

Family Ownership, Earnings Informativeness, and Role of Audit Committees: An Empirical Investigation in India

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Abstract: This paper investigates the role and impact of audit committees on the relationship between family ownership and earnings informativeness. The sample set comprises of 368 Indian firms over a period of 6 years (2007-2012) with a panel dataset of 2208 firm-years. Earnings informativeness was measured through the relationship between accounting earnings and cumulative abnormal stock returns (CAR). Audit committee independence has statistically significant positive association with earnings informativeness in India. However, family firms exhibit lower earnings informativeness compared to widely held companies. The finding indicates information asymmetry among family firms despite the presence of audit committees. This finding supports entrenchment effect and affirms the type II agency issues of dominating verses minority shareholders among Indian companies.

Hence, protection of minority rights assumes tremendous importance for regulators. Audit committee size had a positive impact on the level of earnings informativeness only in widely held companies. Audit fees had a positive impact, while consulting fees paid to auditors had a negative impact on earnings informativeness. This observation lends support to recent regulations restricting auditor engagement for non-audit services. Broadly, the results support the hypothesis that audit committees strengthen earnings informativeness among Indian family firms. The findings enable cross section of stake holders to appreciate the dynamics among governance mechanisms, concentrated control and their impact on the earnings informativeness.

Keywords: Audit committees; Accounting earnings; Earnings informativeness; Cumulative abnormal returns

JEL Classifications: M41, M48, D53

1. Introduction

This study examines the effectiveness of audit committees in improving earnings quality and informativeness, particularly among family-owned firms. Prior research suggested that ownership concentration was associated with poor earnings informativeness (Fan and Wong, 2002). The literature has reported evidence about the lower quality of reported earnings in East Asian countries dominated by family firms despite prudent accounting standards (Ball *et al.*, 2003).

Concentrated ownership structure and cross-holdings among group companies enhance owner stakes in the firm. Agency theory explains that concentrated ownership would allow controlling

shareholders and promoters to enhance their own wealth and results through an entrenchment effect. This would also lead to information asymmetry between family promoters and external stakeholders.

The Securities and Exchange Board of India (SEBI) introduced corporate governance provisions through clause 49 of its listing requirements to protect external minority shareholders and to resolve the issue of information asymmetry over the last decade. These provisions focus on establishing audit committees and improving the quality of information disclosures to all stakeholders. Ideally, these reforms should improve earnings informativeness and resolve the poor quality of reported earnings found in the empirical literature. Research on earnings informativeness has yet to examine the response to these governance reforms in emerging countries, particularly among family-run companies. Apart from the need for empirical investigation, recent corporate failures (e.g., the Satyam fiasco in India) also raise significant questions about the quality and the role of audit committees. These unexplored issues have motivated the present research study to investigate the role of audit committees within the relationship between family ownership and earnings informativeness.

Unique feature of Indian firms is that business groups are linked to particular families and control is achieved through appointing family members and friends to top managerial positions and through cross-shareholdings (Manos *et al.*, 2012). These group-affiliated firms not only have family capital but also access to large amounts of external capital leveraging their group-wide reputation (Claessens *et al.*, 2000; Khanna & Palepu, 2000). Because the groups create their own virtual (internal) capital markets, they can pool and re-allocate funds (Bertrand, *et al.*, 2002). These features are expected to cause lower informativeness of earnings among family firms.

The study sample consists of 368 Indian firms representing publicly traded non-banking firms included in the S&P CNX 500 index. Annual data from 2208 firm-year observations over a period of 6 years (2007-2012) have been analyzed. Informativeness of accounting earnings has been measured through the relationship between accounting earnings and cumulative abnormal stock returns (CAR). The empirical result provides that audit committee independence has a statistically significant positive association with earnings informativeness in India. However, a negative association between family ownership and earnings informativeness indicates information asymmetry among family firms despite the presence of audit committees. Audit committee size had a positive impact on the level of earnings informativeness only in widely held companies. Audit fees had a positive impact, while consulting fees paid to auditors had a negative impact upon earnings informativeness. This observation lends support to recent regulations restricting auditor engagement for non-audit services. Broadly, the results support the hypothesis that audit committees strengthen earnings informativeness.

This paper contributes to the literature on both corporate governance and earnings quality. It also enables regulators and policy makers to appreciate the dynamics among corporate governance mechanisms, concentrated control and their impact on the earnings informativeness.

The remainder of the paper is organized as follows. Section 2 provides a literature review, and Section 3 describes the research design. Section 4 reports the empirical results, and Section 5 presents concluding remarks.

2. Literature Review and Hypothesis Development

2.1 Ownership structure and quality of earnings

Fan and Wong (2002) presents two potential effects of concentrated ownership in East Asia: the entrenchment effect and the alignment effect. The former suggests that controlling owners

make decisions that would benefit them and deprive the rights of minority shareholders. Majority shareholders from the founding family would expropriate wealth from firms through tunneling mechanisms (Morck and Yeung, 2003). Ownership and control by founding family members prevents information flow and therefore causes lower earnings informativeness (Woidtke and Yeh, 2013). According to the alignment effect (Fan and Wong, 2002), when a founder serves as CEO/board member, he would typically have greater involvement consistent with the interests of the firm.

The research observations based on advanced countries cannot be compared or applied to emerging countries given the distinct socio-economic and political structures (Fan *et al.*, 2011). These economies are confronted with a different type of agency problem, where the majority of inside shareholders benefit themselves unfairly and disregard the interests of minority or outside shareholders. Hence, the conflict in emerging countries is more of a principal-to-principal conflict (Claessens *et al.*, 2000; Dharwadkar *et al.*, 2000), which is referred to as a Type II agency problem. The Indian regulator SEBI introduced governance initiatives and mandated audit committees to resolve this conflict and improve corporate disclosures and information efficiency of the market.

In India Promoter ownership had a significant impact on firm value only beyond an ownership level of 40 percent (Kumar and Singh, 2013). In the case of BSE firms, the relationship between insider ownership and firm value was found non-linear in nature (Pattanayak, 2009). The median promoter holdings in India rose from 48.83% in 2001 to 54.21% in 2011 for CNX 100 firms (Balasubramanian and Anand, 2013). Indian family firms typically continue to remain largely concentrated despite going public (Fan *et al.*, 2011). Another unique trait of family firms is that the ownership structure of these corporations generally remains relatively stable over time (Pindado *et al.*, 2011). Also, in such firms, family members are promoted to the upper echelons of management solely on the basis of family ties instead of merit (Anderson and Reeb, 2003).

Family firms are ubiquitous in India where family business houses typically own multiple companies. One-third of the companies in India are affiliated to business groups (Kali and Sarkar, 2005). Despite the predominance of family firms, there is a sparse research in this area in emerging markets, especially in India. Sarkar and Sarkar (2008) stated that the complexity in the ownership and control structures of Indian business groups serves as a precursor to the expropriation of minority shareholders.

This study extends previous research on earnings informativeness among family firms to explore the role and impact of audit committee effectiveness on this relationship. An audit committee enables the board of directors to monitor financial reporting to shareholders. The motivation behind this study is the implicit expectation that effective audit committees enhance the quality of information disclosures and improve earnings informativeness among family firms.

H1: A governance environment augmented with audit committees to oversee the reporting practices of firm results in higher earnings informativeness among family firms.

2.2 Effectiveness of audit committees and earnings informativeness

Audit committee independence also helps to improve financial reporting quality (Krishnan & Visvanathan, 2009). The probability of restatement of financial statements was significantly lower when the audit committee had an independent financial expert (Agrawal and Chadha, 2005). Sarkar (2013) enumerated the role and regulatory expectations (clause 49 in India) of an audit committee as those of monitoring financial reports; and reviewing internal controls and audit. Earnings informativeness is strengthened by independent audit committees when the committee contains financial experts (Woidtke and Yeh, 2013). Firms with audit committees are less likely to engage in earnings management (Dhaliwal *et al.*, 2010). Independent audit committees are critically

important in countries with concentrated ownership such as India, where the prevalence of value-reducing related party transactions is perceived to be higher (Sarkar, 2013).

Research studies on earnings quality found evidence that auditor independence; auditor size and audit fees have an impact on earnings informativeness (Krishnan *et al.*, 2011; Abbott *et al.*, 2003). Effective audit committees reduce the possibility of inadequate audit work and incorrect audit opinion (Turley and Zaman, 2004). Larger audit firms have the notwithstanding pressure to issue clean audit reports (Palmrose, 1988) and are more effective at constraining the client's ability to manipulate earnings. However, Lin *et al.* (2006) reported that large audit firms also fail to constrain the earnings of the management.

There is inconclusive evidence in research about the link between audit fees and audit committees. Clause 49 of the listing agreement in India provides that audit committees will monitor financial reports, review internal controls, appoint statutory auditors and fix audit fees. However, there is insufficient empirical evidence about either the positive and tangible benefits from independent audit committees or their impact on earnings informativeness.

H2: Independent audit committees improve earnings informativeness.

3. Research Design

3.1 Sample and variables

The study sample consists of all non-banking firms of the CNX 500 index, which represents approximately 97% of the free-float market capitalization of all stocks listed on the National Stock Exchange (NSE) as of March 31st, 2013. There were 420 non-banking and non-financial services companies included in the index. We could not obtain stock price data for the new inclusions for all years in the sample period. Therefore, the final sample consists of 368 companies, and the study period includes 6 years from 2007 to 2012.

The data on audit committee characteristics have been hand-collected from the annual reports of the sample companies. Stock price data are sourced from the NSE data archives. Financial and ownership data of the sample firms were collected from the Prowess database maintained by the Centre for Monitoring Indian Economy (CMIE).

3.2 Measuring earnings informativeness

Earnings informativeness refers to the quality of financial reporting, which helps analysts arrive at the right predictions and helps investors make informed decisions about a company. Earnings informativeness is measured through earnings quality captured through various models in the literature. In this study, earnings informativeness is measured through the relationship between cumulative abnormal stock returns (CAR) and earnings following the model of Woidtke and Yeh (2013). Significant positive associations between firm earnings and CAR indicate earnings informativeness. Measurement of earnings informativeness requires computation of CAR and accounting earnings.

3.2.1 Cumulative Abnormal Returns (CAR)

Cumulative abnormal returns (CAR) represent excess returns to investors above their forecasted expected returns. The excess return is truly due to firm-specific information net of market-wide information and impact. The average daily abnormal return for a month is compounded, and the compounded abnormal returns are compiled for the year and are referred to as CAR. Annualized CAR is computed for every year for each sample firm. The cumulative net 12-month stock returns are measured following Woidtke and Yeh (2013) model. Every listed company

should submit audited financial results to the stock exchange within sixty days from the close of the financial year as per clause 41 of the listing agreement in India. For a firm with an accounting year closing on 31 March 2006, the firm has to submit an annual report before May 31st, 2006. The cumulative abnormal return (CAR) for that firm is calculated for the period of June 2005 to May 2006, covering 10 months of the recently ended accounting year and 2 months of the following accounting year. In this way, CAR is calculated based on the respective accounting year of the sample firm.

3.2.2 Earnings

Earnings represent annual returns to shareholders. Earnings after tax at the end of the accounting year are divided by the market value of the equity at the beginning of the year. This ratio is used as a proxy for earnings of the firm.

3.3 Ownership structure

The percentages of family ownership and outside ownership are the key variables that represent the ownership structure of a firm. In India, family control is exercised through the shareholding of founders as well as through the holdings of group companies. Equity ownership stake of the founding family has been used as a proxy following the studies by Anderson and Reeb (2003) and Villalonga and Amit (2006). The percentage of shares held by the promoters and families individually and through corporate bodies have been aggregated and considered as total family ownership in the current study. This measurement does not identify or specify a minimum threshold to define a family firm. Outside ownership includes the total ownership of retail investors, domestic institutions and foreign institutional investors.

3.4 Audit committee characteristics

In India, clause 49 mandates that audit committees consist of a minimum of three directors. Audit committee size is measured by the total number of committee members and is considered as the exogenous variable in the current study.

Clause 49 requires that at least two-thirds of audit committee members should be independent directors. Independent audit committees have a significant effect on improving the quality of financial reporting, lowering the cost of capital, reducing discretionary earnings management and minimizing the probability of financial fraud (Sarkar, 2013). The percentage of audit committee independence has been considered in the study to examine its association with earnings quality. It is represented by the ratio of independent directors to the total number of directors appointed to the audit committee. Additionally, 100% independence is measured through an indicator variable that equals one when the audit committee comprises entirely of independent directors, and otherwise equals zero.

Inactive audit committees are unlikely to monitor management effectively (Menon & Williams, 1994). Frequency of meetings held and the percentage attendance of members in these meetings has been included in the analysis to consider audit committee quality and diligence.

Therefore, four audit committee characteristics, namely, independence (Woidtke and Yeh, 2013), size (Zaman *et al.*, 2011), number of meetings, and attendance (Lin and Hwang, 2010), have been used as proxies to assess the impact of audit committees on earnings informativeness.

3.5 Audit committee and auditor engagement

Auditor size and independence, which are measured by fee ratios, are deterrents to earnings management (Lin and Hwang, 2010). Governance regulations and recent amendments to the Companies Act in 2014 in India prescribe the desire for auditor rotation and non-engagement of auditors for consulting services.

Investors perceive the quality of Big 4 (Deloitte, Ernst & Young, KPMG and PwC) audits to be superior to others. The *ex-ante* risk premium was lower for Big 4 clients than for second-tier audit firm clients (Boone *et al.*, 2010). Despite little difference in earnings quality between Big 4-audited clients and others, there is a more pronounced difference in perceived audit quality among investors (Boone *et al.*, 2010).

The Big 4 firms, along with their affiliates, control 49% of the Indian audit market (Narayanaswamy *et al.*, 2012). The present study aims to examine Big 4 engagement among family firms in India. The linkages between audit committee independence and audit firm size, family ownership and earnings informativeness have been investigated. Audit firm size is coded as a binary variable and is given a value of 1 if an audit firm is one of the Big4; otherwise, it is 0. A log of audit fees and fees for non-audit services are also included in the model to analyze their impact upon the earnings-returns relationship.

3.6 Control variables

Firm-specific control variables are included in the analytical model in accordance with previous literature. Leverage is computed as the ratio of total debt to total assets. Higher leverage would indicate higher risk which would result in higher sensitivity of the earnings–return relationship. The log of total assets is included as a proxy for firm size and is expected to have a positive association with the earnings- returns relationship (Woidtke and Yeh, 2013). Tobin's Q is included to control for the effects of growth opportunities on the earnings–return relationship. It is computed as the ratio of asset book value to asset market value. Growth opportunities would indicate persistence of earnings and higher future earnings. A higher Tobin's Q indicates higher expected earnings growth and a stronger earnings–return relationship (Fan and Wong, 2002).

3.7 Econometric model

The sample panel data represents variables with varied properties. The key response variable CAR and the exogenous variable EAR exhibit significant within variation that suggests suitability of a fixed-effects model. Other variables including family holdings, audit committee size and number of meetings do not vary significantly with time and indicate suitability of a random-effects model. Wooldridge (2009) proposed that the correlated random effects (CRE) model would help accommodate both time varying variables as well as time constant variables.

The CRE approach allows unifying estimation of fixed- and random effects. The model facilitates inclusion of time constant variables and at the same time delivers fixed effects estimates on time varying covariates. This model prescribes inclusion of firm-clustered average of exogenous variable that varies both across time and across firms as a control variable. Annual earnings vary both across the firm and over time among exogenous variables. The firm-clustered time average of earnings referred to as EARM is included along with time invariant variables in the GLS random-effects model. This model provides a fixed-effects estimate of earnings influence on abnormal stock returns, while coefficients of time- invariant variables provide random-effects estimations.

Interaction terms are measured as follows: $(X_{it} - \bar{X})^*EAR_{it}$, where \bar{X} is the vector of overall averages, i.e. $\bar{X} = N^{-1} \sum_{i=1}^N \bar{X}_i$.

Following Woidtke and Yeh (2013), the entire analytical model is built on interaction effects with earnings. The correlated random-effects panel data regression model is used with clustered robust standard errors corrected for heteroscedasticity for testing earnings formattiveness. The model is specified as:

$$\begin{aligned}
 CAR_{it} = & \alpha_0 + \alpha_1 (Earnings_{it}) + \alpha_2 (Earnings_{it} * Family\ holdings_{it}) \\
 & + \alpha_3 (Earnings_{it} * Outside\ ownership_{it}) \\
 & + \alpha_4 (Earnings_{it} * Audit\ Committee\ Characteristics_{it}) \\
 & + \gamma (Firm - Level\ Control\ Variables_{it}) + u_{it}
 \end{aligned}$$

4. Empirical Results

4.1 Earnings quality and informativeness among Indian firms

Earnings quality and earnings informativeness among Indian firms is examined using panel data and the fixed-effects model. Table 1 presents the primary empirical results. The earnings-return relationship is found to be positive and significant despite the economic cycles experienced during the study period.

The market-to-book value ratio, Tobin's Q, has a statically positive association, reflecting and confirming the theoretical expectation about growth firms. The Indian industries are in the growth stage, and growing firms demonstrate greater informativeness. Leverage has a negative relationship with the earnings-return relationship as envisaged in the literature. Firms with higher financial risk are perceived as risky firms; these firms exhibit lower informativeness (Fan and Wong, 2002). Firm size is assumed to be related to cross-sectional variation in expected returns (Fama and French, 1992; 1993). Firm size has a positive relationship with cumulative abnormal returns, but it is not statistically significant (Mitton, 2002).

Table 1. Relationship between earnings & stock returns

Independent variables	Coefficient	t-statistics
EAR	0.070	2.39 **
TQ	0.028	2.15 **
Log TA	0.020	1.46
LEV	-0.237	-2.13 **
Constant	0.332	0.19
F-value	2.34 ***	
No. of observations	2208 (368 firms, by 6 years)	

Notes: Panel data fixed-effects estimates are reported in the table. ** and *** represent significance at a minimum of 0.05 and 0.01 levels, respectively. Clustered robust standard t statistics are reported as well. CAR is the dependent variable. It represents the compounded cumulative abnormal stock returns for 12 months starting from the latest date (as per listing rules) by which the firm discloses its annual report to the public; EAR is the earnings at end of accounting year divided by the market value of equity at the beginning of the year. Control variables include total assets to control for firm size, Tobin's Q to proxy for growth opportunities and firm leverage to reflect financial risk level of the firm. All control variables represent their opening values at the beginning of the year. (Log TA) represents the natural logarithm of the total assets. TQ is the market value of equity plus book value of debts divided by the book value of total assets. LEV is computed as the book value of debt divided by the total assets.

4.2 Ownership structure and earnings informativeness

Table 2 reports the relationship between earnings quality and ownership variables. There is a significant negative association between earnings quality and family ownership, confirming the observations made in the literature (Fan and Wang, 2002). Family ownership stake is a reliable

metric to determine control of the founding family. As per Bertrand *et al.* (2002), shareholding between 15% and 25% is generally adopted as the threshold for family control in the Indian context.

Audit committee regulations and SEBI requirements for corporate disclosures did not change this relationship. Family firms continued to hoard information and exhibited lower informativeness. This result confirmed validity of the entrenchment effect and information asymmetry arguments in family firms.

The shareholding percentage by domestic financial institutions and the retail public has been considered as outside ownership. Outside ownership had a statistically significant positive association on informativeness, indicating desirability of dispersed ownership among Indian firms.

Table 2. Impact of ownership structure upon earnings informativeness

Independent variables	Model 1		Model 2	
	Coefficient	t-statistics	Coefficient	t-statistics
EAR	0.0735992**	2.53	0.0733453**	2.51
EARM	0.1177908	0.65	0.7633253***	2.96
FLY	0.001259	1.14		
EAR*FLY	-0.009679**	-2.36		
OUT			-0.001141	-1.02
EAR*OUT			0.0083524**	2.02
TQ	0.0245961**	2.12	0.0246197**	2.02
Wald χ^2	32.43***		30.85***	
No. of observations	2208 (368 firms, by 6 years)		2208 (368 firms, by 6 years)	

Notes: Dependent variable is CRA (Cumulative abnormal return). The GLS estimates from panel data correlated random effects regression are presented in the table. **and *** represent significance at 5% and 1% levels, respectively. Clustered robust standard t statistics are reported as well. CAR is the dependent variable. It represents the compounded cumulative abnormal stock returns for 12 months starting from the latest date (as per listing rules) by which the firm discloses its annual report to the public; EAR is the earnings at end of accounting year divided by the market value of equity at the beginning of the year. Ownership Variables: FLY is the percentage of family holding; OUT is the percentage of outside ownership; it represents shareholding by the retail public, foreign institutional investors and domestic institutions. TQ is the market value of equity plus book value of debts divided by the book value of total assets at the beginning of the year. Correlated random effects model prescribes inclusion of firm clustered average of exogenous variable that varies both across time and across firms as control variable. Annual earnings of the firm vary both across the firm as well as time among exogenous variables. EARM represents firm clustered time average of earnings included to measure the fixed effects of earnings upon the abnormal stock returns.

Interaction terms are measured as follows: ($X_{it} - \bar{X}$)*EAR_{it}, where \bar{X} is the vector of overall averages, $\bar{X} = N^{-1} \sum_{i=1}^t \bar{X}_i$. Example: Interaction term EAR*FLY is measured as (FLY_{it} - \bar{FLY})*EAR_{it}.

4.3 Audit committee characteristics and earnings informativeness

Well-structured audit committees are expected to reduce opportunistic earnings management and improve earning informativeness. The results of the correlated random-effects panel model are reported in Table 3. The relationship between audit committee size and the earnings interaction term has a significant negative association with earnings among family firms. This observation is in contrast to the expectations about the audit committee role. This relationship was positive but not significant in the estimation model with outside ownership. The data descriptives reveal that audit

Review of Economics & Finance, Volume 9, Issue 3

committees had the statutory minimum required three members in family firms. It was also noted that the percentage of independent directors was lower in firms with higher family ownership concentration. Audit committee size was found to be small in family firms which did not help to improve earnings informativeness.

Audit committee independence was gauged through two proxies: the percentage of independent directors in the committee and a binary variable indicating 100% independence. Empirical literature expects a positive impact of independence. The results indicated a significant positive relationship with both 100% independence and a higher percentage of independence. Table 3 reports the estimated coefficients for the effect of percentage of independence.

The mere existence of an independent audit committee does not automatically improve earnings informativeness. Industry reports often stated that the costs of having an audit committee outweighed the potential benefits. These costs may include search costs, increased director fees and costs associated with expanding the board. It was also reported in industry circles that compliance with recent regulations about independence was relatively more costly for smaller companies.

The impact of the number of meetings and the attendance rate for audit committee meetings has been examined to identify the tangible benefits of audit committees versus the reported grievances of higher costs. Both variables have positive associations with earnings informativeness, but they were not statistically significant.

Table 3. Family ownership, audit committee characteristics and earnings informativeness

Independent variables	Model 1		Model 2	
	Coefficient	t-statistics	Coefficient	t-statistics
EAR	0.07198**	2.287	0.080944**	2.55
EARM	0.20029***	3.88	0.30109	0.64
FLY			0.00121	1.10
EAR*FLY			-0.01015***	-2.59
OUT	-0.001094	-0.96		
EAR*OUT	0.0087677**	2.23		
AC SIZE	-0.0164127	-0.92	-0.0068	-0.0011
EAR*AC SIZE	-0.00346***	0.00115	0.00094	0.0012
PER IND	-0.07158	-0.79	-0.0719	-0.79
EAR*PER IND	0.70927**	2.31	0.71034**	2.32
MTGS	-0.00067	-0.054	-0.00069	-0.485
EAR*MTGs	0.041297	0.612	0.041022	0.602
PER ATT	0.00024	0.179	0.00021	0.171
EAR*PER ATT	5.88e-07	0.05	1.85e-07	0.02
TQ	0.02568**	2.07	0.02567**	2.07
Wald χ^2	45.26***		47.25***	
No. of observations	2127		2127	

Notes: Dependent variable is CRA (Cumulative abnormal return). The GLS estimates from panel data correlated random effects regression are presented in the table. ** and *** represent significance at 5% and 1% levels respectively. Clustered robust standard t statistics are reported as well.

CRA represents the compounded cumulative abnormal stock returns for 12 months starting from the latest date (as per listing rules) by which the firm discloses its annual report to the public;

EAR is the earnings at the end of accounting year divided by the market value of equity at the beginning of the year.

Tobin's Q ratio is included as firm control to proxy for Growth Opportunities. TQ is the market value of equity plus book value of debts divided by the book value of total assets at the beginning of the year.

Ownership Variables: FLY is the percentage of family holding; OUT is the percentage of outside ownership; it represents shareholding by the retail public, foreign institutional investors and domestic institutions.

Audit Committee Characteristics: AC SIZE represents number of members in the audit committee. PER IND represents percentage of Independent directors in the audit committee; MTG is the number of audit committee meetings held in a year. PER ATT is the percentage of the attendance in the audit committee meetings.

*Interaction terms are measured as $(X_{it} - \bar{X}) * EAR_{it}$, where \bar{X} is the vector of overall averages, $\bar{X} = N^{-1} \sum_{i=1}^N \bar{X}_i$. Example: Interaction term $EAR * FLY$ is measured as $= (FLY_{it} - \bar{FLY}) * EAR_{it}$.*

Correlated random effects model prescribes inclusion of firm clustered average of exogenous variable that varies both across time and across firms as control variable. Annual earnings of the firm vary both across the firm as well as time among exogenous variables. EARM represents firm clustered time average of earnings included to measure the fixed effects of earnings upon the abnormal stock returns.

Overall, the results support the hypothesis that audit committee independence strengthens earnings informativeness. However, it did not change the negative relationship between family holdings and the earnings–return relationship. This indicates that audit committees as of now have yet to meet performance expectations for improving earnings informativeness.

4.4 Auditor engagement and earnings informativeness

Table 4 reports correlated random-effects model estimates of audit fees and audit firm size on earnings quality. The audit fee interaction term has a positive association with earnings informativeness. As all sample firms have audit committees, these results support the observation made by Zaman *et al.* (2011) that audit committees would pay higher fees and set higher quality expectations on auditors.

Consultation fees paid for non-audit services had a significant negative association with the earnings-return relationship, supporting the regulatory stand point that auditor engagement for non-audit work would limit and hinder their independence.

Audits by Big 4 firms had a positive but insignificant relationship on earnings informativeness. The descriptive statistics of sample data confirms that Big 4 engagement is not pervasive in India. Narayanaswamy *et al.* (2012) enumerated that social and cultural differences between India and the west are significant. They explain multiple reasons for this trend. The Big 4 are engaged to a lesser degree by the larger listed firms in India than in other countries. Family firms engage auditors based on personal relationships and do not change or rotate them. Indian firms who engage Big4 for professional compulsion still retain existing auditors as joint auditors. Big 4 engagements require payment of higher audit fees, including the premium associated with the brand. Domestic family firms that do not have exposure to international capital or product markets do not believe that the audit premium confers any additional benefits. This indicates that auditor reputation does not matter or affect reported earnings quality.

Table 4. Family Ownership, auditor engagement and Earnings informativeness

Independent variables	Model 1		Model 2	
	Coefficient	t-statistics	Coefficient	t-statistics
EAR	0.1264 ***	2.76	0.12589 ***	2.76
EARM	0.0417053	0.17	1.329 ***	3.53
FLY	0.001423	1.20		
EAR*FLY	-0.01384 ***	-2.87		
OUT			-0.001289	-1.06
EAR*Out			0.0123 **	2.55
Other fees	0.0039 ***	8.77	0.00394 ***	8.76
EAR*Other fees	-0.00171 ***	-2.83	-0.00171 ***	-2.77
AUDIT fee	-0.01575 ***	-3.64	-0.01570 ***	-3.64
Ear* Audit fee	0.12948 **	2.53	0.128711 **	2.53
Big4	-0.02308	-0.33	-0.02277	-0.33
EAR*Big4	0.0977	1.32	0.0972	1.30
TQ	0.0239 *	1.89	0.0236 *	1.84
Wald χ^2	42.66 ***		40.30 ***	
No. of observations	2028		2028	

Notes: Dependent variable is CRA (Cumulative abnormal return). The GLS estimates from panel data correlated random effects regression are presented in the table. *, **, *** represent significance at 10%, 5% and 1% levels, respectively. Clustered robust standard t statistics are reported as well.

CAR is the dependent variable. It represents the compounded cumulative abnormal stock returns for 12 months starting from the latest date (as per listing rules) by which the firm discloses its annual report to the public;

EAR is the earnings at the end of accounting year divided by the market value of equity at the beginning of the year.

Tobin's Q ratio is included as firm control to proxy for Growth Opportunities. TQ is the market value of equity plus B.V. of debts divided by the B.V. of total assets at the beginning of the year.

Ownership Variables: FLY is the percentage of family holding; OUT is the percentage of outside ownership; it represents shareholding by the retail public, foreign institutional investors and domestic institutions.

Auditor Engagement: BIG 4 is an indicator variable that is coded as 1 if the audit firms represents big 4 else coded as Zero. AUD FEE represents log audit fees paid to the statutory auditors; OTH FEE is the log value of fees for consultancy and other services paid to the statutory auditors in addition to the audit fee.

Interaction terms are measured as follows: $(X_{it} - \bar{X}) * EAR_{it}$, where \bar{X} is the vector of overall averages, $\bar{X} = N^{-1} \sum_{i=1}^N \bar{X}_i$.

Correlated random effects model prescribes inclusion of firm clustered average of exogenous variable that varies both across time and across firms as control variable. Annual earnings of the firm vary both across the firm as well as time among exogenous variables. EARM represents firm clustered time average of earnings included to measure the fixed effects of earnings upon the abnormal stock returns.

5. Concluding Remarks

Quality disclosures of accounting earnings are essential for well-functioning capital markets. These disclosures provide relevant information to investors, enabling them to make informed investment decisions. Earnings informativeness requires both high-quality reported earnings and their absorption in stock prices and returns. This research paper empirically examines the relationship between earnings and market returns (CAR) in the post-governance regulation era (sample period 2007-2012) and investigates the impact of audit committees on this relationship. Earnings informativeness is measured by the relationship between stock returns and operating earnings. Compounded cumulative abnormal returns have been considered as a proxy for market returns (Fan and Wong, 2000). The ratio of earnings to the market value of equity capital has been considered as a proxy for earnings of the firm (Woidtke and Yeh, 2013).

It is found that earnings have a statistically significant positive relationship with cumulative abnormal returns across the sample firms. This indicates that investors find accounting earnings relevant to ascertain value of the stock. A positive earnings-returns relationship indicates the benefits of regulatory efforts both to strengthen governance quality and to develop capital markets. This in turn contributes to the development of informationally efficient capital markets, which are vital for an emerging economy like India.

However, family ownership has a statistically significant negative association with earnings quality, indicating lower earnings informativeness among family firms. This finding supports entrenchment effect and affirms the type II agency issues of dominating verses minority shareholders among Indian companies. Hence, protection of minority rights assumes tremendous importance for regulators. John *et al.* (2008) suggested that investor protection regulations ensure minimum incidences of insiders' expropriation in emerging markets.

There has been renewed focus by policy makers such as SEBI on establishing independent audit committees in the post Satyam debacle. There is an expectation that independent audit committees ensure reliable financial reporting and provide high-quality information to the capital markets. This research study empirically investigates the effectiveness of audit committees in meeting stakeholders' expectations. The results reveal that audit committee independence has a significant positive relationship with earnings informativeness among Indian companies. Audit committee effectiveness gauged through the number of audit committee meetings has a positive association with CAR and earnings relationship. The empirical findings of this research study provide positive evidence regarding the effectiveness of audit committees for policy makers.

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