis- Indonesia Listed Firms**

Variables	Before Convergence to IFRS N= 115						After Convergence to IFRS N= 115					
	B	S.E.	Wald	df	Sig.	Exp(B)	B	S.E.	Wald	df	Sig.	Exp(B)
Company Size (SIZE)	-0.176	0.492	0.826	1	0.081	0.687	-0.700	0.193	13.158	1	0.046*	0.507
Debt Financing (DEBT)	1.631	0.294	2.894	1	0.049	4.606	1.372	0.439	4.608	1	0.043*	2.391
Profitability (PRT)	-4.801	1.648	7.071	1	0.027*	0.017	-2.806	0.967	8.419	1	0.016*	0.060
Type of Industry (TIN)	-0.161	0.608	0.720	1	0.403	0.474	0.034	0.409	0.059	1	0.539	1.005
Constant	5.331	2.013	8.125	1	0.305	38483.66	9.230	2.420	14.105	1	0.015	30238.56
-2 Log-likelihood Value	102.114						128.063					
Omnibus Test (Model Chi square)	23.109 (df=6) (p>0.000)						66.003(df=8) (p>0.000)					
Hosmer & Lemeshow (Goodness of Fit)	9.759 (df=8) (p>0.401)						6.030 (df=8) (p>0.651)					
Cox & Snell R Square	0.475						0.550					
Nagelkerke R Square	0.525						0.680					



**Table 4.6: Logistic Regression Analysis- Thailand Listed Firms**

Variables	Before Convergence to IFRS						After Convergence to IFRS					
	N= 102						N= 102					
	B	S.E.	Wald	df	Sig.	Exp(B)	B	S.E.	Wald	df	Sig.	Exp(B)
Company Size (SIZE)	-0.144	0.461	0.097	1	0.058	0.866	-0.611	0.248	6.082	1	0.051	0.543
Debt Financing (DEBT)	1.823	0.697	6.850	1	0.049*	6.093	1.138	0.511	4.952	1	0.026*	3.120
Profitability (PRT)	-0.033	0.026	1.613	1	0.014*	0.968	-0.065	0.021	9.328	1	0.013*	0.937
Type of Industry (TIN)	-5.644	2.360	5.722	1	0.117	0.004	-2.395	0.924	6.727	1	0.139	0.091
Constant	3.947	4.405	0.803	1	0.370	51799.3	9.614	2.916	10.872	1	0.001	14969.51
-2 Log-likelihood Value	76.806						86.406					
Omnibus Test (Model Chi square)	33.325 (df=6) (p>0.000)						59.953 (df=8) (p>0.000)					
Hosmer & Lemeshow (Goodness of Fit)	6.677 (df=8) (p>0.656)						7.005 (df=8) (p>0.611)					
Cox & Snell R Square	0.569						0.501					
Nagelkerke R Square	0.742						0.787					

## CHAPTER 5

### DISCUSSION AND CONCLUSION

#### 5.1 Summary of Research Findings

The first objective of this study which corresponds to the first hypotheses aims to investigate the effect of convergence accounting standard IFRS to IS practice by Indonesian and Thailand listed firms. In general, this study concluded that the IS practices decreased after the Indonesia and Thailand accounting standards converged to IFRS with sig. (2-tailed)  $p=0.012$  for Indonesia listed firms and  $p=0.018$  for Thailand listed firms. Although the number of firms committing IS practices in Indonesia and Thailand decreased significantly after the accounting standard reforms, its proportion was still considered as high because it was still higher than the practices in other countries such as in Taiwan (Lai & Tham, 2007) and in Mexico (Machuga et al., 2007). Therefore, this study concludes that producing accounting standards and the regulations is not sufficient without completing them with conducive business environment and most importantly, by disclosing company information to all the stakeholders and public.

The second research objectives are to investigate the effects of specific company characteristic (company size, type of industry, debt financing and profitability) on the IS practices by Indonesian and Thailand listed companies. Given the four hypotheses as explained in chapter 4, the study concludes the following:

1. The relationship between the company size and IS practices was insignificant at  $\alpha=0.1$ ,  $p=0.081$  before the convergence to IFRS, but significant at  $\alpha=0.05$ ,  $p=0.046$  after the convergence to IFRS (Table 4.5) for Indonesia listed firms. The explanation is Indonesian and Thailand companies entered into the worst financial

condition, which led managers to engage in IS practices to maintain their performance in order to respond to market expectations. Therefore, there was little additional value to smooth company income, and, accordingly, larger companies have less incentive to smooth income than smaller companies.

2. This study concluded that profitability had significant effect to IS practices for the two different periods: before the convergence to IFRS at  $\alpha=0.05$ ,  $p=0.014$ , and after the convergence to IFRS at  $\alpha=0.05$ ,  $p=0.013$  (Table 4.6) for Thailand listed firms. Presumably, fluctuations in income streams have a more severe impact on low profitability companies; hence managers have a stronger motivation to smooth income. Therefore, this research concludes that companies with declining profitability tend to smooth their income figure.
3. The type of industry did not have any significant relationship to IS practices. This study concluded that companies of all types of industry smoothed their income in varying degrees: before the convergence at  $\alpha=0.1$ ,  $p=0.403$  and after the convergence to IFRS at  $\alpha=0.1$ ,  $p=0.539$  (Table 4.5) for Indonesia listed firms. The explanation is that IS practices did not depend to the type of industry but depended on firm financial condition; and IS practices is more likely to be committed when firm performance is bad.
4. Lastly, for the debt financing, the result of this present research shows that there was a significant relation between IS practices and debt financing for the three different periods: before the convergence to IFRS and after the convergence to IFRS at the level  $\alpha=0.05$ ,  $p=0.049$  and  $p=0.026$  (Table 4.6) for Thailand listed firms. This indicates the relationship between debt financing and income smoothing behavior.

## 5.2 Research Contributions and Implications

Based on research findings, the study provides two types of contributions namely practical and theoretical contributions. Practical contributions include some possible suggestions to related government regulators on how to better control IS practices through the implementation of accounting standard. While theoretical contributions provide some possible consequences on considering and applying three theories used in this study to appropriately understand the IS practices in Indonesia and Thailand listed firms.

#### **5.2.1 Practical Contribution**

The results of this study provide some implications to parties who want to have better insight on IS practices in developing countries. The implications of this study are as follows: First, for Indonesian and Thailand regulatory bodies this study has found sufficient evidences that the occurrence of IS practices in Indonesian and Thailand listed firms get lesser but still high despite the introduction of some regulations. Consequently, the regulators and standard setters in Indonesia and Thailand should realize that the big challenge is not merely on releasing standards and regulations but is on ensuring that they can be well- socialized, implemented and monitored. Therefore, efforts should be directed not only at developing rules and regulation but most importantly at promoting accounting standards as a good means for sustainable and responsible financial reporting practices. To achieve this, the accounting standard reforms should be guided by moral responsibility and should be followed with the formulation of the appropriate legal provisions for their implementation. Second, the findings of this study will be important to investors and other regulators that are concerned about income smoothing practices. The findings can raise awareness among accounting information users about the various techniques used to smooth company income.

#### **5.2.2 Theoretical Contribution**

As described in chapter 3 (Research Method), each three well-known theories used in this study was used for different purposes. PIT (Public Interest Theory) was used as a framework that IFRS as regulations introduced by Indonesian and Thailand government was appropriately viewed as the result of a public demand for correction of market failures. Although these regulations resulted significant decrease of IS practices in Indonesia and Thailand from period to period of study but overall the practices were consider high. From this finding, PIT might not completely appropriate when it is solely used to understand IS practices. To understand the effectiveness of government regulations to constraint IS practices need other theories. Positive Accounting Theory (PAT) has been used in this study as framework that managers may have discretion to choose the accounting method in order to maximize their benefits. Because of this discretion, managers may manipulate income directly or indirectly through some methods. The study also found a consistent findings that debt ratio and profitability have positive relationship with IS practices. Therefore, the study affirm that PAT is still appropriate theory to understand why managers practice IS.

As Agency Theory (AT) offers framework to the need of control or monitor mechanisms in order to minimize conflict between principals and agents, this evidence suggests finding out some agent-principal relationship motives before employing AT as a research theoretical framework. At least in Indonesian and Thailand context, AT alone might not be enough to explain the principal-agent relationship. Therefore, AT should be carefully or selectively used as research framework after considering some relevant contextual factors such as corporate governance codes.

### **5.3 Suggestions for Future Research**

The research findings of this study may have several further research opportunities. First, future research can develop and combine a better IS practice model. It can develop a particular model for each industry, maybe with different industry characteristics, such as the influence of some other IS instruments to company income that might produce different and new IS models. Second, further research may

add other characteristics of the boards of directors and audit committees. Other characteristics, such as the tenure or the total number of meetings of the board committee may serve as additional characteristics of their independent monitoring ability. Third, for additional external audit quality variable future research may identify other characteristics, such as the external auditors' specialization and audit fees. The inclusion of these characteristic will certainly enrich and complete this study and will provide more comprehensive understanding on IS behavior of Indonesian and Thailand listed firms.

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