

CHAPTER THREE

CORPORATE TRANSPARENCY LITERATURE

3.1 INTRODUCTION

This chapter provides a background of the studies that examine the role of corporate transparency in the informativeness of stock prices. The chapter discusses the framework and the measurement issues of corporate transparency and reviews related prior studies of corporate transparency effects on stock price synchronicity. Section 3.2 provides general discussion on the corporate transparency framework. Section 3.3 documents prior studies on financial corporate transparency. Section 3.4 discusses the role of the information intermediaries in communicating firm information to market. Section 3.5 outlines briefly the financial press in disseminating firm information. Section 3.6 summarizes and concludes the chapter.

3.2 BACKGROUND ON CORPORATE TRANSPARENCY

Corporate transparency and private information signaling are crucial in operating efficiently informed financial markets. Firms' financial information is disclosed to the market through regulated financial statement, note disclosures, management discussions and analysis. Listed firms are required to disclose additional and timely information to the stock commissions and they usually communicate voluntary information through management forecasts, internet reporting, analyst's conference calls and press releases (Healy et al., 2000).

Auditors improve the quality of firm reported information and decrease information asymmetry between insiders and outsiders by assuring firm financial statements are prepared in accordance with GAAP (e.g., Dopuch and Simunic, 1982; Becker et

al.,1998; Balsam et al., 2003; Kim et al, 2003). Firm private information can also communicated through financial analyst, financial experts, financial press and trading behavior of institutional investors and insiders (Healy et al, 2001; Bushman et al., 2004).

Bushman et al. (2004) visualize corporate transparency as the widespread availability of firm voluntarily and mandatory information. Verrecchia (1982) states that public information and its role in facilitating the collection and processing of firm private information by investors has been a crucial factor in capital allocation in the economy. He also acknowledged that three private information players are involved in the acquisition and communication process of private information: (i) specialists in processing and interpreting private information or the financial analysts, (ii) institutional investors, (iii) insider trading. Bushman and Smith (2001) argue that the lack of well-developed communication infrastructure may impede the flow of information reported by firms and negatively affect the availability of information to economic agents. He also acknowledged that three private information players are involved in the acquisition and communication process of private information: (i) specialists in processing and interpreting private information or the financial analysts, (ii) institutional investors, (iii) insider trading.

Bushman et al. (2004) drawing on an extensive study of prior literature view corporate transparency within a country “as the joint yield of many-sided system whose components collectively generate, gather, validate, and disseminate information to participants outside the firm”. They developed a framework to conceptualize and measure information systems as well as defining type and frequency of disclosures that contributes to the corporate transparency and facilitate the private information flow.

Bushman et al.(2004) categorize country-level measures of information mechanisms under three groups (i) corporate reporting regime which includes disclosures intensity, government disclosures, accounting principles, timeliness of disclosures and credibility of disclosures; (ii) intensity of private information which includes communication directly through financial analyst reporting or indirectly through institutional investors or inside trading ; (iii) information dissemination or publicizing. Figure 3.1 groups corporate transparency into three categories; corporate reporting, private information acquisition and information dissemination.

The purpose of Bushman et al. (2004) study is to factor analyzes the developed framework and investigate whether these factors vary with the countries' legal/judicial regime and political economies. The current study follows closely Bushman et al. (2004) corporate transparency framework and attempts to investigate whether this framework best facilitates the prevailing paradigm of transparency effects on firm private information flow. This investigation assumes a complementary role of financial analyst and accounting information disclosures as per Lang and Lundholm (1996). Figure 3.1 depicts a conceptual and measurement scheme for corporate transparency and section 3.3 below discusses prior related literature on corporate transparency²⁷.

3.3 PRIOR STUDIES

The following studies review the relevant literature on corporate transparency. Section 3.2.1 reviews financial corporate reporting. Section 3.2.2 discusses private information acquisition and communication and finally section 3.2.3 presents prior literature on information dissemination.

²⁷ Adapted from Bushman et.al (2004)

Corporate transparency framework as per CIFAR 1995; private information and dissemination as prior literature

Figure 3.1
Corporate Transparency Framework

| I. Corporate Financial Reporting | II. Private Information | III. Information Dissemination |
|-----------------------------------|--|-------------------------------------|
| Disclosure intensity (CIFAR) | Acquisition & Communication | Media Channels Presentation (MEDIA) |
| Financial Disclosure (Discl) | Direct: Fin. Analyst (ANALYST) | |
| Governance Disclosure (Govern) | Indirect: | |
| Accounting Principles (Measure | | |
| Timeliness of disclosure (Time) | Institutional investors (Pool_ inv) | |
| Credibility of Disclosure (Audit) | Inside Trading (IT_ ENF) | |

Source Bushman et al. (2004, p. 211)

3.3.1 Corporate financial reporting transparency

According to Bushman et al. (2004), five aspects can be considered for corporate reporting: (i) financial disclosures intensity, (ii) governance disclosure intensity, (iii) accounting principles, (iv) timeliness of financial disclosures, and (v) audit quality. The following studies review the most relevant literature to corporate reporting.

Alford et al. (1993) examine whether difference in capital markets- accounting standards, disclosure practice and corporate governance- lead to significant differences in the usefulness of accounting earnings represented by timeliness of accounting earning. The study uses the United States matched sample as a benchmark and analyzing sixteen other countries from a variety of accounting standards and accounting environments over the period 1983-1990. The study utilizes two types of analyses. The first analysis examines an investment strategy based on the rank of unexpected earning situation.²⁸ The second applies 15 months regression model as in the contemporaneous

²⁸ Ball and Brown (1968) initially introduced this type of analysis

level and change of earning. The findings provide enough evidence that differences in accounting standards, disclosure practices and corporate governance among capital markets lead to significant differences in the usefulness of accounting earning. Interestingly, the author concludes that harmonization of financial requirements may not be optimal across countries with different investors as financial reporting practices is the product of market and political forces.

Exploring the relationship between the measures of the value of financial accounting data and several country-specific factors, Ali et al. (2000) use 1986-1995 data from manufacturing firms of sixteen countries to test for existing relationships among relevant variables. Value relevance is specified primarily in terms of explanatory powers of earning and book value of equity for security returns. Country specific factors summarized in five-country specific dimensions where they were later factored and loaded in one principal factor. The findings of the study indicate that value relevance is lower for countries with bank oriented as opposed to market oriented and for countries where private sector bodies are not involved in the accounting standard setting process. As far as country origins are concerned, value relevance was found to be higher in common law countries than for code countries. The study findings show also that value relevance is less in countries with financial accounting standards highly affected by tax measures. Finally, the findings show high positive correlation between value relevance and more spending on external audit services.

Jaggi et al. (2000) investigate whether there is a difference in financial disclosures between common and code law countries. The authors initially selected a sample of 964 firms for 1991 from 37 countries. Subsequent screening of the data decreased the study sample to 505 firms from 28 countries. Disclosure scores were obtained from

International Financial Accounting Research (1993). Country's values were obtained from Hofstede's (1984).

Standard multiple regression analysis was applied to check whether legal origins and cultural differences explain the variation in the disclosure index. The findings support the hypothesis that firms in common law countries tend to have more financial disclosures comparing to firms in code law countries. The OLS results show that cultural values have insignificant impact on financial disclosures in common law countries. However, there were mixed results for countries from code law countries. Only three of the five cultural dimensions- power distance, individual value of the company, and masculinity value of the company- show significant relationship with the disclosure index.

Guenther et al. (2000) investigate whether differences in legal system, differences in investor protection and differences in tax conformity in France, Germany, Japan, UK and US affect earning and real economic value relationships in these countries.. The study employs a sample of 2702 firms with financial years ending December 31 from the five countries across the period 1984-1997. The authors measure accounting earning in a country by the average return on assets. Real economical activity is proxied by the percentage of change in real GDP. Correlation coefficients statistics is utilized to test for the differences between the five countries. The study empirical results were consistent with the study premises. The findings show that accounting earning in the UK and the US are more closely related to underplaying economic activity than those in France and Germany. Japan earning quality according to criteria used in the study (earning association with underplaying activities) was less than UK and US but better than Germany and France.

Francis et al. (2003) examine whether variation in legal systems affects accounting and auditing. Using a sample of 31 observations for 1998 on country-level basis in addition to company level data to measure certain country level variables such as percentage of companies audited by the Big Accounting Firms, the authors test three hypotheses related to civil law relationship with sophistication of financial market, transparent accounting and auditing enforcements. The study findings support the primary hypothesis that financial markets are more developed in common law countries. It also provides enough evidence to support the conjecture that there is more transparent and timely information in common law countries. Finally, the study results indicate that more Big Five auditing firms are in common law countries, although there is no difference on the spending in audit services between the two groups of countries.

Land et al. (2002) examine whether cross-country differences in earning / price has changed between 1987 - 1992 and 1994 – 1999. The authors employed a total sample of 62,387 firms from six developed countries²⁹. Firms with negative earnings in the two periods were excluded leaving the study with 50,333 firm/ observations. In general, results of the study show narrowing difference for earning multiplier in the five countries. Traditional code law countries like Japan and Germany show stronger results in terms narrowing the earning multiplier between the two periods. The author conclude that the worldwide changes in accounting practices have improved the financial reporting function.

Bushman et al. (2003) discuss in a qualitative study areas of corporate financial reporting research that have economic-based value. The authors identify three canals in which accounting information can effect investment, productivity and value-added

²⁹ The countries selected from common and code law countries are Australia, Canada, Germany, Japan, United Kingdom and United States

firms. Promising investment opportunities by managers and investors is defined to be one stream; the use of financial accounting information in corporate control mechanism to discriminate well from bad projects is another stream and finally reducing information asymmetry between insiders and outside investors. In cross- country level, the authors identified additional area of research that is related to accounting information and economic development.

Ball et al. (2003) compare the quality of accounting information in some Asian countries namely Singapore, Thailand, Malaysia, and Hong Kong to that of common and code law countries. The authors analyze a sample of 2726 annual earnings announcements for the period 1994–1996. For each country, a scaled piecewise linear regression of accounting income on change in market value of equity was estimated. The study results show that quality of accounting information is not higher than the low code law countries. The authors commented that although those countries categorically are classified as common law countries, preparers of financial statements in these countries imply low quality skills. Ranking the four countries in terms of quality of the accounting information, Hong Kong ranks the highest timeliness incorporations of gain and losses in stock prices. Thailand ranks the lowest due to high tax and government involvement in accounting practices.

Hope (2003) investigates whether the level of annual report disclosures and enforcement of accounting standards affects the accuracy of financial analyst earnings forecast. Using a sample of 22 countries and 1,309 firm observations from *CIFAR* (1991, 1993), the authors apply a standard multiple regression to test two premises. The first hypothesis tests the association between the level of annual disclosures and analyst forecast. The second hypothesis tests the association between the level enforcement and

analyst forecast accuracy. The study results document a positive relationship between disclosure level and analyst forecast accuracy. Using a comprehensive measure of enforcement, the study findings support the second hypothesis that strong enforcement is positively associated with analyst forecast accuracy.

Frost et al. (1999) investigate whether stock exchange disclosures system (monitoring and enforcement and disclosure rules,) have a positive effect on market development. Using stock exchange disclosures of 50 markets of the members of the World Federation of the Exchanges, a multivariate analysis was employed to test the association of stock exchange disclosures with market development. The study model controls for eight covariates related to structural and institutional variables. The study findings demonstrate that disclosure system is positively associated with market development³⁰.

Bhattacharya et al. (2003) explore whether earning opacity, measured by earning aggressiveness, loss avoidness and earning smoothing combined, affects two dimensions of equity market-return on shareholders and trade volume. The study analyzes 58,653 firm- years from 34 countries obtained from World Scope database across 13 years, from 1985 to 1998. The authors apply panel data that controls for country-specific heteroskedasticity, country fix effects, and for country-specific correlation to assure the control for all specific variables that effect equity market. The study results document a positive relationship between earning opacity and cost of equity and trade volume. These findings indicate that corporate transparency decrease the cost of capital and increase trade volume.

³⁰ Disclosure system refers to disclosure rules, monitoring, and enforcement.

3.4 ROLE OF INFORMATION INTERMEDIARIES

Verrrecchia (1982) stated that three private information players are involved in the acquisition and communication process of private information: (i) specialists in processing and interpreting private information or the financial analysts, (ii) institutional investors, (iii) insider trading. Section 3.4.1 discusses prior studies of financial analyst role. Section 3.4.2 discusses related studies on institutional investors and Section 3.4.3 presents related literature on insider trading.

3.4.1 Financial analysts' role

Prior studies assign an intermediary role for analyst in the capital market that engage in collecting and process firm-specific information (Healy et al., 2001; Bushman et al., 2004). They can influence the flow of the private information and decrease information asymmetry between insiders and outsiders. Two evolving roles are documented in the literature for financial analyst in the market. These two roles are called 'substitutes' or 'complements' (Lang and Lndholm 1996). Sections 3.4.1.1 discusses the role financial analysts in market efficiency and section 3.4.1.2 discuss the relation between firm financial reporting and financial analyst, namely whether they are substitutes or complements.

3.4.1.1 Analysts influence on information efficiency of capital markets

The extant of the literature suggest that analysts are "prominent information intermediaries in the capital market" (Healy et al., 2000). They engage in "searching, collecting and interpreting financial information reported by the firm, and further explore additional information through discussion with firms' managers, suppliers, and customers and so on" (Bushman et al., 2004, p.213). Analysts communicate information that contains firm future cash flows and earnings. They also revise previous forecasts and interpret past events (Beaver 1998).

The rational of analyst existing in the financial market is based on the cost benefit trade off suggested by (Grossman and Stiglitz, 1980). In other words, if the cost of obtaining analyst information exceeds its cost by investors and if cost of information collection and processing is less than its benefits to analysts, then we should expect more trade on information and better informative stock prices. This cost-benefit trade off can be seen more feasible by financial analysts than individual investor (Grossman and Stiglitz, 1980). The following studies discuss financial analyst role in incorporating firm-specific information into stock prices using country level set of data.³¹

Using data from the US market over the period 1976-1996, Hong et al. (2000) investigate the effects of analyst coverage on momentum strategies. They classified stocks according to their residual coverage. Residual coverage represents the residual from regressing analyst coverage on firm size. The study findings show that momentum profits for the lowest residual coverage is 60 percent higher from one third with highest coverage. Moreover, the study finds that the effect of analyst coverage is greater for loser stocks than for winner stocks and the results is driven by the loser stocks subsample. Hong et al. (2000) findings provide evidence that analysts increase the speed and diffusion of firm information across market participants and that this effect is stronger for past losers than best winners. The authors argue that managers are more motivated to report good news than bad news. The study indicate that analyst play crucial role in communicating firm-specific information.

Gleason and Lee (2003) investigated the market price discovery process associated with individual analyst earning forecast revision. Using the US data from 1993 to 1998, they document that price drift is lower for firms followed by more analyst following. The

³¹ Most country - level studies are in developed markets mainly in US.

authors conclude that more analysts following helps in the price discovery process and that analyst forecast revision leads to more firm-specific information diffusion.

Piotroski and Roulstone (2004) examine the role of financial analysts, institutional investors and insider trading in the informativeness of stock prices. They measure the intensity of analyst activity as the number of one-year-ahead earnings forecasts issued and revised for the firm during a given fiscal year. The findings support the premises that analyst communicate to market the systematic risk suggesting analysts' has better cost-benefit payoff in collecting and processing market and industry information. They are relatively less exposed to firm-specific information comparing to insiders and institutional investors. The result is robust when controlling further for the potential endogeneity problems using the simultaneous estimation procedures.

Brennan et al. (1999) investigate the relationship between the number of analysts following and the adverse selection costs based on the Kyle (1985) notion of market depth. Their adverse selection cost is defined as the price impact of a marginal dollar of trade, and, part from a price scale factors, is proportional to the inverse of the Kyle (1985) measure³² of market depth. Using the intraday US data for year 1988, they find that the estimated adverse selection cost decreases with the number of analysts, controlling for the effects of previously identified determinants of liquidity.

Bhattacharya (2001) investigates the difference in the earnings expectations between two market segments, namely small traders vs. large traders. Bhattacharya (2001) proposed that small traders' earnings expectations are most likely to be significantly associated with predictions from the seasonal random-walk model. Based on quarterly earnings announcements from 1988 to 1992, the empirical results support the study

³² In the Kyle (1985), depth is given by the reciprocal of the regression coefficient of the price change on the order flow.

hypothesis. The findings document an association between small traders' abnormal trading response and absolute seasonal random-walk forecast errors is stronger for firms with low analyst following, indicating that this group of investors with lower level of analyst coverage would, largely, limit themselves to an incomplete information set and anchor more on a naïve expectation model such as the seasonal random-walk. The study results show that analysts can help investors incorporate into their earnings expectations costly and value-relevant information.

The above two studies (Brennan et al., 1999; Bhattacharya, 2001) present additional evidence that financial analyst increase the efficiency in which market incorporate information in stock prices. Using cross-country dataset, additional studies (Chang et al., 2000; Chan and Hameed, 2006; Fernandes and Laux, 2007), document additional evidence on the role of financial analyst in increasing the level in which market incorporate information into stock prices.

Employing data for a cross-country study of 47 countries from IBES for 1996, Chang et al. (2000) explore the factors affecting analyst activity performance. The authors investigate country-specific institutional factors as well as prominent firm level organizational attributes. They test transparency, or the availability of firm-specific information against activity and accurate analyst forecasts. The study results demonstrate different forecasts analyst accuracy around the world. The findings provide concrete evidence of strong positive association between market size, firm size, disclosure quality and country legal origin and both firm-specific information and analyst forecast accuracy³³. The findings implies that improvements in transparency are

³³ Market size was measured using size of stock market to GDP

likely to be driven by improvement on the legal and information infrastructure at the country level rather on trying to focus mainly on business level.

Supporting Piotroski and Roulstone (2004) findings, rather in a cross-country study, Chan and Hameed (2006) investigate the relationship between analyst following and stock price synchronicity in 25 countries over the period 1993 to 1999. The findings show positive association between analyst coverage and stock price synchronicity indicating that stocks covered by more analysts incorporate greater market-wide information and lesser firm-specific information. Their argument is that, intuitively the lack of publicly available firm-specific information and less stringent disclosure requirement in emerging markets lead to greater investor demand for analysts who produce firm-specific information. However, because of the weak property right protection in these countries, risk arbitragers are not motivated to trade on firm specific information. Therefore, analysts are less motivated to collect and process firm-specific information and subsequently focus in communicating systematic risk. Therefore, the study results suggest that financial analyst help in diffusing market and industry information.

Ferreira and Laux (2007) investigate whether cross listing in the United States affect the level of firm-specific information incorporated in stock prices for non US stocks. Using a sample of 28,060 firm returns from 47 countries across 23 years, 1980-2003, the authors find that cross listing in US market incorporate more firm-specific information in stock prices for firms from developed markets and greater market and information for firms from emerging markets. The authors conclude that cross-listing of non US firms from emerging markets motivate analyst to collect and process local market information of these firms rather than collecting firm specific-information. The findings are

consistent with studies of Chan and Hameed (2006) and Piotroski and Roulstone (2004). The following subsection discusses the two contradictory assumptions about the relationship between financial reporting and financial analyst's role in spreading firm information.

3.4.1.2 Financial reporting and financial analysts informativeness roles

Lang and Lundholm (1996) identify two roles analysts play in the capital market. They state either the financial analyst serves as financial intermediaries where the rate of information flow from firm to analyst determines volume of processed information transferred to the capital market. If, however, financial analyst serves as information providers, then a negative association could occur between the firm financial disclosures and the demand for analysts' services. Literature refers to these two roles as 'substitutes' or 'complements'. Prior literature on the relationship between financial reporting and financial analysts support both roles, namely whether they are substitutes or complements.

A number of studies support the hypothesis that the firm financial reporting and analyst following activities are complements (Lang and Lundholm, 1996; Francis et al., 2002; Frankel et al., 2006). Lang and Lundholm (1996) find that higher financial intermediaries' net benefit and more information discovery resources are associated with more informative financial statements. Specifically, they find that more analysts follow firms and greater consensus among analysts are associated with more informative disclosure practices. Their results show that firm-provided information is not a substitute for analyst services, but rather timely (often interpreted as high quality) accounting disclosure and analyst following are complements.

Continuing with this chain of investigations, Francis et al. (2002) examine whether analyst reports reduce the usefulness of accounting information. Using the US data for the period 1986 to 1995, they find that price reaction to earning announcements and analyst reports are positively associated. Further robustness checks show that the results hold for annual and pooled data. Based on the findings, the authors conclude that the substitution role hypothesis of earning investment and analyst reports is not supported. Using 24,000 firm-year observations for the US market over the period 1995 to 2002, Frankel et al. (2006) examined the competing information hypothesis by testing the association of analyst forecasts informativeness and timeliness of accounting information³⁴. The study finding is consistent with Lang and Lundholm (1996) and show significant positive relationship between analyst forecasts informativeness and timeliness of accounting information indicating a complement role between the two variables corporate transparency.

In contrast to the above evidence (e.g., Lang and Lundholm, 1996; Francis et al., 2002; Frankel et al., 2006), other studies support the substitution view of accounting information and analyst reports. Holthausen and Verrecchia (1988) investigate the relationship between two sequential public information signals on stock price reactions. The argument is that if the ex ante variance in the expected price for the second signal (earning announcements) is negatively associated with the quality of the first signal (analyst reports), then there is a substitution role between analyst report and firm accounting information. The authors find that increased quality of the first signal (analyst reports) is associated with less price reaction for the second signal (earning announcements) indicating a substitution role between analyst report and firm financial information.

³⁴ Timeliness of financial information is measured as the as contemporaneous association between security prices and financial information. Informativeness of analysts' reports is measured as the the average absolute stock price reaction to all the analyst forecast revisions for the firm.

Further, on the substitution versus the complement role between firm financial information and financial analyst following, Frankel and Li (2004) examine the effects of firm financial information, analyst following reports and news on information asymmetry between insiders and outside investors. Using over 200,000 firm-year observations for period from 1975 to 1997, the authors find that less accounting numbers value relevance is associated with higher news coverage and financial analyst following. The study findings show that less inside trade profits are associated with more analysts following. The study findings support the substitution role between financial analyst's reports and firm financial information. It also support analysts role in alleviating information asymmetry between insiders and outside investors.

Botosan (1997) investigate the relation between cost capital and level of disclosures. The findings of the study support the premises that better disclosures decrease the cost of capital in low analyst following firms. In contrary, the results fail to support this association in high analyst following firm. Botosan (1997) concluded that when the level of analyst communication to market is high, annual financial statement disclosures might not convey enough information to market. These results is consistent with the Holthausen and Verrecchia (1988)'s model that indicate when analyst following is higher, investors places less weight on financial reports, which implies that analysts and financial reports are substitutes. However, (Botosan and Plumlee, 2002) find that companies benefit from increased disclosure in terms of lower cost of capital when more analysts follow the company which is inconsistent with Botosan (1997) earlier results but support the complementary position between disclosures and analyst following.

3.5 ROLE OF INSTITUTIONAL INVESTORS

Regardless of the detailed information collected and processed by institutional investors and corporate insiders, stock markets perceive their trading behavior as signals that contain some private information flow. In trade activities today, institutional investors have been playing an increasingly important role in capital markets. Shiller and Pound (1989) conduct a survey on institutional and individual investors to investigate the level of interest and information diffusion among them. They find most individual investors do not pay systematic effort in their investment decision. While most institutional investors do. The findings show that less than 25 percent of individual investors do some analysis of the company in which they invest. The study indicates that institutional investors relative to individual investors apply sophisticated methods and spend more time than individual investors spend.

Institutional ownership represents a measure of investor sophistication in a number of studies and proves to be consistent in various settings. Some prior researches investigate the effect of institutional investors in the value relevance of firm financial information. Balsam et al. (2002) examine the stock price reaction to accounting information release of 366 stocks in US around the 10Q filing date over the period 1996 to 1998. For firms with low institutional investors, the results show negative association between the level of unexpected discretionary accruals and cumulative abnormal returns (CAR) over a 17-day window around the Stock Exchange Commission Form 10-Q (10Q) filing date. They further find that this association varies with different level of investor sophistication and is only significant for firms with low institutional holdings. However, only for firms with high institutional ownership, the relationship between level of discretionary accruals and CAR was negatively significant two days prior to 10Q filing. This relationship is insignificant for firms with low institutional ownership. The study

findings suggest institutional investors have effects on the value relevance of firm financial disclosures.

To examine the efficient processing of quarterly earnings following quarterly earnings announcements, Bartov et al. (2000) tested the association between post-earnings-announcement abnormal returns and institutional ownership (as a proxy for investor sophistication). Using a sample of 19777 firm-quarter from US market and modeling two predictors, an earnings-surprise variable and an institutional-holdings variable. The results document a positive relationship between post-earnings-announcement abnormal returns and earnings-surprise. It also documents a negative significant association between post-earnings-announcement abnormal return and institutional ownership level indicating that institutional holdings can help in improving the flow rate of private information to market economic agents through maintaining better accounting practices in their investments.

Similarly, Collins et al. (2003) investigated the role of institutional investors in improving accrual pricing. The study focused on accrual mispricing phenomenon by examining whether it varies among firms with different level of investor sophistication. Their classification of sophisticated investors is based on the classification of Bushee (1998) who classifies institutions into three groups based on factors such as portfolio turnover, diversification, and momentum trading. They use both the non-linear regression-based tests (Mishkin, 1983) and hedge portfolio tests to address the research question. Results from Mishkin (1983) test indicate that the degree of accruals mispricing is substantially less for firms with high institutional ownership relative to firms with low institutional ownership, indicating that firms with a high level of institutional ownership have stock prices that more accurately reflect the persistence of

accruals. The hedge portfolio tests show that the one-year-ahead hedge returns are significantly smaller for firms with high institutional ownership relative to firms with low institutional ownership, which further confirm the previous results. Together, the evidence is consistent with the belief that understanding accruals' future earnings implications requires that investors possess a reasonably level of sophistication.

To test whether institutional ownership affects the volume of information incorporated in share price, Jiambalvo et al. (2002) test two competing premises. One is that institutional investors are overly focused on current financial performance. If this is the case, then institutional investors are less likely to consider factors that affect future period earnings in pricing securities. The second hypothesis is that other view is that institutional investors are sophisticated with better information processing capabilities. In this case, stock prices of firms with higher institutional ownership will most likely to incorporate larger future earning information. The study employ 38,211 firm-years observations covering the period 1989 to 1995, Stock price returns was regressed on earnings and interaction of earnings and beginning institutional ownership. The study findings rejected the first hypothesis and proved the second. Specifically, the results states relatively more future earnings information is incorporated in stock prices of firms with larger institutional ownership. The study supports the hypothesis that instructional investors facilitate the flow of firm private information. .

Piotroski and Roulstone (2004) use the net change in institutional holdings to measure the intensity of institutional investor activity because since institutional investors signal firm private information through their trading behavior. The authors find a negative relationship between change in instructional holdings and stock price synchronicity. However this relation is sensitive (coefficient is still negative but insignificant) to the inclusion of share turnover as an additional control variable. Moreover, the relation

becomes significantly positive if they scale the change in institutional holding by total shares outstanding. Due to these inconsistencies, they conclude that the information conveyed by changes in institutional holdings is not clear. They further consider the level of institutional holding and find a positive association between stock price synchronicity and the level of institutional holdings. These findings suggest that level of institutional holdings facilitate the flow of market and industry information into stock prices. The relation between stock price synchronicity and the change in institutional ownership remains significant and negative after controlling for the level of institutional holding. The interaction of the level and change of institutional holding is significantly positive, indicating that the relationship between stock price synchronicity and the change in institutional holding is on condition of the pre-trade ownership stake. Institutional trading (change in institutional holding) reduces synchronicity, but this effect becomes less negative as the combined, pre-trade ownership stake increases.

3.6 ROLE OF INSIDER TRADING

Inside trading can signal some private information to the market through their investment activities. Private information communication can be direct through financial analyst or indirect through trade signaling of market participants one of which inside traders. Piotroski and Roulstone (2004) investigate the impact of analysts and insiders and institutional investors on the synchronicity of stock price. Using US data from 1984 to 2000, they find that insider trading is negatively associated with stock price synchronicity indicating the insiders trading behavior signal firm private information to the market.

3.7 INFORMATION DISSEMINATION

Bushman et al. (2004) find an association between countries with more developed financial systems and the level of financial analysis industry development and free press. They measure the amount of private information acquisition by financial analysts with the average number of analysts following large firms as reported in Chang et al. (2000). They measure firm specific information dissemination by the penetration of the media channels in the economy and by the average rank of countries' per capita number of newspaper and televisions during 1993 and 1995 as reported by World Development Indicators.

3.8 SUMMARY AND CONCLUSION

This Chapter reviews the related literature on corporate reporting represented by corporate reporting, private information and information dissemination. Evidence from prior literature suggest that corporate transparency can play a significant role to facilitate the speed of private information flow to economic agents in the market allowing the role of arbitrage economy to function. The next Chapter discusses hypotheses development of this study and the methodological approach to test these hypotheses.