



Corporate attributes and earnings informativeness

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Article History

Received 22 January, 2017
Received in revised form 28 February, 2017
Accepted 03 March, 2017

Keywords:

Corporate attributes,
Earnings response
Coefficient,
Earnings
informativeness.

Article Type:

Review

ABSTRACT

Earnings informativeness continues to be a challenging issue for investors, financial analyst, management, regulators and academic researchers. The need to be able to ascertain how and why accounting numbers especially earnings are impounded into indices of a firm's market or economic value drives the enquiry into earnings informativeness. Earnings informativeness refers to the extent of reaction of economic or market value to accounting disclosures. It is also indication of the quality of earnings. The study theoretically examines the role of corporate attributes in earnings informativeness by adopting earnings response coefficient (ERC) approach. This theoretical discourse is based on the noise-in-signal model which predicts that firms' corporate attributes and practices can either heighten or lessen the noise connected to their earnings. The study adopted the library research methodology review of prior literature. The study observed that the various conclusions from prior studies on value relevance though relevant appear to be deficient in terms of valuation procedures compared to that which the ERC provides. The ERC gives a good understanding of why market value reacts strongly to disclosed information for some firms and weakly for others irrespective of the nature of news disclosed.

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INTRODUCTION

Bushman and Piotroski (2006) notes that accounting numbers in emerging markets are less informative about firms' economic value than the numbers in developed economies. This disparity is caused by several factors which ultimately have a negative effect on earnings informativeness in developing economies. Earnings informativeness refers to the extent of reaction of economic or market value to accounting disclosures. It is also an indication of the quality of earnings. It is often measured using the earnings response coefficient (ERC) (Hanlon et al., 2008). Earnings response coefficient (ERC) research has been described by Kothari in his 2001 classical review titled "capital markets research in accounting" as one of the four methodological areas in accounting based capital market research. The others

are properties of time series and analysts' forecasts of earnings, methodological issues in drawing statistical inferences and tests of market efficiency. Shangguan (2007) notes that the ERC measures the extent to which stock prices react to earnings surprises and it also indicates the extent of earnings informativeness. According to Scott (2003), ERC measures the sensitivity of stock markets to the reporting of earnings through a regression slope coefficient between abnormal returns and unexpected earnings. A key reason for the interest in ERC is because when the issue of earnings informativeness is concerned, it presents an important methodological approach to evaluating the signaling hypotheses in accounting.

Capital market researchers have consistently found the following corporate attributes to be significant determinants of earnings informativeness and hence the ERC: political affiliation, beta, growth rate, earnings persistence, size of the firm and industry of operation (Kai, 2002; Kim, 2005; Cheng and Nasir, 2010).

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According to Kothari (2001) and Ou and Sepe (2002), firms' corporate attributes and practices can either heighten or lessen the noise connected to their earnings. With more noise, the earnings informativeness is reduced and the earnings response coefficient is negative and vice-versa. For example, Leuz and Oberholzer-Gee (2006) using political relationship as a corporate attribute, argued that political associations can be risky in regions with severe political strife. This risk adds uncertainty to the rent obtained by the connected firm and, accordingly, influences investors' evaluation of the firm's earnings persistence. Consequently, more politically connected firms have a lower level of accounting informativeness and as such a negative ERC than unconnected firms.

Looking at other corporate attributes, for example Richardson et al. (2005) argue that firms with higher beta will reduce their earnings informativeness and thus have a negative ERC. The reason for this is that a firm's beta is a measure of their risk level and hence more risky firms have more noise thus the earnings informativeness is reduced and the earnings response coefficient is negative. Regarding a firm's CSR disposition, Heal (2005), argues that less socially responsible firms have more noise and less precision in earnings, leading to lower ERCs, all else being equal. Consequently, one might expect a larger (smaller) response to earnings innovations for firms that are more (less) socially responsible. This logic underlies the hypothesis corporate social responsibility is associated with ERCs.

This paper addresses two very fundamental gaps in the literature. Firstly, the earnings response coefficient approach introduces a stronger valuation method in evaluating issues of earnings quality and informativeness which is better than the discretionary accruals or price-return regressions approach that appears to have dominated studies in Nigeria. Aside from Okolie (2013) that considered just auditor attributes on ERC, the author is unaware of any other indigenous study that has utilized the ERC approach in examining earnings informativeness. This paucity of studies adopting this stronger valuation procedure provided by the ERC approach is rather disturbing and thus justifies the contribution to knowledge of this study.

LITERATURE REVIEW

Earnings informativeness

Earnings informativeness continues to be a challenging issue for investors, financial analyst, management, regulators and academic researchers. The need to be able to ascertain how and why accounting numbers especially earnings are impounded into indices of a firm's market or economic value drives the enquiry into earnings informativeness. Hence earning informativeness

refers to the extent of reaction of a firm's economic or market value to accounting disclosures. Investment decisions in financial markets are influenced by information resources. From the viewpoint of stock exchange theorists, one useful source of data is financial statements, with one of the main goals behind financial statements to help users of financial data and facilitate their decision making.

One of the most important factors in financial reporting is the declaration of information related to earnings, which has probably attracted the highest rate of attention from investors. The informativeness of earnings has received considerable attention in recent times. The verification and measurement rules underlying financial reporting, along with the scrutiny by fiduciary agents such as auditors and board of directors, are generally thought to make earnings numbers informative (Ball and Shivakumar, 2008). The first strong evidence on the reaction of stock markets to the declaration and publication of earnings information was provided by Ball and Brown (1968). Their research indicated that reactions of investors to firms with good news resulted in positive abnormal returns. They also observed that the reaction of investors to firms with bad news resulted in negative unexpected abnormal returns. Many empirical studies have focused on the manner of market reaction to earnings declarations.

According to Ball and Brown (1968) earnings announcements do not appear to cause any unusual jumps in firm's economic value. However, they acknowledge certain under-reaction in firms' market value at the time of the announcement. This under reaction creates a post earnings announcement drift that appears to be most pronounced in cases of negative income surprises. Beaver (1968) concludes that the information content of income is significant. He argues that the dramatic increase in the trade volume of stock in the week of earnings announcements is much larger than the average during the non-report period. The conclusions of both Ball and Brown (1968) and Beaver (1968) suggest that earnings are informative as their announcements lead to a change in investor's probability distribution of future returns, and hence the earnings report has information content and is value relevant.

Under the context of the efficient market hypothesis (EMH), security prices fully reflect all publicly available information. Therefore, following an earnings announcement made by a firm, the market is expected to react to the announcement, although only to the extent of the unexpected component of the news. This occurs because the part of the announcement that is expected by the market would have already been impounded in market prices in an ideal environment where markets are efficient. In other words, an announcement that contains only information already known to the market is considered to have no information content. An unexpected

change in earnings, therefore, is expected to evoke a market reaction. The extent of the change in security price caused by such unexpected change in earnings is indicated by the earning response coefficient (ERC). However, Ball et al. (2000) has credited the challenge of earnings informativeness to a lack of timeliness for accounting numbers.

Measurement of earnings informativeness

Earnings response coefficient (ERC)

Easton and Zmijewski (1989) describe ERC as the coefficient relating the surprise element in new information in an accounting earnings announcement to abnormal stock returns. It is therefore a measure of the extent to which new earnings information is captured in a stock price (Teoh and Wong, 1993). In principle, ERC can be measured as the slope coefficient in a regression of abnormal stock returns on unexpected earnings. The study of ERC has led to a better appreciation of the nature of earnings information and the role of accounting information within the market's overall information structure.

Cho and Jung (1991), suggest that all earnings-returns studies use a valuation model that discounts future dividends or cash flows. In explaining ERC it is assumed that accounting earnings are closely related to future dividends. Hence, any unexpected earnings may cause investors to revise their expectations of future dividends thus leading to security price changes (Collins and Kothari, 1989; Dhaliwal and Reynolds, 1994). The ERC is an important dimension of earnings quality as it describes the ability of reported earnings to assist shareholders in the process of valuing a firm's stock price, that is, to provide decision-useful information (Dechow et al., 2010).

The ERC is an estimate of the change in a company's stock price due to the information provided in a company's earnings announcement. Both Signaling Theory and Arbitrage Pricing Theory describe the theoretical relationship between information that is known to market participants about a particular equity and the price of that equity. Under the EMH, equity prices are expected in the aggregate to reflect all relevant information at a given time. Market participants with superior information are expected to exploit that information until share prices have effectively impounded the information.

According to Abdel-Khalik and Solomon (1998), earnings response coefficient measures the extent of the stock market responsiveness in relation to earnings surprises. It is considered to be a measure of how new earnings information is capitalized in the stock market. Investors are only able to observe the true earnings of a firm indirectly, that is, through reported financial

statements issued by the firm. To ascertain the objectivity and accuracy of the reported figures, external auditors are brought in to certify that the financial statements conform to the prevalent accounting standards. This assures the investors about the credibility of the reported earnings.

Corporate Attributes and Earnings Informativeness

In this section, we review literature on the influence of corporate attributes on earnings informativeness. Specifically, we focus on the following corporate attributes; Firm beta, earnings persistence, firm size, corporate social disclosure, default risk and Auditor attributes. These variables are examined below.

Firm beta and earnings informativeness

Higher beta increases the discount rate that the market uses to price the unexpected revision of future earnings; therefore, beta reduces the earnings informativeness around a firm which also culminates into a negative ERC. The reason for this is that a firm's beta is a measure of their risk level and hence more risky firms have more noise thus the earnings informativeness is reduced and the earnings response coefficient is negative. The risk disclosure can play a vital role in this issue through informing investors and other stakeholders about the uncertainty surrounding the business of the company, and thus could result in a down-ward revaluation of the prospects of the company. Collins and Kothari (1989) find evidence of a significant negative association between beta and ERCs based on a reverse regression of unexpected earnings on returns. Easton and Zmijewski (1989) report a significant partial correlation between ERC and beta. Lipe (1990) reports a significant negative correlation between beta and ERC. Dhaliwal and Reynolds (1994), Kai (2002) and Shangguan (2007), also find the same significant and negative correlation between ERC and beta. Lim et al. (2008) document that the coefficient on the interaction of earnings and beta indicates the marginal change in beta which generally implies that more or less riskiness results in an unit change in the earnings informativeness and hence the ERC in the same magnitude. Elliot et al. (1999) confirm that for firms reporting sustained increase and appears not to show any signs of decline in earnings in subsequent periods, have their earnings informativeness higher and hence a positive ERC.

Earnings persistence and earnings informativeness

Earnings persistence measures the degree to which

current period earnings shocks persist in the future and thus affect future earnings expectations (Richardson et al., 2005). According to Donnelly et al. (2002), earnings persistence measures the degree to which current period earnings shock persists in the future and affects future earnings expectations. Park and Pincus (2000) find that firms differ in their earnings informativeness because of differences in their degrees of earnings persistence and this is expected as investors prefer earnings to be more stable rather than exhibiting shocks especially for risk averse investors.

Subramanyam and Wild (1996) note that the impact of earnings persistence is determined by the magnitude of revisions of future benefits and the length of time the revision is expected to persist. They deduce that the expected length of revision horizon is directly related to an entity's going concern status. Going by this, two possible scenarios can be expected; (i) where the expected length of the revision horizon is high with a certainty on the firm's going concern and (ii) where the length of the revision is high with an uncertainty regarding the firm's going concern. Subramanyam and Wild (1996) argued that the earnings informativeness, declines markedly as the probability of termination of a firm increases.

Lipe (1990), using a sample of 145 firms finds that the earnings informativeness of a firm is positively related to the ability of past earnings to predict future earnings and also to earnings persistence. Nichols and Waylen (2004) found that earnings informativeness varies positively with earnings persistence. Explicitly, if the earnings innovation is likely to persist in future earnings, then the present value of revisions in future earnings is larger.

Social and environmental disclosure and earnings informativeness

Demand for information about a firm's social and environmental performance has increased dramatically over the last two decades. Firms are meeting the demand for information about social and environmental performance. Approximately 80% of the world's largest companies issue standalone corporate social responsibility (CSR) reports in addition to their annual financial reports (KPMG, 2008). Increased accessibility to data about corporate social and environmental performance provides accounting and finance researchers opportunity to examine how market participants use CSR information in investment decisions. Heal (2005), argues that less (more) socially responsible firms have more noise (precision) in earnings, leading to lower (higher) ERCs, all else being equal.

In sum, firms that are more socially responsible proactively deal with social and environmental issues, reducing the likelihood of negative earnings impacts in future earnings; hence, there is more precision in current

earnings. Firms that are less socially responsible are more likely to incur future costs in response to social and environmental impacts of current operations; hence, there is more noise associated with current earnings (Heal, 2005). Consequently, one might expect a larger (smaller) response to earnings innovations for firms that are more (less) socially responsible. This logic underlies the hypothesis that corporate social responsibility has some influence on the firm's earnings informativeness and its ERCs.

Bae and Sami (2005) theorize that poor environmental performers, proxied by potentially responsible parties for hazardous sites, have greater potential future environmental liabilities. This adds noise to current earnings signals, resulting in lower ERCs. Firms without such potential liabilities have more precise earnings signals, resulting in higher ERCs. Bae and Sami (2005) find higher (lower) ERCs for better (worse) environmental performing firms.

Default risk

Default risk has a role in explaining ERC as beta may not fully capture the relevant risk of particular securities or portfolios (Fama and French, 1992). Based on a sample of 3587 firm-year observations over an 11-year period of 1978-1988, Dhaliwal and Reynolds (1994) examine the effect of default risk on the ERC. They use bond rating as a proxy for default risk to test the hypothesis that ERC is a negative function of default risk. Their results show that the effect of default risk is negative and significant to ERC. They also find that the results are sufficiently robust to withstand a validity test using the debt-to-equity ratio as an alternative proxy for default risk. They suggest that 'equity beta is unlikely to capture fully the appropriate discount rate and that the default risk of debt may provide an additional proxy for the discount rate.

Billings (1999) revisits the findings of Dhaliwal and Reynolds (1994) using 8620 firm-year observations for 1986-1996 bond-rating and 1982-1996 debt-equity samples. He finds the negative relation between bond ratings and ERC found in Dhaliwal and Reynolds (1994) is largely due to bond ratings reflecting expected earnings growth and this is likewise, in part true for the debt-to-equity ratio. He concludes that default risk of debt has a limited role in explaining ERC that is not captured by beta and expected earnings growth.

In a study on the Japanese market, Kai (2002) measures default risk by using 3 proxies: the debt ratio, an index based on earnings, power and safety, and the signal from negative earnings. His study hypothesises that the lower the default risk, the higher the ERC. He finds that ERC increases as default risk decreases for the first two proxies but not for the signal from negative earnings.

In a study on 114 Korean firms during 1984-1998, Kim (2005) examines the effect of default risk on ERC. He follows the suggestions made by Dhaliwal et al. (1991) regarding the use of issuance and redemption of debt as a proxy for changes in the level of default risk. His results show however, that the Korean evidence is only weakly consistent with the expectation that ERC is a negative function of default risk. He claims that the issuance and redemption of debt may not be a good proxy for assessment of the effect of default risk on ERC.

Shangguan (2007) re-examines the relationship between default risk and ERC in the presence of illiquid growth opportunities, based on a 1988-2000 sample of US manufacturing firms. He documents evidence that the negative marginal effect of default risk on ERC is mitigated by illiquid growth opportunities. He claims that illiquid growth opportunities may reduce the firms' equity risk and default risk by inducing a risk aversion incentive.

Cheng and Nasir (2010) examine the impact of seven financial risk factors on the earnings return relationship for 14 Chinese commercial banks. Their results indicate that the banks have a strong earnings-return relationship but of the seven risk factors only liquidity risk is significantly related to ERC.

Auditor attributes and earnings informativeness

Industry specialization by auditors has been an increasing trend over the years. Audit firms perceive various benefits that result out of industry specialization such as increased market share, profits, audit quality and market competitiveness. Emerson (1993) stated that most of the largest audit firms are showing a trend towards being structured along industry lines and designate a majority of their auditors as industry specialists. Hence if auditor's quality (proxied by specialization in this case) is perceived to be high by investors, their response to surprises in earnings will be expected to be stronger. This stems from the line of research which positively correlates an increase in the quality of financial statements audited by industry specialist auditors as compared to non-specialists. Evidence exist that specialized auditors display a better understanding of error characteristics of a company's financial statements (Malletta and Wright, 1996), enhanced problem solving ability (Tan and Kao, 1999), increased performance gains (Dowling and Moroney, 2008) and industry specific tasks (Owhoso et al., 2002; Taylor, 2000).

Big 4 firms are expected to provide the best quality of audit services because of their experience and industry focus. Previous research shows a positive relation between brand name of auditors and earnings quality. Due to their superior knowledge and the drive to protect their brand name, big four auditors are better at detecting

opportunistic earnings management and subsequently curbing them (Becker et al., 1998; Reynolds and Francis, 2000). It is also observed that clients of Big 4 auditors display lower discretionary accruals as compared to clients of non-big 4 firms (Francis et al., 1999). Clients of Big 4 auditors were found to have higher earning response coefficients as compared to clients of non-Big four auditors (Teoh and Wong, 1993). Moreland (1995) found that the earnings informativeness of clients audited by Big 4 auditors declined after being subject to sanctions from the Securities and Exchange Commission (SEC). It was also reported that disclosure about reasons regarding auditor changes leads to a change in the earnings informativeness after a change in auditor (Hackenbrack and Hogan, 2005).

Earnings management and earnings informativeness

Earnings management (EM) is regarded as a strategy used by management of a company to deliberately manipulate the company's earnings so that the earnings figures match a predetermined target. As a strategy, it involves the planning and execution of certain activities that manipulate and smooth income, achieve high earnings quality and sway the company's stock price. Schipper (1989) defines EM as the purposeful intervention in the external financial reporting process with the intent of obtaining some private gain. Healy and Wahlen (1999) consider EM as the alteration of a firm's reported economic performance by insiders to either mislead some stakeholders or to influence contractual outcomes. This study's concept of EM follows Schipper (1989) as well as Healy and Wahlen (1999) definitions. This conceptualization of EM describes reasonable and proper practices that are part of a managed business as a protection of management interest or that deliver value to shareholders. EM is primarily achieved by managed actions that make it easier to achieve desired earnings levels through accounting choices from among GAAP achieved by discretionary accruals manipulations (Discretionary Accruals Management – DAM) on the one hand and the manipulation of the operating activities of a company (Real Earnings Management).

Earnings reliability becomes questionable when managers have an incentive to manipulate reported earnings opportunistically (Rosenfeld, 2000; Dechow and Skinner, 2000; Brown, 1999). Such manipulations alter shareholders' perception of the reliability of reported earnings due to the increase in the level of non-permanent components included in total earnings (Brown, 1999). Dechow and Skinner, (2000) demonstrate that the uncertainty and noise brought about by earnings management impacts informativeness of earnings.

Although the effect of earnings management such as income smoothing on earnings informativeness is not

thoroughly investigated, the accounting literature so far theorizes two opposite effects of income smoothing on earnings informativeness according to Zarowin (2002) and Tucker and Zarowin (2006). One viewpoint is that managers use income smoothing to make public their private information about the firm's future earnings (Tucker and Zarowin, 2006). Here income smoothing results in more information about future earnings and cash flows, which in turn is reflected in the stock prices. Alternative findings suggest that income smoothing alters information and makes stock prices less informative. Less information about future earnings and cash flows will be reflected in the stock prices, making smoothing harmful (Tucker and Zarowin, 2006).

The study of Hunt et al. (2000) investigates whether earnings management through discretionary accruals improves or deteriorates the informativeness of earnings. The findings suggest that both discretionary and nondiscretionary accrual accounting practices increase the informativeness of earnings. Further the results support the informativeness hypothesis, namely that manager's smooth income to convey their private information.

Ownership concentration and earnings informativeness

It is believed that one of the most important ways through which a firm maximizes its value is through well-designed and effective ownership structure of the firm's shares. Ownership structure of a firm can be categorised into two groups: proportion of shares owned by insiders and outsiders; proportion of shares owned by institutional versus individual shareholders (Wong et al., 2009). There are two streams of thought regarding an effective structure of ownership. First, insiders or managers of the firm act also as shareholders if they acquire a considerable portion of the entity's shares, and this is deemed to be useful in reducing agency conflicts and aligning the interests of management and shareholders. Secondly, outsiders who own a significant number of the firm's shares, have more power and more incentive to monitor management activity, mainly the process of financial reporting, thus reducing the earnings management probability (Ebrahim and Mohammed, 2012). Ownership structure is a subset of corporate governance that relates to the nature of ownership of the equity shareholding of a firm.

The entrenchment effect of the ownership structure potentially affects firms' financial reporting and this is because the controlling owner oversees the accounting reporting policies and is perceived to have strong opportunistic incentives to hold up minority shareholders, the market expects that the owner will not report high-quality accounting information. This market perception

will reduce the credibility of accounting earnings reports and consequently the informativeness of those earnings. The second argument is related to proprietary information and specific human capital. By concentrating ownership, decision rights can be given to individuals who possess specific knowledge. One benefit of co-locating decision rights with specific knowledge is that the leakage of the specific knowledge to competitors is prevented and the transferring cost of the specific knowledge is avoided. This benefit is great in economies where political lobbying activities are common and lucrative. As concentrating ownership limits information flows to the public, political rent-seekers are able to avoid potential competition and social sanctions. Thus, this information effect argument predicts that concentrated ownership is associated with opacity and low informativeness of accounting earnings.

Greco (2012) investigated the impact of ownership structure variables on earnings informativeness in the European oil industry, using quarterly data and a panel data methodology. The findings show non-linear relationships among institutional investors, ownership and governmental ownership with the magnitude of earnings management. Overall, the results suggest that key variables related to ownership and governance structures impact on earnings informativeness across different national settings and governance systems. Moreover, the relationship of ownership structures with earnings informativeness appears to be complex and varying at different levels of ownership.

Hidetaka (2010) using a sample of 799 large Japanese manufacturing firms from the period 1999 to 2004, he verified the effect of different governance mechanisms on earnings informativeness. The study presents following three results. First, firms with higher managerial ownership are associated with more earnings informativeness. Second, there is a significant U-shaped relationship between ownership concentration and earnings informativeness.

Hsu and Wen (2015) carried out a study to investigate the influence of ownership structure on earnings informativeness using the data of A-shares in Chinese Shanghai and Shenzhen Stock Exchange Securities Market from 2002 to 2012. The empirical results showed that institutions with high shareholding proportion or great shareholding concentration give managers incentives to manipulate discretionary accruals for short-term profitability and this declines the informativeness of earnings.

Corporate governance and earnings informativeness

There is a long-standing assumption that stronger corporate governance is conducive to better quality of accounting information (Dey, 2005). However, there are several results that appear divergent regarding the relation between earnings informativeness and corporate

governance. For example, examining the link between earnings informativeness and corporate governance, Anderson et al. (2003) find earnings informativeness positively related to board independence. Yet, they find that audit committee independence has no incremental power to explain the earnings informativeness of board independence. In contrast, Bryan et al. (2004) find that a fully independent audit committee is positively related to earnings informativeness over the periods of 1996 through 2000. Further, Dey (2005) using relatively small sample finds significant results between earnings informativeness and audit committee effectiveness in her high agency cost group.

Previous studies indicate that financial experts on audit committees affect the effectiveness of firms' corporate governance functions. For example, McDaniel et al. (2002) investigate the difference between financial experts and financial literates on the credibility of financial reporting using pre-SOX sample. Their results suggest that having financial experts on the audit committee is likely to change the corporate governance structures and affect the committee's overall assessment of the financial reports. Bryan et al. (2004) also report that financially literate audit committee members increase earnings informativeness. In addition, Akhigbe and Martin (2006) find a favourable valuation effect of audit committee members with financial expertise in the financial service industry. Originally, the proposition for financial experts is to require financial experts having accounting education or experience. The rationale is that audit committee members would understand the accounting numbers better when they have accounting expertise, which in turn enables them to effectively communicate with managers and external auditors in monitoring financial reporting. If investors perceive that financial experts with sophisticated accounting knowledge improve the effectiveness of the audit committee, the earnings informativeness is expected to be positively related to the disclosure of financial experts on audit committees.

According to Mitchell (2005) there is an argument whether a CEO should serve as the chair of the board in a majority independent board. On one hand, the dual-role CEO enhances a firm's performance by having a focused direction for the firm's strategies and operations. On the other hand, when corporate insiders other than the CEO are absent from a majority independent board, directors become more dependent upon their link with the CEO for inside information. As a result, the critical information is often hidden from directors or falsified. Furthermore, Mitchell (2005) notes that the dual role of a CEO (duality of CEO) implies that the CEO may influence the board on many decisions. Several studies have investigated the relation between earnings quality and the duality of CEO. Anderson et al. (2003) find that earnings informativeness is positively related to firms with separated CEO and chair positions. Also, Dey (2005) finds partial support that

the duality of CEO is negatively related to the credibility of earnings announcements. In addition, Gul and Wah (2002) report that when firms have dominant CEOs, earnings informativeness is positively related to different levels of insider ownership.

THEORETICAL FRAMEWORK

Market efficiency

According to the EMH, an operationally efficient stock market is expected to be externally and informationally efficient; thus security prices at any point in time are an unbiased reflection of all the available information on the security's expected future cash flows and the risk involved in owning such as security (Reilly and Brown 2003). Such a market provides accurate signals for resource allocation as market prices represent each security's intrinsic worth. Market prices can at times deviate from the securities' true value, but these deviations are completely random and uncorrelated.

According to Lo (1997) Price changes are only expected to result from the arrival of new information. Given that there is no reason to expect new information to be non-random, period-to-period price changes are expected to be random and independent. In other words, they must be unforecastable if they are properly anticipated, that is if they fully incorporate the expectations and information of all market participants.

Fama, (1965) and Lo (1997) noted that it is expected that the more efficient a market, the more random the sequence of its price movements, with the most efficient market being the one in which price are completely random and unpredictable. In an efficient market information gathering an information based trading is not profitable as all the available information is already captured in the market prices. This may leave investors with no incentive as to the gathering and analyzing of information, for they begin to realize that market prices are an unbiased estimate of the shares' intrinsic worth.

The object of the Efficient Market debate is not necessarily to determine whether share valuation as reflected in its market price can be demonstrated to be correct, but whether the evidence relating to past prices and available information is sufficient to warrant the assumption that current prices are correct. The correct price should not necessarily predict the future, but should give an unbiased estimate of the returns expected from holding a security, while capturing the risks involved in holding such a security. The accuracy of the prediction depends on the efficient use of the information at the time of the pricing decision, and not necessarily upon the final outcome.

EMH asserts that in an efficient market, prices at all times fully reflect all available information that is relevant

of their valuation (Fama, 1970). Thus, security prices at any point in time are an unbiased reflection of all available information on the security's expected future cash flow and the risk involved in owning such a security. Fama (1970) classified the information items into three levels depending on how quickly the information is impounded into share prices: (1) weak form EMH, (2) Semi strong form EMH, and (3) strong form EMH. The weak form efficiency, which is the lowest level, asserts that prices of shares fully reflect all available information contained in past prices, volume traded and short interest.

This form of efficiency implies that historical prices and volume traded cannot be used to predict future price movements. Semi-strong form holds that security prices already fully reflect all publicly available information regarding the prospects of a firm. This means that market participants cannot consistently outperform the market by analyzing published information, because such information are instantaneously adjusted into prices once they are released. Lastly, strong form efficiency posits that security prices reflect, in addition to information on past prices and publicly available information, information available only to company's insiders.

CONCLUSION

Earnings informativeness continues to be a challenging issue for investors, financial analyst, management, regulators and academic researchers. The need to be able to ascertain how and why accounting numbers especially earnings are impounded into indices of a firm's market or economic value drives the enquiry into earnings informativeness.

The inferences provided from value relevance researches though commendable appear to be lacking in the much needed stronger valuation procedure that the ERC provides. ERC research indeed has been identified as one of the four key methodological areas in accounting based capital market research. The ERC gives a good understanding of why market value reacts strongly for some firms and weakly for others irrespective of the nature of news disclosed. In this study and using the ERC approach, we argue that based on the noise-in-signal model, it is predictable that firms' corporate attributes and practices can either heighten or lessen the noise connected to their earnings. With more noise, the earnings informativeness is reduced and the earnings response coefficient is negative and vice-versa. This paucity of studies adopting this stronger valuation procedure provided by the ERC approach is rather disturbing and thus justifies the contribution to knowledge of this study.

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