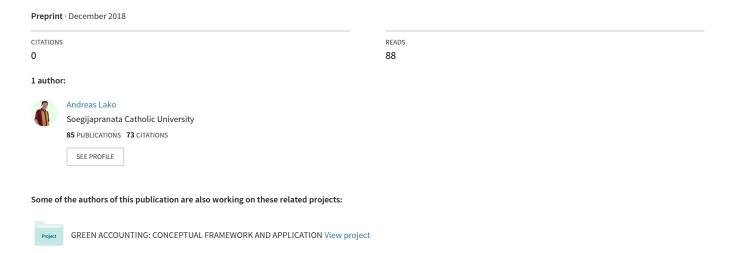
# Value Relevance of Financial Statements Information to Stock Market: Testing Based on Valuation and Efficient Market Theory \*



### Value Relevance of Financial Statements Information to Stock Market:

**Testing Based on Valuation and Efficient Market Theory**\*

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#### **Abstract**

This study investigates the value-relevance of financial statements information (hereafter, FSI) to stock market over time. The issue is crucial to investigated due to growing a claim in capital market communities in the recent years that financial statements of Indonesian public firms had lost or deteriorated their relevance to stock market. The same claim also upwards in US and other countries. However, value-relevance studies investigated the claim report inconclusive evidence. The main limitation of the studies is that their valuation basis relies only on the Ohlson (1995) valuation theory. The studies ignore efficient capital market (ECM) theory in which over last decades used in the information content studies. Besides, the studies do not yet take account of the impact of growth level of financial statements numbers (GLFSN), the quality of FSI (QFSI) and the disclosure quality of FSI (DQFSI) as moderating variables having contingency effect to the relevance of FSI.

Therefore, this study applies both the Ohlson (1995) valuation theory and ECM theory (Beaver, 1998) as valuation basis. The study also considers GLFSN, QFSI and DQFSI as moderating variables. This study hypothesis: First, value-relevance of FSI to stock market does not decline over time. Second, GLFSN has significantly effect in increasing value relevance of FSI, and the relevance of financial statements having positive GLFSN is higher than of ones having negative GLFSN. Third, QFSI has significantly effect to enhance value relevance of FSI, and relevance of financial statements having net income containing transitory components is lower than of ones having permanent earnings. It is also supposed that the relevance of financial statements having low earnings management (LEM) level is higher than of ones having high earnings management (HEM) level. Fourth, DQFSI has significantly effect in increasing value-relevance of FSI. The relevance of financial statements containing intangible assets is higher than value relevance of ones not containing intangible asset, and value-relevance of financial statements released at the early date is higher than of ones released at last minute of the required reporting date.

Using sample from listed manufacture firms at the JSX over 1995-2004, the results indicate that financial statements have still value relevance over time, although its relevance tends to low. In spite of the fact that around event periods of financial statements releases (t.-2, 2 and t.-1, 1) the relevance tends to decline (reject Ho<sub>1</sub>), but at the announcement date (t.0) its relevance has a tendency to increase over time (accept Ho<sub>1</sub>). This study also documents few findings as follows: 1) GLFSN and QFSI do not have contingency effect in increasing value relevance of FSI (reject H<sub>2a</sub> and H<sub>3</sub>), while DQFSI have contingent effect in increasing the relevance (accept H<sub>4</sub>); 2) value relevance of financial statements containing positive GLFSN, permanent earnings and LEM is lower than of ones containing negative GLFSN, net income with transitory earnings components and HEM (reject H<sub>2b</sub>, H<sub>3a</sub> dan H<sub>3b</sub>); and 3) value relevance of financial statements containing intangible assets and released at the early date is higher than of ones not containing intangible assets and released at the end of the required reporting date. This study concludes that the relevance of FSI after including GLFSN and LEM tends to decline at t.-2, 2 and t.-1,1, but it raises significantly at t.0. And, the relevance of FSI after including DQFSI tends to increase significantly at the time t.-2, 2, t.-1,1 and t.0.

Keywords: value-relevance, information quality, disclosure quality, contingency effect, permanent earnings, transitory earnings, earnings management, and intangible assets

<sup>\*</sup> This article is the result of the author's dissertation summary at the Accounting Doctoral Program from the Faculty of Economics and Business, Gadjah Mada University, Indonesia, on March 2, 2007

#### A. Introduction

The study investigates changes in value relevance of financial statement information (hereafter, FSI) to stock market over times. The investigation is crucial because of the growing claims in recent years within the stock market communities that Indonesian public firms' financial statements have lost their value relevance. Such claims were induced by the arising accounting scandals by firms, e.g., Bank Lippo, Bank Global, Unibank, Indo Farma, Kimia Farma, Telkom, Great River Indonesia, etc. It is then strengthened by the still remaining financial crisis to most big companies since the end of 1997 and by the growing complexities of business environment.

In the United States such claims have raised since the beginning of 1990s (Jenkins, 1994; Elliot, 1995; Collins *et al.*, 1997) and to become extensive during the last several years in the US (Lev, 2003; Jacob and Jorgensen, 2006). It is triggered by financial mega scandals undertaken by some global corporations such as Enron, WorldCom, Xerox, Global Crossing, and others.

The growing of such claims motivates accounting researchers to investigate it empirically. Unfortunately, results of value relevance studies testing such claims did not yet conclusive. While value relevance studies of Collins *et al.* (1997), Francis and Schipper (1999), and Brief and Zarowin (2000) report that the value relevance of FSI in the US tend to increase over times, Amir and Lev (1996), Chang (1999), Brown *et al.* (1999), Lev and Zarowin (1999), Lo and Lys (2001), and Core *et al.* (2003) report declining value relevance of financial statements. In Indonesia, the study of Warsidi (2002), Arsjah (2003) and Suwardi (2005) report that value relevance of FSI did not deteriorate, while Pinasti (2004), Lako (2005, 2006a) and Lako and Hartono (2005) reported the declining value relevance of FSI during the last decade.

The main limitation of the studies is its valuation basis relies solely on the Ohlson (1995) theory and model. The studies did not consider efficient market theory as basis of valuation. Ohlson (1995) valuation theory assumes that stock prices change precede to the accounting numbers release so that the timeliness of financial reporting and market efficiency assumption, which are crucial issues in information content studies, were not important issues in the value relevance studies (Barth *et al.*, 2001; Beaver, 2002). Therefore, the conclusions of previous studies on value relevance of FSI should be put into further scrutiny because they inappropriately measure the decision usefulness or the value relevance of FSI during the event period of financial statements release.

This study investigates changes in value relevance of FSI to the stock market during the event period of financial statements release. It applies Ohlson (1995) valuation theory and efficient capital market (ECM) theory (Beaver, 1998) as a joint valuation bases. Investigating the issue is relevant to the Indonesian capital market context for two basic reasons.

First, several studies reported that earnings management practices in Indonesian corporations are extensive (Bhattacharya et al., 2003; Leux et al., 2003). Studies of Assih

(2004), Lo (2005) and Yudianti (2005b) also reported that public manufacture companies manage their earnings for certain objectives. It is presumed further that the high level of earnings management practices are causing the declining appreciation of investors to financial statements and having impacts on the deteriorating value relevance of FSI.

Second, through the issuance of the Encyclical Letter from Chairman of Capital Market Supervisory Agency (CMSA) No. SE-24/PM/1987, the CMSA ordered public companies to report financial statements based on generally accepted accounting principles (GAAP) and presenting it to the CMSA and public. Such an obligation is also regulated through Law No. 8 Year 1995 about Capital Market. The Indonesian Accountant Association (IAA) has issued Financial Accounting Standards (FAS) in October 1, 1994 as guideline for firms in recognizing, measuring, and reporting the financial statements. Therefore, by investigating the value relevance of FSI over times, the public companies, CMSA and IAA can obtain empirical evidence whether financial statements based on GAAP still have their value relevance or deteriorating its relevance.

Not taking growth level of financial statements numbers (GLFSN), quality of financial statements information (QFSI), and disclosure quality of financial statements information (QDFSI) into account as moderating variables of FSI value relevance's measure and sign over times is other main limitations of previous studies. The three variables are presumed to have significant contingence effects on value relevance of FSI for their ability to influence investors' perceive and beliefs on potential, quality and predictability of performance and value of firms in the future. Besides, the three variables are presumed have ability to influence promptness and appropriateness of market reaction to financial statements announcements.

The positive and negative GLFSN were taken into account in analyzing contingence effect of each moderating variables. QFSI will be proxied by (permanent and transitory) earnings content and (high and low) level of earnings management, while DQFSI will be proxied by (reporter and non-reporter of) intangible assets reporting and (early and late) financial statements releases. Each variable is expected to bring different signal to stock market.

To investigate the above mentioned issues, the study apply valuation theory (Ohlson, 1995) and ECM theory (Beaver, 1998) jointly as theoretical bases and apply return/change model and event study as valuation bases. The use of both theories characterize the study uniquely from previous studies which relied solely on Ohlson (1995) valuation theory as theoretical basis and price/level model and association study as valuation bases.

The following is the proposed research questions of the study: 1) what about FSI value relevance to stock market over times? Was its relevance is increasing or declining? 2) What about the contingency effect of GLFSN on FSI value relevance? Will value relevance of financial statements containing positive GLFSN be higher than value relevance of those containing negative GLFSN? 3) What about the contingency effect of QFSI on FSI value relevance? Will value relevance of financial statements containing higher transitory net income components and higher level of earnings management be

lower than those containing permanent earnings components and lower level of earnings management? 4) What about the contingency effect of DQFSI on FSI value relevance? Will value relevance of financial statements containing intangible assets (INTA) and released earlier be higher than those containing no intangible assets (INTA) and released till the last minute of reporting date?

Objectives of the study are to: (1) Investigate the changes in FSI value relevance over times; (2) Investigate the contingency effect of GLFSN on FSI value relevance over times, and to test (the differences between) value relevance of financial statements containing positive or negative GLFSN; (3) Investigate the contingency effect of QFSI on FSI value relevance over times, and to test (the differences between) value relevance of financial statements containing permanent or transitory component of earnings, and to test (the differences between) value relevance of financial statements containing high or low level of earnings management; (4) Investigate the contingency effect of DQFSI on FSI value relevance, and to test (the differences between) value relevance of financial statements containing or not-containing intangible assets, and to test (the differences between) value relevance of financial statements released earlier or at the last minute of the reporting date.

The results of the study are expected to contribute to or to have significant theoretical, policy and practical implications on accounting literatures, FASB-IAA, accounting profession, CMSA, and public firms.

#### **B. Literature Review**

In value relevance literature, an accounting number is defined to have value relevance if it is significantly associated to equity market value [Beaver (1998), Holthausen and Watts (2001), Barth *et al.* (2001)]. According to Barth *et al.* (2001), an accounting number is said to have value relevance if it reflects relevant information to investors in valuing firms and reliably measured as reflected in stock prices or returns.

Barth *et al.* (2001) argues that value relevance studies were motivated by broad potential interest of non-academic constituents such as standard setters (FASB and IASB), policy makers and regulators (SEC and Federal Reserve Board), corporate managers, and other users. According to Barth *et al.* (2001), value relevance studies brought fruitful insights to standard setting, accommodate accounting conservatism and could be used to scrutinize conservatism implications on accounting numbers and equity market value relationship.

Generally, value relevance studies investigate the FSI value relevance to stock market in a certain period of time. The relevance is measured in  $R^2$  of regression, in which greater (smaller)  $R^2$  reflects higher (lower) FSI value relevance. Problem arises when higher or lower  $R^2$  depends on the basis theory, approach of the study, and valuation model in used. The use of valuation theory, association study, and price/level model will result in higher  $R^2$  than the one resulted from the use of efficient market

theory, event study, and return/change model. In that case, the measure of FSI value relevance is very well influenced by the appropriate choice of basis theory, approach of study, and valuation model in used.

Theoretically, the joint use of valuation theory and ECM theory as theoretical bases, the use of event study approach and return/change model as valuation bases in value relevance study is considered more appropriate in testing FSI value relevance over times. The reasons are as follow:

First, valuation theory (Ohlson, 1995) predicts that there are linear relationship between stock prices/returns behavior and accounting numbers at a point of time, while ECM theory (Beaver, 1998) predicts that stocks price/return transacted in a stock market at a certain time will fairly reflect all the publicly information available such as information about accounting measures (Scott, 2003). ECM theory predicts that investors will quickly respond to the release of new information or a specific event and the response will be reflected in stock price changes. If the stock price changed then the new information or the specific event had information content (Beaver, 1998; Kothari, 2001). Then, combining both valuation theory and ECM theory will explain the linear relationship between the change of securities price/return and the change of financial numbers reported in a certain period of time.

Second, the use of valuation theory and ECM theory as theoretical bases logically will lead to the use of event study approach with narrower window period as better than the use of association approach. The use of event study approach will lead to controlling of other events as confounding effects to secure that the securities price/return changes during the period of financial statements release are really induced by the financial statements announcements event and not by any other events.

Third, as a consequence of the use of valuation theory and ECM theory and event study approach, then the use of return/change model as valuation basis is considerably appropriate than the use of price/level model. According to Easton (1999) and Beaver (2002), the use of return model is appropriate for testing the financial statements timeliness hypothesis. Econometrically, return/change model is considerably better than price/level model which is containing serious heteroscedasticity problem (Kothari and Zimmerman, 1995; Barth *et al.* 2001). CAPM-based return model is better because it takes timeliness issue, scale effects, and systematic risk into account (Easton, 1999; Easton and Sommers, 2003).

The above mentioned literature review resulting in three main factors expected to significantly influence FSI value relevance to the stock market, that are the growth level of financial statements numbers (GLFSN), quality of financial statements information (QFSI), and the disclosure quality of financial statement information (DQFSI). The explanations are as follow:

First, positive GLFSN is expected to increase the FSI value relevance, while negative (bad news) GLFSN is expected to decrease the FSI value relevance. Follows are the reasons: (1) SFAC No. 2 (1980) states that accounting information is relevant if it

could make a difference in a decision to help its user in forming past, current, and future outcomes prediction or in confirming previous expectation. Thus by differentiating financial numbers based on their growth level it could be then identified whether accounting information reported by a firm has feedback value and predictive value to stock market; (2) model of information system for decision theory predicts that investors will use the newest FSI, such as good news (GN) or bad news (BN) earnings and net cash flows to predict future earnings power or cash flows (Scott, 2003); and (3) based on perspective of informationally semi-strong efficient market theory, the events of financial statements releases might have economic value which could affect value of the firms through its changes of cash flow (Hartono, 2005a). So release of GN (BN) financial numbers bring multiple signals GN (BN) to stock market.

Second, QFSI would be measured based on its value to the users in decision making and based on the reliability of the reported information. SFAC No. 2 (1980) argued that to be of any use in decision making, accounting information must be free from error and bias. Earnings are the accounting numbers most frequently bended or manipulated by management. So, earnings quality has to be controlled because of its two components, the permanent earnings and the transitory earnings. Each of the two earnings components has different signals to the market with stronger (weaker) signals from permanent (transitory) earnings. Frequently, management manages earnings for certain objectives (Watts and Zimmerman, 1986; Penman, 2001). It could be concluded then that earnings content (permanent and transitory earnings) and level of earnings management are QFSI matters.

Third, DQFSI is closely related to INTA reporting and the speed of announcement of the financial statements. Early financial statements announcements with INTA statement reporter firms are expected to have higher FSI value relevance than those who announce their financial statements at the last minute of the reporting date with no INTA statement. The reasons are as follow: 1) Investors consider INTA, such as research and development, goodwill, patent, brand and software development, have strategic role in firms' value creation (Bergamini and Zambon, 2005) and as the main driver of business change, new products creation and production process improvement (Lev and Zarowin, 1999), and to generate greater future cash flow (Francis and Schipper, 1999); and 2) Firms announce their financial statements earlier in order to send positive signal to the market that their reported statements containing relevant good news to investors in making an investment decision (Chamber and Penman, 1984).

#### **C. Hypotheses Statement**

#### 1. Hypothesis related the changes of FSI value relevance over times

In general, a number of value relevance studies in the US report that financial statements have value relevance to the stock market [Amir and Lev (1996), Collins *et al.* (1997), Chang (1999), Ely and Waymire (1999), Francis and Schipper (1999), Lev and Zarowin (1999), Ryan and Zarowin (2003), Core at al. (2003), and Easton and Sommers (2003)]. Similar findings were also reported by value relevance studies in several

countries [Chen *et al.* (2001) in China, Dumontier and Labelle (1998) in France, Charitou *et al.* (2000) and Yaekura (2003) in Japan, Ota (2001b) and Brimble (2003) in Australia]. Value relevance studies in Indonesia (Warsidi, 2002; Arsjah, 2003; Pinasti, 2004; Lako, 2004b, 2005, 2006a; Lako and Hartono, 2005; Suwardi, 2005) also reported similar conclusions.

In case of trend of FSI value relevance over times, the studies report inconclusive evidences. The value relevance studies in the US, either ones using association study and price model or ones using association study and return model, resulted in inconsistent conclusions. *First*, there are two contradictory conclusions of studies using association study and price model. Collins *et al.* (1997), Francis and Schipper (1999), Ely and Waymire (1999), and Givoly and Hayn (2000) reported that value relevance of FSI did not declining over the last several decades. On the other side, Brown *et al.* (1999), Easton and Sommers (2003), and Core *et al.* (2003) reported that the relevance of FSI was decreasing over times. *Second*, studies of Lev and Zarowin (1999), Francis and Schipper (1999), and Ryan and Zarowin (2003), all using association study and return model, reported consistent conclusions that value relevance of FSI was declining.

Studies of FSI value relevance in Indonesia reported inconsistent evidences. Warsidi (2002), Arsjah (2003) and Suwardi (2005), using association study and price model, reported increasing instead of decreasing trend of FSI relevance value over years instead of decreasing, except for 1997-1998 period. On the other hand, studies of Pinasti (2004), Lako (2004b, 2005) and Lako and Hartono (2005), using association study and return model, reported lesser value relevance and decreasing trend of FSI over years.

The literature review above shows that the inconclusive results of previous value relevance studies derived from counting too much on valuation theory, association study, and price/ level model each with its several misspecifications therefore their empirical validity should be put on doubt. Hence, this study is going to use valuation theory and ECM theory, event study and abnormal return/change model as valuation basis jointly to test the claim about the decreasing/ increasing FSI value relevance. This study, employing theory basis, study approach, and valuation model unlike those of the previous studies, is expecting that value relevance of FSI does not decline over times. Such expectation also refers to the results from information content studies reported conclusively that financial statements (earnings) have significantly information content to stock market around event periods of the announcement date (Beaver, 1998; Deegan, 2003; Lako, 2006b). Accordingly, this study proposes the following hypothesis:

Ho<sub>1</sub>: Value relevance of manufacture companies' financial statements information to the stock market was not decreasing over times.

## 2. Hypothesis the impact of growth level of financial statements numbers (GLFSN).

Despite the fact that theoretically GLFSN has a contingency effect to increase FSI value relevance, previous value relevance studies did not take positive GLFSN and negative GLFSN into account as moderating variable. From the signaling theory viewpoint (Wolk *et al.*, 2001), the two signals have different explaining power in which positive GLFSN has greater explaining power than those of negative GLFSN.

The expectation could also be based on the growth hypothesis. The hypothesis predicts that security returns response to unexpected earnings, book value of equity (BVE), and operating cash flow (OCF) will be higher (lower) to high (low) growth companies when unexpected earnings, BVE, and OCF data were used simultaneously to explain security returns (Charitou *et al.*, 2001). Results of Charitou *et al.* (2001) and Lako (2004b) studies support the prediction. Accordingly, this study proposes the following hypothesis:

H<sub>2a</sub>: Growth level of financial statement numbers have positive effect in increasing the value relevance of financial statement information to the stock market over times.

H<sub>2b</sub>: Value relevance of financial statements containing positive growth level of accounting numbers was higher than value relevance of ones containing negative growth level of accounting numbers.

#### 3. Hypothesis the impact of financial statement information quality (QFSI)

QFSI are closely related to the relevance and reliability of the reported accounting information. SFAC No. 2 (1980) asserts that to be of any use to its users in decision making, accounting information has to free from error and bias. Therefore, level of QFSI is expected to have significant impact on value relevance of FSI. If the QFSI was good then market would positively appreciate the financial statements releases so that its relevance would be high. Or else if the reported QFSI was of low quality then market would negatively appreciate it so that its relevance would be low. Therefore this study proposes the following hypothesis:

H<sub>3</sub>: Quality of financial statements information has positive effect in increasing value relevance of financial statements information over times.

In relation to the impact of (permanent and transitory) earnings content on value relevance of FSI, permanent earnings is expected to have positive impact while transitory earnings have negative impact. It is reasoned that transitory earnings components are not expected to last long therefore it is expected to have a weak association to returns than

that of permanent earnings component. (Ota, 2001; Holthausen and Watts, 2001). Several studies (Hayn, 1995; Collins *et al.*, 1997; Charitou *et al.*, 2001) confirmed the prediction. Therefore this study proposes the following hypothesis:

H<sub>3a</sub>: Value relevance of financial statements containing net income with transitory earnings/loss components will be lower than value relevance of ones containing permanent earnings

In relation to the impact of earnings management (EM) to value relevance of FSI, several studies that tested market reaction to earnings announcements containing EM reported inconclusive evidences. Hunt *et al.* (1995), Subramanyam (1996) and Liu *et al.* (1997) reported that earnings releases containing EM have information content (value relevance) in which investors responded to it positively. Conversely, Wartfield *et al.* (1995) and Christensen *et al.* (1999) reported that ML was causing earnings to become less informative to investors.

The main weaknesses of those studies were that they did not differentiate their samples according to its earnings management level. These steer a speculation that samples of those studies reporting informational content of earnings publication might be containing large observations with low level of earning management (LEM). Conversely, samples of studies reported lesser informational content of earnings publications with earnings management might be containing large portion of observations with high level of earnings management (HEM).

Hence it is logical to expect that investors' response to stock prices of companies reporting earnings with HEM will be lower than investors' response to ones reporting earnings with LEM. The reason is that investors recognizing the indication will hesitate and postpone their response waiting to certainty of motivations behind the company's act of ML. Conversely, investors will quickly response to financial statement releases with LEM because they considered its information is more credible, high quality, and having a low risk. Therefore this study proposes the following hypothesis:

H<sub>3b</sub>: Value relevance of financial statements containing low level of earnings management will be higher than value relevance of ones containing high level of earnings management.

#### 4. Hypothesis the impact of financial statements information disclosure (DQFSI)

DQFSI is expected to have significant contingence effect on value relevance of FSI over times. In this study DQFSI will be proxied by INTA reporting and the speed of financial statement release. Several accounting literatures expect that INTA reporting and the speed of releases will bring some good news signals to the stock market. Companies with INTA reporting and announce their financial statements earlier are expected to have better DQFSI than that of companies without INTA reporting and announce their financial statements till the last minute of the reporting date. Companies with INTA in

their financial statements will be expected to have better future cash flow, opportunity growth, and future intrinsic value than companies that did not disclose INTA in their financial statements (Lev and Zarowin, 1999; Maines *et al.*, 2003).

In addition to that, companies announce their financial statements earlier send positive signals that the financial statements containing good news compared to those financial statements announced till the last minute of the reporting date (Chambers and Penman, 1984; Chai and Tung, 2002). Therefore this study proposes the following hypothesis:

H<sub>4</sub>: Disclosure quality of financial statements information has positive impact in increasing the value relevance of financial statements information to the stock market over times.

Concerning the impact of INTA reporting, some studies [Amir and Lev (1996), Lev and Zarrowin (1999), Gu and Lev (2001)] claim that the low value relevance of FSI reported in those studies might have come from not taking INTA into account. They argue that INTA statement play getting important role in the economy, especially for those technology intensive corporations. It is reported that INTA reporting contributes significantly in increasing value relevance of FSI (Amir and Lev, 1996; Collins *et al.*, 1997; Lev and Zarowin, 1999). Accordingly this study proposes the following hypothesis:

H<sub>4a</sub>: Value relevance of financial statements containing intangible assets will be higher than value relevance of ones containing no intangible assets.

Concerning the influence of the speed of announcement to value relevance of FSI, SFAC No. 2 (FASB, 1980) state that if accounting information is unavailable when needed it will lose its relevance and became of low utility. The statement indicates that speed of announcement could increase value relevance of FSI and vice versa. The rationale is that financial statements released early are generally having good financial performance and positively signaling its good performance to the market so the investors were expected to positively appreciate it. While those companies announce their financial statements till the last minute of the reporting deadline or untimely usually have lesser financial performances or financial distress (Chambers and Penman, 1984). The Chambers and Penman (1984), Schwartz and Soo (1996), and Chai and Tung (2002) studies support the statement. Therefore this study proposes the following hypothesis:

H<sub>4b</sub>: Financial statements released early are of higher value relevance than those ones released till the last minute of the reporting date.

#### D. Research Method

#### D.1. Data and Sampling Technique

This study uses secondary data. The following criteria are used in the sampling procedure: 1) Samples are public manufacture companies whose stocks were listed in JSX during January 1-April 30 period of year 1995–2002 and January 1-March 31 period of year 2003-2005; 2) The companies published audited financial statements of year 1995 to 2001 during January 1-April 30 period of year 1996–2002 and audited financial statements of year 2002-2004 during January 1-March 31 period of year 2003-2005; 3) Companies with increasing (decreasing) level of BVE, operating earnings (OE) and extreme unexpected operating cash flow (OCF) were considered outliers and will be drop out of samples. In order to fulfill the above criteria, only 921 out of 1562 observations on manufacture companies whose stocks were listed in JSX during the period of year 1995-2004 would be included in the research samples.

#### D.2. Research Variables

In order to analyze the FSI value relevance changes, this research employ three main measures of financial statement numbers: BVE (representing the balance sheet), OE before the extraordinary items (representing the income statement), and OCF (representing the cash flow statement) as the independent variables. To measure a company's unexpected BVE, OE, OCF (UBVE, UOE and UOCF) of a certain year this study uses change model. UBVE $_{j,t}$ , UOE $_{j,t}$ , UOCF $_{j,t}$  > 0 would be categorized as good news ratio or positive growth. Conversely, UBVE $_{j,t}$ , UOE $_{j,t}$ , and UOCF $_{j,t}$  < 0 would be categorized as bad news ratio or negative growth.

This study uses cumulative abnormal returns (CAR) resulted from market model as the dependent variable. A company's CAR is measured by adding up abnormal returns (AR) within window period of financial statements announcement: 1) two days before to two days after the announcement date (t.-2-2); 2) the day before to the day after announcement date (t.-1-1); and 3) the date of the financial statements announcement (t.0).

#### D.3. Criteria for measuring Value Relevance of FSI

Generally, there are two criteria commonly used to measure value relevance of FSI: 1) value of the estimated coefficient of each financial statements variables, and 2) coefficient of determinant  $R^2$  and  $Adj.R^2$  ( $\overline{R}^2$ ). The use of the criteria is dominant in the value relevance studies (Easton, 1999; Ota, 2001; Holthausen and Watts, 2001; Beaver, 2002). To measure the impact of each variables on CAR this study uses response coefficients of each financial statements variables, and to measure the changes in value relevance of FSI over times this study use  $R^2$  ( $\overline{R}^2$ ).

 $R^2$  ( $\overline{R}^2$ ) is used to measure security price variance proportion explained by accounting numbers (Barth *et al.*, 2001). Especially,  $R^2$  is used as a standard to measure the changes in value relevance of FSI over times (hypothesis  $H_1$ ), and also to measure value relevance of FSI between sample groups (hypothesis  $H_{2b}$ ,  $H_{3a}$ ,  $H_{3b}$ ,  $H_{4a}$  and  $H_{4b}$ ). While to investigate whether GLFSN, QFSI and DQFSI have contingency effect in increasing value relevance of FSI over times ( $H_{2a}$ ,  $H_3$  and  $H_4$ ), this study uses  $\overline{R}^2$  as a standard measure. To test significance increase/decrease of FSI value relevance over times, this study uses Cramer Z-test (1987).

#### D.4. Empirical Model for Hypotheses Testing

To test hypothesis Ho<sub>1</sub>, this study uses the following empirical model:

$$CAR_{it} = \alpha_1 + \alpha_2 UBVE_{it} + \alpha_3 UOE_{it} + \alpha_4 UOCF_{it} + \varepsilon_{it}$$
(1)

If the  $R_1^2 > 0$ , the FSI has value relevance to stock market. Conversely if  $R_1^2 = 0$  ( $\overline{R_1}^2 \le 0$ ), the FSI has no value relevance. To test whether the relevance of FSI increase or decrease over times, trend variable (time) will regress the  $R_1^2$  using the following model (Lev and Zarowin, 1999):

$$R_M^2 it = \alpha + \beta(Time) + e_t \tag{2}$$

Where:

 $R_M^2 it = R^2 (\overline{R}_M^2 it)$  value of an empirical model Time = 1, 2, 3, ..., 10, according to the research period of 1995-2004

Trend of value relevance of FSI is increasing over times if the coefficient  $\beta > 0$ , and it is decreasing if the coefficient  $\beta < 0$ . Thus if the  $R_1^2$  trend is increasing or not decreasing ( $\beta > 0$ ) then Ho<sub>1</sub> is supported empirically. Conversely, if the  $R_1^2$  trend is decreasing over times ( $\beta < 0$ ) then Ho<sub>1</sub> is not supported empirically.

To test  $H_{2a}$ , this study use dummy variable (D). Dummy for positive GLFSN is 1 (D = 1) and 0 (D = 0) for negative GLFSN. The empirical model in use is as follow:

$$CAR_{it} = \beta_1 + \beta_2 UBVE_{it} + \beta_3 UOE_{it} + \beta_4 UOCF_{it} + \beta_5 UBVE_{it}*D1 + \beta_6 UOE_{it}*D1 + \beta_7 UOCF_{it}*D1 + \epsilon_{it}$$
(3)

Where:

D1 = Growth rate of UBVE, UOE and UOCF of company i, period t.

D1 = 1 if the growth of UBVE, UOE and UOCF is positive.

D1 = 0 if the growth rate of UBVE, UOE and UOCF is negative.

To determine the incremental value relevance of FSI after the inclusion of GLFSN,  $\overline{R}_3^2$  will be subtracted by  $\overline{R}_1^2$ . If the *inkr*.  $\overline{R}_{TPALK}^2 > 0$  and is statistically

significant,  $H_{2a}$  is empirically supported. If the *inkr*.  $\overline{R}_{TPALK}^2 \le 0$  and is statistically insignificant then  $H_2$  is not empirically supported. To test  $H_{2b}$ , this study uses the following model:

$$\begin{aligned} CAR_{it} &= g_1 + g_2 \, GNUBVE_{it} + \epsilon_{it} \\ CAR_{it} &= h_1 + h_2 \, BNUBVE_{it} + \epsilon_{it} \\ CAR_{i,t} &= i_1 + i_2 \, GNUOE_{it} + \epsilon_{it} \\ CAR_{i,t} &= j_1 + j_2 \, BNUOE_{it} + \epsilon_{it} \\ CAR_{it} &= k_1 + k_2 \, GNUOCF_{it} + \epsilon_{it} \\ CAR_{it} &= l_1 + l_2 \, BNUOCF_{it} + \epsilon_{it} \end{aligned} \tag{6a}$$

#### Where:

 $\begin{array}{ll} GNUBVE_{it} &= Good \ news \ UBVE \ of \ company \ i, \ period \ t \\ BNUBVE_{it} &= Bad \ news \ UBVE \ of \ company \ i, \ period \ t \\ GNUOE_{it} &= Good \ news \ UOE \ of \ company \ i, \ period \ t \\ BNUOCF_{it} &= Good \ news \ UOCF \ of \ company \ i, \ period \ t \\ BNUOCF_{it} &= Bad \ news \ UOCF \ of \ company \ i, \ period \ t \\ BNUOCF_{it} &= Bad \ news \ UOCF \ of \ company \ i, \ period \ t \\ BNUOCF_{it} &= Bad \ news \ UOCF \ of \ company \ i, \ period \ t \\ BNUOCF_{it} &= Bad \ news \ UOCF \ of \ company \ i, \ period \ t \\ BNUOCF_{it} &= Bad \ news \ UOCF \ of \ company \ i, \ period \ t \\ BNUOCF_{it} &= Bad \ news \ UOCF \ of \ company \ i, \ period \ t \\ BNUOCF_{it} &= Bad \ news \ UOCF \ of \ company \ i, \ period \ t \\ BNUOCF_{it} &= Bad \ news \ UOCF \ of \ company \ i, \ period \ t \\ BNUOCF_{it} &= Bad \ news \ UOCF \ of \ company \ i, \ period \ t \\ BNUOCF_{it} &= Bad \ news \ UOCF \ of \ company \ i, \ period \ t \\ BNUOCF_{it} &= Bad \ news \ UOCF \ of \ company \ i, \ period \ t \\ BNUOCF_{it} &= Bad \ news \ UOCF \ of \ company \ i, \ period \ t \\ BNUOCF_{it} &= Bad \ news \ UOCF \ of \ company \ i, \ period \ t \\ BNUOCF_{it} &= Bad \ news \ UOCF \ of \ company \ i, \ period \ t \\ BNUOCF_{it} &= Bad \ news \ UOCF \ of \ company \ i, \ period \ t \\ BNUOCF_{it} &= Bad \ news \ UOCF \ of \ company \ i, \ period \ t \\ BNUOCF_{it} &= Bad \ news \ UOCF \ of \ company \ i, \ period \ t \\ BNUOCF_{it} &= Bad \ news \ UOCF_{it} \$ 

To test  $H_{2b}$ ,  $R_{4a}^2$ ,  $R_{5a}^2$  and  $R_{6a}^2$  will be subtracted by  $R_{4b}^2$ ,  $R_{5b}^2$  and  $R_{6b}^2$ . If  $\Delta R_{t-2,2}^2$ ,  $\Delta R_{t-1,1}^2$ , and  $\Delta R_{t0}^2 > 0$ ,  $H_{2b}$  is empirically supported. Conversely, if  $\Delta R_{t-2,2}^2$ ,  $\Delta R_{t-1,1}^2$ , and  $\Delta R_{t0}^2 < 0$ ,  $H_{2b}$  is not empirically supported.

To test  $H_3$ , this study uses dummy variable (D) for the QFSI. D=1 for high rate QFSI, that is if the net income containing permanent earnings components and level of LEM. While D=0 is for low rate QFSI, that is if the net income containing transitory earnings and level of HEM. However, because all of the observations included as samples having both permanent and transitory earnings during the period of 1995-2004, dummy variable would not be used for earnings content. Hence dummy variable would be used only for rate of ML. Therefore the model in use would be as follow:

$$CAR_{it} = \chi_1 + \chi_2 UBVE_{it} + \chi_3 UOE_{it} + \chi_4 UOCF_{it} + \chi_5 UOE_{it} *D2 + \varepsilon_{it}$$
(7)

Where:

D2 = Rate of earnings management.

D2 = 1 if sample has rate of LEM; and D2 = 0 if sample has rate of HEM.

To determine the incremental value relevance of FSI (inkr.  $\overline{R}^2$ ) after taking QFSI into account,  $\overline{R}_7^2$  will be subtracted by  $\overline{R}_1^2$ . If inkr.  $\overline{R}_{KILK}^2 > 0$ ,  $H_3$  is empirically supported. Conversely, if inkr.  $\overline{R}_{KILK}^2 \le 0$ ,  $H_3$  is not empirically supported.

To test hypothesis  $H_{3a}$ , model (1) would be used with a modification in UOE variable. UOE would be replaced by unexpected net income variable (UNI). UNI equals UOE plus unexpected transitory earnings/loss. Therefore, to test  $H_{3a}$  the following model would be used:

$$CAR_{it} = \delta_1 + \delta_2 UBVE_{it} + \delta_3 UNI_{it} + \delta_4 UOCF_{it} + \varepsilon_{it}$$
(8)

To test the *inkr*.  $R^2$  of earnings content (EC),  $R_8^2$  is subtracted by  $R_1^2$ . If the *inkr*.  $R_{EC}^2 > 0$ ,  $H_{3a}$  is not supported. If *inkr*.  $R_{EC}^2 \le 0$ ,  $H_{3a}$  is empirically supported.

To test H<sub>3b</sub>, this study splits samples into two groups, that is, group of companies with LEM and one of companies with HEM. To identify financial statements containing earnings management (EM) from ones containing no EM, this study uses accounting accruals as a measure of EM. To differentiate the rate of EM of each observation, this study uses modified Jones model (Dechow *et al.*, 1995). To differentiate group of companies with level of LEM from those with level of HEM, this study uses median of MAA<sub>it</sub>, i.e. managed accounting accruals of company i of year t. Companies with MAA<sub>it</sub> value below the median will be categorized as samples with rate of LEM. Otherwise, companies with MAA<sub>it</sub> value above the median will be categorized as ones with rate of HEM. The following model will be used to test H<sub>3b</sub>:

LEM: 
$$CAR_{it} = \gamma_1 + \gamma_2 UBVE_{it} + \gamma_3 UOE_{it} + \gamma_4 UOCF_{it} + \varepsilon_{it}$$
 (9a)

HEM: 
$$CAR_{it} = \lambda_1 + \lambda_2 UBVE_{it} + \lambda_3 UOE_{it} + \lambda_4 UOCF_{it} + \epsilon_{it}$$
 (9b)

To test the *inkr*.  $R^2$  of level of earnings management (EM),  $R_{9a}^2$  is subtracted by  $R_{9b}^2$ . If the *inkr*.  $R_{EM}^2 > 0$ ,  $H_{3b}$  is supported. If the *inkr*.  $R_{EM}^2 \le 0$ ,  $H_{3b}$  is not supported.

To test  $H_4$ , this study use dummy variable (D) to measure DQFSI. D=1 for high DQFSI, i.e. financial statements containing INTA and announced earlier, and D=0 for low DQFSI, i.e. financial statement containing no INTA and announced till the last minute of the reporting date. Empirical model to be used is as follow:

$$CAR_{it} = \epsilon_1 + \epsilon_2 UBVE_{it} + \epsilon_3 UOE_{it} + \epsilon_4 UOCF_{it} + \epsilon_5 D3 + \epsilon_6 D4 + \epsilon_{it}$$
 (10)

Where:

D3 = INTA reporting. D3 = 1 if financial statements contain INTA; D3 = 0 if contains no INTA.

D4 = Speed of financial statements release. D4 = 1 if financial statements were announced earlier; and <math>D4 = 0 if financial statements were announced till the last minute of the reporting date.

To determine the value relevance of inkr.  $\overline{R}^2$  after taking DQFSI into account,  $\overline{R}_{10}^2$  will be subtracted by  $\overline{R}_1^2$ . If inkr.  $\overline{R}_{KPILK}^2 > 0$ , H<sub>4</sub> is empirically supported. If inkr.  $\overline{R}_{KPILK}^2 \le 0$ , H<sub>4</sub> is empirically not supported.

To test  $H_{4a}$ , this study splits samples into two groups, i.e. group of financial statements containing INTA (INTA reporter) and group of ones containing no INTA (INTA non-reporter). The empirical model of used is as follow:

INTA reporter : 
$$CAR_{it} = \mu_1 + \mu_2 UBVE_{it} + \mu_3 UOE_{it} + \mu_4 UOCF_{it} + \epsilon_{it}$$
 (11a)

INTA non-reporter: 
$$CAR_{it} = v_1 + v_2UBVE_{it} + v_3UOE_{it} + v_4UOCF_{it} + \varepsilon_{it}$$
 (11b)

To determine the *inkr*.  $R^2$  from INTA reporting,  $R_{11a}^2$  is subtracted by  $R_{11b}^2$ . If the *inkr*.  $R_{INTA}^2 > 0$ ,  $H_{4a}$  is empirically supported and if the *inkr*.  $R_{ATB}^2 \le 0$ ,  $H_{4a}$  is not supported.

To test  $H_{4b}$ , this study splits samples into two groups. The first group is for samples of firms who announced their financial statements earlier (early reporter). The second is for samples of ones who announced their financial statements till the last minute of reporting date (late reporter). To test this hypothesis the following model is used:

Early reporter: 
$$CAR_{it} = \eta_1 + \eta_2 UBVE_{it} + \eta_3 UOE_{it} + \eta_4 UOCF_{it} + \epsilon_{it}$$
 (12a)  
Late reporter:  $CAR_{it} = \kappa_1 + \kappa_2 UBVE_{it} + \kappa_3 UOE_{it} + \kappa_4 UOCF_{it} + \epsilon_{it}$  (12b)

To determine the *inkr-R*<sup>2</sup> of speed of financial statements announcement timing (*Time*),  $R_{12a}^2$  is subtracted by  $R_{12b}^2$ . If the *inkr.*  $R_{Time}^2 > 0$ ,  $H_{4b}$  is supported. If the *inkr.*  $R_{Time}^2 \le 0$ ,  $H_{4b}$  is not empirically supported.

#### E. Findings and Discussion

#### 1. Result of Hypothesis Ho<sub>1</sub> Testing

Result of hypothesis  $Ho_1$  testing shows regression coefficient  $\beta$  < 0, means that trend of value relevance of FSI in event window period of financial statements releases, i.e., t.-2, 2 and t.-1, 1, tend to decrease over years. The measure of FSI value relevance during period of years 1995-2004 is about 2.1%-8.5% (4.6%) on t.-2, 2 and 0.7%-11% (5.5%) on t.-1,1. Therefore,  $Ho_1$  statement that value relevance of manufacture companies' financial statements information to the stock market was not decreasing over times is not empirically supported. This finding supports the claims that value relevance of FSI is decreasing over times. It is also consistent with Pinasti (2004), Lako (2005, 2006a) and Lako and Hartono (2005) which reported that value relevance of FSI tends to decline.

While on the date of financial statements publication (t.0), testing result shows  $\beta$  > 0, that means the trend of value relevance of FSI tends to increase significantly over years. FSI value relevance on t.0 is about 0.3%-10.8% (4.8%). Therefore, Ho1 statement that value relevance of manufacture companies' financial statements information to the stock market was not decreasing over times is supported empirically. This finding indicates that on the announcement date of the financial statements, investors appreciate positively and use the FSI for investment decision. In other words, financial statements releases are getting their value relevance and are not deteriorating their qualities over years as acclaimed. This finding confirms the prediction of ECM theory and the findings of information content studies that unexpected accounting numbers have information content at the announcement date (Dyckman and Morse, 1986; Beaver, 1998; Deegan, 2003).

#### 2. Result of Hypothesis Ho<sub>1</sub> Testing

Result of H<sub>2a</sub> testing shows that the effect of GLFSN to CAR could be greater (smaller) than before including GLFSN. Statistically, GLFSN has no significant effect on CAR during the event window period of financial statement release.

Testing result using  $\overline{R}^2$  as a measure of adjusted value relevance of FSI indicates that, in general, GLFSN contributes insignificantly in increasing value relevance of FSI over years. Though on t.-2, 2 and t.-1, 1 value relevance of FSI increases from a range of -1.4%-5.1% (1.3%) to -4.7%-13.1% (1,5%) and from -2.8%-7.6% (2.3%) to -1.5%-14.9% (2.9%), but this upsurge is relatively small and insignificant. However, the FSI value relevance even decreases on t.0 from -3.1%-7.7% (1.8%) to -4%-6.1% (1.3%). Hence, GLFSN has a weak contingency effect in increasing value relevance of FSI over times and H<sub>2a</sub> statement is not supported empirically. This finding does not support the growth hypothesis, i.e., security market response to both unexpected earnings and to unexpected BVE and OCF will be higher (lower) for high (low) rate of growth companies, when unexpected earnings, BVE, and OCF are used together in explaining security returns (Charitou *et al.*, 2001).

The result of  $H_{2b}$  testing gives the evidence that value relevance of FSI containing positive GLFSN (GNUBVE, GNUOE and GNUOCF) is no higher than the value relevance of those ones containing negative GLFSN (BNUBVE, BNUOE and BNUOCF). On t.-2, 2 and t.-1, 1, means of  $R_{4a}^2$ ,  $R_{5a}^2$  and  $R_{6a}^2$  are lower than the means of  $R_{4b}^2$ ,  $R_{5b}^2$  and  $R_{6b}^2$ . While on t.0, means of  $R_{4a}^2$  and  $R_{5a}^2$  are greater than that of  $R_{4b}^2$  and  $R_{5b}^2$  (note that: mean of  $R_{6a}^2 < R_{6b}^2$ ). T-test result also shows that there are no significant differences between value relevance of GNUBVE, GNUOE and GNUOCF and the value relevance of BNUBVE, BNUOE and BNUOCF.

Hence, H<sub>2b</sub> statement that the value relevance of financial statements containing positive GLFSN is higher than the value relevance of those ones containing negative GLFSN is not supported empirically. This finding does not support the prediction of both signaling theory and growth hypothesis, even against the findings of Arsjah (2003), Lako and Hartono (2005), Hayn (1995), Collins *et al.* (1997), Charitou *et al.* (2001) and Brimble (2003). Those studies reported that value relevance of earnings and book value with GN signal are higher than those ones with BN signal. Hence this finding is able to explaining the low contingency effect of GLFSN on value relevance of FSI, that is, because value relevance of FSI with positive GLFSN tends to be lower than the value relevance of ones with negative GLFSN. This finding is consistent with the results in Jindrichovska and McLeavy (2005) and Lako (2006a) studies.

#### 3. Result of Hypothesis H<sub>3</sub> Testing

Result of hypothesis H<sub>3</sub> testing shows that the inclusion of QFSI as a moderating variable does not contribute significantly in increasing the value-relevance of FSI. There is a tendency of decreasing adjusted value relevance of FSI after the inclusion of QFSI variable into the regression model. On t.-2, 2, the adjusted value relevance of FSI is decreasing from -1.4%-5.1% (1.3%) to -2.3%-4.1% (0.8%). On t.-1,1, value relevance of FSI is decreasing from a range of -2.8%-7.6% (2.3%) to -3.1%-7% (1.6%). While on t.0, value relevance of FSI is decreasing from -3.1%-7.7% (1.8%) to -3.6%-6.7% (1.7%).

The evidence indicates that QFSI as proxied by earnings quality (level of earnings management) has no significant contingency effect to influence investors behavior in using accounting information for stock equity valuation. Therefore, hypothesis H<sub>3</sub> statement that QFSI has positive influence in increasing FSI value relevance over times is not supported empirically. This finding indicates that QFSI of JSX public manufacture companies are low enough so FSI value relevance is low and even decreasing. This low QFSI resulted in the low utility rate or low value relevance of FSI to investors in investment decision making (Jonas and Blanchet, 2000).

Result of hypothesis H<sub>3a</sub> testing shows evidence that value relevance of financial statements containing net income with transitory earnings/losses is not lower and even tend to be higher than those of ones containing permanent earnings. In comparison to value relevance of FSI with permanent earnings (UOE), there is large range of differences in value relevance of FSI before and after taking UNI into account. On t.-2, 2, value relevance of FSI increases from a range of 2.1%-8.5% (4.6%) to 0.4%-13.9% (5.8%). On t.-1, 1, value relevance of FSI increases from a range of 0.7%-11% (5.5%) to 0.3%-12.7% (5.8%). While on t.<sub>0</sub>, the relevance of FSI increases from the range of 0.3%-10.8% (4.8%) to 0.5%-16.9% (6%). Hence, value relevance of FSI after taking UNI into account is higher than value relevance of FSI with UOE.

Therefore hypothesis H<sub>3a</sub> statement that value relevance of financial statements containing net income with transitory earnings/loss is lower than those of ones containing permanent earnings is not supported empirically. Though in line with findings of Collins *et al.* (1997), but this finding is against the transitory earnings hypothesis prediction that transitory earnings have weaker or negative effect on FSI value relevance than that of permanent earnings because transitory earnings/loss components are not expected to continuous in corporate' operation (Ota, 2001). This anomaly-like finding may be caused by the fact that during the research period all of selected JSX manufacture companies as samples report operating earnings and also report net earnings containing transitory earnings/ loss component. As a result, net income containing transitory components have similar pattern with that of permanent earnings so, in stock equity valuation, investors tend to look after the trend of net income performance than to look after the operating earnings.

As the result of hypothesis  $H_{3b}$  testing shows that on  $t_{-2, 2}$  value relevance of FSI from LEM companies range from 1.3% to 22.5% (10.3%), while those of HEM companies range from 1.5% to 24.2% (10.5%). On  $t_{-1, 1}$ , value relevance of FSI from

LEM companies range from 0.4%- to 25.3% (10.3%), while those of HEM companies range from 2.5% to 26.6% (10,4%). On t.0, Value relevance of FSI from LEM companies range from 0,6% to 19.2% (8.9%) while those of HEM companies range from 2.1% to 48% (14.9%). These range show that HEM companies have larger value relevance of FSI than that of LEM companies. As a panel, LEM companies have lower value relevance of FSI than those of HEM companies ( $incr. R_{EM}^2 = -0.3\%$ ) on t.-2, 2 and t.0 (-1.2%, significant at 5%), while on t.-1, 1 LEM companies have larger value relevance than those of HEM companies (0.7%). But, t-test result shows that there are insignificant differences between value relevance of FSI from LEM companies and those from HEM companies on t.-2, 2, t.-1, 1, and t.0.

So, hypothesis H<sub>3b</sub> statement that value relevance of financial statements containing low level of earnings management is higher than those of ones containing high rate earnings management is not supported empirically. This finding indicates that publication of financial statements containing HEM has positive effect in increasing FSI value relevance. In other words, financial statements containing HEM were responded positively by investors who assess earnings management as a good effort to increase value of the firm and stock holders' wealth. This finding supports the Simon assumption (2005) that investors might interpret changes in accounting earnings measures reported by a firm (result of earnings management) as an indicator of change in a business operation performance which is relevant for investment decision. This finding also support the claim in accounting literatures that investor assess earnings management as a "good" side (Scott, 2003) and is expected by stakeholders in the capital market (Dye, 1988).

#### 4. Result of Hypothesis H<sub>4</sub> Testing

Result of hypothesis  $H_4$  testing shows that DQFSI has significant contribution in increasing FSI value relevance. In comparison to value relevance of FSI before taking DQFSI into account, adjusted value relevance of FSI after taking DQFSI into account increase from range of -1.4%-5.1% (1.3%) to -4.8%-7.2% (1.4%) on t.-2, 2, from -2.8%-7.6% (2.3%) to -1.7%-6.8% (2.7%) on t.-1, 1, and from -2.6%-7.7% (1.8%) to -4.6%-12.6% (2.5%) on t.0. The trend of value relevance of FSI shows that all regression coefficients  $\beta$  on t.-2, 2, t.-1,1 and t.0 are greater than zero and of larger magnitude than those  $\beta$  coefficients before taking DQFSI into account. This indicates that DQFSI has contingency effect in increasing value relevance of FSI during event window period of releases with increasing trend over years.

Therefore, hypothesis H<sub>4</sub> statement that DQFSI has positive effect in increasing value relevance of FSI over times is supported empirically. In other words, DQFSI which is proxied by INTA reporting and the speed of financial statement releases generally has contingency effect in increasing value relevance of FSI over years. This finding supports the expectation that statement or disclosure of INTA information in financial statements and the speed of financial statement publication are signals to the investors. Both efforts are implicitly containing several good signals about the previous, current and future

performance, risk and firms' expected values. This evidence also support the expectation that capital market needs more relevant, comprehensive and reliable information, i.e., information about INTA, to determine expectation about future earnings and future profits which are articulated in claim of decision usefulness on FSI (Gunther *et al.*, 2005).

Result of hypothesis H<sub>4a</sub> testing shows that value relevance of FSI from INTA reporting companies are higher than those of non reporting ones. Even during event period of publication (t.-2, 2 and t.-1, 1), the value relevance of FSI differences from the two sample groups is significant enough. On t.-2, 2, value relevance of FSI from INTA reporter companies range from 2.5% to 40.3% (16.4%) while those from non INTA-reporter ones range from 1.6%-9.9% (4.9%). On t.-1,1, value relevance of FSI from INTA-reporter companies range from 2.1% to 51.5% (17.3%) while those of non INTA-reporter ones range from 0.8% to 12.3% (5.27%). On t.0, value relevance of FSI from INTA-reporter range from 1% to 36.9% (12%) while those from non INTA-reporter ones range from 0.5% to 12.5% (7.4%). This finding indicates that companies with INTA and report it in their financial statements will be significantly appreciated by the market by increasing market value of the firms than those ones with no INTA and do not report it.

Therefore, hypothesis H<sub>4a</sub> statement that value relevance of financial statements containing INTA information will be higher than those of ones containing no INTA information is empirically supported. This finding indicates that companies reporting INTA in their financial statements have higher value relevance than those ones with no INTA or non INTA reporters. This finding confirms the prediction of signaling theory and is consistent with findings of Amir and Lev (1996), Lev and Zarowin (1999), Gu and Lev (2001) and Cazavan-Jeny (2004). These studies report that disclosing INTA is "value relevant" to increase the relevance of FSI conservatism to investors in stock valuation.

At the same time, result of hypothesis H<sub>4b</sub> testing shows empirical evidence that value relevance of FSI from early financial statements reporters is higher than those from late reporters. On t.-2,2, value relevance of FSI from early financial statements reporters range from 1.2% to 52.7% (11.2%), while those of later reporters range from 0,6% to 17.2% (7.3%). On t.-1,1, value relevance of FSI from early reporters range from 1% to 51.2% (13.3%) while those of late reporters range from 0.6% to 18.4% (7.1%). Whilst on t.0, FSI value relevance of early reporters range from 3.1% to 30% (12.5%), those of late reporters range from 0.4% to 15.5% (5.3%).

Thus, the hypothesis H<sub>4b</sub> statement that value relevance of FSI from early announced financial statements are higher than those of financial statements announced till the last minute of the reporting date is empirically supported. These evidences indicate that early publication of financial statements by companies contribute significantly in increasing value relevance of FSI than if the financial statements are publicized till the last minute of the reporting date. This finding support the prediction of signaling theory that early reporter of financial statement companies send positive signals to the stock market that those financial statements are containing some relevant and reliable good news information for the investors' decision than those companies with financial statements announced till the last minute of the reporting date. This finding is consistent with Chambers and Penman (1984) and Chai and Tung (2002) in reporting the

findings that early announced financial statements convey larger good news signal than those ones announced at the last minute of the reporting date or late reporters.

#### F. Conclusion, Implication, Limitation and Suggestion

#### 1. Conclusion

This study analyze audited financial statements of year 1995-2004 period reported by JSX manufacture companies according to GAAP of IAA's FAS and CMSA's accounting rules, and released within CMSA's required period. This study show evidences of significant, though relatively small, increasing trend in value relevance of these financial statements to the stock market on the publication dates. The FSI value relevance range from 2.1% to 8.5% (4.6%) on t.-2, 2, 0.7%-11% (5.5%) on t.-1,1, and 0.3%-10.8% (4.8%) on t.0.

However, taking GLFSN and QFSI into account as moderating variables is insignificantly to increase the value relevance of FSI. While, taking DQFSI into account as moderating variables show contingency effect in increasing FSI value relevance over years. There is a tendency of decreasing trend over years in FSI value relevance after the inclusion of GLFSN on QFSI variables, on t.-2,2 and t.-1,1, whereas on t.0 there is significant increase in the trend. The FSI value relevance tends to increase within the event window of release dates after the inclusion of DQFSI with significant increase on t.0. This finding supports the ECM theory and the findings of previous information content studies that the stock market responds positively and significantly to the financial (earnings) statements on the release dates.

The results of supplementary investigation show that value-relevance of financial statements containing positive GLFSN, permanent earnings and LEM is lower than value relevance of ones containing negative GLFSN, net income with transitory earnings components and HEM. This study also documents that value-relevance of financial statements containing INTA and released at the early dates is higher than value relevance of ones not containing INTA and released at the end of the required reporting date.

#### 2. Implications of Research Finding

This study is in order to respond to the emerging claims of the capital market community and value relevance literatures that conventional financial statements have lost their value relevance to the stock market and their quality has decreased over times. An important question emerge from the claims is that what could be done to increase the value relevance of FSI?

The findings of this study show that INTA disclosures and the speed of financial statements release could significantly increase FSI value relevance. Therefore, it is

recommended to public companies to extent their claim, measure, report and disclosure of once ignored INTA items in financial statements and financial reporting. It is also recommended to public companies with some good news information to speed up their financial statements release date for such an effort will increase the value relevance of FSI. This is important because most public companies' financial statements containing good news to the stock market tend to be announced till the last minute of the announcement date even beyond.

The findings of this study also show that JSX manufacture companies manage their earnings and the practice increases value relevance of FSI. HEM-containing financial statements of sample companies have higher value relevance than LEM-containing ones. This finding indicates that earnings management is assessed by investors as a "good" effort to protect the companies' and investors' interest from unwanted risks. From the ECM theory viewpoint, earnings management might be assessed by the market as a "good" effort to communicate insider information about the firm's performance and to restore the informative of financial statements on firm's performance and future earnings prospect (Scott, 2003). Hence, this study recommend public companies to practice earnings management as far as it is done accordance with the GAAP permitted by IAA and CMSA.

In investigating the claims that value relevance of FSI is declining over times, this study use valuation theory of Ohlson (1995) and the ECM theory PME (Beaver, 1998) jointly as the valuation bases. The results of this study do not support the claims because on the financial statements release date the relevance of FSI is increasing over years. This finding supports the efficient market hypothesis (EMH) theory that the market will quickly and appropriately respond to the announcement of new information and specific events (Beaver, 1998). Therefore, this study recommends the future development of the value- relevance accounting literatures to consider the use of the Ohlson (1995) valuation theory and ECM theory as valuation bases in the value relevance study.

This study also provides empirical evidences that GLFSN and QFSI, especially the earnings quality, do not have significant contingency effect in increasing value relevance of FSI, while DQFSI do have significant contingency effect in increasing the relevance of FSI to the stock market. But further analysis on contingency effects of GLFSN and QFSI shows that financial statements containing both negative GLFSN, transitory earnings components, and level of HEM have higher value relevance than those containing both positive GLFSN, permanent earnings, and level of LEM. This finding is not in accordance with the early expectation. Hence, further analysis of DQFSI contingency effect shows INTA-reporting companies announcing their financial statements early have higher value relevance than non INTA-reporting companies that publicize their financial statements till the last minute of the reporting date as required by CMSA. Therefore, GLFSN, QFSI and DQFSI need to be seriously taken into account in the future development of value relevance literatures.

This study analyzes audited financial statements of manufacture companies, prepared and reported in accordance with the rules of the Law No. 8 Year 1995 about the Stock Market and several accounting standards in FAS. This study provides empirical

evidence that these financial statements still have value relevance, though of relatively minor contribution, to the stock market. Because of this minor contribution, the result of this study is expected then to become input to IAA and CMSA in evaluating and improving the quality of several existing rules and FAS regulating the claiming, assessing, reporting, and disclosing the company's accounting information items. One possibility is a comprehensive evaluation of FAS No. 19 (2004) about the Intangible Assets because this FAS has not yet regulated properly the claim and disclosure of specific INTAs information such as marketing expenses, acquisition and development of human capital, product innovation and brand, cost of social and environmental responsibility, and many more. A comprehensive evaluation and improvement of several accounting regulations and standards is expected to improve FSI quality and its value relevance. This is important because the preliminary evidence of this study shows that INTA-reporter companies have higher value relevance than those non INTA-reporting ones.

#### 3. Limitation and Suggestion for Further Research

There are several limitations in this study. **First**, sample is limited to companies of manufacture industry. Consequently, the conclusion on the change of FSI value relevance over times is limited to the manufacture industry and may not represent the true trend of FSI value relevance of all JSX listed companies. This results in that the findings of this study may not be taken as a basis reference for CMSA and IAA in reconsidering the quality of several existing accounting regulations and standards.

**Second,** the factors considered as moderating variables to have effect on value relevance of FSI over time are limited only to GLFSN, QFSI and DQFSI. The choice over those two variables might be debatable because there are still other factors such as level of firm's risk, conservatism, firm size, concentration of ownership, taxes and audit quality that, theoretically, could have effect on the relevance of FSI.

**Third**, this study uses median to differentiate companies with rate of LEM and HEM, resulting in relatively equal number of LEM and HEM companies. This might have result in the relatively small differences of the FSI value relevance between the two group of samples, and this might also have result in the relatively higher the FSI value relevance of HEM companies than those of LEM companies. This study employs the modified Jones (1991) model to rate the earnings management of each company. The use of modified Jones model (Dechow *et al.*, 1995; Assih, 2004) might be a debatable subject because of three statistical problems in the model, based on evaluation by Kang (1999), i.e., simultaneity, errors-in-variables and omitted variables (Lo, 2005).

Derived from these limitations, further research needs to consider the following: **First,** to extend the research sample to include agriculture, forestry and fishery, mining, construction, transportation, trading, banking, insurance, and other industries. The use of extensive sample is expected to result in more comprehensive and decisive conclusions on the rate and trend of FSI value relevance over times.

**Second**, as well as GLFSN, QFSI and DQFSI, further research need to consider other factors or variables such as rate of firm's risk, structure of ownership, size of the firm, audit quality, taxes, quality of management, conservatism, and industry risk that might have effect on the change of the FSI value relevance over times. Theoretically, the above variables are expected to have direct contingency effects on the change and level of firms FSI value relevance over times.

**Third,** in measuring the level of earnings management, further research needs to consider the use of other criteria of measurement that more accurate, besides median value, in differentiating companies' financial statements with LEM from ones with HEM. For example, if the company's level of managed accounting accruals (MAA) > 0 then it goes to the HEM category, while if its MAA < 0 then it goes to the LEM category. Further research can use other alternative models such as Kang and Sivaramakrishnan (1995) model or Eckel's Index (1981) model in measuring the level of earnings management in companies. Based on evaluation by Kang (1999), Kang and Sivaramakrishnan (1995) model has advantages than Jones model for its relatively smaller problems in simultaneity, errors-in-variables and omitted variables than those of the Jones (1991) model.

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