AN INDEX TO STUDY CORPORATE GOVERNANCE IN BANKS IN INDIA

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Abstract

There are many factors that affect corporate governance (CG). It is highly difficult to comprehend corporate governance and define it. Yet, research is imperative to understand the changing specific needs of good corporate governance practices and the impact of such practices. As banks have special governance needs, in this study the corporate governance of banks in India has been studied with the help of corporate governance index (GCI) especially designed for banks. Following the method used by Ararat, Black, and Yurtoglu (2017) to investigate the effectiveness of corporate governance, the index was divided into six sub-indices and to test the index it was used to find the correlation of CG practices with the banks profitability measured in terms of return on assets (RAO) and net interest margin (NIM) as dependent variables. The fixed regression model was run to know the relationship between the sub-indices and the dependent variables. Apart from the CG index, capital adequacy ratio (CAR) and Net NPA ratio were taken as independent variables. A weak correlation was found between CG and ROA and NIM that contributes to the findings of Fallatah and Dickins (2012).

Keywords: Corporate Governance, Corporate Governance Index, Profitability, Firm Value

Authors' individual contribution: Conceptualization – S.S. and N.P.; Methodology – S.S.; Formal Analysis – S.S.; Writing – Original Draft – S.S. and N.P.; Writing – Review & Editing – S.S. and N.P.

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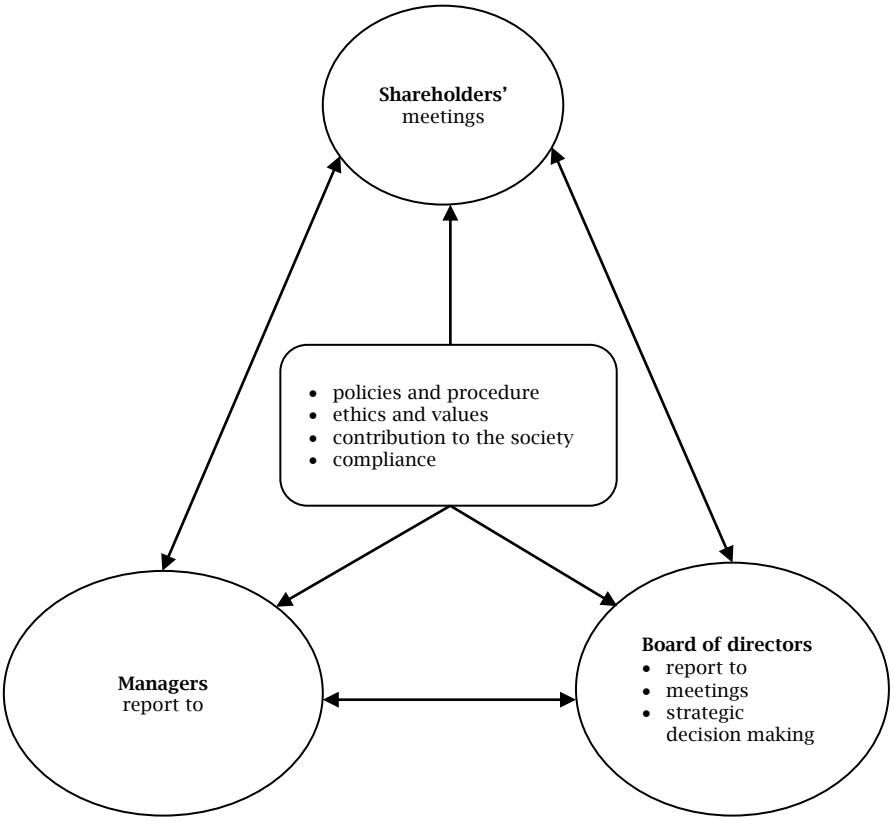
1. INTRODUCTION

Corporate governance (CG) is the internal system and process through which corporate affairs are managed. The leadership, strategy, communication, and policies of a company depend largely on the CG. It encompasses the directors and top executive management in its ambit. The operational practices of any company must be fair and transparent, the managers and shareholders must have accountability, and a sense of responsibility towards all stakeholders. CG is important, especially because the management is separate from ownership. This concept of agency relation creates few issues on confidence and trust in the activities and management of the companies. The corporate scandals of Enron, Worldcom, Satyam, etc. have significantly increased the interest in the governance mechanism of firms.

The CG is a vast concept and there is no particular element to define exactly what corporate governance is. As such the following points may be considered as part of CG of any corporate (Figure 1).

Figure 1 exhibits the model framework of corporate governance comprising of shareholders, board of directors, and managers. The framework shows how the BOD and managers report and what factors are majorly included in the concept of CG. It comprises the system in which the company is managed by the top management and directors as representatives of shareholders. CG is part of the economy in which firms interrelate and operate and which is guided by the macroeconomic policies. There are many other factors which affect CG like regulatory, legal, and institutional framework. The societal values also define the business ethics. All these set forth the CG platform that dictates the reputations of the company and long-term success.

Figure 1. Model framework of corporate governance



The practices of CG not only impact the financials of the company but also dictate the reputation of a company in the long-run. Following aspects make up a good CG:

- accountability, fairness, and transparency;
- creating value without compromising on ethical values;
- adhering to the applicable law;
- clear communication.

1.1. Corporate governance norms

The international practices of CG are not standardized across countries. They vary because of the inherent business environment, the efficiency of capital markets, the legal system, accounting standards, societal and cultural values. All these factors interact in different combinations among the countries and lead to diverse CG practices. Countries are issuing CG codes that guide the companies to follow good CG practices and such codes have undoubtedly led to more transparency and disclosures. The CG reforms can also influence the risk-taking ability of the firms positively may be due to the increase in confidence of insiders, which in turn enhances the firm value (Koirala, Marshall, Neupane, & Thapa, 2020). The CG codes are issued by various bodies to guide the regulatory authorities to frame rules and corporate to implement in their internal management. The noteworthy CG recommendations on the international platform were first given by the Cadbury Committee by Financial Reporting Council, London Stock Exchange, and accountancy profession under the chairmanship of Adrian Cadbury. Then onwards, based on the changing economic conditions more improved recommendations were offered in the Hampel Report, Sarbanes-Oxley Act of 2002, the Higgs Report, and OECD Principles.

In India, CG recommendations were made by several committees. CG initiatives began in 1998 when the Confederation of Indian Industries (CII) published a Desirable Corporate Governance Code. Later on, in 1999, the second major initiative was taken up by Securities and Exchange Board of India (SEBI) when it set up a committee under the leadership of Kumara Mangalam Birla in which prominent mandatory recommendations included. Then there were recommendations by the Naresh Chandra Committee, the Narayan Murthy Committee, the J. J. Irani Committee, and finally the Companies Act of 2013. The new companies act has few ground-breaking reforms which aligned the CG practices in India to international standards.

1.2. Corporate governance in banks

Banks' corporate governance is different from other industries because of the fact that banks utilize the money from their investors and also their customers. Banks must make fair use of such funds for developmental purposes. With efficient utilization of funds by the banks, capital formations will increases, which can lower the cost of capital and thus providing momentum to economic growth. (Levine, 2004). Other industries depend on banks for their capital necessities in the form of shareholding, debt holding, private equity funding. Banks may hold a substantial amount of shares in firms or can be influential creditors, thus effecting the corporate governance of those firms. Banks also provide other services to carry out economic activities like transfer

of funds, letter of credit, currency dealings, wealth management, and so on.

And most of the assets and liabilities of banks are financial in nature. The assets mainly comprise of loan advances, statutory deposits and liabilities comprise of deposits from customers, borrowings. And such financial assets are highly vulnerable to operational risk and market risks.

Bank failures are caused due to poor risk management and governance (Okehi, 2014). In the course of their business, banks face a variety of risks; the prominent ones are credit risk, liquidity risk, settlement risk, market risk. Banks have a high chance of experiencing operational risk. Banks' CG is unique for the reason that a separate risk management committee of board of directors (BOD) is needed to specially manage various types of risks faced by banks. The chief risk officer is appointed to manage the enterprise risk across all business divisions. Poor CG of banks poses a risk not only for themselves but also for other industries that are dependent on them and could adversely affect the capital markets at large.

The present study aims to prepare a CG index for banks in particular and also test it by correlating with the financial performances of banks. The structure of the paper is as follows. Section 2 reviews the literature on varied angles of CG in general and in banks in particular. Section 3 contains the methodology used for study and analysis to know the corporate governance scores of sample banks and their relation with financial performances in terms of return on assets and net interest margin. Section 4 exhibits the results of the correlation and panel data analysis. Section 5 discusses the results and Section 6 concluded with the future scope to take ahead the research.

2. LITERATURE REVIEW

The scope of CG has been continuously widening bringing more and more diverse attributes into its ambit. CG earlier was based on few specific parameters like ownership structure and shareholders' rights, but now factors like remuneration to directors, women directors, related party transactions, board committees, the experience of directors, whistleblowing policy are being made a part of it. The literature on CGs broadly based on the following categories.

2.1. Agency theory

Managers and owners share an agency relationship and this relation causes some issues in CG of the firms. Gedajlovic and Shapiro (2002) are of the view that the managers have no or negligible financial motivation to improve the worth of ownership. Managerial decision-making can cause harm to shareholders in two ways: one is by involving in short-run cost that increases managers' non-salary income and another is by using their power and prestige to maximize firm value. Lemmon and Lins (2003) found a significant positive relation was found between the ownership concentration and firm performance thereby proving the standard agency theory exists. The ownership structure is one of the factors to study agency theory. The firms with high levels of management ownership exhibit lower value during the financial crisis, because insiders had personal incentives and power to expropriate funds, thus reiterating agency theory issues. Utama and Utama (2014) related that the issue of agency problem also impacts the related party transactions because an insider can influence both parties to a transaction. When companies applied CG principles, the size of RPTS that are for benefit of only insiders was reduced. Nicolăescu (2012) stresses that governance mechanisms through board and ownership structure must align the interest of managers with that of shareholders. By increasing the ownership stock of managers and directors, firms can reduce agency problems. Firms with block holder ownership have lesser agency problems.

2.2. Shareholders

Safeguarding the shareholders' value and rights is probably the primary objective of CG. The directors of a firm work on behalf of and manager work for shareholders. Increasing the shareholders' rights could lower agency costs. Chi (2005) found that when the shareholders' rights are restricted, it is negatively related to future change in firm value. Shareholders' rights improve firm value, firm value influences shareholders' rights and it may be both ways. Cunat, Gine, and Guadalupe (2012) established that improvements in the internal mechanisms of corporate governance like antitakeover provisions, higher institutional ownership, and strong investor activism create shareholders' value. Mitra and Pattanayak (2012) proved that institutional investors have a positive impact on firm value whereas group affiliations and block holdings have a negative impact on firm value. Benefits of group affiliation have erased after economic reforms and stand-alone firms are much efficient. FIIs better supervise the governance of firms than domestic institutions, whereas state-run corporations are poor monitors. When the FIIs hold a substantial part of shareholding, they closely monitor executive compensation, termination of non-performing managers, increasing dividend payout ratio, and thus improving productivity.

Pattern and concentration of ownership affect CG practices. Ciftci, Tatoglu, Wood, Demirbag, and Zaim (2019) found that family-led, more concentrated ownership led the firms to perform better because it is they who have to bear the risk of poor performance. Yasser (2011) studied the impact of CG variables from a different perspective. The corporate governance practices for family-controlled and non-family controlled firms may not be the same and financial performance of both types of firms is influenced but the magnitude of influence of different CG variables may not be the same. Zheka (2005) also identified that concentrated ownership and foreign ownership positively affected the efficiency of the firms. Pant and Pattanayak (2007) analyzed the relation of insider ownership and the financial performance of firms. Higher insider ownership has a positive relation with firm performance as in when the owner's interests are high in the firm in the sense that the owners would be the largest risk bearers.

Gopalan (2006) argued that CG is more rigid, stringent, and less flexible for firms with public ownership than firms with private ownership, and

due to this reason an entrepreneur chooses private ownership. The entrepreneur, even after raising external capital, has more autonomy to make decisions that could maximize the firm's value, public ownership offers investor liquidity and lower cost of capital.

2.3. Board of directors

Sehgal and Mulraj (2007) and Marisetty (2011) identified that the board of directors (BOD) has the power to make decisions on the resources of firms and is expected to work in the interests of the firm. This makes the BOD central to corporate governance. Managers, directors, investors, and law and regulations are the four pillars of corporate governance that can give an integrated structure. Shareholders take care of external governance mechanism and board of directors look after internal governance mechanism. As such independent directors, board size, board compensation, board committees and types of independent directors are the important points to be concentrated on. Colpan, Yoshikawa, Hikino, and Miyoshi (2007) analyzed the economic effect of changes in commercial code revision of institutional and legal frameworks. Firms having independent directors on the board adopt the new corporate governance practices to appear in the capital markets as superior and legitimate.

The role of independent directors is critically important in following good CG practices. De Andres and Vallelado (2008) studied the role of directors in corporate governance of large international banks. Board size and composition of independent directors definitely improve the efficiency of monitoring and advisory functions which adds to the value to the firm. Khodadadi, Khazami, and Aflatooni (2010) found that the presence of independent directors reduces conflicts of interest. For an efficient board, a proper combination of executive and non-executive directors is necessary as executive directors give information on internal events and non-executive directors' help in declining conflicts of interests (Khodadadi, Khazami, & Aflatooni, 2010). Rose, Munch-Madsen, and Funch (2013) are of the view that there is increasing importance to bring diversity into BOD to bring out effective decision making and having women directors on board is being widely made mandatory by the regulations of many countries including India. Board members having a common-law background may significantly have a positive impact on the performance of firms. Lei and Song (2012) argued that usually, the directors must have some minimum higher qualifications to make better-informed decisions.

The Indian Companies Act mandates a minimum of four directors on board and there is no limit on the maximum number of directors. De Andres and Vallelado (2008) concluded that board size will definitely improve the efficiency thereby adding value to the firm and Rose Munch-Madsen, and Funch (2013) opined that a large board will negatively impact the firm performance because a large board has a free-rider problem.

2.4. CG index

With the increasing complexity of capital markets, more and more elements are being accepted which affect corporate governance practices. Earlier, only a few specific factors were considered to be part of CG like ownership structure, board composition, and agency problem. Due to the bitter experiences of corporate scandals, now the market players are looking for clues on governance practices through many other allied factors like shareholders' rights, disclosures, related party transactions, and so on.

There are many studies that used the corporate governance index (GCI) to study the country-level and firm-level CG practices. Moosa (2013) is of the view that a country-specific CGI may have predictive power in establishing the relation between CGI and the firm's market value whereas a common CGI for all the countries has limited power to predict the market values because the governance practices and markets have different characters. Black, de Carvalho, Khanna, Kim, and Yurtoglu (2014) used six governance indicators prepared by the World Bank to study the country-level CG to explain operational loss severity. With improvements in the governance indicators, the operational risk can be reduced because better governance signifies greater adherence to law and order better would be the internal operational mechanism.

Sarkar, Sarkar, and Sen (2012) opine CGI can include any factors and elements which are considered to effect the governance of firms. CGI comprising of four major governance variables: board, ownership structure, audit committee, and external auditors. A significant relation was established between the index and firms market performances proving that capital markets positively remunerate the companies that adopt governance reforms. More variables on remuneration, RPTs, disclosures could have been included because the reforms in India also were related to these factors. Some agencies prepare CGI and such readily available indices may be used to know about the governance practices of firms. Oesch (2011) and Bebchuk, Cohen, and Ferrell (2009) used Governance Metrics International (GMI) and 24-provisions of corporate governance followed by Investor Responsibility Research Centre (IRRC) which have been widely used to know the relation between CG practices and firm returns and value. Daines, Gow, and Larcker (2009) argued that there is no strong support to prove the claims of being predictive about the corporate governance-related outcomes of commercially available governance ratings.

On the contrary, the effectiveness of CGIs in predicting governance practices is being questioned. Bhagat, Bolton, and Romano (2008) stated that it is difficult to predict the governance mechanism of firms with single parameters or such governance variables and that it varies from firm to firm depending on context and system. There are certain analytical problems with a single governance variable.

2.5. Corporate governance in banks

Banks act as a catalyst for the economic development of the nations. They are the medium through which funds flow from investors to the

companies. They play a key role in capital formation. As such proper governance of banks is inevitable to properly channelize resources and reduce governance issues thereby fostering the growth of the nation, especially the developing countries. Deb (2013) stressed on the need for corporate governance in banks of developing, emerging and transitional economies not only arises from resolving problems of ownership and control, but also for ensuring transparency. Banks in developing countries are mostly state-owned and are governed by stereotype procedures guided by government bodies. Due to the job security to the employees, because they hold a government job, the spirit of competition fades away. The integrity of accounting statements, transparency and disclosures, selective leakage of sensitive information are the most prominent concerns of corporate governance.

Mehran, Morrison, and Shapiro (2011) differentiated the governance of banks from other non-financial institutions in the way that there are more stakeholders in banks and the business of banks is complex and opaque with more chances of being shifted quickly. Levine (2004) emphasized the importance of CG in banks stating that banks are important in the economy as they provide capital to the firms, accumulate resources for capital formation, and lead to productivity. The traditional CG mechanism in banks is weak due to the higher government involvement and non-transparent practices and more research is needed on the effect of various policies on the governance of banks. Lupu and Nichitean (2011) opined that a greater part of the banks' services and products are highly volatile. A sound financial system of an economy is based on banks' profitability and adequate capital. Banks with good CG principles had better financial results that those banks with lesser CG practices. Onakoya, Ofoegbu, and Fasanya (2012) proved that bad governance has multiple effects; first by reducing the public confidence, leading to a decrease in the savings thereby reducing the profits and investible funds.

Okehi (2014) established a close link to CG and risk management in banks. With good governance practices, systemic failures in banks can be avoided. Aebi, Sabato, and Schmid (2012) identified that the chief risk officer (CRO), risk management committee is important governance variables specific to financial institutions. The reporting of CRO directly to the board significantly positively affects the stock 'buy and hold' returns during the financial crisis period.

Danoshana and Ravivathani (2019) studied the impact of CG on the performance of financial institutions in Srilanka and concluded that board size and audit committee had a significant positive impact on ROA and ROE whereas the frequency of board meetings had a negative impact. This study was made for five years, using time-series cross-sectional data.

3. RESEARCH METHODOLOGY

3.1. Research gap

The analysis of extant literature throws light on the different dimensions of corporate governance. It is understood that corporate governance itself is a contemporary issue on which more research is being taken up in the recent past. The governance of banking in particular is the less explored area. The CG of banks in India is a less explored area and very few research articles were found. Moreover, research in India on the relationship between CG practices and financial performances using industry-specific CG index has not been done earlier. The relationship between the CG practices of banks in India and their financial performance using an index would be research done for the first time.

3.2. Methodology

In this study, the corporate governance index (CGI) is used to quantify the qualitative aspects of CG by assigning scores. The index comprises of 42 elements assumed to be important to know about the CG practices of banks and that is based on publicly available information that may be used by investors and other interested parties. These 42 elements are divided into six sub-indices. These elements on the index are based on requirements of clause No. 49 of Listing Agreement of SEBI, OECD Principles, Basel Committee's Corporate Governance Principles for Banks and Indian Banking Regulations Act of 1949. The following is the CGI especially designed for banks in India. Each element in the index is assigned a score of one (1), zero (0) or minus one (-1). If the banks positively comply with the CG practices, 1 is assigned to all such elements. And few of the practices that are detrimental to good governance like exceeding single borrower limit or independent directors serving more than 8 years and if the banks are following such practices, minus one is assigned to those elements.

A selective sampling of banks has been done for the study. For the research, five banks in India have been selected that are given corporate governance rating (CGR) by ICRA at one point of time or other. They are Andhra Bank (CGR2), Bank of Baroda (CGR2), Bank of India (CGR2), Central Bank (CGR3+), and Punjab National Bank (CGR2). To make the study wider, five private sector banks are also included. These top five private sector banks are selected based on the Bank Index (BANKEX) of the Bombay Stock Exchange (BSE). They are Axis Bank, HDFC Bank, ICICI Bank, IndusInd Bank, and Kotak Mahindra Bank. The period of study is 2009-2016, eight years. This period captures the after-effects of major corporate governance failure and major regulatory reforms in India.

Table 1. Corporate governance index (CGI) for banks in India

Sub-index	*Criteria*	*Point*
Board of directors (BOD)	Board consists of not more than 12 members (-1)	-1 or 0
	Chairman of the board is independent or non-executive	1 or 0
	The proportion of independent directors is equal to or more than 50%	1 or 0
	CEO and chairman are separate	1 or 0
	Minimum 4 board meetings are held	1 or 0
	Maximum number of meetings do not exceed 11 (-1)	-1 or 0
	Declassified board	1 or 0
	Independent directors are trained	1 or 0
	Independent directors meet separately	1 or 0
	Independent director serving more than 8 years on the board (-1)	-1 or 0
	Appointment of lead independent director	1 or 0
	Multiple directorship in more than 7 companies (-1)	-1 or 0
	Total score for BOD	**8**
Audit committee (AC)	Chairman of audit committee is independent	1 or 0
	Minimum of 2/3 rd directors are independent	1 or 0
	Meets at least 4 times a year	1 or 0
	Independent members meet separately	1 or 0
	External auditor provides only audit services	1 or 0
	Internal auditors report directly to audit committee	1 or 0
	Total score for AC	**6**
Remuneration committee (RC)	Remuneration committee exists	1 or 0
	All are non-executive members or 2/3rd are independent	1 or 0
	Chairman is independent	1 or 0
	Meets at least 2 times a year	1 or 0
	Performance evaluation of independent directors	1 or 0
	The performance-based incentive to CEO	1 or 0
	Total score for RC	**6**
Nomination committee (NM)	Nomination committee exists	1 or 0
	All are non-executive or 2/3rd are independent	1 or 0
	Chairman is independent	1 or 0
	Meets at least two times in a year	1 or 0
	Total score for NC	**4**
Risk management (RM)	RM plan exists	1 or 0
	Chief risk officer or equivalent position exists	1 or 0
	Single Borrower limit has not been exceeded (-1)	-1 or 0
	Credit allocation procedure exists	1 or 0
	Prior approval of audit committee required for RPTs	1 or 0
	Approval of shareholders by a special resolution for divestment of material subsidiary	1 or 0
	Total score of RM	**5**
Disclosures (D)	RPTs disclosed	1 or 0
	Shareholding pattern	1 or 0
	shareholder grievance redressal	1 or 0
	Any non-compliance and penalties and structures thereto	1 or 0
	The ratio of remuneration of each director to the median of employees remuneration	1 or 0
	Succession plan	1 or 0
	Criteria for remuneration to non- executive directors disclosed	1 or 0
	Whistleblowing policy exists	1 or 0
	Total score of D	**8**
	Total maximum score	**37**

Note: Authors' own data.

3.3. Techniques of data analysis

To know the relation between corporate governance of banks and their financial performance, multiple regression analysis is used. As the data is time-series and cross-sectional, panel regression model best suits for the analysis. The six sub-indices of the CG index are taken as the independent variable and the financial measures are taken as dependent variables. Apart from the index, capital adequacy ratio (CAR) and net NPA ratio are also taken as independent variables.

Return on assets (ROA) and net interest margin (NIM) being accounting measures are taken as representations of a firm's profitability are taken as dependent variables.

To know the relationship between the dependent and independent variables multiple regression analysis was carried out. As the data set in this research is cross-sectional time-series data and based on the test results for robustness, the fixed effect model of regression is considered suitable for the analysis. The regression model is given as follows:

$$ROA_{i,t} = \alpha + \beta_1 BOD + \beta_2 AC + \beta_3 RC + \beta_4 NC + \beta_5 RM + \beta_6 D + \beta_7 CAR + \beta_8 Net\ NPA + \mu_i \quad (1)$$

$$NIM_{i,t} = \alpha + \beta_1 BOD + \beta_2 AC + \beta_3 RC + \beta_4 NC + \beta_5 RM + \beta_6 D + \beta_7 CAR + \beta_8 Net\ NPA + \mu_i \quad (2)$$

where, i = banks = 1, 2, 3…….10; t = year = 2009, 2010….2016; *ROA* and *NIM* = dependent variables; *BOD, AC, RC, NC, CAR, Net NPA* = independent variables; μ_i = error term; α = intercept; β = regression coefficient.

4. RESULTS

The Pearson correlation will indicate us the extent of the relationship between the dependent and independent variable and also the direction of such

a relationship. From Table 2 CGI shows weak negative correlation with profitability variables ROA and NIM supporting the findings Onakoya, Ofoegbu, and Fasanya (2012); Net NPA ratio has a significantly high positive correlation with ROA and NIM. The correlation between capital adequacy ratio and all the dependent variables is negative.

Table 2. Correlation between independent and dependent variables

		Capital adequacy ratio	*Net NPA ratio*	*CG index*
ROA	Pearson correlation	-.075	.862**	-.089
	Sig. (2-tailed)	.508	.000	.432
	N	80	80	80
NIM	Pearson correlation	-.068	.881**	-.107
	Sig. (2-tailed)	.548	.000	.347
	N	80	80	80

*Note: **. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed).*

4.1. Descriptive statistics

The sub-index BOD has a minimum value of -1 and a maximum of 5 and a standard deviation of 1.52. The total CGI has a minimum value of 13 and a maximum of 31 and a high standard deviation of 4.51. The Net NPA ratio is minimum 0.17 and a maximum of 8.61 and the mean and standard deviation are very less at 1.83 and 0.037 respectively.

Table 3. Mean and standard deviation of the variables

Variables	*Mean*	*Standard deviation*	*Minimum*	*Maximum*
ROA	2.53	0.12077	-0.94	2.70
NIM	6.9738	0.32169	1.81	5.81
BOD	2.075000	1.524276	-1.00	5.00
AC	3.150000	0.828297	1.00	5.00
RC	3.737500	1.270341	2.00	6.00
NC	2.637500	1.182614	0.00	4.00
RM	3.225000	0.779078	2.00	5.00
D	5.862500	0.589867	4.00	7.00
CGINDEX	20.68750	4.510448	13.00	31.00
NET_NPA_RATIO	1.8339	0.037237	0.17	8.61
CAPITAL_ADEQUACY_RATIO	3.552924	5.814816	10.76	20.00

4.2. Panel regression model

The panel data set consists of cross-sectional (10 banks), time-series data (from 2009 to 2016). The CGI, CAR, and Net NPA ratio are taken as independent variables and the dependent variables are RAO and NIM. The exploratory variable; CGI is further specified as board of directors (BOD), audit committee (AC), remuneration committee (RC), nomination committee (NC), risk management (RM), and disclosures (D). Before selecting, several regressions were run using a random effect and fixed effects model to assess the validity of each one. Hausman test in Eviews was run to select the valid model and the resultant probability values suggest that the fixed effect model was appropriate for this study wherein, the probability values being less than 0.05 ($p < 0.05$). Moreover, the fixed effect model is selected over the random effect model because the sample selected is not random but it is purposive sampling. The Breusch-Pagan test for heteroskedasticity for all the regressions was run and test results (significance level being greater than 0.05) rejected the existence of the problem of heteroskedasticity in the regressions (Gujarati, Porter, & Gunasekar, 2013). Results of fixed regression analysis for CG and ROA effect specification cross-section fixed (dummy variables) for ROA.

Table 4. Results of fixed regression analysis of CGI with ROA

Variable	*Coefficient*	*Prob.*
C	0.202200	0.0092
BOD	0.002913	0.6802
AC	-0.024091	0.0573
RC	-0.018671	0.1133
NC	0.007742	0.3331
RM	-0.004381	0.6648
D	-0.015636	0.3183
CAPITAL_ADEQUACY_RATIO	-0.002396	0.3729
NET_NPA_RATIO	3.086432	0.0000

Table 5. Model specification for ROA

R-squared	0.861486	Mean dependent variable	0.025289
Adjusted R-squared	0.823507	S.D. dependent variable	0.120772
S.E. of regression	0.050738	Akaike info criterion	-2.929191
Sum squared resid	0.159607	Schwarz criterion	-2.393235
Log-likelihood	135.1676	Hannan-Quinn criterion	-2.714311
F-statistic	22.68289		
Prob(F-statistic)	0.000000		

Table 4 shows the results of the fixed effect analysis of all the independent variables on ROA. Net NPA ratio is having the highest positive co-efficient that is significant. Coming to sub-indices of CGI, audit committee exhibits the highest negative co-efficiency with ROA. Board of directors sub-index is having a positive co-efficiency. The significance of AC and Net NPA ratio is below 0.05. The overall effect can be seen that R-squared is high at 0.861486, which means that 86% of the variation in ROA can be explained by CG practices. F-statistic is also very high which proves the validity of the model. Results of fixed regression analysis for CGI and NIM effect specification cross-section fixed (dummy variables) for NIM.

Table 6. Results of fixed regression analysis of CGI with NIM

Variable	*Coefficient*	*Prob.*
C	-0.646774	0.0002
BOD	0.032471	0.0105
AC	-0.008221	0.6413
RC	0.014722	0.3558
NC	0.023990	0.0926
RM	0.013373	0.4483
D	0.061228	0.0246
CAPITAL_ADEQUACY_RATIO	-0.001373	0.5159
NET_NPA_RATIO	8.699203	0.0000

Table 7. Model specification for NIM

R-squared	0.915438	Mean dependent variable	0.069738
Adjusted R-squared	0.895618	S.D. dependent variable	0.321689
S.E. of regression	0.103932	Akaike info criterion	-1.513311
Sum squared resid	0.691314	Schwarz criterion	-1.036906
Log-likelihood	76.53245	Hannan-Quinn criterion	-1.322307
F-statistic	46.18924		
Prob(F-statistic)	0.000000		

Table 6 shows the results of the fixed effect analysis of all the independent variables on NIM. Net NPA ratio is having significantly, the highest positive co-efficient. AC and CAR are having a negative correlation but both results are insignificant similar to the study made by Muda, Maulana, Sakti Siregar, and Indra (2018) where the authors concluded that there is no effect of audit committee on earnings management. Apart from the Net NPA ratio, D is having the highest coefficient. The significance of BOD and disclosure is less than 0.05 that indicates a statistical significance with a positive coefficient as professed by Handa (2018). The overall effect as per Table 6 can be seen that R-squared is high at 0.915438, which means that 91% of the variation in NIM can be explained by CG practices. F-statistic is also significantly very high which proves the validity of the model.

4.3. Direction of correlation between dependent and independent variables

The following table shows the direction of the relationship between each dependent variable to each independent variable.

Table 8. Direction of the relationship of the dependent variable with independent variables

	BOD	*AC*	*RC*	*NC*	*RM*	*D*	*CAR*	*Net NPA*
ROA	Positive	Negative	Negative	Positive	Negative	Negative	Negative	Positive
NIM	Positive	Negative	Positive	Positive	Positive	Positive	Negative	Positive

CGI is not a standardized construct that can exactly capture all the governance factors. Many researchers and rating agencies use different CGIs which are constructed depending on the objectives and requirements. But there is no prescribed way to know the validity of such indices. Here we use Cronbach's α (alpha) to at least indicate the validity of the CGI used. Usually, α value of more than 0.7 is considered strong (Kline, 2000). The whole index has been tested for validity and the resultant α value is 0.78, which proves the validity of the index as a whole.

5. DISCUSSION

Over the past decade, the research on CG through CGI has become popular and also analyzing the impact of firm-level governance on the firm's financial performances. Much research has been done using the CGI like those of Black, de Carvalho, Khanna, Kim, and Yurtoglu (2014), Ararat, Black, and Yurtoglu (2017). The studies are not related to a specific industry like the present study is related to banking. Most of the studies use a cross-sectional or/and time-series data set, which has been used in this study too. There are mixed opinions about the impact of corporate governance on firm performance like Sarkar, Sarkar, and Sen (2012) established a significant relation between CG and financial performance of firms whereas the findings of Pandya (2011) wherein there is no significant relationship between the CG practices in terms of board characters and firm performance.

In this study individual sub-indices of CG have been tested for correlation with ROA and NIM, and the results are mixed. The remuneration committee, risk management, and disclosures exhibited mixed relations with ROA and NIM. And as stated earlier board of directors and nomination committee

demonstrate positive relations. Audit committee has a negative correlation with the financial metrics and all such findings are to be considered with different significance levels.

6. CONCLUSION

Research in corporate governance in India is at a nascent stage, either by the regulatory authorities, corporate, or researches. In this study, an attempt was made to study the relationship of corporate governance practices with the financial performance of selected banks in India. For this purpose, a CGI was prepared and regression analysis was done taking accounting and market-related variables as dependent factors. A comparison of CG practices and financial performance of public and private sector banks was also done.

The overall impression is that though a weak correlation, corporate governance does have an impact on the firm's profitability, especially the board of directors is found to be positively correlated to the bank's profitability which is in support of the study made by Handa (2018). The increase in the corporate governance index scores of all the banks suggests that there is an improvement in governance practices. Especially, whatever are the mandatory requirements of clause No. 49 of SEBI listing agreement, the banks are obliged to follow. The scores of public banks are lesser than private banks. The corporate governance of banks is very sensitive and needs careful monitoring. Since the governance practices have an effect on profitability and value; banks have to make efforts to improve them. The banks must try to improve their asset quality through proper lending policies and credit appraisal process. The CGI provides a comprehensive framework wherein important governance elements are taken into consideration. The banks must inculcate these good governance practices in their day to day activities and also in their strategic decision making.

The study covers a period of eight years from 2009 to 2016 to capture the various effects of corporate governance reforms in India. The study can be extended further backward by increasing the study period. This can also include the study period from the introduction of the liberalization policy in India. The study focuses on those elements of corporate governance in which the investors would be interested. More elements related to board meetings, shareholders meetings, credit appraisal process, nature of related party transactions can be included.

One of the important factors in governance is the ethics, morals, and psychology of the directors in decision making. A study can be made in the personality types of the directors and the decisions made and implemented.

REFERENCES

1. Aebi, V., Sabato, G., & Schmid, M. (2012). Risk management, corporate governance, and bank performance in the financial crisis. *Journal of Banking & Finance, 36*(12), 3213-3226. https://doi.org/10.1016/j.jbankfin.2011.10.020
2. Ararat, M., Black, B. S., & Yurtoglu, B. B. (2017). The effect of corporate governance on firm value and profitability: Time series evidence from Turkey. *Emerging Markets Review, 30,* 113-132. https://doi.org/10.1016/j.ememar.2016.10.001
3. Bebchuk, L., Cohen, A., & Ferrell, A. (2009). What matters in corporate governance? *The Review of Financial Studies, 22*(2), 783-827. https://doi.org/10.1093/rfs/hhn099
4. Bhagat, S., Bolton, B. J., & Romano, R. (2008). The promise and peril of corporate governance indices. *Columbia Law Review, 108*(8), 1803-1882. https://doi.org/10.2139/ssrn.1019921
5. Black, B., de Carvalho, A. G., Khanna, V., Kim, W., & Yurtoglu, B. (2014). Methods for multicountry studies of corporate governance: Evidence from the BRIKT countries. *Journal of Econometrics, 183*(2), 230-240. https://doi.org/10.1016/j.jeconom.2014.05.013
6. Chi, J. (2005). Understanding the endogeneity between firm value and shareholder rights. *Financial Management, 34*(4), 65-76. https://doi.org/10.1111/j.1755-053X.2005.tb00118.x
7. Ciftci, I., Tatoglu, E., Wood, G., Demirbag, M., & Zaim, S. (2019). Corporate governance and firm performance in emerging markets: Evidence from Turkey. *International Business Review, 28*(1), 90-103. https://doi.org/10.1016/j.ibusrev.2018.08.004
8. Colpan, A. M., Yoshikawa, T., Hikino, T., & Miyoshi, H. (2007). Japanese corporate governance: Structural change and financial performance. *Asian Business & Management, 6,* 89-113. https://doi.org/10.1057/palgrave.abm.9200240
9. Cunat, V., Gine, M., & Guadalupe, M. (2012). The vote is cast: The effect of corporate governance on shareholder value. *The Journal of Finance, 67*(5), 1943-1977. https://doi.org/10.1111/j.1540-6261.2012.01776.x
10. Daines, R., Gow, I. D., & Larcker, D. F. (2009). *Rating the ratings: How good are commercial governance ratings?* (Stanford Law and Economics Olin Working Paper No. 360). https://doi.org/10.2139/ssrn.1152093
11. Danoshana, S., & Ravivathani, T. (2019). The impact of the corporate governance on firm performance: A study on financial institutions in Sri Lanka. *SAARJ Journal on Banking & Insurance Research, 8*(1), 62-67. https://doi.org/10.5958/2319-1422.2019.00004.3
12. De Andres, P., & Vallelado, E. (2008). Corporate governance in banking: The role of the board of directors. *Journal of Banking & Finance, 32*(12), 2570-2580. https://doi.org/10.1016/j.jbankfin.2008.05.008
13. Deb, R. (2013). Corporate governance practices in Indian banks. *Journal of Business Management & Social Sciences Research (JBM&SSR), 2*(5), 36-50. Retrieved from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.402.7440&rep=rep1&type=pdf
14. Fallatah, Y., & Dickins, D. (2012). Corporate governance and firm performance and value in Saudi Arabia, *African Journal of Business Management, 6*(36), 10025-10034. https://doi.org/10.5897/AJBM12.008
15. Gedajlovic, E., & Shapiro, D. M. (2002). Ownership structure and firm profitability in Japan. *Academy of Management Journal, 45*(2), 565-575. https://doi.org/10.5465/3069381
16. Gopalan, R. (2006). *Essays on corporate governance* (Ph.D. Thesis, University of Michigan).

17. Gujarati, D. N., Porter, D., & Gunasekar, S. (2013). *Basic econometrics* (5th ed.). Tata McGraw-Hill Education.
18. Handa, R. (2018). Does corporate governance affect financial performance: A study of select Indian banks. *Asian Economic and Financial Review, 8*(4), 478-486. Retrieved from http://www.aessweb.com/pdf-files/AEFR-2018-8(4)-478-486.pdf
19. Khodadadi, V., Khazami, S., & Aflatooni, A. (2010). The effect of corporate governance structure on the extent of voluntary disclosure in Iran. *Business Intelligence Journal, 3*(2), 151-164. Retrieved from https://www.researchgate.net/publication/45602117_The_Effect_of_Corporate_Governance_Structure_on_the_Extent_of_Voluntary_Disclosure_in_Iran
20. Kline, P. (2000). *The handbook of psychological testing* (2nd ed.). New NY: Routledge.
21. Koirala, S., Marshall, A., Neupane, S., & Thapa, C. (2020). Corporate governance reform and risk-taking: Evidence from a quasi-natural experiment in an emerging market. *Journal of Corporate Finance, 61.* https://doi.org/10.1016/j.jcorpfin.2018.08.007
22. Lei, A. C. H., & Song, F. M. (2012). Board structure, corporate governance and firm value: Evidence from Hong Kong. *Applied Financial Economics, 22*(15), 1289-1303. https://doi.org/10.1080/09603107.2011.650329
23. Lemmon, M. L., & Lins, K. V. (2003). Ownership structure, corporate governance, and firm value: Evidence from the East Asian financial crisis. *The Journal of Finance, 58*(4), 1445-1468. https://doi.org/10.1111/1540-6261.00573
24. Levine, R. (2004). *The corporate governance of banks: A concise discussion of concepts and evidence*. https://doi.org/10.1596/1813-9450-3404
25. Lupu, D., & Nichitean, A. (2011). Corporate governance and bank performance in Romanian banking system. *The Annals of the Ştefan cel Mare, 11*(1), 219-225. Retrieved from https://econpapers.repec.org/article/scmausvfe/v_3a11_3ay_3a2011_3ai_3a1(13)_3ap_3a219-225.htm
26. Marisetty, V. B. (2011). Corporate governance survey: A holistic view for altruistic practice: Interview with N R Narayana Murthy, founder, Infosys Technologies. *IIMB Management Review, 23*(1), 30-38. https://doi.org/10.1016/j.iimb.2010.11.001
27. Mehran, H., Morrison, A. D., & Shapiro, J. D. (2011). *Corporate governance and banks: What have we learned from the financial crisis?* (Federal Reserve Bank of New York Staff Report No. 502). https://doi.org/10.2139/ssrn.1880009
28. Mitra, A., & Pattanayak, M. (2012). Business groups, block holdings and firm value. *International Journal of Disclosure and Governance, 10,* 39-57. https://doi.org/10.1057/jdg.2012.6
29. Moosa, I. (2013). Governance indicators as determinants of operational risk. *International Journal of Disclosure and Governance, 12*(2), 132-143. https://doi.org/10.1057/jdg.2013.36
30. Muda, I., Maulana, W., Sakti Siregar, H., & Indra, N. (2018). The analysis of effects of good corporate governance on earnings management in Indonesia with panel data approach. *Iranian Economic Review, 22*(2), 599-625. https://doi.org/10.22059/ier.2018.66169
31. Nicolăescu, E. (2012). The mechanisms of corporate governance and their empirical relation to firm performance. *Economics, Management, And Financial Markets, 7*(4), 203-208.
32. Oesch, D. (2011). *International corporate governance and firm value* (Ph.D. Thesis, University of St. Gallen). Retrieved from https://www1.unisg.ch/www/edis.nsf/SysLkpByIdentifier/3922/$FILE/dis3922.pdf
33. Okehi, D. O. (2014). *Modelling risk management in banks: Examining why banks fail* (Ph.D. Thesis, Walden University). Retrieved from https://scholarworks.waldenu.edu/dissertations/158/
34. Onakoya, A. B., Ofoegbu, D. I., & Fasanya, I. O. (2012). Corporate governance and bank performance: A pooled study of selected banks in Nigeria. *European Scientific Journal, 8*(28), 155-164. Retrieved from https://www.semanticscholar.org/paper/CORPORATE-GOVERNANCE-AND-BANK-PERFORMANCE%3A-A-POOLED-Onakoya-Ofoegbu/f3fe58cc2440b019437c4722c78ac83af6e71dda
35. Pandya, H. (2011). Corporate governance structures and financial performance of selected Indian banks. *Journal of Management and Public Policy, 2*(2), 4-21. Retrieved from https://pdfs.semanticscholar.org/386f/d17da931e45c0875b224ae9cbd22c744b5cc.pdf
36. Pant, M., & Pattanayak, M. (2007). Insider ownership and firm value: Evidence from Indian corporate sector. *Economic and Political Weekly, 42*(16), 1459-1467. Retrieved from https://www.jstor.org/stable/4419499
37. Rose, C., Munch-Madsen, P., & Funch, M. (2013). Does board diversity really matter? Gender does not, but citizenship does. *International Journal of Business Science and Applied Management, 8*(1), 15-27. Retrieved from https://www.business-and-management.org/paper.php?id=96
38. Sarkar, J., Sarkar, S., & Sen, K. (2012). *Corporate governance index for large listed companies in India* (Pace University Accounting Research Paper No. 2012/08). https://doi.org/10.2139/ssrn.2055091
39. Sehgal, A., & Mulraj, J. (2007). Corporate governance in India: Moving gradually from a regulatory model to a market-driven model – A survey. *International Journal of Disclosure and Governance, 5*(3), 205-235. https://doi.org/10.1057/jdg.2008.9
40. Utama, C. A., & Utama, S. (2014). Corporate governance, size and disclosure of related party transactions, and firm value: Indonesia evidence. *International Journal of Disclosure and Governance, 11*(4), 341-365. https://doi.org/10.1057/jdg.2013.23
41. Yasser, Q. R. (2011). Corporate governance and firm performance: An analysis of family and non-family controlled firms. *The Pakistan Development Review, 50*(1), 47-62. https://doi.org/10.30541/v50i1pp.47-62
42. Zheka, V. (2005). Corporate governance, ownership structure and corporate efficiency: The case of Ukraine. *Managerial and Decision Economics, 26*(7), 451-460. https://doi.org/10.1002/mde.1258