OWNERSHIP STRUCTURE AND FINANCIAL REPORTING QUALITY: MODERATING ROLE OF REGULATION

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Abstract

This study examines how ownership structure (OS) affects the financial reporting quality (FRQ) of listed firms in India. It also investigates whether the interaction of firm-level governance (business group) and country-level governance (Companies Act, 2013) yields optimal outcomes. This study examines FRQ measured using accruals and real earnings management (AEM and REM). Higher earnings management lowers FRQ and vice-versa. Firms affiliated with business groups are likelier to choose real over accruals earnings management. They trade off accruals and real earnings management to expropriate minority shareholders. This pattern reverses after a change in regulation. Thus, stringent regulations may lower FRQ (suboptimal outcomes). High-promoter holding firms have lower accruals quality, while high-institutional holding firms use discretionary expenses to manage earnings.

Keywords: Business Groups, Earnings Management, Financial Reporting Quality, Ownership Structure, Regulation


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1. INTRODUCTION

Financial reporting is widely regarded as the primary means of communication between a firm and its external stakeholders. It is a critical factor in determining contract terms, assessing the valuation of companies, and ensuring the smooth operation of capital markets (Watts & Zimmerman, 1986; Bushman & Smith, 2001). The faithful representation of financial performance and position is at the core of financial reporting. Accounting standards allow discretion in choosing policies that faithfully represent the firm’s operations and performance. Such discretion enhances the relevance of financial reporting information for decision-making. However, this discretion can be used opportunistically to misrepresent financial statements. In academic literature, such practices are termed ‘earnings management’ (EM). Instances of EM adversely impact the financial reporting quality (FRQ) (Kedia & Phillippon, 2009) and rattle investors’ confidence.

Cross-country and country-level accounting research shows that ownership structure (OS) can significantly impact the FRQ (Fan & Wong, 2002). The theoretical underpinning of this research lies in agency theory. In widely held firms, the separation of ownership and management leads to conflict of interest, resulting in type I agency problems (Jensen & Meckling, 1976). However, in the case of closely held firms, a conflict of interest arises between dominant and minority shareholders. These are type II agency problems (Young et al., 2008). Type II agency problems characterize the business landscape in emerging economies. One of the manifestations of agency problems is EM, which reduces the FRQ.
This field of research focuses on examining the impact of promoter holding (PH), institutional holding (IH), and affiliation with a business group (BG) on EM. The existing literature has examined the role of various types of shareholders in mitigating or exacerbating agency problems. These hypotheses include the alignment, active monitoring, entrenchment, conflict of interest, and strategic alignment hypotheses.

It is vital to examine emerging economies where firms affiliated with family-run BG and high PH are ubiquitous. These firms have huge market capitalization and a concentrated OS, and they are managed and governed by dominant shareholders and their family members. Accounting irregularities in such firms have macro-implications on the economy as they weaken the capital markets and taint the credibility of financial reporting. This, in turn, impedes the ability of firms to raise external finance. Domestic sources of finance are limited within a country, forcing firms to rely on foreign investment (Damachis, 2001). Foreign investors are less inclined to invest in firms with OS prone to governance problems (Leuz et al., 2009). Moreover, policy decisions and regulations on financial reporting, auditing, and corporate governance, which do not consider the influence and incentives of dominant shareholders, may lead to suboptimal outcomes (Leuz & Wysocki, 2008).

India is an emerging economy whose industrial landscape is characterized by concentrated ownership and dominance of family-run BGs. India ranks at par with the US and UK in protecting minority shareholders but lags in the rule of law and accounting standards (Sarkar et al., 2008). Anecdotal evidence and empirical research show that a high incidence of EM results in poor FRQ. Instances of expropriation of minority shareholders by the promoters are well-documented in academic research, official reports, and media (Sarkar & Sarkar, 2012). A few studies have examined the relationship between OS and EM in India but provide conflicting evidence. Small sample studies by Ajay and Madhumathi (2015) and Potharla et al. (2021) have found that IH negatively impacts accruals earnings management. A large sample study by Nagar and Raitthatha (2016) examined the relationship between OS and cash flow manipulation and found a positive and insignificant relationship between IH and cash flow manipulation and a positive and significant relationship between PH and cash flow manipulation. Thus, India is an interesting setting to examine the relationship between OS and FRQ, explicitly focusing on PH, IH, and BG affiliation.

The extent to which controlling promoters can use EM to misrepresent financial reporting information depends on the extent of protection minority shareholders receive in a country (Leuz et al., 2003). Thus, it is imperative to consider a country’s institutional environment while examining the relationship between OS and FRQ. The Indian government is trying to strengthen the institutional environment by introducing reforms at par with international best practices. The Companies Act 2013 is a significant milestone reform in this direction. It introduces many reforms to improve transparency and make directors, promoters, and auditors more accountable for their decisions. It will benefit stakeholders by fostering trust in financial reporting information and ensuring responsible management. Formal governance mechanisms entail implicit and explicit costs. The reforms will create a positive impact only if the benefits of implementing regulation exceed its cost. Over monitoring’ and limited flexibility at the country level affect firms with strong and weak governance differently (Bruno & Claessens, 2010).

Thus, it is imperative to assess whether the interaction of firm-level and country-level governance mechanisms yields optimal outcomes or not. This study focuses on affiliation with BG as firm-level governance and change in regulation (Companies Act, 2013) as country-level governance. Specifically, it tries to examine whether a change in regulation will improve/deteriorate the FRQ of firms affiliated with BG.

With this backdrop, this study examines the impact of PH, IH, and affiliation with BG on FRQ. It is theoretically rooted in the alignment, entrenchment, active monitoring, and strategic alignment hypotheses. It takes a holistic view of FRQ by considering both accruals and real earnings management (AEM and REM). It takes a step further to analyze the impact of change in regulation on FRQ of firms affiliated with BG. The remaining paper is organized as follows: Section 2 discusses the literature review and hypotheses development. Section 3 describes the research methodology. Section 4 discusses the results of the study, and Section 5 concludes the study.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

2.1. Theoretical background

The divergence between ownership and control results in agency conflicts between insiders and outsiders. In the case of widely held corporations, agency conflicts arise between managers (insiders) and owners (outsiders). Such problems are type I agency problems (Jensen & Meckling, 1976). In firms with concentrated ownership, agency problems arise between controlling promoters (insiders) and minority shareholders (outsiders) and are known as type II agency problems (Young et al., 2008). These are widely prevalent in emerging economies characterized by concentrated ownership and weakly protected property rights. In such economies, concentrated OS facilitates transactions and is an institutional resource allocation arrangement (Fan & Wong, 2005).

Though OS is the source of agency conflicts, it is also an internal corporate governance mechanism. As a governance mechanism, the OS considers the role of different types of shareholders in monitoring insiders and mitigating agency problems (Cohen et al., 2004). Extant literature has documented various hypotheses to explain the role of different types of shareholders in mitigating/aggravating agency problems: alignment, active monitoring, entrenchment, conflict of interest, and strategic alignment.
2.1.1. Alignment hypothesis

According to the alignment hypothesis, managerial shareholding provides an incentive for managers to align their interests with those of the shareholders and reduce type I agency problems (Jensen, 1993). This hypothesis is also relevant to type II agency problems. High PH results in value-maximizing decisions directly affecting promoters' wealth. Thus, it prevents the expropriation of minority shareholders, especially in countries with weak legal institutions (Gomes, 2000).

2.1.2. Active monitoring hypothesis

The active monitoring hypothesis focuses on the monitoring role of institutional shareholders in reducing agency conflict (Berle & Means, 1932; Pound, 1988). Institutional investors who make considerable investments in a firm have voting power that allows them to monitor the decisions taken by the insiders (Jensen & Meckling, 1976; Fama & Jensen, 1983a). Thus, institutional investors can play a significant role in monitoring and reducing agency conflicts. This hypothesis is relevant for both type I and type II agency problems.

2.1.3. Entrenchment hypothesis

Ownership and control are directly related. Thus, the higher the proportion of ownership by insiders, the more control they exert over the firm. They can use this increased control to protect themselves from external governance mechanisms like the takeover market and managerial labour market (Fama & Jensen, 1983b). Concentrated ownership coupled with weak investor protection provides an incentive to use cross-holdings and pyramidal structures to extract private benefits of control. Thus, large insider shareholding may result in the expropriation of outsiders' interests.

2.1.4. Conflict of interest hypothesis

The conflict of interest hypothesis focuses on the role of institutional shareholding. It posits that large outside shareholders may not efficiently monitor insiders if their interests do not converge with minority shareholders (Blair, 1995).

2.1.5. Strategic alignment hypothesis

According to the alignment and efficient monitoring hypotheses, significant insider shareholding and institutional shareholding have potential advantages, including the incentive to make decisions and perform monitoring that also benefits minority shareholders. However, large insider and institutional shareholding also has its share of potential costs. The strategic alignment hypothesis posits that institutional shareholders and insiders may enter into a cartel and make decisions against the interests of the minority shareholders (Pound, 1988).

2.1.6. Business groups

In emerging markets, family-owned BGs and their dominance in the business world are ubiquitous (Khanna & Palepu, 2000). BG structure has potential costs and benefits, resulting in efficient capital allocation and other resources among affiliate firms. For example, firms affiliated with Korean Chaebols (Shin & Park, 1999) and Japanese Keiretsus (Hoshi et al., 1991) had easier access to capital than the standalone firms. During crises, BGs can provide private funds, share risks among affiliate firms (Friedman et al., 2004), and transfer intangibles to affiliate firms (Chang & Hong, 2000). However, BGs can expropriate minority shareholders by using related party transactions (Li, 2021). A weak institutional environment can further aggravate agency problems. For example, Bertrand et al. (2002) found that controlling promoters in Indian BGs tunnel profits to expropriate minority shareholders.

2.2. Ownership structure and financial reporting quality

The above hypotheses are competing in nature. They posit both benefits and costs associated with different types of shareholders. One of the benefits is to demand decision-useful, faithfully represented, and timely information about firm performance. The costs are opportunistic use of control to expropriate minority shareholders. A distinct manifestation of such opportunism is misrepresenting firm performance using EM (Healy & Wahlen, 1999), resulting in poor FRQ.

FRQ is vital to investors and regulators as it is an essential input for contracting and valuation decisions (Kothari, 2001). Conceptually, the crux of FRQ is decision usefullness (Wolk et al., 2008). Most empirical studies focus on earnings to assess FRQ. The most widely used proxy of FRQ is AEM (Leuz & Wysocki, 2016), which stems from the discretion allowed by the accounting standards. This discretion affects net assets and earnings, and its primary purpose is to convey useful information to decision-makers. However, it can also misrepresent earnings, resulting in poor FRQ. Thus, higher EM indicates poor FRQ. AEM is estimated using industry-year regression models, which decompose accruals into discretionary and non-discretionary components (Dechow et al., 2010). The discretionary component is referred to as EM.

Empirical studies have examined the relationship between OS and accrual EM for firms with concentrated ownership and widely held firms. The OS literature is centered around PH/insider ownership, block holding by large outside shareholders, institutional shareholders, family firms, and affiliation with a BG.

2.2.1. Institutional holding

Institutional shareholders play an important role in reducing EM (Bushee, 1998; Chung et al., 2002; Ramalingegowda et al., 2021) and effectively monitoring activities to reduce agency problems. However, the effectiveness of curbing EM depends on the duration of IH. According to Koh (2003), short-term institutional shareholders have temporary interests, while long-term institutional shareholders have lasting interests in the firms. Thus, long-term institutional shareholders are more likely to monitor EM practices effectively. Wang et al. (2023) and Al-Duaiis et al. (2022) find a positive
association between IH and EM in China and Malaysia, respectively. However, the results are not consistent across studies. Cho and Chung (2022) find a negative relationship in Vietnam, while Siregar and Utama (2008) and Alhadi et al. (2020) find no relationship between EM and institutional shareholding in Indonesia and Malaysia, respectively.

A few studies have examined the relationship between OS and EM in India. Small sample studies by Ajay and Madhumathi (2015) and Potharla et al. (2021) find that IH negatively impacts EM. A large sample study by Nagar and Raithatha (2016) confirms a positive and significant relationship between IH and cash-flow manipulation. Thus, conflicting evidence exists. We, therefore, hypothesize as follows:

\[ H_1: \text{There is a negative relationship between institutional holding and EM.} \]

2.2.2. Insider ownership (promoter holding)

Empirical studies have also focused on the relationship between insider ownership and EM. Fan and Wong (2002) state that family firms with concentrated ownership are more likely to engage in EM. Cornett et al. (2008), Nguyen et al. (2021), and Al-Duais et al. (2022) document a positive relationship between EM and insider ownership in the US, Vietnam, and Malaysia, respectively. However, Warfield et al. (1995) document a negative relation, while Bowen et al. (2008) do not find a significant relationship between them. Thus, the relationship between insider ownership and EM is inconsistent.

In the case of India, a large sample study by Nagar and Raithatha (2016) finds a positive and significant relationship between PH and cash-flow manipulation. Chatterjee (2021) finds that an increase in PH in Indian firms leads to an increase in EM. Wasan and Mulchandani (2020) state that Indian firms with concentrated ownership are more conducive to engaging in opportunistic EM. We hypothesize as follows:

\[ H_2: \text{There is a positive relationship between promoter holding and EM.} \]

2.2.3. Business group affiliation

Empirical evidence suggests that firms affiliated with a BG are more likely to engage in EM than standalone firms in Korea (Kim & Yi, 2006), Bangladesh (Muttakin et al., 2017), India (Das et al., 2018) and Malaysia (Al-Duais et al., 2022). We, thus, hypothesize as follows:

\[ H_3: \text{There is a positive relationship between business group affiliation and EM.} \]

2.3. Impact of change in regulation

Regulation is expected to reduce the adverse selection and information asymmetry in capital markets and increase market liquidity (Christensen et al., 2016). It also plays a vital role in maintaining the check and balance on insider opportunism and improving audit quality by increasing the accountability and liability of auditors. Thus, stringent regulations help in improving FRQ. India replaced the Companies Act of 1956 with the Companies Act of 2013, which brought about many regulatory changes. However, the interaction of firm-level and country-level governance may or may not lead to optimal outcomes. In this context, we try to understand the efficacy of new regulation by examining the impact of the interaction between change in regulation and BG affiliation on FRQ. BGs, through their legacy, enjoy a reputation in the capital markets compared to the standalone firms (Khanna & Palepu, 2000). However, regulatory reforms aim to provide a more level playing field to all firms, which results in BGs losing comparative advantage in raising capital (Nagar & Sen, 2016). Given the weak enforcement of the law, we expect that firms affiliated with BG may engage in opportunistic reporting post-change in regulation to mitigate the loss of comparative advantage in raising capital. Thus, it is interesting to examine the moderating effect of the change in regulation on the relationship between BG affiliation and EM. We hypothesize as follows:

\[ H_4: \text{A change in regulation positively moderates the relationship between business group affiliation and EM.} \]

3. RESEARCH METHODOLOGY

This section describes the methodology used to test hypotheses and empirical model. It discusses the measurement of FRQ, OS, control variables, sample, and data source.

3.1. Variables and empirical models

3.1.1. Financial reporting quality (dependent variable)

AEM is the most widely used proxy of FRQ. Accruals capture the net effect of all the accounting choices, thus providing a holistic view of discretion over other accounting choices. However, real decisions are also subject to managerial discretion and can affect FRQ. Thus, we focus on both AEM and REM to measure FRQ. An increase in AEM and REM will decrease FRQ and vice-versa. AEM and REM are estimated using industry-year regression models. Two-digit NIC codes are used to define industries\(^1\). These models decompose accruals into discretionary and non-discretionary components (Dechow et al., 2010). The discretionary component is referred to as EM.

We use the models proposed by Jones (1991), Dechow et al. (1995), Kasznik (1999), Francis et al. (2005), and McNichols and Stubben (2008) to estimate AEM. Of these, Jones (1991), Dechow et al. (1995), and Kasznik (1999) focus on total accruals, while Francis et al. (2005) focus on current accruals. EM is a five-year standard deviation of discretionary accruals (\(t\) to \(t - 4\)). The higher the standard deviation, the lower the accruals quality. McNichols and Stubben (2008) focus on a specific accrual — discretionary revenues. We use Roychowdhury (2006) to estimate REM using sales manipulation, discretionary expenses, and overproduction. These regression models are run separately for each industry-year group. Such industry-year regressions

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1 The National Industrial Classification (NIC) code is published by the Central Statistical Organization of the Ministry of Statistics & Programme Implementation, Government of India, New Delhi, India. We use the NIC 2008 classification.
produce firm-specific and year-specific residuals. These residuals are our measure of EM. The empirical models to estimate AEM and REM are shown below:

### AEM models

Jones’ (1991) model (JONES)

\[ TA_{ACC,t}/TA_{A,t} = \alpha_0 + \alpha_1 (1/TA_{A,t}) + \beta_1 (\Delta S_{t}/TA_{A,t}) + \beta_2 (PPE_{e,t}/TA_{A,t}) + \epsilon_{t,t} \]  

(1)

Dechow et al.’ (1995) model (MJONES)

\[ TA_{ACC,t}/TA_{A,t} = \alpha_0 + \alpha_1 (1/TA_{A,t}) + \beta_1 (\Delta S_{t} - AR_{t}/TA_{A,t}) + \beta_2 (PPE_{e,t}/TA_{A,t}) + \epsilon_{t,t} \]  

(2)

Kasznik’s (1999) model (KASZNK)

\[ TA_{ACC,t}/TA_{A,t} = \alpha_0 + \alpha_1 (1/TA_{A,t}) + \beta_1 (\Delta S_{t} - AR_{t}/TA_{A,t}) + \beta_2 (PPE_{e,t}/TA_{A,t}) + \beta_3 (\Delta CFO_{t}/TA_{A,t}) + \epsilon_{t,t} \]  

(3)

Francis et al.’s (2005) model (FLOS)

\[ TCACC_{t}/TA_{A,t} = \alpha_0 + \beta_1 (CFO_{t}/TA_{A,t}) + \beta_2 (CFO_{t}/TA_{A,t}) + \beta_3 (CFO_{t+1}/TA_{A,t}) + \epsilon_{t,t} \]  

(4)

McNichols and Stubben’s (2008) model (DISCREV)

\[ \Delta AR_{t}/TA_{A,t} = \alpha_0 + \beta_1 (\Delta S_{t}/TA_{A,t}) + \epsilon_{t} \]  

(5)

### REM models (based on Roychowdhury, 2006)

Sales manipulation (CFO) model

\[ CFO_{t}/TA_{A,t} = \alpha_0 + \alpha_1 (1/TA_{A,t}) + \beta_1 (S_{t}/TA_{A,t}) + \beta_2 (\Delta S_{t}/TA_{A,t}) + \epsilon_{t} \]  

(6)

Discretionary expenses (DISEXP) model

\[ \Delta DISEXP_{t}/TA_{A,t} = \alpha_0 + \alpha_1 (1/TA_{A,t}) + \beta_1 (S_{t-1}/TA_{A,t}) + \epsilon_{t} \]  

(7)

Overproduction (PROD) model

\[ PROD_{t}/TA_{A,t} = \alpha_0 + \alpha_1 (1/TA_{A,t}) + \beta_1 (S_{t}/TA_{A,t}) + \beta_2 (\Delta S_{t}/TA_{A,t}) + \beta_3 (\Delta S_{t-1}/TA_{A,t}) + \epsilon_{t} \]  

(8)

where,

- \( \Delta \) = indicates the change from the previous year;
- \( t \) = indicates the current year;
- \( t - 1 \) = indicates previous year;
- \( t + 1 \) = indicates next year;

and

\[ TA_{ACC,t} = \Delta C_{A,t} - \Delta C_{L,t} - \Delta CASH_{t} + \Delta STD_{t} - DEP_{t,t} \]  

(9)

- \( TA_{ACC} \) = total accruals;
- \( CA \) = current assets;
- \( CL \) = current liabilities;
- \( CASH \) = cash and cash equivalents;
- \( STD \) = short term debt included in current liabilities;
- \( DEP \) = depreciation expense;
- \( TA \) = average total assets; 1/TA = scaled constant;

\[ TCACC_{t} = \Delta C_{A,t} - \Delta C_{L,t} - \Delta CASH_{t} + \Delta STD_{t} \]  

(10)

- \( TCACC \) = total current accruals;
- \( S \) = sales revenue;
- \( PPE \) = plant, property, and equipment;
- \( AR \) = account receivables;
- \( CFO \) = cash flow from operating activities;
- \( PROD \) = production costs (cost of goods sold + change in inventory);
- \( DISEXP \) = discretionary expense (selling, distribution, administrative expense, and advertisement expense).

#### 3.1.2 Independent variables

The independent variables of the study are as follows:

1. Promoter holding (PH) is measured as a percentage of shareholding by promoters.
2. Institutional holding (IH) is a percentage of shareholding by institutional shareholders.
3. Business group affiliation (BG) is measured as a dummy variable, where one indicates that the firm is affiliated with BG and zero indicates that it is not.
4. Regulation (REG) is measured as a dummy variable, where one indicates period post-regulation and zero indicates period pre-regulation.
3.1.3. Control variables

Following Sarkar et al. (2008) and Nagar and Raithatha (2016), we use the below-mentioned control variables:
1. Firm size (SIZE) is measured as a log of total assets.
2. Leverage (LEV) is measured as total debt/total assets.
3. Firm performance (ROA) is measured as net income as a percentage of total assets.
4. Growth opportunities (PB) are measured as market value to book value ratio.
5. Industry membership (IND) is measured as a dummy variable, where one indicates the firm belongs to the manufacturing industry and zero indicates it belongs to the non-manufacturing industry.
6. AGE is measured as the number of years from incorporation.

3.1.4. Empirical model

We run the below regression models to examine the relationship between FRQ and OS and the moderating role of change in regulation. We run the below models separately for each EM model.

\[ FRQ_{it} = \beta_0 + \beta_1 PH_{it} + \beta_2 IG + \beta_3 BG + \beta_4 Controls_{it} + \epsilon_{it} \]  

\[ FRQ_{it} = \beta_0 + \beta_1 PH_{it} + \beta_2 IG + \beta_3 BG + \beta_4 REG_{it} + \beta_5 BG*REG_{it} + \beta_6 Controls_{it} + \epsilon_{it} \]

3.2. Sample, time frame, and data source

For our primary analysis, the time frame is from 2007 to 2015. EM estimation requires the use of lead, lag, and change variables. Thus, the time frame for estimating EM is from 2003 to 2016. We retrieve data from the Centre for Monitoring Indian Economy’s (CMIE’s) Prowess database. This database covers around 40,000 listed and unlisted Indian companies from 1989. It provides data regarding financial statements (annual and quarterly), OS, governance parameters, stock exchange data, and other company-related news. Several notable empirical studies, including those by Khanna and Palepu (2000), Sarkar et al. (2008), and Nagar and Sen (2016), have relied on the CMIE Prowess database for data on Indian companies.

The following criteria are used to select a sample from all the firms listed on BSE (groups A & B):
1. Exclusion of financial institutions, insurance firms, and utilities.
2. Exclusion of firms having a financial year different from March 31.
3. Exclusion of firm years with negative assets and sales.
4. Exclusion of firm years for which the required data is not available.
5. Exclusion of industry-year group with less than ten observations (Roychowdhury, 2006).

After applying the above criteria, we get firm-year observations varying from 9463 to 11172 (2003-2015) for estimating EM using different models. For our primary analysis, firm-year observations vary from 5523 to 6824 (2007-2015).

4. RESULTS AND DISCUSSION

4.1. Descriptive statistics

We use AEM and REM as a proxy for FRQ. Table 1 (Panel A) presents the descriptive statistics for AEM and REM estimated using different models. For AEM models, the mean value of discretionary accruals is zero. The negative median value indicates that median firms are inclined to use income-decreasing EM. All the AEM models decompose accruals into discretionary and non-discretionary components. Francis et al. (2005) calculate the standard deviation of discretionary accruals from year t to t-4. This standard deviation indicates the accruals quality. The higher the standard deviation, the lower the accruals quality. The mean value of accruals quality for the sample firms is 0.0862, and the median value is 0.0743. Francis et al. (2005) report a mean value of 0.0443 and a median value of 0.0313. Thus, the sample firms in this study have lower accruals quality than those in Francis et al. (2005). The mean value of EM using REM models is zero. Using REM models, the median value of EM indicates that the median firms engage in income-decreasing EM by manipulating sales and discretionary expenses and income-increasing EM by manipulating production costs.

Table 1 (Panel B) shows descriptive statistics for the independent and control variables. 54% of the total sample belongs to firms affiliated with a BG, and 46% to firms not affiliated with a BG. The mean and the median values of PH are 55% and 56%, respectively, indicating that the majority of the sample has large PH. This is evident as most emerging economies are characterized by large PH. The mean and the median values of IH are 12% and 8%, respectively. This indicates that sample firms are characterized by low IH.

The median values are close to the mean for firm size, leverage, and return on total assets. Thus, the sample is a symmetric representation of firms with different sizes, leverage, and performance. The mean value of the price-to-book ratio is 2.13, and the median value is 1. This indicates that median firms are value-creating firms. The mean value of age is 30 years, and the median age is 24 years, thus indicating that the sample is a symmetric representation of established firms. The sample comprises manufacturing firms (60%) and non-manufacturing firms (40%). The correlation between variables is less than 0.8. Variance inflation factors (VIFs) are within the prescribed limit. Hence, there is no issue of multicollinearity.
Table 1. Descriptive statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Median</th>
<th>Standard deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIZE</td>
<td>9810</td>
<td>6.26</td>
<td>6</td>
<td>1.91</td>
<td>0</td>
<td>13</td>
</tr>
<tr>
<td>LEV (ratio)</td>
<td>9708</td>
<td>0.57</td>
<td>0.36</td>
<td>0.32</td>
<td>0.009</td>
<td>2.42</td>
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<tr>
<td>ROA (%)</td>
<td>9669</td>
<td>5.03</td>
<td>4</td>
<td>8.36</td>
<td>-13</td>
<td>44</td>
</tr>
<tr>
<td>PB (times)</td>
<td>8373</td>
<td>2.13</td>
<td>1</td>
<td>2.88</td>
<td>0</td>
<td>22</td>
</tr>
<tr>
<td>AGE (years)</td>
<td>9809</td>
<td>29.74</td>
<td>24</td>
<td>20.66</td>
<td>0</td>
<td>152</td>
</tr>
<tr>
<td>PH (%)</td>
<td>8585</td>
<td>33.35</td>
<td>56</td>
<td>15.99</td>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td>IH (%)</td>
<td>7808</td>
<td>12.01</td>
<td>8</td>
<td>12.09</td>
<td>0</td>
<td>84</td>
</tr>
<tr>
<td>IND</td>
<td>9811</td>
<td>Manufacturing (proportion): 60.56% (5942)</td>
<td>Non-manufacturing (proportion): 39.44% (3869)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>BG</td>
<td>9831</td>
<td>Affiliated (proportion): 53.75% (5284)</td>
<td>Not-affiliated (proportion): 46.25% (4547)</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

4.2. Regression analysis

4.2.1. Earnings management and ownership structure

Table 2 presents the result of the regression analysis. EM estimated using different models is regressed on OS and control variables. PH has a positive and significant relationship with EM for Francis et al. (2005). This indicates that firms with high PH have lower accruals quality. This finding supports the entrenchment hypothesis, aligning with Arthur et al. (2019). One of the manifestations of the expropriation of minority shareholders is the misrepresentation of accounting information (Kamin & Ronen, 1978; Gopalan & Jayaram, 2012). However, we do not find any significant relationship for other EM models.

IH has a positive and significant relationship with EM for the discretionary expenses model, indicating that firms with high IH are inclined to manage earnings using discretionary expenses. The amount spent on discretionary expenses like advertising, training, research, and development is not subject to auditor scrutiny. It is a real decision under the discretion of managers. This finding supports the strategic alignment hypothesis. The institutional shareholders align with controlling promoters to expropriate minority shareholders by misrepresenting accounting information without proper checks and balances. However, we do not find a significant relationship for other EM models.

BG affiliation has a negative and significant relationship with AEM except for the discretionary revenues. This indicates that firms affiliated with a BG are unlikely to engage in AEM. Khan and Kamal (2022) find a negative relationship between BG affiliation and AEM in Pakistan. However, BG affiliation has a positive and significant relationship with REM. This indicates that firms affiliated with a BG are inclined to engage in REM. Literature indicates that firms try to trade-off between AEM and REM as AEM is more susceptible to auditor scrutiny than REM (Zang, 2012). A negative coefficient for AEM and a positive coefficient for REM highlight the trade-off between different EM strategies. Such trade-off is more likely in firms affiliated with a BG as a means to avoid auditor scrutiny.

Firm size, leverage, performance, growth opportunities, industry membership, and age are the control variables. For the total accruals and production costs models, firm size has a positive and significant relationship with EM, indicating that large firms are more likely to engage in AEM. However, it is negative and significant for the Francis et al. (2005) and discretionary expenses models. This indicates that large firms have higher accruals quality. This is possible as they have more predictable operations and less variability (Dechow & Dichev, 2002). Leverage has a positive and significant relationship with AEM. However, it is negative and significant in the case of the discretionary expenses model. This indicates that highly leveraged firms use AEM to avoid debt covenant violations. However, they are not inclined to use REM for this.

Firm performance has a positive and significant relationship with EM for all models except Francis et al. (2005) and the production costs model. The price-to-book ratio has a negative and significant relationship with EM for all models except Francis et al. (2005), the sales manipulation model, and the discretionary expenses model. This indicates that the increase in growth opportunities leads to a decline in accruals quality, and firms resort to REM.
4.2.2. Impact of change in regulation

A change in regulation should improve FRQ by decreasing EM and increasing accruals quality. Results presented in Table 3 give similar insight. However, as expected, it does not hold for firms affiliated with BG. After the introduction of the Companies Act of 2013, firms affiliated with a BG are more likely to engage in AEM than REM. Generally, firms affiliated with BG tend to engage less in AEM and more in REM. However, post-new regulation, we observe an opposite trend. Regulatory reforms create a level playing field for all firms. Thus, BGs lose their comparative advantage in raising capital. Empirical evidence suggests that better firm-level governance results in lower cost of capital but this does not hold for strong country-level regulation (Bruno & Claessens, 2010). Thus, firms affiliated with BG resort to opportunistic reporting post-change in regulation to mitigate the loss of comparative advantage in raising capital. Weak enforcement of the law further exacerbates such practices.

Table 2. Regression results (2007-2015)

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Note: * Significant at the 5% level. ** Significant at the 1% level. F-statistics reported in parentheses.
4.3. Robustness tests

We conduct tests to check for the presence of heteroskedasticity and autocorrelation. Breusch-Pagan/Cook-Weisberg Test and White’s test indicate the presence of heteroskedasticity. The Wooldridge test indicates the presence of autocorrelation. Robust standard errors and cluster robust standard errors, clustered by firm, are calculated to address this issue. The un-tabulated results for robust standard errors indicate no deviation from the main results except for the discretionary revenues and production costs models. In the case of the discretionary revenues model, affiliation with BG becomes significant. In the case of the production costs model, PH becomes significant. The un-tabulated regression analysis results using cluster robust standard errors, clustered by the firm, do not show a significant deviation from the main results. The coefficient of IH becomes significant for the modified Jones’ (1991) model and insignificant for the discretionary expenses model. The coefficient of affiliation with a BG becomes insignificant for the Francis et al. (2005) model, sales manipulation model, and discretionary expenses model.

5. CONCLUSION

India is one of the fastest-growing economies in the world. Over the years, it has witnessed a surge in foreign capital investment, the growth of equity markets, the number of listed companies, trading volume, and market capitalization. In the financial year 2019, the country outperformed global markets like the US, UK, China, and Brazil by recording a two-digit growth. Every passing year, there is an increase in the number of retail investors and market capitalization compared to the gross domestic product ratio. However, it remains less than the global average. The dominance of founders/promoters in the shareholding still exists, resulting in type II agency problems. One of the manifestations of agency problems is engaging in EM, which results in poor FRQ. There are ample instances of accounting fraud and the use of EM techniques by firms owned by controlling promoters. Though the regulators are making continuous efforts to protect the interests of investors, and a gamut of accounting and governance reforms have been initiated, there is a long way to go.

Exploiting the above context, we provide evidence of the relationship between OS and FRQ in India’s emerging economy. We use different types of EM to capture FRQ. OS encompasses PH, IH, and affiliation with a BG. As expected, we find support for the entrenchment hypothesis in the case of controlling promoters. However, contrary to our expectations, we find support for the strategic alignment hypothesis in the case of institutional shareholders. Institutional investors and other sophisticated investors have the resources to evaluate investment opportunities and FRQ. Ideally, the active monitoring hypothesis should hold, and minority investors should benefit from the expertise and resources of institutional investors.

We found interesting results for firms affiliated with BG. Our analysis lends support for the alignment hypothesis in the case of AEM and for the entrenchment hypothesis in the case of REM. This indicates a trade-off between AEM and REM. Firms avoid auditor scrutiny by giving preference to REM over AEM. Thus, such firms require more attention and surveillance from the regulators. To explore this trade-off further, we examine the role of regulation, in this case, the Indian Companies Act of 2013, which introduced reforms to increase accountability and transparency. The moderating effect of change in regulation on the relationship between BG and FRQ indicates that post-regulation firms affiliated with BG are more likely to engage in AEM. This may be because such firms lose their comparative advantage in raising capital post-regulation. Regulators and policymakers must understand the interaction between country-level and firm-level governance to assess whether regulation and governance mechanisms yield optimal outcomes. The implicit and explicit costs of formal governance requirements can yield sub-optimal outcomes. Thus, regulatory authorities should devise regulations and policies accordingly. The recent amendments in the Indian Companies (Audit and Auditors) Rules 2021 to increase transparency by placing higher accountability on chief executive officers/chief financial officers/auditors/independent directors support our findings.

Lastly, several studies have examined financial reporting and EM practices in the US context. However, in the Indian context, there is a dearth of considerable literature. Our study contributes to the literature by examining a large sample of India’s listed firms. However, there are some limitations. India adopted International Financial Reporting Standards (IFRS) converged accounting standards in a phased manner in 2016. This study focused on the pre-convergence period (till 2015). Future research can examine the impact of IFRS adoption on the relationship between OS and FRQ. Additionally, cross-country comparisons of this phenomenon can provide valuable insights.

REFERENCES


