

PROCEEDINGS

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2012

INTERNATIONAL CONFERENCE

COMPETITIVENESS OF ECONOMY IN THE GLOBAL MARKET

Reaching Sustainable Economic Competitiveness:
Opportunity and Challenge at National, City, Industry,
Company, and Individual Level

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INTRODUCTORY

This international conference, with the main theme "**Competitiveness of Economy in the Global Market**", is held on cooperation between Economy Faculty of Universitas Bung Hatta and Universiti Kebangsaan Malaysia. This event runs for two days from February 10th until 11th, 2012 at Pangeran Beach Hotel Padang, West Sumatera.

This main theme arises from a concern of academicians from the two universities towards various economy phenomenons, particularly competitiveness of the economy in the global market. Recently, the rapid development of economic globalization which in line with the decrease of foreign imports tariffs has given disadvantageous influence on national enterprises, especially small and medium enterprises. Meanwhile, Indonesian products get harder to penetrate overseas market because of higher competition in the global market. This is definitely disadvantageous for Indonesia and will impact towards the employment, the efforts to decrease poverty rate, the creation of Gross Domestic Product (GDP), and the provision of local people's needs.

These various problems that arise at the economy sector in the context of globalization are surely cannot be separated from a poor economic competitiveness, i.e. the ability in creating quality products suited with the market's needs. This phenomenon happens surely because of the various things related each other such as the corporate management, financing, marketing strategies, production techniques, labors, available technologies, government policies, political wills, law enforcement, security, and so forth. Therefore this seminar is held involving various disciplines such as economy science, management, accounting, and others science.

Presenters are divided into three discussion groups: keynote speech, main paper, and call paper from various Indonesian Universities and presenters from Universiti Kebangsaan Malaysia. There are a total of fifty papers presented with the participants from universities, enterprises, academicians, and postgraduate master students.

This book contains abstracts from all papers have been presented by the participants, while the full papers would be distributed in soft copy (CD) for all participants and those who need. We hope that the main ideas contained in this book can be useful for those who need, as the form of concern and responsibility from the academicians towards economic phenomenon in global market.

Padang, 10 February 2012
Chairman of the Committee

Dr. Syafrizal Chan, SE, M.Si

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THE VALUE RELEVANCE RESEARCH IN ACCOUNTING: A LITERATUR REVIEW

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ABSTRACT

The purpose of this paper is to describe the value relevance research from the literature review standpoint. This paper consists of seven sections. First section discussed four possible interpretation of value relevance construct. The second section outlines theory and concept used in value relevance research. Section three explains approach to operationalize the value relevance. Section four describes methodological issues. Section five discusses the research issue and the last section contains the conclusion. The discussion of the value relevance research focused on the measurement view of value relevance (interpretation 4).

There are four interpretation of value relevance construct (Francis and Schipper, 1999; Barth et al., 2001; Nilsson, 2003). The first interpretation is classified as the fundamental analysis view of value relevance while the second interpretation is referred as the prediction view of value relevance. Interpretations 1 and 2 are related to fundamental analysis research in accounting. Value relevance studies which use interpretation 3 are those conducted based on information view of value relevance. Interpretation 4 is classified as the measurement view of value relevance. The discussion of the value relevance research in this paper focused on the measurement view of value relevance (interpretation 4).

The regression-variations and the portfolio return approaches are conducted to operationalize the value relevance. The regression-variations based on the return and price model. The Portfolio-returns approach has statistical superiority over the regression-variations approach (Kothari and Zimmerman, 1995; Francis and Schipper, 1999).

Key Words: *Value Relevance, measurement view of value relevance, price model, return model, portfolio return.*

1. BACKGROUND

The purpose of the capital market is to support national development by enhancing public welfare through economic growth and societal stability, while fostering a more equitable distribution of wealth. To reach this objective the capital market plays a strategic role in national development as a source of funding for business and as a vehicle for public investment. Accounting information is an essential element of the infrastructure for developing domestic capital market. Extensive empirical evidence from studies on capital market suggests that financial reporting is relevant to investors' buy and sell decisions on corporate securities. Financial reporting is a product of accounting systems and domestic capital market

can have a subtle impact on the development of accounting systems in countries. Since 1990's until now many studies investigate the value relevance of accounting information. The value relevance literature is related to the usefulness of financial statement information in equity valuation

The paper will discuss the value relevance research in accounting. In this paper will be described the value relevance research from a literature review perspective especially for the measurement view of value relevance research (interpretation 4 of the value relevance construct). This paper consists of the value relevance construct, the operationalization of value relevance research, valuation model, the Methodological Issue, and The empirical evidence of previous study.

2. VALUE RELEVANCE CONSTRUCT

The value relevance construct has been discussed in the literature such as Francis and Schipper, 1999; Barth et al., 2001; Nilsson, 2003. Francis and Schipper (1999) have identified four possible interpretations of the value relevance construct. Interpretation 1 is that financial statement information leads stock prices by capturing intrinsic share values toward which stock prices drift. Value relevance would then be measured as the profits generated from implementing accounting-based trading rules. Interpretation 2, financial information is value relevant if it contains the variables used in a valuation model or assists in predicting those variables. Thus, the value relevance of earnings for a discounted dividend valuation model, or a discounted cash flow valuation model, or a discounted residual income model, might be measured by the ability of earnings to predict future dividends, future cash flows, future earnings, or future book values.

Interpretations 1 and 2 are related to fundamental analysis research in accounting. The first interpretation is classified as the fundamental analysis view of value relevance while the second interpretation is referred as the prediction view of value relevance (Nilsson, 2003). The fundamental analysis view involves determining a firm's intrinsic value without reference to the price at which the firm's equity trades on the stock market (Bauman, 1996). According to this approach, accounting information causes stock prices to change by capturing values toward which market prices drift (Francis and Schipper, 1999). It is not assumed that the market at all times reflects all available information, which means that this interpretation allows for an inefficient stock market. The value relevance of financial statement information is inferred by measuring returns generated by implementing trading strategies based on accounting information. Prediction view focuses on the relevant variables to be used in valuation and how to predict them. Financial statement information is regarded as value relevant if it helps in forecasting underlying value attributes derived from valuation theory. Hence, information is relevant if it can be used to predict future earnings, dividends, or future cash flows.

Under interpretations 3 and 4, the value-relevance is indicated by a statistical association between financial information and prices or returns. Value relevance studies which use interpretation 3 are those conducted based on information view of value relevance (Nilsson, 2003). Accounting information is value relevant if it is used by investors when setting prices. Under the assumption that the stock market is efficient, statistical association measures are used as indicators as to whether

investors actually use the information in question when making investment decisions. Studies adopting this interpretation generally focus on short time periods (Beaver, 1997). Their purpose is to study the market reaction to accounting disclosures over short time intervals, such as days or weeks around an announcement date. Accounting information is hypothesized to be value if it conveys information that modifies investor expectations of the firms' future cash flows, and ultimately causes the stock price to change. This approach implies that value relevance is measured in terms of market reactions to new information. In other words, accounting information has value relevance if the stock market reacts upon the disclosure of it. The researchers adopting this approach typically refer to the accounting figures as having "information content" instead of using the term "value relevance" (Beaver, 1997).

A statistical association between accounting information and market values or returns, particularly over a long window, might mean only that the accounting information in question is correlated with information used by investors (interpretation 4). This interpretation does not require that financial statements be the earliest source of information. Nilsson (2003) refers to this interpretation as the measurement view of value relevance. According to Nilsson (2003) the underlying idea behind this interpretation is simple but compelling. A key role of financial statements is to summarize business transactions and other events. Under this construct, the value relevance of financial statement information is measured by its ability to capture or summarize information, regardless of source, that affects share values (Francis and Shipper, 1999). This interpretation is consistent with a measurement perspective on accounting. That is, accounting is viewed as an instrument for measurement (Marton, 1998). This interpretation, in contrast to the information view, does not assume that investors are actually using the information under examination, or that the information is the most timely source of information. Instead, inference is based on the notion that if an accounting item (or other items) has a reliable association with a market metric, then the accounting metric captures or aggregates the information that is used by market participants to determine prices or returns. In that respect, they can be classified as indirect test of the usefulness of accounting information for valuation purposes (Dumontier and Raffournier, 2002).

The researchers behind information view studies typically embrace an information perspective on accounting information. These studies were typically referred to as information content studies before the 1990s. The association between accounting numbers and equity values received renewed interest at the beginning of the 1990s under the label value relevance. The researcher in these studies distanced themselves from the information content perspective and focused more clearly on the view that financial statements are a summary of the events that have affected the firm over the reporting period (Easton, 1998). In that respect, they are moving closer to a measurement perspective on accounting (Runsten, 1998). However, according to Skogsvik (2002), the terms "information content" and "value relevance" have both been used to designate accounting figures as having the ability to convey information relevant for valuation. Since both terms are designated to facilitate research on the relevance of accounting information for valuation, they

have both been used to describe similar phenomena. One way to discriminate between "information content" and "value relevance" studies is to highlight differences in research methods and underlying assumptions (Nilsson, 2003).

One difference between information content and value relevance studies is the length of the return window (Nilsson, 2003). Information content studies focus on the market reaction to accounting disclosures over short time intervals, such as the days or weeks around an announcement date. Value relevance studies, however, analyze the relationship between stock returns and accounting information over longer periods- years, or even longer periods. An accounting number is considered particularly value relevant if it display a high degree of association with a market measure of value. The former type of study often adopts an event-study method, while regression analysis is the method of value relevance studies from the measurement view.

Tests of value relevance represent one approach to operationalize the FASB's stated criteria of relevance and reliability (Barth et al., 2001). Relevance and reliability are the two primary criteria the FASB uses for choosing among accounting alternatives, as specified in its Conceptual Framework. Under SFAC No. 5 (FASB, 1984), an accounting amount is relevant if it is capable of making a difference to financial statement users' decisions and an accounting amount is reliable if it represents what it purports to represent. Because the Conceptual Framework sets forth the FASB's objective criteria for evaluating accounting amounts, the value relevance studies need only to operationalize the criteria, and not to determine them.

Value relevance is an empirical operationalization of these criteria because an accounting amount will be value relevant, i.e., have a predicted significant relation with share prices, only if the amount reflects information relevant to investors in valuing the firm and is measured reliably enough to be reflected in share prices. Only if an accounting amount is relevant to a financial statement user it can be capable of making a difference to that user's decisions. Note that under SFAC No.5 information does not have to be new to a financial statement user to be relevant. That is, an important role of accountants is to summarize or aggregate information that might be available from other sources.

Value relevance studies use various valuation models to structure their test, and typically use equity market value as the valuation benchmark to assess how well particular accounting amounts reflect information used by investors (Barth et al., 2001; Dumontier and Raffournier, 2002). Further, these studies need only assume that share prices reflect investors' consensus beliefs. Investors' consensus beliefs are of interest because of the extensive literature, beginning with Ball and Brown (1968), documenting that share prices impound quite accurately the valuation implications of publicly available information. With the assumption that share prices reflect investors' consensus beliefs, resulting inferences relate to the extent to which the accounting amounts under study reflect the amounts implicitly assessed by investors as reflected in equity prices. Value relevance studies do not require assuming market efficiency (Barth et al., 2001).

The underlying concept behind the measurement view of value relevance is based on the view that the key role of financial statements is to summarize business

transactions and other events. Based on this view, the value relevance of financial statement is measured by its ability to capture or summarize information, regardless of source, that affects equity value. This definition is consistent with a measurement perspective on accounting. That is, accounting is viewed as an instrument for measurement (Marton, 1998). Under this construct, it does not require that financial statements be the earliest source of information (Francis and Schipper, 1999).

Based on the measurement view of value relevance researchers often measure value relevance as the association between an accounting measure and stock returns using long window and operationalize the value relevance in two ways: using the regression-variations approach and portfolio-returns approach such as Alford et al., 1993; Francis and Schipper, 1999; Hung, 2001; Chen et al., 2001; Barth et al., 2001. This view is adopted in this study. The models used in the regression-variations approach are the return and the price models. First model measures the value relevance as the ability of earnings or cash flows to explain returns while the second model measures the value relevance as the ability of earnings and book values to explain market values of equity. The portfolio-returns approach measures the value relevance as the proportions of all information in security returns that are captured by the accounting-based measures.

3. THEORY AND CONCEPT THAT RELATED TO VALUE RELEVANCE RESEARCH FROM MEASUREMENT STANDPOINT

The following sections describe the relevant theory and concept that underlie the value relevance studies. Among of which are GAAP, conceptual framework, the decision usefulness approach, the CAPM, the clean surplus accounting concept and firm valuation models.

3.1. Conceptual Framework

The conceptual framework is a constitution, a coherent system of interrelated objectives and fundamentals that can lead to consistent standards and that prescribe the nature, function, and limits of financial accounting and financial statements (FASB, 1984). The conceptual framework, therefore, is intended to act as a constitution for the standard-setting process. SFAC No. 2 as stated in Conceptual Framework presents the qualitative characteristics of accounting information which make the accounting information useful. Relevance and reliability are the two primary criteria for choosing between alternative accounting and reporting methods (FASB, 1980). Tests of value relevance represent one approach to operationalize the criteria of relevance and reliability as specified in the Conceptual Framework (Barth et al., 2001).

3.2 Generally Accepted Accounting Principles

GAAP are a guide to the accounting profession in the choice of accounting techniques and the preparation of financial statements in a way considered to be good accounting practices. Statement No. 4 of the Accounting Principles Board of the American Institute of Certified Public Accountants stated that GAAP are noted in "experience, reason, custom, usage, and ...practical necessity" and they"...

encompass the convention, rules, and procedures necessary to define accepted accounting practice at a particular time" (APB,1970). Some of these principles have been established by official standard-setting bodies such as the Financial Accounting Standards Board, while others have simply gained acceptance through wide spread use. The various thoughts, concepts, and accounting methods that make up generally accepted accounting principles continually change and evolve in response to changes in the business environments.

3.3. Decision Usefulness Approach

Major accounting standard-setting bodies such as the FASB have adopted the decision-usefulness approach. This is evidenced by its Conceptual Framework, which shows a clear recognition of the role of financial reporting in providing relevant and reliable information for investors (FASB, 1984). SFAC no 2 operationalizes the decision-usefulness approach by developing the characteristics that accounting information should have in order to be useful. In essence, accounting information should provide an informative information system that links current financial statement with future state realizations and payoffs.

Two major informative characteristics are relevance and reliability. Relevant information is information that has the capacity to affect investors' beliefs about future returns. Reliable information also affects beliefs by faithfully representing what it purports to measure (Scott, 1997). It can be concluded that the decision-usefulness approach is in line with the value relevance studies. Barth et al. (2001) argued that tests of value relevance represent one approach to operationalizing criteria of relevance and reliability. Value relevance tests generally are joint tests of relevance and reliability.

3.4 Clean Surplus Accounting

Ohlson (1995) used assumption clean surplus relation in formulating his valuation model that used in value relevance research. This model makes it possible to link current accounting number to market value. The clean surplus relation requires that income over a period equals net dividends and the change in the book value of equity (Ohlson, 1995). Typical to clean surplus accounting is that it does not allow direct changes in a firms' equity that pass the income statement. Under clean surplus accounting only direct changes in equity that are result of transactions with owners/ stockholders, such as dividend payments, equity offerings, etc., are allowed. All other changes in equity should bear a relation with the profit and loss account. Directly writing off purchased goodwill against equity, for example, violates the clean surplus relation, turning accounting into 'dirty surplus' accounting. A clean surplus treatment of purchased goodwill requires that it be expensed immediately, or over subsequent periods through amortization. Clean surplus relation is also known as the all-inclusive concept of earnings.

3.5 The Capital Asset Pricing Model (CAPM)

Value relevance studies take as given some model of capital market equilibrium and, therefore typically do not hypotheses relating to how the capital market operate. Return model was theoretically grounded in a specific model of

market equilibrium (the CAPM) and Price model based on Ohlson (1995) used CAPM to derive the expected return in his model.

CAPM has played an important role in accounting and finance and has been a focal point in the empirical accounting and finance literature. Investors wish to use accounting information to minimize risk and to maximize returns. The CAPM is an attempt to deal with both risks and returns. The basic assumption of the CAPM is that risky stocks can be combined into a portfolio that is less risky than any of the individual common stock that make up that portfolio.

4. APPROACHES to OPERATIONALIZE the VALUE RELEVANCE

Under the measurement view, the value relevance defined as the ability of an accounting measure to capture or summarize information that affects firm value. Using this definition, researchers often measure value relevance as the association between an accounting measure and stock returns and operationalize the value relevance in two ways: using the portfolio-returns approach and the regression-variations approach (Francis and Schipper, 1999; Hung, 2001). A regression-variations approach measures the value relevance based on the explanatory power of accounting information for measure of market value; the ability of earnings to explain annual market-adjusted returns (return model); and the ability of earnings and book values of assets and liabilities to explain market values of equity (price model). While the portfolio-returns approach measures the value relevance as the proportions of all information in security returns that are captured by the accounting-based measures.

4.1.The Regression-variations Approach

Both the return and the price models are used in the regression-variations approach as valuation models in assessing the value relevance of accounting information. Return models developed by Easton and Harris (1991) and price model developed by Ohlson (1995) were used in these studies. Prior to Easton and Harris (1991) popularized a specific version of the return model by including earnings level and earnings change, Market-based Accounting Research (MBAR) used return model that only included earnings changes. While Prior to Ohlson (1995) modified the price model by including both the accounting earnings and book values of equity, Market-based Accounting Research (MBAR) employed price model that only included accounting earnings.

4.1.1. Easton and Harris Valuation Model

The return model most frequent used in value relevance study is model which has been developed by Easton and Harris (1991). Most of studies employed this model in assessing the value relevance of accounting information such as Alford et al., 1993; Amir et al., 1993; Bandyopadhyay et al., 1994; Harris et al., 1994; Lev and Sougiannis, 1996; Amir and Lev, 1996; Aboody and Lev, 1998; Lev and Zarowin, 1999; Francis and Schipper, 1999; Chen et al., 2001.

Easton and Harris (1991) popularized a specific version of the annual return model including both earnings level and earnings changes in this model.

The model is specified as follows:

$$P_{jt} = BV_{jt} + U_{jt} \quad (1)$$

Where P_{jt} is the price per share of firm j at time t , BV_{jt} is the book value per share of firm j at time t , and U_{jt} is the difference between P_{jt} and BV_{jt} .

The relation between the "flow" variables-accounting earnings and security returns may be obtained by taking first differences of variables in equation (1). This yields

$$\Delta P_{jt} = \Delta BV_{jt} + U'_{jt} \quad (2)$$

$$\text{But in general } \Delta BV_{jt} = A_{jt} - d_{jt} \quad (3)$$

A_{jt} is accounting earnings per share of firm j over the time period $t-1$ to t , and d_{jt} is dividends paid per share of firm j over time period $t-1$ to t .

Substituting (3) into (2), rearranging, and dividing by P_{jt-1} yields:

$$(\Delta P_{jt} + d_{jt})/P_{jt-1} = A_{jt}/P_{jt-1} + U''_{jt} \quad (4)$$

That is, if stock price and book value are related, then earnings divided beginning-of-period price should be appropriate variable for explaining returns.

Easton and Haris (1991) considered an alternative model which expresses price as a multiple of earnings. That is:

$$P_{jt} = \rho A_{jt} + v_{jt} \quad (5)$$

Ohlson (1989a) demonstrated that the Miller and Modigliani (1961) dividend irrelevance proposition requires that if a dividend is paid on security j at time t , equation (5) must be written as:

$$P_{jt} + d_{jt} = \rho A_{jt} + v_{jt} \quad (6)$$

$$\text{it follows that : } (\Delta P_{jt} + d_{jt})/P_{jt-1} = \rho [\Delta A_{jt}/P_{jt-1}] + v'_{jt} \quad (7)$$

That is, there is a linear relationship between change in earnings divided beginning-of-period price and security returns over that period.

Of particular relevance to this study is the fact that dividing equation (6) by beginning-of-period price yields:

$$(P_{jt} + d_{jt})/P_{jt-1} = \rho [A_{jt}/P_{jt-1}] + v''_{jt} \quad (8)$$

This equation suggests that from an earnings valuation perspective, earnings levels (divided by beginning-of-period price) will be associated with returns. The return variable $(\Delta p_{jt} + d_{jt})/P_{jt-1}$ can be obtained from (8) by subtracting one from each side of the equation and then expanding the left-hand side.

By combining a "book value only" model (similar, in principle, to equation (4)) and an "earnings only" model (summarized, in principle, by equation (7)) Ohlson (1989) proposes a valuation relation in which price is a weighted function of book value and earnings. In a similar manner, equations (4) and (7) may be combined to give:

$$(\Delta P_{jt} + d_{jt})/P_{jt-1} = \kappa \rho [\Delta A_{jt}/P_{jt-1}] + (1 - \kappa) [A_{jt}/P_{jt-1}] + w_{jt} \quad (10)$$

Where k is a factor for weighting the contribution of change in earnings versus earnings levels in the explanation of stock returns.

In the empirical analyses, they examine the relation between earnings and returns implied by (i) equations (4) or (8) for earnings levels, (ii) equation (7) for earnings changes and (iii) equation (10) for both earnings measure together

Next step, they tested the univariate and multivariate analyses based on the equation above. The regression models for univariate analysis are:

$$R_{jt} = \alpha_{10} + \alpha_{11} \left[\frac{A_{jt}}{P_{jt-1}} \right] + \varepsilon_{jt} \quad (11)$$

and

$$R_{jt} = \varphi_{10} + \varphi_{11} \left[\frac{\Delta A_{jt}}{P_{jt-1}} \right] + \varepsilon_{jt} \quad (12)$$

Where

$$R_{jt} = (\Delta P_{jt} + d_{jt}) / P_{jt-1} \quad (13)$$

The result indicated that the level of current accounting earnings divided by beginning-of-period price $\left[\frac{A_{jt}}{P_{jt-1}} \right]$ is an explanatory variable for returns. Similar to level model, the result also indicated that accounting earnings changes divided by beginning-of-period price $\left[\frac{\Delta A_{jt}}{P_{jt-1}} \right]$ is an explanatory variable for returns in changes model.

The regression model for multivariate analysis is

$$R_{jt} = \alpha \gamma_{0t} + \alpha_{1t} \left[\frac{A_{jt}}{P_{jt-1}} \right] + \gamma_{2t} \left[\frac{\Delta A_{jt}}{P_{jt-1}} \right] + \varepsilon_{jt} \quad (14)$$

The result showed that both accounting earnings level and accounting earnings changes are the explanatory variables for returns. Overall, the evidence suggested that both the current earnings levels variable $\left[\frac{A_{jt}}{P_{jt-1}} \right]$ and the earnings changes variable $\left[\frac{\Delta A_{jt}}{P_{jt-1}} \right]$ are relevant for explaining returns, and the two variables are not just substitutes. Easton and Harris (1991) reported that both earnings level and changes (deflated by beginning-of-period stock prices) have explanatory power when they are included simultaneously in a regression of annual returns on earnings. These results suggest that both earnings variables play a role in security valuation.

4.1.2 The Ohlson Valuation Model

Most studies in value relevance literature employed the price model based on Ohlson (1995) such as Amir et al., 1993; Lev and Sougiannis, 1996; Amir and Lev, 1996; Collins et al., 1997; Aboody and Lev, 1998; Lev and Zarowin, 1999; Chen et al., 2001; Frank, 2003.

The Ohlson (1995) valuation model provides a structured basis for testing the value relevance of accounting data because it defines prices as a direct function of both earnings and book values. Ohlson (1995) developed and analyzed a model of a firm's market value as it related to contemporaneous and future earnings, book values, and dividends. Two owners' equity accounting constructs provide the

underpinnings of the model: the clean surplus relation applies, and dividends reduce current book value but do not affect current earnings. His analysis starts from the assumption that value equals the present value.

$$\text{Discounted dividend model} = P_t = \sum_{\tau=1}^{\infty} E \frac{(d\tau)}{(1 + E(r))^\tau} \quad (15)$$

Where P_t is the price at time t , d_t is the dividends paid in the period t , and $E(r)$ is the expected return, derived from capital asset pricing model (CAPM).

Next, accounting data is incorporated directly by relying on the assumption of a clean surplus accounting (CSA) relationship. Accounting assigns an important integrative function to the statement of changes in owners' equity. The statement includes the bottom-line items in the balance sheet and income statements—book value and earnings—and its format requires the change in book value to equal earnings minus dividends (net of capital contribution). He refers to this relation as the clean surplus relation because, as articulated, all changes in assets/liabilities unrelated to dividend must pass through the income statement. One can next assume the clean surplus relation to replace dividends with earnings/book values in the present value formula. This assumption requires all changes in book value be reported as either earnings or dividends as in Equation (16).

$$\text{Clean surplus relationship: } BV_t = BV_{t-1} + X_t - d_t \quad (16)$$

Where BV_t is the book value at time t and X_t is the earnings in period t .

The development of the model shows the relevance of abnormal (or residual) earnings as a variable that influences a firm's value. This accounting-based performance measure is defined by earnings minus a charge for the use of capital as measured by beginning-of-period book value multiplied by the cost of capital. Abnormal earnings bear on the difference between market and book values, that is, they bear on a firm's good will. In fact, a straightforward two-step procedure derives a particularly parsimonious expression for goodwill as it relates to abnormal earnings. First, following Peasnell (1981) and others, the clean surplus relation implies that goodwill equals the present value of future expected abnormal earnings. Second, if one further assumes that the abnormal earnings obey an autoregressive process, then it follows that goodwill equals current abnormal earnings scaled by a (positive) constant. The result highlights that one can derive value by assuming abnormal earnings process that make no reference to past or future expected dividends.

Owners' equity accounting not only subsumes the clean surplus relation, it also implies that dividends reduce book value but leave current earnings unaffected. One exploits this additional feature to examine the (marginal) effects of dividends on value and on the evolution of accounting data. Two closely related Modigliani and Miller (MM) (1958, 1961) properties are satisfied. Dividends displace market value on a dollar-for-dollar basis, so that dividend payment irrelevancy applies. Furthermore, dividends paid to day influence future expected earnings negatively. The model accordingly separates the creation of wealth from the distribution of wealth. Given the importance one generally attaches to MM properties in valuation

analysis, the requirement that dividends reduce book value but not current earnings enhances the economic significance of owners' equity accounting.

The third assumption of this model requires abnormal earnings and other value relevant information external to the accounting system satisfy an autoregressive process described as follows (Equation (17) and Equation (18)):

Linear information model:

$$(a) X_{t+1}^a = \omega X_t^a + V_t + \varepsilon_{1,t} \quad (17)$$

$$(b) V_{t+1} = \gamma V_t + \varepsilon_{2,t+1} \quad (18)$$

Where ω and γ are persistence parameters, ε_1 and ε_2 are distributed normally with a mean of zero, X_{t+1}^a the abnormal earnings in period $t = X_t - r_f BV_{t-1}$, V_t are all other information used to predict future abnormal earnings, and r_f is the risk-free interest rate (annualized 3-month T-bill rate).

Based on the above assumptions, the following model results (Equation (19)):

$$P_t = BV_t + \alpha_1 X_t^a + \alpha_2 V_t$$

To operationalize this model several adjustments are made. First, in this model all variables are observable except the vector of "other" variables. By the third assumption the expected value of the "other" variables is zero and thus is dropped from the model. However, to mitigate any potential omitted variable problems caused by violations of this assumption, an intercept term is included. The second change made is the inclusion of a coefficient on the book value term that relaxes the strict assumption that the true economic value of the firm is recorded in the balance sheet and allows the multiplier to vary across portfolios.

Additionally, in the theoretical model, Ohlson calculates abnormal earnings using the risk-free rate. The use of the risk-free rate does not permit the required return to reflect any compensation for the inherent risk in equity securities or firm specific risk. In this study, the expected return of each security is formulated from the CAPM. The risk-free rate is the annualized 3-month T-bill rate, β is estimated using the Fama and French (1992) methodology, and the market premium is the equity risk premium estimate reported by Ibbotson et al. in *Stocks, Bonds, Bills and Inflation Yearbook*.

4.1.3 The Portfolio -returns Approach

This approach defines the value relevance of accounting measures as the proportion of all information in security returns that are captured by the accounting measures (Alford et al., 1993; Francis and Schipper, 1999; Hung, 2001). For instance, the value relevance of earnings is calculated as return that could be earned from a portfolio based on perfect foresight of earnings divided by returns earned on a portfolio based on advance knowledge of market prices. The portfolio-returns approach has statistical superiority over the regression-variations approach because

they control for changes in volatility of market returns over time; the explained variation tests do not (Kothari and Zimmerman, 1995; Francis and Schipper, 1999).

The use of portfolio-returns approach to examine the value relevance of accounting information has been documented in the literature (Alford et al., 1993; Francis and Schipper, 1999; Hung, 2001). Alford et al. (1993) used the portfolio returns approach to investigate the comparison between the information content and timeliness of accounting earnings in 16 countries and a sample of U.S firms. The use of the portfolio-returns is indicated by calculating the market-adjusted stock return that could be earned based on the knowledge of the change in net income. For each year, they ranked the observations in each country-specific sample by the change in income (deflated by beginning-of-year price), and formed an equally weighted hedge portfolio that is long in stocks with the highest 40% of income changes in that country-specific sample, and short the lowest 40%. They calculated the returns to each country portfolio for the 15 months ending 3 months after the fiscal year-end. They referred to this hedge portfolio return as the earnings-based hedge portfolio cumulative (market-adjusted) return.

Francis and Schipper (1999) computed the 15-month market-adjusted returns to five hedge portfolios formed on the basis of accounting information, namely the sign of the change in earnings ($SIGN-\Delta EARN_t$), the sign and the magnitude of the change in earnings ($\Delta EARN_t$), the percentage change in cash flows ($\Delta CASH_t$), financial ratio ($RATIO1_t$), the coefficient estimates from returns-book value and earnings regression ($RATIO2$). $SIGN-\Delta EARN_t$ refers to the hedge portfolio formed on the basis of the sign of the change in earnings before extraordinary items in year t , $EARN_t$. Specifically, they took long positions in stocks when $\Delta EARN_{jt} = EARN_{jt} - EARN_{jt-1}$ is positive, they took short positions in stocks when $\Delta EARN_{jt}$ is negative.

$\Delta EARN$ refers to the hedge portfolio formed on the basis of the sign and magnitude of $\Delta EARN_{jt}$. Specifically they ranked firms each year by the change in earnings (deflated by beginning-of-year market value) and formed an equally weighted hedge portfolio that long in stocks with the highest 40% of $\Delta EARN_{jt}$ and short in the lowest 40%. $\Delta CASH_t$ refers to the hedge portfolio formed on the basis of the percentage change in cash flows. They took long positions in stocks with the highest 40% of $\Delta CASH_{jt}$ and short positions in the lowest 40%.

($RATIO1_t$) refers to the hedge portfolio formed on the basis of fundamental values based on financial ratio model. $RATIO2$ refers to the hedge portfolio formed on predictions based on the returns-book value and earnings regression. They ranked the observations in year t on the basis of their predicted values of the dependent variable, returns. They took long positions in the highest 40% of the predicted values and short positions in the lowest 40%. Hung (2001) computed the 15-month market-adjusted returns to two hedges portfolios based on the change in ROE and the change in earnings. They took long positions in stock with the highest 40% of change in earnings, change in ROE and short positions in the lowest 40%.

5. METHODOLOGICAL ISSUES

5.1 Price and Return Models in Market-based Accounting Research (MBAR)

Capital market researchers often attempt to determine whether specific attributes (e.g. earnings) of firms are priced in the financial markets. Specific empirical hypotheses are proposed and the tested. In their seminal paper, Ball and Brown (1968) examined whether changes in residual security returns, determined from the market model, are correlated with changes in accounting earnings. Bowen (1981) examined whether a components of earnings of electric utilities thought to be of lower quality than the remainder of earnings is priced lower per dollar (is valued less) than the higher quality portion in a security price model.

The Ball and Brown (1968) and the Bowen (1981) studies illustrate the two strains of the empirical literature: those examining changes in security prices (price change or return model) and those examining the level of security prices (level or price model). The price and the return models respectively are represented as follow:

$$\text{Price Model: } P_t = \alpha + \beta X_t + \varepsilon_t \quad (22)$$

$$\text{Return Model: } \frac{P_t}{P_{t-1}} = \alpha + \beta \frac{X_t}{P_{t-1}} + \varepsilon_t \quad (23)$$

P_t is price at time t , X_t is earnings for period t .

Several studies have discussed the conceptual advantages and disadvantages of price and returns model. Gonedes and Dopuch (1974) argued that return models are theoretically superior to price models in the absence of well-developed theories of valuation. They discussed the use of return models based on the CAPM. The return model is theoretically grounded in a specific model of market equilibrium (CAPM). They are highly optimistic concerning the ability of accounting studies that utilize research design based on the CAPM to distinguish between competing hypotheses of accounting reporting technique. Gonedes and Dopuch (1974) are highly pessimistic of the usefulness of dividend earnings capitalization (price model). In particular, they argued that earnings capitalization models are derived under certainty, and only extended to uncertainty using ad hoc properties procedures. That is, it is difficult to interpret results from such studies because the underlying theoretical relation between security price and earnings is not well-specified.

Lev and Ohlson (1982) questioned why price level models have largely been rejected by market-based accounting research. They attributed the rejection to the widely-held belief that price level models lack sound theoretical grounding, whereas returns model are theoretically grounded in a specific model of market equilibrium (the CAPM). They described the two approaches as complementary.

Landsman and Magliolo (1988) argued that price models dominate return models for certain application. They concluded that the decision of whether to select

a price level or price change specification is a joint function of (1) the economic model of equilibrium that is assumed; and (2) the nature of the econometric properties of the data that cause OLS assumptions to be violated. The relative advantages of returns and levels methodologies are dependent upon the set of assumptions maintained by the researchers regarding the pricing relation and the economic properties of the data used for estimation.

Christie (1987) examined the economic and econometric properties of cross-sectional analysis in a market-related accounting research, including both economic and econometric properties of levels and return studies. The conclusions are in the returns studies; the correct deflator is the market value of equity at the beginning of the period. There is no natural deflator in levels models, but deflation by anything other than a function of independent variables can generate specification errors. Cross-sectional dependence among levels variables can create specification errors and result in the misstatement of test statistics in level studies. Part of the difficulty stems from scale (size) differences across firms that cannot be eliminated by deflating. In contrast, cross-sectional dependence in returns does not appear to create serious inference problems in the regression context examined in this study. This study concluded that, while return and price models are economically equivalent, return models are econometrically less problematic.

Kothari and Zimmerman (1995) in their study provided a framework for choosing between price and return models. Return models (returns regressed on scaled earnings per share) are commonly preferred to price models (stock price regressed on earnings per share). They provided an economic and econometric framework for assessing whether to use a price model, a return model or both. They provided empirical evidence on price and return model specifications. Their results indicated that slope or earnings response coefficients were substantially less biased in price models than in return models. Coefficients from the price model, but not the return model, imply cost of capital estimates that are more in line with those observed in the market. Also, the time series of implied cost of capital estimates from cross-sectional price models more closely approximates long-term interest rates plus a risk premium than does the corresponding time series from return models. Nevertheless, price models do not unambiguously dominate return models.

Price models more frequently reject tests of heteroscedasticity and/or model misspecification than return models. Therefore, researchers are confronted with two flawed functional forms: one that gives more economically sensible earnings response coefficients (price models) and another with less severe White (1980) specification problems (return models) but more biased slope coefficient. An obvious implication is that researchers using price models must exercise more care in drawing statistical inferences, e.g. by using White's (1980) heteroscedasticity-consistent standard errors.

Since each functional form has its weakness, researchers should be aware of the econometric limitations in designing their experiments and in some research contexts the combined use of both price and return models may be useful. When possible, using both functional forms will help ensure that a study's inferences are not sensitive to functional form.

In sum, within the context of a typical valuation model, they provided an economically intuitive analysis which suggested that the estimated slope coefficients from the price model, but not the return models, was unbiased. However, return models have less serious econometric problems than price models. In some research contexts the combined use of both price and return models may be useful.

(i) Price level or returns

According to Barth et al. (2001) for the most part, valuation models that form the basis for tests in the value relevance literature are developed in terms of the level of firm value (e.g. Miller and Modigliani, 1966; Ohlson, 1995). Examining changes in share prices (return model), or returns, is an alternative approach to assessing value relevance, where the prices specification of the valuation equation depends on the valuation model adopted (Ohlson, 1995).

The key distinction between value relevance studies examining price levels and those examining price changes, or returns, is as follow. The price levels studies are interested in determining what is reflected in firm value and they evaluate whether the accounting information is incorporated in stock prices cumulatively up to a certain point of time. Meanwhile price changes or returns studies are interested in determining what is reflected in changes in value over a specified period of time. Returns studies examine whether accounting information reflects events that affect stock prices over the return interval (Barth et al., 2001; Chen et al., 2001). In fact, more studies follow the suggestion of Kothari and Zimmermen (1995) and use both price and return models in examining the value relevance of accounting information (e.g. Amir et al., 1993; Haris et al., 1994; Amir and Lev, 1996; Barth and Clinch, 1996; Echer et al., 1996; Graham et al., 1998; Haw et al., 1998; Chen et al., 2001).

(ii) The Advantages of Price Model over Return Model

According to Chen et al. (2001) the advantages of price model over return model in examining value relevance of accounting information are as follow. First, if stock markets anticipate components of accounting earnings and incorporate the anticipation in the beginning stock price, that is, prices leading earnings, return models will bias earnings coefficients towards zero. In contrast, price models yield unbiased earnings coefficients because stock prices reflect the cumulative effect of earnings information (Kothari and Zimmermen, 1995). In other words accounting information can be value relevant if it is related to stock prices even though it does not provide new information to affect stock returns. Second, return models only allow the researchers to assess the value relevance of accounting earnings, whereas price models based on Ohlson (1995) show how a firm's market value is related to both book values of equity and accounting earnings. Because, these two components of accounting information play different roles in security pricing, the use of Ohlson model expands the scope of value-relevance research.

6. ADVANTAGES OF PORTFOLIO-RETURNS OVER THE REGRESSION-VARIATIONS APPROACHES.

The Portfolio-returns approach has statistical superiority over the regression-variations approach (Kothari and Zimmerman, 1995; Francis and Schipper, 1999). This is because they control for changes in volatility of market returns over time; the explained variation tests do not. Depending on the source of returns volatility, failing to control for it could affect the interpretation of results. For example, if the absolute amount of value relevant information in financial statements is (truly) constant through time, but the volatility of market returns is increasing for reason that cannot be traced to information sources, the explained variation test will be biased toward the results that relevance is decreasing over time. This is because a greater portion of the variability in the dependent variable (market-adjusted returns or market values) will be unexplained by accounting information.

In the literature, the regression-variations approach is more frequent used than the portfolio-returns approach despite the less statistical power of the former. This is because the valuations models in regression-variations approach can be used to examine the value relevance in terms of level of firm value and changes in value (price and return models). Selection of which approach to use depends jointly on the hypothesis dictated by the research question and on econometric considerations (Landsman and Magliolo, 1988). The Regression-variations approach also can be used to address various issues on value relevance. For instance, a study might examine whether the association of an earnings number, calculated under a proposed standard, is more highly associated with stock market values or returns (over long windows) than earnings calculated under existing GAAP (e.g., Dahliwal et al., 1999). Other examples compare the associations of foreign GAAP and US GAAP earnings (e.g., Harris et al., 1994).

7. SOME RESEARCH ISSUES ON VALUE RELEVANCE OF ACCOUNTING INFORMATION

In this section explains some research issues that investigate the value relevance of accounting information.

Securities Exchange and Commission required firm registered outside the USA and listed on a primary USA exchange to reconcile their reported earnings and share holder's equity to USA GAAP as part of a firm 20 F-filing. Some studies have compared the associations of foreign GAAP and USA GAAP such as Amir et al., 1993; Bandyopadhyay et al., 1994; Harris et al., 1994. They tested whether the reconciliations of earnings and stockholders' equity to USA GAAP were value relevant. However, these studies have documented mixed results.

Amir et al. (1993) used reconciliation to USA GAAP as provided on Form 20-F filings to evaluate the value relevance of different accounting measurement systems from 20 countries. They investigated value relevance of aggregate reconciliation and for some specific components of reconciliation. They identified five GAAP differences components: good will, assets revaluation, tax, pension and other differences such as extraordinary items or prior-period adjustment that occurs frequently.

They employed three approaches to assess the value relevance of the 20-F reconciliations. The first approach was to test the information content around an event window. This approach examines the reaction to the announcement of USA GAAP earnings relative to non-USA GAAP earnings in spirit of Beaver (1968) and Wilson (1986). The result did not reflect any market reaction. The second approach was using longer window return-earnings association by considering the association between stock market returns and accounting earnings. Overall, the return-earnings association results provided mixed evidence of the value-relevance of aggregate earnings reconciliations. They reported that the coefficients on earnings levels and changes variables were statistically significant at the 0.05 and 0.01 levels respectively. The coefficient on the level of reconciliation was statistically significant at the 0.01 level but the coefficient on the change in reconciliation was zero. The third approach was market to book ratio analysis by considering whether they explained the difference between market value and book value of shareholder's equity (BV). The results for the market-to-book tests provided evidence that the shareholder's equity reconciliations were value-relevant. In sum, the results suggested that the aggregate reconciliations of earnings and stockholders' equity to USA GAAP were value relevant. The result holds both in aggregate and for some specific components, in particular property revaluations, capitalized goodwill and taxation adjustment.

Bandyopadhyay et al. (1994) examined whether the reconciliation of reported income measured using Canadian GAAP to reported earnings measured using USA GAAP was value relevant. The reconciliation of Canadian GAAP earnings to USA GAAP earnings provided in 20 F filings of the sample firms contained as many as 49 types of differences. These differences were grouped into six categories: foreign exchange, oil and gas, deferred taxes, interest capitalization, and two types of extraordinary item. They used short return-window test and long return-window test by considering return-earnings models to examine association between USA- Canada GAAP reconciliation. The result did not reflect any market reaction and GAAP differences can have a large impact on reported earnings. However, these empirical tests indicated that investors did not act as if these differences are material. The lack of value relevance was observed for both the aggregate difference between USA and Canadian GAAP earnings and the individual reconciling items comprising the difference. On average, investors acted as if USA-Canada GAAP differences did not affect pricing decisions.

Harris et al. (1994) compared the value relevance of accounting measures for USA and German firms matched on industry and firms size. German firms hesitant to list, citing the requirement to reconcile net income and shareholders' equity to USA GAAP, required by the SEC, as the reason for their reluctance. Based on the annual reported earnings there appears to be no statistical justification that the German earnings are less value relevant than USA earnings. Further, the evidence suggested that while the explanatory power of the regressions is similar, coefficient estimates were generally higher in Germany than in the USA, consistent with conservatism in German reporting.

A number of USA studies have recently examined whether the value relevance of earnings and book values has changed over time due to, for example,

decreased timeliness of financial statement information, increased economic reporting of losses, one-time, and special items, and the increased importance of unreported intangible assets because of the increased relative importance of high-tech industries (Collins et al., 1997; Lev and Zarowin, 1999; and Francis and Schipper, 1999). Collins et al. (1997) used price model and the R^2 decomposition technique to test whether the value relevance of earnings and book values have declined throughout the 1953-93 period. Contrary to claims in the professional literature, the combined value-relevance of earnings and book values has not declined over the past forty years and, in fact, appears to have increased slightly. Further, the evidence showed that while the incremental value-relevance of 'bottom line' earnings has declined, it has been replaced by increasing value-relevance of book values. In summary, the claims that the conventional historical cost accounting model has lost its value-relevance are premature.

Lev and Zarowin (1999) examined whether the usefulness of reported earnings, cash flows, and book values has decline over the past 20 years. They used both the return model and price model to investigate the value relevance of earnings, cash flows and book values. Similar to Collins et al. (1997), they did the time regression by regressing the R^2 and on time variable. The result showed that value-relevance of earnings level and earnings change has declined throughout the 1977-96 period. The result also revealed that the association between stock returns and cash flows has declined over the period examined. Further, evidence showed that the combined value relevance of earnings and book values have declined over the past 20 years. These findings were not consistent with the previous results reported by the Collins et al. (1997) that reached the conclusion that the combined value relevance of earnings and book values has not decreased over the 40 past years.

Francis and Schipper (1999) examined the value relevance of financial statement over the period 1952-1954. The objective of this study is to test some of empirical implications of the claim that financial statements have lost their relevance over time. They used two approaches to measure the value relevance: the portfolio returns and the regression-variations approaches.

They formed five hedge portfolio based on accounting information, namely the sign of change in earnings, the sign and magnitude of change in earnings, the percentage change in cash flows and the coefficient estimates based on returns-book value and earnings regression. For each accounting-based hedge portfolio and year, they computed the market-adjusted returns to a perfect foresight returns-based hedge portfolio. It took long (short) positions in stocks in each accounting-based hedge portfolio with positive (negative) 15-month market-adjusted returns. The market-adjusted return on this return-based hedge portfolio in year t was denoted RET_t^H , where H denoted the type of accounting hedge portfolio. They scaled the accounting-based hedge portfolio returns in year t by RET_t^H , to control for time-series differences in the variation in the market-adjusted returns. The resulting scaled measures describe the proportions of all information in security returns that are captured by the accounting-based measures.

They found that the average market-adjusted return across the entire sample period was about 14% for the SIGN- Δ EARN portfolio, compared to 20% for the Δ EARN portfolio, 6% for the Δ CASH portfolio, and 18% for the RATIO 1 portfolio. The proportions of the market-adjusted return to the returns-based hedge portfolio explained by each accounting measure indicated that about 45% of total perfect foresight returns were available to investors with advance knowledge of sign of the earnings change; knowing both the sign and magnitude of the earnings change yielded, on average, 59% of the total available return. In contrast, the knowledge of the change in cash flows (ratio signal) earned 18% (52%) of these returns. Knowledge of the book value of equity plus the level and change in earnings (RATIO1) earned about 61% of total perfect foresight returns.

In the regression-variations approach, they examined three relations. The first relation investigated the ability of earnings to explain market-adjusted returns. The second relation examined the ability of assets and liabilities to explain market equity values and the third relation examined the ability of book values and earnings to explain market equity values. For the earnings relation, all slope coefficients were significant at the 0.001 level; the adjusted R^2 s of the yearly models ranged from 5% to 46% with the earnings variables explaining an average of 22% of the variation in market-adjusted returns. For the balance sheet relation, all slope coefficients were significant at the .01 level, and their sign are generally consistent with investors placing a positive (negative) weight on the book value of firm's assets (liabilities). The adjusted R^2 of the yearly balance sheet models ranged from 6% to 68%; on average, the book values of assets and liabilities explained 41% of variation in equity market values. For the book values & earnings relation, the average coefficient estimate indicated that \$1.00 of book value (earnings) corresponded to \$ 0.25 (\$6.7) of market value. The results showed a decline in the relevance of earnings information, and an increase in the relevance of balance sheet and book values information, over their sample period. These findings are broadly consistent with other studies examining the value relevance of financial information (e.g., Collins et al., 1997; Ely and Waymire, 1999; Lev and Zarowin, 1999, Francis and Schipper, 1999)

Other studies compared the value relevance of accounting information among countries (Alford et al., 1993; King and Langli, 1998; Graham et al., 2000; Hung, 2001). Alford et al. (1993) compared the value relevance of accounting earnings in seventeen countries by using the United States as a benchmark. They used the regression-variations based on the return model and the portfolio-returns approaches. They found that accounting earnings which were prepared in accordance with the domestic GAAP of Australia, France, the Nederland, and the United Kingdom were more timely or more value-relevant than accounting earnings which were prepared in accordance with the USA GAAP. The results for Belgium, Canada, Hong Kong, Ireland, Japan, Norway, South Africa, and Switzerland were not conclusive. On the other hand, the accounting earnings from Denmark, Germany, Italy, Singapore, and Sweden were either less timely or less value-relevant than USA GAAP earnings.

King and Langli (1998) examined the explanatory power of book value per share and earnings per share for three European countries: Germany, Norway, and the UK. They found significant differences in the valuation power of book value and

earnings across the three countries, and they interpreted some of the differences as consistent with diversity in accounting practices.

Graham et al. (2000) examined whether the accounting systems in six Asian countries differed in their value relevance under the residual earnings model. The countries are Indonesia, Korea, Malaysia, Philippines, Taiwan, and Thailand. They also tested whether there are systematic differences in the incremental and relative contribution of book values and residual earnings to value across the countries related to accounting differences. The results showed that there were the significant differences in the relation between accounting numbers and stock prices across the six countries and across time. They also provided evidence that incremental explanatory power of book value and residual earnings varied across countries.

Hung (2001) used the portfolio-returns approach in assessing the value relevance of accounting information among 21 countries. Nearly all of the sample countries were developed countries. She found that the proportions of all information in security returns that were captured by the accounting-based measures varied among countries. The value relevance numbers ranged from 4.7% to 55.7% for earnings information and from 15.4% to 66.7% for ROE information.

Two studies have taken development of accounting into consideration in studying the value-relevance of accounting information (Ely and Waymire, 1999; Chen et al., 2001). Ely and Waymire (1999) investigated whether earnings relevance is higher following (1) empowerment of the Committee on Accounting Procedure (CAP) as the first USA accounting standard-setting body in 1939, and (2) subsequent reorganizations of the standard-setting process leading to creation of the Accounting Principles Board (APB) in 1959 and the Financial Accounting Standards Board (FASB) in 1973. The evidence provided only limited support for the hypothesis that earnings relevance is materially higher after either empowerment of the CAP or subsequent reorganizations of the standard-setting process. For the pooled regressions, the adjusted R^2 increased from 11.97% in the pre-CAP to 16.25% in the CAP period, but declined to 14.27% in the APB era and 10.47% during the FASB's tenure. The price model showed evidence that the combined relevance of earnings and book value increased during the tenure of the FASB (1974-93) compared to that of the APB (1960-73).

Study done by Chen et al. (2001) is motivated by the developments of accounting and stock markets in China. The present Chinese accounting regulations and practices have evolved from a Soviet style macro economy oriented accounting systems adopted by China in the 1950s. Beginning in the late 1970s, China's economic reforms aimed at rebuilding a market economy have introduced fundamental changes to its accounting systems. During the 1990s, a set of accounting standards, in line with International Accounting Standards (IAS), has been promulgated for Chinese listed companies. Using a sample of listed firms from 1991 to 1998, they provided evidence that accounting

8. THE CONCLUSION

Research on the value relevance of accounting information become main issue in 1990's until now. There are four possible interpretation of value relevance construct (Francis and Schipper, 1999). First, value relevance would then be measured as the profits generated from implementing accounting-based trading

rules. Second, financial information is value relevant if it contains the variables used in a valuation model or assists in predicting those variables. Third, accounting information is value relevant if it is used by investors when setting prices. Finally, the value relevance of financial statement information is measured by its ability to capture or summarize information, regardless of source, that affects share values.

GAAP, conceptual framework, the decision usefulness approach, the CAPM and the clean surplus accounting concept are the relevant theory and concept that used in this study. There are two ways to operationalize the value relevance research, namely the regression and the portfolio return approach. The valuation model that used in the regression are the return and the price model. The portfolio-returns approach measures the value relevance as the proportions of all information in security returns that are captured by the accounting-based measures. The Portfolio-returns approach has statistical superiority over the regression-variations approach (Kothari and Zimmerman, 1995; Francis and Schipper, 1999). In the literature, the regression-variations approach is more frequent used than the portfolio-returns approach despite the less statistical power of the former

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