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Board characteristics and bank performance in India**C.P. Abdul Gafoor^a, V. Mariappan^a, S.Thyagarajan^{b,*}**

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ABSTRACT

Using a sample of 36 scheduled commercial banks in India during the period of 2001-2014, we explore the impact of board structure characteristics such as board size, Independence and CEO duality on bank performance. We find significant relationship between board size and bank performance when the board size is between 6 and 9. We also find positive and significant relationship between board independence and bank performance. Further, we find number of board meetings and financial experts are important for bank performance. However, we find no significant improvement in bank performance when the role of CEO and Chairman is separated.

Keywords: Board structure, bank performance, Indian banking

1. Introduction

The Basel Committee on Banking Supervision (BCBS) reminds the importance of good corporate governance practices of financial institutions for building trust and confidence among the investors¹. Financial institutions being highly leveraged and any undue incidents can be avoided only through an effective corporate governance mechanism. Good corporate governance promotes efficiency in monitoring and supervision. Moreover, a good corporate governance practice is an important element in attracting investors and investors are willing to pay premium of up to 25% for a well governed firm (Barton et al., 2004)

India being a bank based economy, banking sector in India plays a major role in the economic growth of the country. The Indian banking system is expected to be the world's third-biggest in the next decade. Revenue of Indian banks increased from USD 11.8 billion in 2001 to USD 46.9 billion in 2010 and expected to pool \$400 billion revenue by 2026². In the beginning, like many other countries in the world, Indian banking industry was also guided by socialistic philosophy through the nationalization of major banks. This socialistic approach witnessed non-competitiveness and raised concern on the productivity and asset quality of Indian banks. Following the fiscal crisis in 1999, the Indian economy underwent series of reforms aiming at economic liberalization paving the way for the global competition. Realizing the importance of good corporate governance for attracting investors, major corporate governance reforms were started during the period.

As the banking business becomes more competitive, complex and opaque, board of directors as the custodian of good corporate governance practices plays major role through effective monitoring and supervision. This complexity of banking made regulation fencing. Realizing

¹ Enhancing Corporate Governance for Banking Organizations, September 1999 and February 2006

² BCG Annual Benchmarking Report 2016

the importance of bank board structure for the proper functioning of banking system in the economy, Indian regulators gave much importance to the board through different regulatory framework. The Reserve Bank of India (RBI) framed “fit and proper” criteria for the constitution of bank board and selection of board of directors. Moreover, market regulator, Securities Exchange Board of India (SEBI), issued guidelines on board of directors under the Clause-49 listing agreements making it mandatory for corporate governance practices for all listing companies in India.

Our study explores the role of bank board structure in the performance of Indian banking sector. The study focus on three important aspects of board structures namely Board Size, Board Independence, and Board functioning. We use alternative measures for assessing the bank performance such as Return on Assets (ROA) and Profit after tax (PAT). Suitable econometric methods which address the issue of endogeneity were employed. The results are supported by robustness check through alternative proxy

Current study contributes to the exiting literature on corporate governance in three different ways. First, as noted by (Liang et al., 2013), our study also adds to the existing literature of corporate governance studies in emerging economies. Most of the earlier corporate governance studies focused on Europe, US and other developed economies (E.g., Denis and McConnell, 2003; Levine, 2004; Caprio et al., 2007;Admas and Mehran, 2012). This study explores the board structure and performance by using sample of Indian banks.

Second, this study contributes to the existing literature on bank corporate governance which is under explored (Andres and Vallelado, 2008). Though, the corporate governance practices of banks are similar to the non-banking firms, the fiduciary nature and opaqueness of banking business demands more intense regulation and makes bank’s board highly regulated and controlled.

Third, though India is the key player in the global economy, very little attention is given to corporate governance research. Moreover, the corporate governance studies in India are focused on non-financial firms (e.g. Khanna and Palepu, 2000; Garg, 2007; Naveen Kumar and Singh, 2013). This study adds to the corporate governance literature of Indian banks.

The remainder of this paper is structured as follows. Section 2 presents review of literature and Hypothesis formulation. Section 3 presents data and methodology. Section 4 presents empirical results and section 5 summarizes and concludes.

2. Review of Literature

Following Adam Smith's (1776) observation regarding the separation of ownership and control in firms that leads to conflict of interest between owners and controllers, Jensen and Meckling (1976) developed the agency theory of modern corporations. Though, Jensen and Meckling (1976) set monitoring mechanism, they do not examine how large firms can achieve efficient monitoring. Fama and Jensen (1983) argue that the separation of decision management from decision control can result in efficient monitoring. Board can hold decision control authority and while senior managers can hold decision management rights. Thus, the role of the board as monitoring mechanism plays an important role in corporate governance. However, board structure in banks differs from other non-banking firms due to the fiduciary nature and opaqueness of banking business.

2.1. Board Size and Bank performance

One of the important issues in finance and economic literature is regarding the board size in solving agency issues. Yet, the financial press or academic research, do not provide any conclusive evidence on board size and firm performance. Using meta-analysis of 131 firms, Dalton et al. (1999) reports that large boards contribute to the firm performance. Using a

sample of banking firms, Adams and Mehran (2005) reports that board size is positively and significantly related to performance of the banks. Andres et al (2008), using a two-step system estimator model finds an inverted U-shaped relationship between board size and firm performance. Studies argue that inclusion of more directors on the board benefit the monitoring and advising function and improve the governance and returns. Malik et al. (2014) using a sample of fourteen listed commercial banks of Pakistan during the period 2008-2012 reports significant positive relationship between board size and bank performance. However, (Lipton and Lorch, 1992; Jensen, 1993; Yermack, 1996, Barnhart and Rosenstein, 1998; Hermalin and Weisbach, 2003; Liang et al., 2013) report negative association between board size and firm performance. Raheja (2005) report that “optimal board size and composition are the function of directors and firm characteristics”.

2.2. Board Independence and Bank Performance

Role of independent directors in the corporate board is the focus of most of the corporate governance research. Though, a large body of researchers argue that independent directors are the better monitors of the board since they are ‘independent’³ in decision making. Fama and Jensen (1983) argue that outside directors are the better monitors of managers as they have incentives to develop reputation as expert in decision control. Baysinger and Butler (1985) report that firms with higher proportion of independent directors had superior performance. Hermalin and Weisbach (1989) argue that outside directors are more likely to join the board after a firm perform poorly, inferring additional guidance will improve the firm. Rosenstein and Wyatt (1990) examine the wealth effect on the nomination of outside directors. The study reports that the appointment of outside directors is accompanied by significantly positive excess returns. Cornett et al. (2009) explore the relation between board

³ Independent is defined as ‘not having any relationship with firm’

independence and earning quality and documents that board independence is positively related to earning quality. Francis et al. (2012) using buy-and-hold return find that board with strong independent directors shows a positive and significant relationship with firm performance. Liang et al. (2013) using a sample of 50 large Chinese banks reports proportion of independent director have significant impact on both bank performance and asset quality. Muniandy and Hillier (2015) examine the impact of board independence on firm performance using a sample of 151 South African firms and report positive relationship between firm performance and the independent directorship. Liu et al. (2015) using a sample of Chinese listed firm during 1999 -2012 period find that independent directors have an overall positive effect on firm operating performance in China. Fuzi et al. (2016) using sample from different countries reports a mixed association between proportions of independent directors and firm performance. The study argues that mere regulatory compliance by appointing more independent directors will not enhance the firm performance. Yet, Hermalin and Weisbach, 1991; Adams and Mehran, 1995; Yermack, 1996; Hermalin and Weisbach, 2003; Francis et al., 2012) find no significant impact between independent directors and firm performance.

2.3.CEO Duality and Bank Performance

Two theories exist in finance to explain why some firms have chosen to combine the role of CEO and chairman and some firms have chosen to separate the role of CEO and chairman. Agency theory argues that CEO duality hinder the board's ability to monitor management. Fama and Jensen (1983) and Jensen (1993) argue that CEO duality may hinder board's ability to monitor management and thereby increases the agency cost. Rechner and Dalton (1991) using a sample of 141 firms reports that the firm with separate CEO and chairman consistently outperform firms with combined titles. Pi and Timme (1993) investigate the principal- agent conflict and the study documents that that there is negative relationship

between CEO duality and accounting performance measures in banking industry. Duru et al. (2016) using a panel of us firms find that CEO duality has negative and significant impacts on operating performance of when independent directors account for a small proportion of board. Gillan, S.L (2006) documents that separation of CEO and chairman would improve the performance of the firm since the board has unbiased authority to watch the CEO's functions.

Against the agency theory, stewardship theory argues that CEO duality gives unique command and increase firm performance. Stoeberl and Sherony (1985) argue that duality should lead to superior firm performance as it permits clear-cut leadership for purposes of strategy formulation and implementation. Brickley et al. (1997) using a large sample of 737 US firms reports that separation has potential costs, as well as potential Benefits and the costs of separation are larger than the benefits for most large firms. Dahya (2005) using a sample of 1124 firms reports that the firms that separate the role of CEO did not exhibit any absolute or relative improvement in performance. Using the exogenous shock of the 1989 Canada–United States Free Trade Agreement, Yang and Zhao (2014) find that duality firms outperform non-duality firms by 3–4% when their competitive environments change.

The existing literature on corporate governance focused more on Europe, US and other developed economies. Only few studies focused on the corporate governance of emerging economies (e.g. Garg, 2007; 2009; Fu and Heffernan, 2009; Liang et al, 2013). Moreover, most of the corporate governance studies on financial firms are conducted in emerging economies. Furthermore, corporate governance studies in India are focused on non- financial firms (e.g. Khanna and Palepu, 2000; Garg, 2007; Naveen Kumar and Singh, 2013).

3. Data and Methodology

3.1. Sample Selection

To construct the panel data, data of all Indian scheduled commercial banks are collected. The total sample comprises 42 scheduled commercial banks for a period of 14 years ranging from 2001-2014. The sample includes 26 government owned public sector banks and 16 private sector banks. The sample excludes Regional Rural Banks [RRBs], Co-operative banks and foreign banks. The RRBs and Co-operative banks are excluded from sample since they are not listed with stock exchanges and listing agreements of corporate governance is not applicable. The sample also excludes foreign banks since the study is focused on Indian scheduled commercial banks. The original sample of 42 banks is reduced to 36 banks since key variables for 6 banks are not available and missing. So the final panel data is built with 504 bank-year observations.

Financial information is mainly collected from CMIE and Bloomberg data base. The Performance variables include Return on Assets [ROA] and Profit after tax [PAT]. Three control variables such as assets, loan and capital are used to control firm size, loan size and capital size respectively. The data is cross verified with the information available in the annual financial statements to confirm the accuracy.

The board structure data is collected from individual bank's corporate governance reports. The corporate governance report for the sample is collected from CMIE data base. 504 bank-year corporate governance reports are explored manually to obtain board information. For those variables where the information is not explicitly available, directors' reported information is used to make good judgment.

3.2. Variable Description

The variables used for the research are classified into three broad categories such as performance variables, board 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.

Performance Measures: Though the banking performance are measured using different dimensions, we use two alternative measures of bank performance such as return on assets (ROA) and profit after tax (PAT) as used by (Liang et al.,2013; Andres and Vallelado,2008; Rechner and Dalton,1999; Berger et al. 2010). Return on asset is calculated as the net income of the bank over the book value of total assets. Following the previous literatures (Rechner and Dalton, 1991; Balig et al., 1996; Liang et al., 2013), we use operating profit after tax as other measure of bank performance. Profit after tax is calculated as the net operating income minus the corporate tax paid to the government

Board Structure Measures: Following the previous studies (Lipton and Lorsch,1992; Michael and Jensen,1993;Yermack,1996;Garg,2007;Andres and Vallelado,2008;Liang et al.,2013), we use three measures of board structure: board size, board independence and CEO duality. Board size refers to the number of board of directors in the firm during the accounting year. It signals the strength of the board in effectively monitoring the performance of banks. Board independence is defined as the percentage of independent directors⁴ over the board size. CEO Duality is defined as the position of the chairman of the board and CEO. We use dummy variable wherein combined role is given the value of zero and splitted role is

⁴ Independent directors are defined as the directors who are not having any precautionary relationship with bank

given dummy value of one. We also use number of board meeting and percentage of financial experts (Fin: Expert) over the board size as board structure measures

Control Measures: Following Liang et al., 2013, we use three control measures such as firm size, loan size and capital size that can influence bank performance. For firms size (Bank Size) we use natural log of total assets. Loan size (Loan. Size) is the ratio of total loans to the total assets. Capital size (Capital.Size) is the natural log of total capital.

Table 2 reports descriptive statistics for all variables. Average ROA for our sample is 1.01%. Minimum and maximum ROA for the sample is -0.47% and 2.49% respectively which is equal to ROA of Chinese banking sector. Average PAT is 8.34. The minimum PAT is 3.27 and maximum 11.86. Average board size in the sample is 11. Minimum number of board of directors is 6 and maximum is 17. Average board size in the sample is well below the board size of many developed countries. Average percentage of independent director in the sample is 63.66% which is in parallel with many international banks. The minimum percentage of independent director is 27.27% and maximum is 92.31%. On an average, 12 board meetings are conducted in a year. On an average 57.62% of the board members are financial experts. Average asset of the sample is 13.08, loan is 0.72 and capital is 7.68.

3.3. Econometric model

The regression model is specified below. The model test the relation between *Board structure* and *Bank performance*_{*i,t*}

$$ROA_{it} = \alpha + \beta_1 Bsize_{it} + \beta_2 Bindependnece_{it} + \beta_3 CEO Duality_{it} + \beta_4 Meeting_{it} + \beta_5 Fxpert_{it} + \gamma control\ variables_{i,t} + \varepsilon_{i,t}$$

$$PAT_{it} = \alpha + \beta_1 Bsize_{it} + \beta_2 Bindependnece_{it} + \beta_3 CEO\ Duality_{it} + \beta_4 Meeting_{it} + \beta_5 Fxpert_{it} + \gamma\ control\ variables_{i,t} + \varepsilon_{i,t}$$

Where i denotes individual bank from 1 to bank 36 and t represents the time period from 2001 to 2014. The β parameters capture the potential impacts of various board characteristics on bank performance.

Pooled panel data analysis is the most appropriate tool to use when the sample observation is less and the data is the mixture of time series and cross sectional nature. The study test three models to choose the model that fit the analysis. Table 2 reports the regression results of the pooled OLS estimation, random effect model and fixed effect model using ROA as dependent variable and Board size, percentage of independent directors, CEO duality, number of board meeting and percentage of financial experts on the board as independent variables. In order to test the model specification, we run Hausman Test. The Hausman Test results show P-value is 0.0024 which is less than significant level of 5%. So null hypothesis need to be rejected meaning that fixed effect model is the most appropriate model for the sample data. Over all, among the three models, the fixed effect model is used to explain the results.

4. Regression Results

Table 3 reports regression results of pooled OLS, random effect model and fixed effect model for Return on Asset and board structure variables. Since our final model is fixed effect model, we explain the results of fixed effect model only.

The empirical results exhibit that board size has significantly positive relationship with ROA which is consistent with previous studies (Dalton et al., 1999; Adams and Mehran, 2005; Andres et al., 2008; Coles et al., 2008; Graham et al., 2011). The results support the

hypothesis that large board improves the bank performance. The results also support that the role of board as monitoring and advising management on various issues increases with increase of board size. One possible explanation for this positive relationship of board size with performance is that increased board adds more expertise to the bank in decision making. According to Pfeffer and Salancik (1978) "The greater the need for effective external linkage, the larger the board should be" (1978: 172). Birnbaum (1984) reports that lack of information and volatility results in increased board size as the board can mobilize resource from this complex uncertain environment.

Though, the board size improves the bank performance, the cost of increased board size may outweigh the benefit, if the board size goes beyond a level. In order to test the optimum board size, we divide the board size into 6-9 and above 9 based on average size of the board. We re-estimate the regression using two different size of the board and the results are reported in annexure-1. The results shows that board size remain positively significant when the board size is between 6 and 9 and the board size become insignificant when the board size above 9. So, we assume that 6-9 is the optimal board size for bank board in India which is similar to Lipton and Lorsch, 1992; Jensen, 1993 which argue that board size should be limited to a maximum of ten directors and favor board size of 8-9 directors

We observe similar relationship between board independence and bank performance. The results show that board independence is having significant positive impact on ROA which is consistent with previous studies (Fama and Jensen, 1983; Baysinger and Butler, 1985; Hermalin and Weisbach, 1989; Rosenstein and Wyatt, 1990; Garg, 2007; Andres and Vallelado, 2009; Cornett et al., 2009, Liang et al., 2013). This support the hypothesis that the independent directors are better monitors of the board. So, inducting more independent directors to the board improves the monitoring and advising role of the board. The ongoing

restructuring of board across the world by adding more independent directors, further strengthen our results.

The regression results for CEO duality shows non-significant impact on ROA when the bank separate chairman and CEO. So the banks with separate role of chairman and CEO do not exhibit superior performance as compared to the bank with dual role. This is consistent with previous studies that reports that firm with separate role do not exhibit superior performance (Brickley et al. 1997; Dahya, 2005; Peng et al. 2007; Chen Huining, 2014;). The arguments in support of separate leadership is largely based on agency theory which states that splitting the role create clear cut leadership separation and facilitate the board's ability to monitor management without bias. However, the stewardship theory argues that dual leadership provides unparalleled firm specific knowledge of challenges and opportunities a firm faces. So the possible explanations for this non significant relationship may because of the high cost savings enjoyed by the duality firms compared to non-duality firms. So the cost associated with non-duality firms may outweigh its benefits. The second possible explanation for this non significant relationship is that separating the role creates information gap between chairman and CEO. The CEO will disclose information which supports his favors.

Consistent with previous studies (Andres et al., 2008, Liang et al., 2013) the present study also reports a significant Positive relationship between number of board meeting and accounting performance as measured in ROA. This positive relationship indicates that conducting more number of board meeting results in better performance of the bank. Of course, increased board meeting signals frequent monitoring of the firm. However, the effectiveness of the board meeting depends on the number of decision taken in the board meeting in the better interest of the bank. The study also reports a significant positive relationship between percentage of financial experts on the board and bank performance. This

Positive relationship is consistent with many previous studies (Andres et al., 2008; Liang et al., 2013) which report that more number of financial experts improves the board decision making since they contribute their expertise and knowledge.

4.1. Endogeneity Concern

As observed by Hermalin and Weisbach (2003), the key concern of any board structure analysis is endogeneity of board structure variables. So when endogeneity exist, OLS will be biased and inconsistent. The study assume that board structure in India is not likely to suffer from endogeneity issue since the boards are constituted based on ‘fit and proper criteria’ and also approved by RBI. However, the study address the endogeneity issue by using GMM (Generalized method of moments) as used by various studies (Andres et al., 2008; Liang et al., 2013). The GMM results reported in the table 4

The GMM results show that board size and board independent is positively related to bank performance. The GMM results also shows splitting the role of CEO and chairman do not results in better performance. Number of board meeting also positively related to bank performance. Overall the GMM results support the OLS results of board structure on ROA. The problem of endogeneity has been answered as the J statistics is insignificant signaling that the instrument is valid and is free from over identification.

4.2. Robustness Check

Table 5 reports results of robustness check. To check the robustness of the result, we replace ROA with PAT. We find similar results for PAT which confirms our regression results of ROA. Board size and independent directors are positively related to profit after tax. We find no significant relationship between CEO duality with PAT

5. Conclusions

The recent financial crisis and thereafter the collapse of large bank have raised concern about the board of banks in several economies. This concern set new thinking on regulators about the existing board structure in banks. This is evident from the formation of new committee to review the governance of boards of banks in India. We use pooled panel data of 36 scheduled commercial banks in India for a period of 14 years from 2001-2014. Our comprehensive study on three important board characteristics such as board size, board independence and CEO duality have important policy implications. We found board size and board independence have positive impact on bank performance. We find no significant improvement in bank performance when the role of chairman and CEO is separated. In short our findings suggest that board structure of the bank matters in the performance of bank. An optimal board size and composition will largely contribute to the good governance of bank.

The findings of this study are relevant in the context of ongoing restructuring of boards of banks in India. The study suggests that board size and composition of independent directors need to rationalize. Finally, splitting the role of CEO and chairman has limited influence on bank performance.

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Table 1: Variables Description

Nature of Variables	Name of Variables	Description of Variables
Panel A: Bank Performance	ROA	Net income over Total Assets.
	PAT	Net operating income minus the corporate tax paid to the government
Panel B: Board Variables	Board Size	Total number of directors serving on the board
	Independent Director	The percentage of independent directors on the board
	CEO Duality	Dummy variable 1 if dual and 2 otherwise
	Board Meeting	The number of board meetings during the financial year
	Fin: Expert	The percentage of financial experts over board size
Panel C: Control Variables	Bank Size	Natural log of Total Assets
	Loan Size	Total loan over Total Assets
	Capital Size	Natural log of Total Capital

Table 1 presents description of variables. Panel-A presents description of dependent variable, panel-B independent variable and panel-C control variables.

Table 2: Descriptive Statistics

Variables	No	Mean	Median	STD	Min	Max
Performance Variables-Panel-A						
ROA	504	1.01	1.01	0.45	-0.47	2.49
PAT	504	8.34	8.49	1.46	3.27	11.86
Board Variables-Panel-B						
Board Size	504	11.10	11.00	1.75	6.00	17.00
Independent Director	504	63.66	63.64	14.79	27.27	92.31
CEO Duality	504	1.34	1.00	0.48	1.00	2.00
Board Meeting	504	11.90	12.00	4.11	4.00	26.00
Fin: Expert	504	57.62	55.56	14.88	25.00	92.31
Control Variables-Panel-C						
Bank Size	504	13.08	13.15	1.36	9.41	16.70
Loan Size	504	0.72	0.58	0.59	6.18	9.07
Capital Size	504	7.68	8.04	1.23	4.09	10.73

Table 2 presents descriptive statistics on all the variables. Panel A reports descriptive statistics for performance variables, panel B for board variables and panel C for control variables

Table 3: Regression results for ROA

ROA	Panel-A <i>Pooled Panel</i>	Panel-B <i>Random Effect</i>	Panel-C <i>Fixed Effect</i>
Intercept	1.001386 (0.0078)	1.484550 (0.0011)	1.795689 (0.0004)
Board Size	0.027090 (0.0727)	0.029318 (0.0351)	0.030497 (0.0333)
Independent Director	0.015476 (0.0329)	0.022070 (0.0098)	0.030003 (0.0016)
CEO Duality	-0.317369 (0.0000)	-0.043257 (0.6424)	0.193571 (0.0986)
Board Meeting	0.000877 (0.0610)	0.001344 (0.0525)	0.002292 (0.0325)
Fin: Expert	0.007611 (0.0000)	0.001314 (0.5649)	0.007627 (0.0001)
Loan	-0.124530 (0.0008)	-0.127841 (0.0005)	-0.128440 (0.0007)
Capital	-0.156513 (0.0000)	-0.166300 (0.0002)	-0.237300 (0.0000)
Asset	0.092494 (0.0010)	0.066178 (0.0324)	0.068317 (0.0423)
<i>Adjusted R²</i>	<i>0.088196</i>	<i>0.053852</i>	<i>0.092960</i>
<i>F-statistic</i>	<i>7.081682</i> (0.000000)	<i>4.578660</i> (0.000021)	<i>10.02469</i> (0.000000)
<i>Hausman test</i>	<i>23.858881</i> (0.0024)		

The table reports the results of three OLS regression on ROA as dependent variables and board structure as independent variables. Panel-A reports pooled OLS, Panel-B reports random effect model and Panel-C reports fixed effect model. The values are regression coefficients and p-values in brackets. The last row in the table reports results of Hausman Test for model specification/validity.

Table 4: GMM Results

Variable	Coefficient	Prob.
ROA	0.353719	0.0000
Board Size	0.011507	0.0097
Independent Director	0.003096	0.0008
CEO Duality	0.061402	0.1008
Board Meeting	0.002233	0.0387
Fin: Expert	0.003430	0.0043
Asset	0.542491	0.0000
Loan	-0.129724	0.0000
Capital	0.011309	0.5971
J-statistic	33.77284	(0.172750)

The table reports the GMM results for Board structure variables against ROA as dependent variable. The J-Statistics, coefficient, t-statistics and p-values are reported.

Table 5: Regression results for PAT

ROA	Panel-A <i>Pooled Panel</i>	Panel-B <i>Random Effect</i>	Panel-C <i>Fixed Effect</i>
Intercept	-4.614762 (0.0000)	-4.152214 (0.0000)	-4.618890 -4.618890
Board Size	0.025650 (0.0934)	0.030568** (0.0377)	0.021298 0.0304
Independent Director	0.021431** (0.0036)	0.022377** (0.0129)	0.011034 0.0628
CEO Duality	0.253812 (0.0060)	-0.078204 (0.4115)	0.102474 0.0580
Board Meeting	0.001176 (0.4964)	0.001934 (0.3784)	-0.000526 0.6451
Fin: Expert	0.005578*** (0.0030)	0.001952*** (0.4132)	0.006779 0.0000
Loan	-0.097822 (0.0094)	-0.122218 (0.0015)	-0.124578 0.0000
Capital	-0.141997 (0.0000)	-0.116658 (0.0105)	-0.097863 0.0002
Asset	1.069034 (0.0000)	1.027836 (0.0000)	1.029650 0.0000
<i>Adjusted R²</i>	0.856582	0.775841	0.924684
<i>F-statistic</i>	366.0774	212.5607	751.4568
<i>Hausman test</i>	15.476981	(0.0505)	

The table reports the results of three OLS regression on PAT as dependent variables and board structure as independent variables. The values are regression coefficients and p-values in brackets. The last row in the table reports results of Hausman Test for model specification/validity.

ANNEXURE I

Optimal board size and bank performance

Variables	board size 6-9	Above 9
Intercept	-0.277099 (0.7822)	1.482267 (0.0011)
Board Size	0.117337 (0.0382)	0.011225 (0.6723)
Independent Director	-.008061 (0.0298)	0.003847 (0.0542)
CEO Duality	-0.254592 (0.0534)	-0.258911 (0.0134)
Board Meeting	-0.009322 (0.4397)	-0.026529 (0.0420)
Fin: Expert	0.013540 (0.0011)	0.001450 (0.5041)
ASSET	0.175994 (0.0036)	-0.007459 (0.8179)
LOAN	-0.230144 (0.0060)	-0.025126 (0.5000)
CAPITAL	-0.233285 (0.0002)	-0.019596 (0.6121)
Adjusted R squared	0.155953	0.012037
F-statistic	5.526810	1.327434
Prob (F-statistic)	0.000003	0.231359

Table presents the results of optimal board size regression results using ROA.