Corporate Governance Practices and Bank Performance: Evidence from Indian Banks

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Abstract
The study examines the corporate governance practices and analyzes the role of the board characteristics (size of the board, the composition of the board, and functioning of the board) on the performance and asset quality of banks. We use a sample of 34 commercial banks consisting of 19 public sector banks and 15 private sector banks from 2009 to 2018 accounting for 93 percent of the total banking industry in India. The study finds that busy directors and the number of meetings have a positive significance on bank performance. The percentage of independent directors and the percentage of busy directors influence a significant negative relationship on the net non-performing assets ratio. The board size and number of meetings are associated negatively with Tobin's Q significantly and the percentage of busy directors is a significantly positive impact on Tobin's Q. The board size has a significantly negative impact on bank performance. The research findings provide some insights into corporate governance to the RBI for considering appropriate policy guidelines on corporate governance in the banking industry in India. The paper adds to the existing literature on corporate governance mechanisms and banking industry performance.

Keywords: Corporate Governance, Board Characteristics, Performance of Banks, Indian Banking.

1. Introduction
The role and importance of the board of directors in the corporate governance of financial and banking institutions have become more important during the post-global financial crisis of 2008. The Basel Committee on Banking Supervision (BCBS, 2015) emphasizes the importance of corporate governance. The primary objective of corporate governance would be safeguarding stakeholders’ interest in conformity with public interest on a sustained basis. Good corporate governance practices in banking institutions are essential conditions for achieving and maintaining public trust and confidence in the banking, financial and economic systems of the country. Corporate governance deals with the organizational structure through which the objectives of the firms are achieved. Good corporate governance will enable better financial performance and provide fair return and treatment to all stakeholders and incentives for management to pursue objectives that are in the best interests of the institution and its shareholders.

The Indian banking sector is the largest and most complex among emerging economies of the world. The banking industry supported commerce, industries, trade, and personal segments of the economy by providing different types of banking products. The nature of the banking business enhances the information asymmetry and reduces stakeholders’ ability to monitor bank managers' decisions. Banks do business with other people's savings and money and trust of depositors forms the cornerstone of their existence. Therefore, the banking industry is subject to more intense regulation than other industries, as they are responsible for safeguarding and protecting the depositors' rights, guaranteeing the stability of the financial system, and reducing systemic risk. Regulation may be considered as an additional measure of corporate governance mechanism and occasionally it diminishes the effectiveness of other mechanisms in the corporate governance of banks. The Reserve Bank of India (RBI) widened highly and deepened banking reforms and strengthened structurally the banking industry. Most of the banks from the public and private sectors are listed on the stock exchanges and are actively trading at the stock exchanges. The Securities and Exchange Board of India (SEBI) introduced a sound corporate governance system to improve the functioning of the banking system. Corporate governance in banks plays an important role due to the complexity and uniqueness of banking institutions. Boards are expected to take proper control and fair decisions on various strategies and policy choices.

Regulators may discourage competition and discipline banks by imposing restrictions on ownership structures and business operations. The size, composition, and functioning of boards might show directors' motivation and their ability to adequately supervise and advise managers' decisions. SEBI introduced a sound corporate governance system not only to improve the functioning of the banking system but also to ensure full and fair disclosures by the banking industry. The boards of directors of Indian banks are responsible and accountable for the operations and performance of the banks and to monitor and advise top management and operational management of banks. SEBI lays more importance on the board through a comprehensive and effective regulatory framework for corporate governance of banks. The RBI introduced "fit and proper" criteria for the constitution of the bank board and selection of the board of directors. The SEBI issued
guidelines for the board of directors under the Clause-49 listing agreements making corporate governance practices mandatory for all listed companies in India.

We examine a comprehensive set of board characteristics (size, composition, and functioning of the board) that might affect directors' incentives and abilities to effectively advise and monitor top management. Most of the previous studies focus on non-bank firms and a lot of studies are on corporate governance related to the developed countries. There is little work carried out on the corporate governance of the banking sector of emerging economies in general and India in particular. The role of the board of directors in the banking sector is not well explored even in developed countries. The existing literature on bank corporate governance in India mainly focuses on the impact of ownership structure on bank performance. Only a few studies focused on corporate governance in emerging economies (Garg, 2007; Fu & Heffernan, 2009; Liang et al., 2013).

We study the corporate governance framework in the Indian banking industry, the role of the board of directors (size, composition, independence and functioning of the board) and investigate the influence of board characteristics on banks' performance. The paper is organized as follows. Section 2 reviews the literature on the corporate governance of banks. Section 3 presents the research methodology and description of variables. Section 4 discusses the empirical results and the last section concludes the paper.

2. Literature Review

This section covers literature on board size, board independence, the proportion of executive directors, the proportion of busy directors and the number of meetings held on bank performance. The role of the independence of directors is the main focus of corporate governance in banks. The corporate governance literature on banks offers no conclusive results on the role of independent directors on the performance of the banks. One strand of the literature finds that the presence of independent directors on the board tends to lessen the conflict of interests and be more effective in reducing the agency problem. A lot of studies find that, while independent directors increase the quality of monitoring, while few studies find that they may lack sufficient knowledge of bank-specific information and lead to inferior decision making which leads to the poor performance of banks.

2.1 Literature Review on Independence of Directors

Rosenstein & Wyatt (1990) report that stock prices move favorably and positively to the nomination of independent directors on the board. Bhagat & Black (2002) conclude that corporate governance literature offers no conclusive evidence on the effect of appointing outside directors. Klein (2002) reports that earnings quality increases with the increasing proportion of independent directors. Rowe et al. (2011) use a sample of 41 banks and examine the impacts of board size, percentage of executive directors and independent directors, on Chinese bank performance. They find that the percentage of executive directors on the boards indicates a significantly negative impact on bank performance. Nguyen & Nielsen (2010) find that the stock price drops following the sudden death of independent directors. Francis et al. (2013) report that a board with strong independent directors shows a positive and significant relationship with firm performance. Liang et al. (2013) study a sample of 50 large Chinese banks; find that the proportion of independent directors has a significant impact on both bank performance and asset quality. Munirandy & Hillier (2015) examine the impact of board independence on firm performance using a sample of 151 South African firms and find a positive relationship between firm performance and independent directorship. Liu et al. (2015) conclude that independent directors have an overall positive effect on firms' operating performance in China. Fu et al. (2016) study a sample from different countries; report a mixed association between the proportions of independent directors and firm performance. Independent directors have incentives to promote and protect the interests of shareholders and to be effective monitors of managers. They find that the appointment of outside directors is considered positively and provide excess stock returns.

2.2 Literature Review on Board Size

Jensen (1993) argues that large corporate boards are less effective due to the problems of coordination, control, and decision-making and give excessive control to CEOs. Yermack (1996) finds that firms with small boards had a better financial performance. Adams & Mehran (2005) report that board size is positively and significantly related to the performance of the banks. However, other researchers argue that larger boards improve firm performances by facilitating manager supervision and bringing more human capital to advise managers. De Andres & Vallelado (2008) find that an inverted U-shaped relationship between bank performance and board size, and between the proportion of non-executive directors and performance. Their results show that bank board composition and size are related positively significant to directors' ability to monitor and advise management. Fu & Heffernan (2009) study the relationship between market structure and performance in China's banking and finds that the private sector banks have higher efficiency and profitability than the state-owned government banks. García-Herrero et al. (2009) investigate a panel data of 87 Chinese banks from 1997 to 2004 and find that less concentrated banking ownership increases bank performance and profitability. Pathan (2009) examines a sample of 212 large US banks and finds that small and less restrictive boards positively affect bank risk-taking. Adams & Mehran (2012) investigate the relationship between board governance and performance and the study reports that board size is positively correlated with performance. Francis et al. (2013) find that better corporate governance reduces the dependence of emerging market firms on internally generated cash flows, and lowers financing costs. Liang et al.
(2013) investigate a set of board characteristics such as size, composition, and functioning of the board, and analyze their impact on bank performance. They find that the board of directors plays a significant role in bank governance in China. Malik et al. (2014) report a significant positive relationship between board size and bank performance. However, several researchers (Jensen, 1993; Yermack, 1996; Liang et al., 2013) conclude a negative association between board size and firm performance. Hermelin & Weisbach (1991); Yermack (1996); Hermelin & Weisbach (2001); Francis et al. (2012) find no significant impact between independent directors of the boards and firm performance. Empirical evidence on board independence and firm performance is inconclusive concerning banks. (Hermelin & Weisbach, 1991; Agrawal & Knoeber, 1996; Bhagat & Black, 2002) and some other studies find no effect (Adams & Mehran, 2012) and some other studies find a positive effect (Liang et al., 2013).

2.3 Literature Review on Busy Directors
We define busy directors as the director who serves on three or more boards. Fich & Shivadasan (2006) find that when a majority of outside directors serve on three or more boards, firms show lower market-to-book ratios and lower operating profitability. Fich & Shivadasan (2006) find that firms with busy boards are associated with weak corporate governance. These firms experience lower market-to-book ratios and weaker profitability. When directors become busy as a result of acquiring an additional directorship, other companies in which they hold board seats experience negative annual returns. Busy outside directors are more likely to depart boards following poor performance. Ahn et al. (2010) find that directors serving on multiple boards allow value-destroying acquisitions.

2.4 Literature Review of Indian Studies
The following studies are undertaken in India by (Garg, 2007; Kumar & Singh, 2013; Gafoor et al., 2018; Sarkar & Sarkar, 2018). Garg (2007) examines the board size and board independence on a firm's performance and finds that there is an inverse association between board size and firm performance of Indian firms. The study finds independent directors have failed to perform their monitoring role effectively and improve the performance of the firm. Kumar & Singh (2013) examine the relationship of board size on the firm value of listed companies in India and find a negative correlation between board size and performance. Gafoor et al. (2018) study a sample of 36 Indian commercial banks for the period 2001 to 2014. They find a significant positive relationship between board size and bank performance and report a positive and significant relationship between board independence and bank performance. Sarkar & Sarkar (2018) examine the effect of board governance on the performance of Indian PSBs and PVBs for the period from 2003 to 2012. They find strong ownership effects with board independence and positive correlation with the performance of PVBs significantly and a significant but negative correlation with the performance of PSBs. They conclude that governance implications for strengthening the composition of the board of directors of PSBs.

3. Data, Methodology, and Description of Variables
We use a sample data of 34 scheduled commercial banks (SCBs) of India. The total sample 34 scheduled commercial banks consisting of 19 government-owned public sector banks (PSBs), 15 private sector banks (PVBs) comprise 7 new generation technology-oriented banks (NPBS) and 8 old private sector banks (OPSBs), for a period of 10 years ranging from 2009 to 2018. So, the panel data are built with 340 bank-year observations. Data on board characteristics such as board size, number of directors, the proportion of independent directors, busy directors, executive directors and the number of meetings held are mainly collected from CMIE. The performance variables include return on assets (ROA), net non-performing assets (NNPAs) ratios are taken from Statistical Tables Relating to Banks (STRB) from RBIs website, and shareholders’ annual market returns are calculated from yearly closings prices of respective banks’ shares, data published by the Bombay Stock Exchange (BSE) Ltd. The variables used for the study are three broad categories such as performance variables, board characteristics variables and control variables. Performance variables are used as the proxy for dependent variables, and board variables as the proxy for independent variables. The control variables are used to control the potential effects on performance.

3.1 Dependent Variables: Performance Measures
We measure bank performance by using Tobin’s Q, the return on assets (ROA), the annual market return of a shareholder (SR), and asset quality is measured by NNPAs. We calculate Tobin’s Q as the book value of total assets minus the book value of common equity plus the market value of common equity divided by the total book value of total assets as the usual proxy for Tobin’s Q. We use two other bank performance ratios to examine the return on assets (ROA), and annual market return of a bank shareholder (SR). We measure ROA as the income before, interest, and taxes (EBIT), divided by the total assets. We calculate the shareholder yearly return for each year from the opening price and closing price of the year, and asset quality is measured by net non-performing assets (NNPAs). The NNPAs ratio is measured by NNPAs and is divided by the net advances. SR, on the other hand, measures market performance but might be biased by market sentiment and market manipulations.
3.2 Independent Variables: Board Characteristics Measures

Three board characteristics are taken for the study such as board size, board composition, and board functioning. The board characteristics variables include the number of directors serving on the board (bs); the percentage of independent directors on the board (pid) where the independent director is defined as such director that has no other position in commercial banks, the percentage of executive director (ped), the percentage of busy directors on the board (pbd). The busy director is defined as the director who serves on three or more boards and several meetings per year (nom).

3.3 Control Variables

We use total bank assets (in INR billions) to measure the size of the bank, (ta) and capital adequacy ratio (car) as a proxy for measuring the strength of banks' capital. CAR is measured as equity to total assets. Table 1 describes variables.

Table 1. Description of variables

| Nature of variables | Description of variable |
|---------------------|-------------------------|
| **Panel A: Dependent Variables: Bank performance variables** |
| 1 Tobin’s Q          | Market Value of equity plus book value of debt divided by the book value of total assets |
| 2 Return on assets (ROA) | EBIT over total assets |
| 3 Shareholders’ market returns (SR) | Yearly stock market returns of respective banks |
| 4 Assets’ quality (NNPA) | Net NPAs to net advances |
| **Panel B: Independent Variables: Board characteristics variables** |
| 5 Executive director | Percentage of directors who are executives |
| 6 Board Size         | Number of directors in the board |
| 7 Independent Director | Percentage of directors who are independent |
| 8 Busy Director      | Percentage of directors who serve on 3 or more other boards |
| 9 Meetings           | Number of board meetings |
| **Panel C: Control variables** |
| 10 Bank Size         | Total assets of the bank |
| 11 Capital Ratio     | Capital adequacy ratio (CAR) (Equity/ total assets) |

4. Econometric Model

The main regression equation

\[
\text{Performance Measure}_{it} = \alpha + \sum_{j} \beta_j \text{Board Variables}_{ij,t} + \sum_{k} \gamma_k \text{Control Variables}_{ik,t} + \epsilon_{it}
\]

Where board variables are

\[ B\text{Size} = \text{Board Size} \]
\[ B\text{Meeting} = \text{Number of board meetings} \]
\[ E\text{x} \text{Director}_{it} = \text{Percentage of executive director} \]
\[ I\text{ndirector}_{it} = \text{percentage of independent directors} \]
\[ B\text{u} \text{Director}_{it} = \text{percentage of directors who serve on more than or equal to 3 other boards.} \]

Control variables used in the above equation are:

Bank size= Natural log of total asset of the bank
Capital adequacy ratio (CAR) = Equity to total assets

Performance variables are: Tobin’s Q_{it}, ROA_{it}, SMR_{it}, and NNPA Ratio_{it}
Variables $i, t$, where $i$ denotes individual bank from 1 to bank 34 and $t$ represents the period from 2010 to 2018. The $\beta$ parameters capture the potential impacts of various board characteristics on bank performance.

Table 2 presents the descriptive statistics of all the variables. Panel A, Panel B, and Panel C report bank performance variables, board characteristics variables and control variables respectively. The average of Tobin’s Q is 1.04 times, ROA is 0.70 percent, stock market return is 20 percent and the ratio of NNPA is 2.63 percent of our sample banks for the ten years 2009-2018. The average size of our sample Indian bank boards is 14, which is smaller compared to those in developed countries. The average number of meetings per year is 12 which is higher compared to the other developed countries.

Table 2. Descriptive statistics

| Variables                       | N  | Mean | STD  | Min  | Max  |
|---------------------------------|----|------|------|------|------|
| **Panel A: Bank performance variables** |     |      |      |      |      |
| Tobin’s Q                       | 340| 1.04 | 0.12 | 0.94 | 1.82 |
| ROA                             | 340| 0.70 | 0.88 | -2.46| 2.02 |
| SMR (%)                         | 340| 20.00| 43.00| 9.00 | 156.00|
| NNPA                            | 340| 2.63 | 3.04 | 0.01 | 16.69|
| **Panel B: Board Characteristics variables** |     |      |      |      |      |
| Board Size                      | 340| 14.33| 2.90 | 8.00 | 24.00|
| No Meetings                     | 340| 12.33| 4.11 | 4.00 | 28.00|
| Independent Directors (%)       | 340| 36.77| 19.20| 0.00 | 75.00|
| Busy Directors (%)              | 340| 14.00| 17.00| 0.00 | 64.00|
| Exe Directors (%)               | 340| 24.21| 11.31| 0.00 | 61.90|
| **Panel C: Control variables**  |     |      |      |      |      |
| Bank Size (Assets in Rs. Billion)| 340| 2571 | 3619 | 56   | 34500|
| CAR                             | 340| 13.32| 2.32 | 8.67 | 22.04|

Table 3 presents the correlation matrix for all the variables. However, we do observe that there is a mild and weak correlation between performance measure Tobin’s Q (dependent variable) and several meetings held (independent variable) at 0.40 and there is a positive correlation between performance measure ROA and NNPA. We find that there is a weak positive correlation between CAR and NNPA. The results report there is no correlation between the variables used in the study. We tested for the VIF and all the models are free from the problems of multicollinearity as the Variance Inflation Factor (VIF) of each independent variable and the results report less than 3 VIF for all variables. Hence, we conclude that overall, there is no multicollinearity among the variables used for the study.

Table 3. Correlation Matrix

|       | bs  | pind | nom  | ped  | pbd  | lta  | car  | sr   | npa  | roa  | tq  |
|-------|-----|------|------|------|------|------|------|------|------|------|----|
| bs    | 1   |      |      |      |      |      |      |      |      |      |    |
| pind  | -0.262| I    |      |      |      |      |      |      |      |      |    |
| nom   | 0.280| -0.154| I    |      |      |      |      |      |      |      |    |
| ped   | 0.251| -0.157| 0.083| I    |      |      |      |      |      |      |    |
| pbd   | -0.062| 0.201| -0.457| -0.013| I    |      |      |      |      |      |    |
| lta   | 0.392| -0.246| 0.005| 0.622| 0.161| 1    |      |      |      |      |    |
| car   | 0.001| 0.177| -0.062| -0.037| -0.014| -0.123| 1    |      |      |      |    |
| sr    | 0.015| 0.053| -0.061| -0.078| 0.103| -0.118| 0.057| 1    |      |      |    |
| npa   | -0.066| -0.230| 0.043| 0.209| 0.012| 0.219| -0.498| -0.034| 1    |      |    |
| roa   | 0.073| 0.160| -0.027| -0.147| -0.077| -0.183| 0.664| 0.049| -0.818| 1    |    |
| tq    | -0.220| 0.193| -0.397| -0.046| 0.418| 0.029| 0.114| 0.091| -0.002| 0.006| 1  |

5. OLS Estimators

Table 4 provides the OLS results of four regressions results on Tobin’s Q, ROA, SR, and NNPA on all five board variables. The panel data analysis is used since the sample data is a mixture of time series and cross-sectional data. This
allows the analysis to take into account the unobservable and constant heterogeneity, that is, the specific nature of each bank's business models, and strategy, management quality, and style, market perception, etc. We use OLS regressions at the bank level. We regress each bank performance variable on board variables, (board size, percentage of independent directors, percentage of executive directors, percentage of busy directors, and several meetings. The results show that board size and several meetings are negatively associated with Tobin's Q whereas the percentage of busy directors is positively associated with Tobin's Q. We find that board size and board independence are positively related to ROA whereas the percentage of executive directors negatively contributed to the ROA. The control variables size of the bank (total assets) and CAR are positively associated with ROA. We find that the percentage of executive directors is negatively significant with the bank performance of ROA. Board size and percentage of independent directors are negatively associated significantly with NNPA (at 1% level), whereas the percentage of executive directors is positively associated with NNPA (at 1% level). Bank size is positively associated with NNPA and CAR is negatively associated with NNAs. Both are at a significant 1% level. None of the variables is having any influence on SR including control variables.

Table 4. OLS Regression results of Tobin's Q, ROA, SMR, and NNPAs

| Variables: Dependent | Tobin's Q | ROA | Stock Return | NNPAs |
|----------------------|-----------|-----|--------------|-------|
| Intercept            | 1.091     | -2.931 | -0.199       | 13.836 |
| (0.000)              | (0.000)   | (0.328) | (0.000)      |       |
| Independent Variables|           |     |              |       |
| Board Size           | -0.006    | 0.048 | 0.012        | -0.230 |
| (0.008)              | (0.000)   | (0.195) | (0.000)      |       |
| Percentage of Independent Directors | 0.000   | 0.005 | 0.000        | -0.029 |
| (0.518)              | (0.034)   | (0.854) | (0.001)      |       |
| Number of Meetings   | -0.006    | -0.010 | -0.002       | 0.025  |
| (0.000)              | (0.299)   | (0.726) | (0.496)      |       |
| Percentage of Executive Directors | 0.000   | -0.008 | -0.002       | 0.044  |
| (0.987)              | (0.012)   | (0.382) | (0.001)      |       |
| Percentage of Busy Directors | 0.198   | -0.312 | 0.293        | -0.360 |
| (0.000)              | (0.194)   | (0.074) | (0.697)      |       |
| Control Variables    |           |     |              |       |
| Total Assets         | 0.000     | 0.000 | 0.000        | 0.000  |
| (0.386)              | (0.019)   | (0.125) | (0.000)      |       |
| Capital Adequacy Ratio | 0.005   | 0.241 | 0.008        | -0.652 |
| (0.082)              | (0.000)   | (0.455) | (0.000)      |       |
| F Value              | 16.68     | 38.47 | 1.76         | 20.93  |
| R-Squared            | 0.260     | 0.483 | 0.040        | 0.336  |
| Adjusted R squared   | 0.245     | 0.476 | 0.176        | 0.320  |
| Number of observations| 340      | 340  | 340          | 340    |

5. Regressions Results: Fixed Effect and Random Effect

Table 5 presents random effect model and fixed effect model using Tobin's Q, NNPAs, ROA, and SR. Since our final model is fixed-effect model for Tobin's Q and NNPAs and random effect model for ROA and stock market return, we explain the results of fixed effect for two variables and random effect model for the other measures of performance. We use Hausman's test, which was rejected for ROA and SR and hence we used a random effect model for these two variables. The regressions results show that board size and several meetings have a significantly negative relationship with Tobin's whereas the percentage of busy directors is associated positively significant with Tobin's Q. The results report that board size and percentages of independent directors are having a negative association with NNPA significantly (at 1% level) and the number of meetings held is insignificant and associated positively with NNPAAs. As reported in OLS results, in this model also, no board variable is reported to have any association with the stock market return. However, board size and percentage of independent directors are positively significant with ROA and the percentage of executive directors is associated negatively with ROA significantly (Adams & Mehran, 2005; De Andres & Vallelado, 2008). The results support the hypothesis that a large board contributes to better bank performance.
But this has a negative association with Tobin's Q, which measures the overall performance of banks. Adams & Mehran (2012); Liang et al., (2013) we find that board independence is having a significantly positive impact on ROA which is consistent with previous studies (Baysinger & Butler, 1985; Cornett et al., 2009; De Andres & Vallelado, 2008; Garg, 2007; Hermelin & Weisbach, 1998; Liang et al., 2013). This finding supports the hypothesis that independent directors are better monitors of the managers. The results also report a significant negative relationship between the number of board meetings and bank accounting performance as measured in ROA. This negative relationship indicates that conducting a larger number of board meetings results in poor performance of the bank. Lipton & Lorsch (1992); Jensen (1993); Yermack, (1996); Barnhart & Rosenstein (1998) the effectiveness of the board meetings depends on the number of decisions taken in them in the larger interest of the bank but the implementation of these decisions is weak. This result is consistent with previous studies (De Andres & Vallelado, 2008; Liang et al., 2013). We also find the percentage of busy directors has a positive relationship with the performance measure of Tobin's Q and stock returns significantly.

### Table 5. Regression results with Fixed and Random Effects

| Variables | Fixed Effect Model | Random Effect Model |
|-----------|--------------------|--------------------|
|           | Tobin's Q | NNPAs   | Stock Return | ROA   |
| Intercept | 1.144     | 15.306  | -0.199       | -2.931 |
|           | (0.000)   | (0.000) | (0.328)     | (0.000) |
| Ind Variables |          |         |              |       |
| bs        | -0.006    | -0.218  | 0.012        | 0.048 |
|           | (0.016)   | (0.000) | (0.195)     | (0.000) |
| pid       | 0.000     | -0.039  | 0.000        | 0.005 |
|           | (0.347)   | (0.000) | (0.854)     | (0.034) |
| nom       | -0.006    | 0.017   | -0.002       | -0.010 |
|           | (0.001)   | (0.651) | (0.726)     | (0.299) |
| ped       | 0.000     | 0.049   | -0.002       | -0.008 |
|           | (0.926)   | (0.000) | (0.382)     | (0.012) |
| pbd       | 0.155     | -0.715  | 0.293        | -0.312 |
|           | (0.000)   | (0.457) | (0.074)     | (0.194) |
| Cont Variables |          |         |              |       |
| lta       | 0.000     | 0.000   | 0.000        | 0.000 |
|           | (0.208)   | (0.000) | (0.125)     | (0.019) |
| car       | 0.002     | -0.748  | 0.008        | 0.241 |
|           | (0.511)   | (0.000) | (0.455)     | (0.000) |
| R-Sq.     | 0.126     | 0.229   | 0.04         | 0.477 |
| F-statistics | 8.22   | 19.62   | 13.81        | 236.48 |

Note: The table reports regression results with fixed and random effects. The values are regression co-efficient and P-values are in parentheses.

### 6. Conclusions

The objective of this paper is to examine empirically the impact of various set of board characteristics on bank performance and asset quality. We use OLS regressions with bank performance and asset quality. We have regressed bank performance variables on widely used board characteristics (board size, number of meetings, percentage of independent directors, percentage of executive director and percentage of busy directors). We use a panel data of 34 commercial banks from public and private sectors, accounting for 93 percent of total banking assets and banking business of Indian banks, for the period of 10 years from 2010 to 2018, a recent period following the major changes in terms business environment such deteriorating profitability, falling credit growth rate, and eroding asset quality of Indian banks. The study finds that two variables:1) a percentage of busy directors, and 2) several meetings have a significant positive impact on bank performance. The percentage of independent directors and the percentage of busy directors has a significantly negative relationship with NNPAs. The board size and number meetings are associated negatively with Tobin's Q significantly and the percentage of busy directors is a significantly positive impact on Tobin's Q. The board size has a significantly negative impact on bank performance.
There is strong evidence that board size and several meetings have significantly negative impacts on bank performance and asset quality (Tobin’s Q and NNPAs). We also find evidence that the percentage of busy directors have a significantly positive impact on bank performance and asset quality. Our findings suggest that board independence and busy directors contribute to better performance and asset quality. The results report that board size and percentages of independent directors are having a negative association with NNPAs significantly (at 1% level) and the number of meetings held is associated positively with NNPAs significantly (at 1% level). As reported in OLS results, in this model also, no board variable is reported to have any association with stock market return. Executive directors contribute negatively to the performance of the banks. Overall, we find that the board characteristics play a significant role in bank governance and certain characteristics of the bank board’s impact on bank performance and asset quality. The paper adds to the existing literature on corporate governance mechanisms and banking industry performance.

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