

## An Index to Study Corporate Governance Practices in Banks in India

Sandhya Surapalli<sup>i</sup>✉, and Neha Parashar<sup>ii</sup>✉

Received: 4 April 2021

Final Revision: 22 October 2021

Accepted: 2 December 2021

e Published: 03 February 2022

 [10.52283/NSWRCA.AJBMR.20220602A01](https://doi.org/10.52283/NSWRCA.AJBMR.20220602A01)

### Abstract

Corporate Governance (CG) of banks needs a special attention for many reasons, one of which is that banks are highly vulnerable for financial manipulations. Many factors make up the CG of a firm. It is highly difficult to realize what exactly CG is and define it. Yet, research is essential to understand the rising needs of good CG practices and the impact of such practices. Since many factors make up CG, in this study a CG Index especially designed for banks has been prepared. To know the effectiveness of corporate governance, the index was divided into six sub-indices and to test the index it was used to find correlation of CG practices with firm value measures in terms of price to book value (PBV) and Tobin's Q as dependent variables. We employed the fixed regression model was run to examine the relationship between the sub-indices and the dependent variables. Apart from CG index, capital adequacy ratio (CAR) and net NPA ratio were also taken as independent variables. Supporting to the existing literature, significantly high correlation was established between CG and PBV and Tobin's Q, especially by the board of directors and CAR. This study also indicates that the index can be used as proxy for understanding the CG practices of banks in India.

**Keywords:** Corporate Governance, Corporate Governance Index, Firm value, Profitability.

### I. Introduction

Corporate Governance (CG) is the way the internal management of firm is carried on. 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 ownership is separate from management. This concept of agency relation creates few setbacks on confidence and trust in the activities and management of the companies. The corporate scandals of (e.g. Enron, Worldcom, Satyam etc.) have significantly augmented the interest in governance mechanism of firms.

The CG is a wide concept and there is no exacting element to define exactly what corporate governance is. As such the following points may be considered as part of CG of any corporate:

---

<sup>i</sup> (Dr.) Assistant Professor - Department of Finance & Accounting, ICAI Business School, IFHE-Hyderabad

✉ [yes.sandhya@gmail.com](mailto:yes.sandhya@gmail.com)

 <https://orcid.org/0000-0002-4467-562X>

<sup>ii</sup> (Dr.) Faculty of Finance and Accounting, ICAI Business School, Pune

✉ [Neha.parashar@ibsindia.org](mailto:Neha.parashar@ibsindia.org)

 <https://orcid.org/0000-0001-5074-9253>

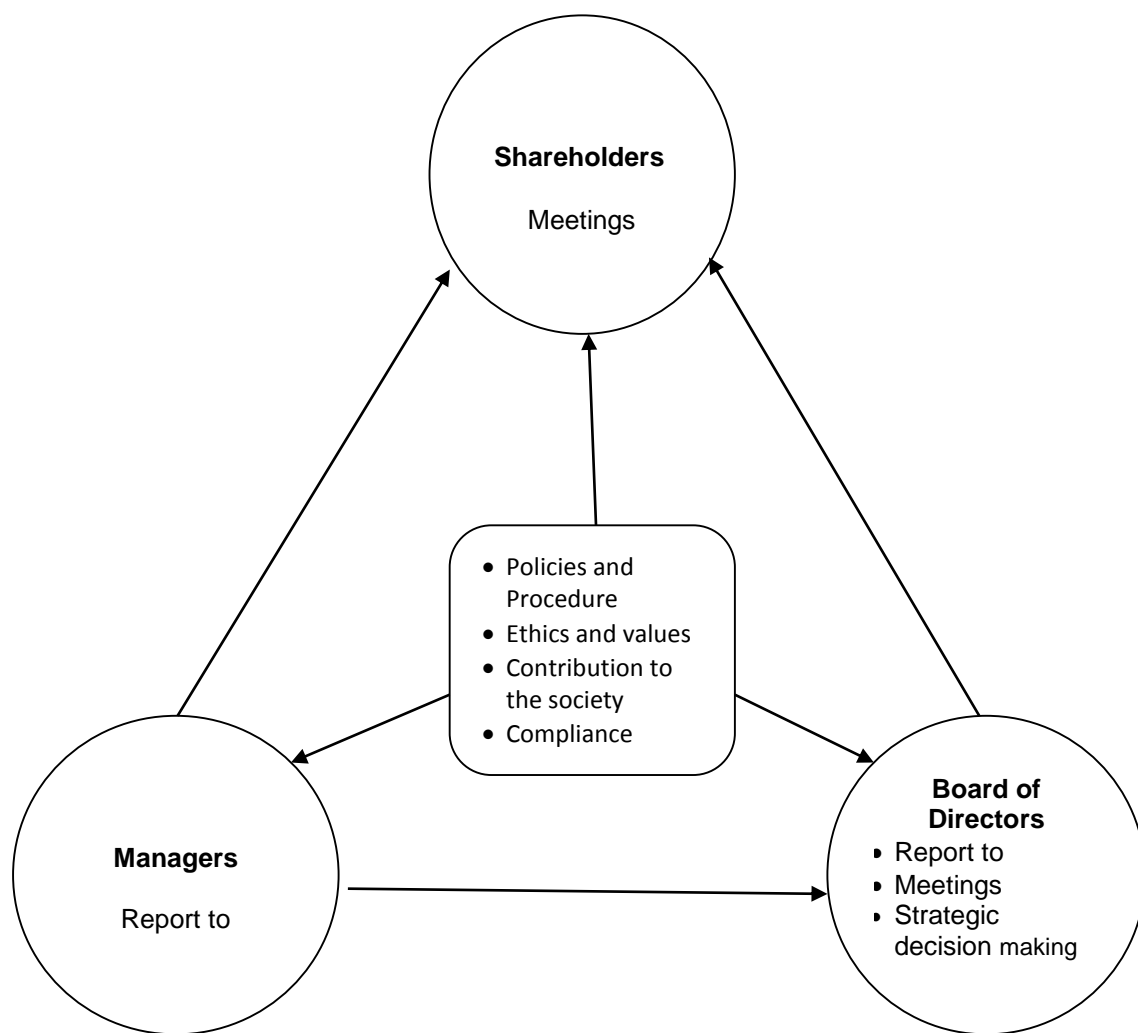


Figure 1: Model of Corporate Governance framework

The above 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 to stakeholders 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 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 too define the business-ethics. All these set forth the CG platform that dictates the reputations of the company and its long-term success.

The practices of CG impact the financials and reputation of the company in the long-run. A good CG framework must be characterized by the following aspects:

- Accountability, fairness and transparency
- Creation value without compromising on ethical values
- Follow the applicable law
- Clear communication

### Corporate Governance Norms

The international practices of CG are not standardized across countries. The variation in practices is because of the inherent business environment, efficiency of capital markets, legal system, accounting standards, societal and cultural values to name few. All these factors interact in different combinations among the countries and lead to diverse CG practices. Countries are issuing CG codes which guide the companies in following good CG practices and such codes have undoubtedly paved way to more transparency and disclosures. The CG codes are issued by various agencies to guide the regulatory authorities in framing rules and firms to carry out their internal management. The notable CG recommendations on 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, with the changing economic conditions improved recommendations were offered in Hampel report, Sarbanes-Oxley Act, 2002, Higgs report, OECD Principles.

In India too CG recommendations were made by several committees at different points of time. The very first CG code was published by Confederation of Indian Industries (CII) in 1998 which was called Desirable Corporate Governance code. Later on in 1999, the second major initiative was taken up by 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 Naresh Chandra Committee, Narayan Murthy Committee, JJ Irani Committee and finally The Companies Act, 2013. The new Companies Act has few revolutionary reforms which aligned the CG practices in India to the international standards.

### Corporate Governance in Banks

Corporate governance of banks is different from other industries due to the fact that banks utilize the money from their investors and also their customers. Banks must make fair use of such funds for developmental purpose. With efficient utilization of funds by the banks, capital formations will increase, which can lower the cost of capital and thus providing a momentum to economic growth (Levine, 2004). Other industries depend on bank 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 creditor, 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 for operational risk and market risks.

Bank failures are caused due to poor risk management and governance (Daniel, 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 high chances of experiencing operational risk. Banks' CG is unique for the reason that a separate risk management committee of BOD is formed 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.

## II. Review of Literature

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, experience of directors, whistle blowing policy are being made a part of it. The literature on CG is broadly based on following categories:

### Agency theory

There is separation of ownership and management. Managers and Owners share an agency relationship and this relation causes some hurdles 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. The managerial decision-making can cause harm to shareholders in two ways; one is by involving in short-run cost that increases manager's 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 between the ownership concentration and firm performance thereby proving that standard agency theory exists. Ownership structure is one of the factors to study agency theory. The firms with high levels of management ownership exhibit lower value during financial crisis, because insiders had personal incentives and power to expropriate funds, thus reiterating agency theory issues. Utama and Utama (2013) 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 were reduced. Nicolaescu (2012) stressed 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.

## Shareholders Rights

Protection of the shareholders' value and rights is probably the primary objective of CG. The directors of firm work on behalf of and manager work for shareholders. Increasing the shareholders rights might lead to 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. Cunaet al. (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 positive impact on firm value whereas group affiliations and block holdings have negative impact on firm value. Benefits of group affiliation have eroded after economic reforms and standalone 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 substantial part of shareholding, they closely monitor executive compensation, termination of non-performing managers, increasing dividend payout ratio and thus improving productivity.

## Ownership Structure

Pattern and proportions of ownership affects the CG practices. 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. 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 same and financial performance of both type of firms are influenced but the magnitude of influence of different CG variables may not be same. Zhaka (2005) identified that concentrated ownership and foreign ownership positively affected the efficiency of the firms. Pant & Pattanayak (2007) analyzed the relation of insider ownership and financial performance of firms. Higher insider ownership has 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.

## The Board of Directors

Sehgal and Mulraj (2007) and Marishetty (2011) identified that the board of directors (BOD) has power to take decisions on 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 which can give 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 et al. (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 the good CG practices. Andres and Vallelado (2008) studied the role of directors in corporate governance of large international banks. Board size and composition of independent directors definitely improves the efficiency of monitoring and advisory functions which adds to the value to the firm. Khodadadi et al. (2010) found that the presence of independent directors reduces conflicts of interest. For an efficient board, 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. Contrarily, Buallay et al. (2017) study resulted that there is no significant impact of independent directors on the firm value. Rose et al. (2013) is 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 common law background may significantly have positive impact on the performance of firms. Lie and Soong (2012) argued that usually the directors must have some minimum higher qualification to make better informed decisions.

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

### Corporate Governance (CG) Index

With the increasing complexity of capital markets, more and more elements are being accepted which affect the corporate governance practices. Earlier, only 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 corporate governance index (GCI) to study the country-level and firm-level CG practices. Moosa (2013) is of the view that a country-specific CG index may have predictive power in establishing relation between CG index and the firm's market value whereas a common CG index for all the countries has limited power to predict the market values because the governance practices and markets have different characters. Black et al. (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 et al. (2012) opines CG index can include any factors and elements which are considered to effect the governance of firms. CG index 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 CG index and such readily available indices may be used to know about the governance practices of firms. Oesch (2011) and Bebchuk et al. (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 et al. (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 the governance practices is being questioned. Bhagat et al. (2008) stated that it is difficult to predict the governance mechanism of firms with single parameters or such governance variable and that it varies from firm to firm depending on context and system. There are certain analytical problems with single governance variable.

### Corporate Governance in Banks

Banks act as catalyst for economic development of the nations. They act as intermediate 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 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. Integrity of accounting statements, transparency and disclosures, selective leakage of sensitive information are the most prominent concerns of corporate governance.

Mehran et al. (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 (2003) 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. 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 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 principle had better financial results than those banks with lesser CG practices. Onakaya et al. (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.

Daniel (2014) established a close link to the CG and risk management in banks. With good governance practices systemic failures in banks can be avoided. Aebiet et al. (2011) identified that 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 financial crisis period.

### 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. The governance of banking in particular is the less explored area. Most of the studies like that of Moosa (2013), Black et al. (2014), and Bebchuck et al. (2009) are conducted outside India or in other industries (Sarkar et al., 2012). The CG of banks in India is a least 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 firm value using an index would be a research done for the first time.

### III. Research Methodology

This research study uses CG index to know about the relationship of corporate governance Practices and firms value. The selected sample of banks will be given scores as per the index and further analysis will be carried out. The index comprises of 42 element assumed to be important to know about the CG practices of banks and that are 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 49 of Listing Agreement of SEBI, OECD principles, Basel Committee's Corporate Governance Principles for Banks and Indian Banking Regulations Act, 1949. The following is the CG index especially designed for banks in India. Each element in the index is assigned 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 is detrimental to good governance and hence if the banks are following such practices, minus one is assigned to those elements.

**Table 1:** Corporate Governance (CG) Index for Banks in India

| Sub-index                      | Criteria   | Point    |
|--------------------------------|--|----------|
| <b>Board of Directors(BOD)</b> | Board consists of not more than 12 members (-1)                  | -1 or 0  |
|                                | Proportion of independent directors is equal to or more than 50% | 1 or 0   |
|                                | Chairman of the Board is independent or non-executive            | 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  |
|                                | Independent directors meet separately                            | 1 or 0   |
|                                | Independent directors are trained                                | 1 or 0   |
|                                | Appointment of lead independent director                         | 1 or 0   |
|                                | Independent director serving more than 8 years on the board (-1) | -1 or 0  |
|                                | Declassified board   | 1 or 0   |
|                                | Multiple directorship in more than 7 companies(-1)               | -1 or 0  |
|                                | <b>Total Score for BOD</b>                                       | <b>8</b> |
| <b>Audit Committee(AC)</b>     | Chairman of Audit Committee is Independent                       | 1 or 0   |
|                                | Minimum of 2/3 rd Directors are independent                      | 1 or 0   |
|                                | Meets atleast 4 times a year                                     | 1 or 0   |
|                                | Independent members meet separately                              | 1 or 0   |
|                                | Internal Auditors report directly to Audit Committee             | 1 or 0   |
|                                | External Auditor provides only audit services                    | 1 or 0   |
|                                | <b>Total score for AC</b>  | <b>6</b> |



|                                   |  |           |
|-----------------------------------|--|-----------|
| <b>Remuneration Committee(RC)</b> | 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 atleast 2 times a year   | 1 or 0    |
|                                   | Performance Based incentive to CEO   | 1 or 0    |
|                                   | Performance evaluation of independent directors  | 1 or 0    |
|                                   | <b>Total Score for RC</b>  | <b>6</b>  |
| <b>Nomination Committee(NM)</b>   | Nomination Committee Exists  | 1 or 0    |
|                                   | All are non-executive or 2/3rd are independent   | 1 or 0    |
|                                   | Meets atleast two times in a year  | 1 or 0    |
|                                   | Chairman is Independent  | 1 or 0    |
|                                   | <b>Total score for NC</b>  | <b>4</b>  |
| <b>Risk Management(RM)</b>        | 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    |
|                                   | <b>Total score of RM</b>   | <b>5</b>  |
| <b>Disclosures(D)</b>             | RPTs disclosed   | 1 or 0    |
|                                   | Shareholding pattern   | 1 or 0    |
|                                   | shareholder grievance redressal  | 1 or 0    |
|                                   | Any non-compliance and penalties and strictures thereto                                | 1 or 0    |
|                                   | Ratio of remuneration of each director to the median of employees remuneration         | 1 or 0    |
|                                   | Whistle blowing policy exists  | 1 or 0    |
|                                   | Criteria for remuneration to non- executive directors disclosed                        | 1 or 0    |
|                                   | succession plan  | 1 or 0    |
|                                   | <b>Total of Ds</b>   | <b>8</b>  |
| <b>Total maximum Score</b>        |  | <b>37</b> |

Note: Author's own data

For the purpose of analysis, a selective sampling of banks has been done; 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, more five private sector banks are also included. These top five private sector banks are selected based on the Bank Index (BANKEX) of 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 failures and major regulatory reforms in India.

### Data analysis techniques

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 in nature, panel regression model best suits for the analysis. The six sub-indices of 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.

Price-to-Book Value (PBV) and Tobin's Q are market related measures taken as representation of firms' value. These variables have been used widely in the earlier related researches. Earlier studies by Rahayu and Anggraeni (2019), Wahyudi and Chairunesia (2019) considered PBV and Buallay et al. (2017), Ciftci et al. (2019) used Tobin's Q as a proxy for firm value.

To know the relationship between 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, Fixed Effect Model of regression is considered suitable for the analysis. The regression model is given as follows:

$$PBV_{it} = \alpha + \beta_1 BOD + \beta_2 AC + \beta_3 RC + \beta_4 NC + \beta_5 RM + \beta_6 D + \beta_7 CAR + \beta_8 Net\ NPA + \mu_i$$

$$Tobin's\ Q_{it} = \alpha + \beta_1 BOD + \beta_2 AC + \beta_3 RC + \beta_4 NC + \beta_5 RM + \beta_6 D + \beta_7 CAR + \beta_8 Net\ NPA + \mu_i$$

Where,

i = Banks = 1, 2, 3, ..... 10

t = year = 2009, 2010, .... 2016

PBV and Tobin's Q = Dependent Variables

BOD, AC, RC, NC, CAR, Net NPA = Independent Variables

$\mu_i$  = Error term

$\alpha$  = intercept,  $\beta$  = regression coefficient

#### IV. Findings and Discussion

**Table 2:** Correlation between Independent and Dependent Variables

|           |                     | Capital Adequacy Ratio | Net NPA Ratio | CG Index |
|-----------|---------------------|------------------------|---------------|----------|
| PBV       | Pearson Correlation | -.218                  | -.349**       | .643**   |
|           | Sig. (2-tailed)     | .052                   | .002          | .000     |
|           | N                   | 80                     | 80            | 80       |
|           | Pearson Correlation | -.263*                 | -.269*        | .621**   |
| Tobin's Q | Sig. (2-tailed)     | .018                   | .016          | .000     |
|           | N                   | 80                     | 80            | 80       |

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

The Pearson Correlation will indicate us the nature of relationship between the dependent and independent variable and also the direction of such relationship.

From the above table no.2 CG Index shows significantly correlation with market variables; PBV and Tobin's Q. Net NPA ratio has a moderate correlation. The correlation between Capital Adequacy Ratio and both the dependent variables is negative.

#### Descriptive Statistics

**Table 3:** Mean and Standard Deviation of the variables

| Variables              | Mean     | Standard Deviation | Minimum  | Maximum |
|------------------------|----------|--------------------|----------|---------|
| PBV                    | 1.895001 | 1.214073           | 0.347093 | 4.60    |
| TOBIN_S_Q              | 1.104    | 0.161              | 0.712    | 1.747   |
| 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    |
| DS                     | 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   |



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

### Panel Regression Model

Panel data set consists of cross-sectional (10 banks), time-series data (from 2009 to 2016). The CG index, CAR and Net NPA ratio are taken as independent variables and the dependent variables are RAO and NIM. The exploratory variable; CG index 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 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 fixed effect model was appropriate for this study wherein, the probability values being less than 0.05 ( $p < 0.05$ ). Moreover, the fixed affect model is selected over random effect model because the sample selected is not random but it is purposive sampling. The Breusch-Pagan test for heteroscedasticity for all the regressions was run and tests results (significance level being greater than 0.05) rejected the existence of the problem of heteroscedasticity in the regressions. (Gujarati N. Damodaran et al., “*Basic Econometrics*”, McGrawHill Education, 2012, p. 637).

#### Results of Fixed Regression Analysis for CG and PBV

**Table 4:** Results of Fixed Regression Analysis of CGI with PBV

| Variable               | Coefficient | Prob.  |
|------------------------|-------------|--------|
| C                      | -3.261826   | 0.0027 |
| BOD                    | 0.307138    | 0.0003 |
| AC                     | 0.415475    | 0.0005 |
| RC                     | 0.151103    | 0.1461 |
| NC                     | 0.133625    | 0.1477 |
| RM                     | 0.041417    | 0.7170 |
| DS                     | 0.401643    | 0.0231 |
| CAPITAL_ADEQUACY_RATIO | -0.050887   | 0.0004 |
| NET_NPA_RATIO          | -0.753887   | 0.7484 |

#### Effects Specification- Cross-section fixed (dummy variables) for PBV

**Table 5:** Model Specification for PBV

|                    |           |                       |          |
|--------------------|-----------|-----------------------|----------|
| R-squared          | 0.750012  | Mean dependent var    | 1.895001 |
| Adjusted R-squared | 0.691421  | S.D. dependent var    | 1.214073 |
| S.E. of regression | 0.674416  | Akaike info criterion | 2.226918 |
| Sum squared resid  | 29.10960  | Schwarz criterion     | 2.703324 |
| Log likelihood     | -73.07673 | Hannan-Quinn criter.  | 2.417923 |
| F-statistic        | 12.80081  |                       |          |
| Prob(F-statistic)  | 0.000000  |                       |          |

Table 4 shows the results of fixed effect analysis of all the independent variables on PBV. AC and DS are having the highest positive co-efficient. CAR and Net NPA ratio have shown negative co-efficient. The significance of BOD, AC, DS and CAR is below 0.05 which means that these variables have significant relation with CG of the banks. The overall effect as per table 4.5 can be seen that R square is high at 0.750012, which means that 75% of variation in PBV can be explained by Corporate Governance practices. F – Statistic is also very high which proves the validity of the model, with a significant probability.

*Results of Fixed Regression Analysis for CGI and Tobin's Q***Table 6:** Results of Fixed Regression Analysis of CGI with Tobin's Q

| Variable               | Coefficient | Prob.  |
|------------------------|-------------|--------|
| C                      | 0.569646    | 0.0015 |
| BOD                    | 0.046348    | 0.0008 |
| AC                     | 0.013616    | 0.4693 |
| RC                     | 0.033450    | 0.0515 |
| NC                     | 0.002394    | 0.8734 |
| RM                     | 0.002185    | 0.9072 |
| DS                     | 0.049378    | 0.0861 |
| CAPITAL_ADEQUACY_RATIO | -0.008743   | 0.0002 |
| NET_NPA_RATIO          | -0.068868   | 0.8583 |

*Effects Specification- Cross-section fixed (dummy variables) for Tobin's Q***Table 7:** Model Specification for Tobin's Q

|                    |          |                       |           |
|--------------------|----------|-----------------------|-----------|
| R-squared          | 0.614824 | Mean dependent var    | 1.104237  |
| Adjusted R-squared | 0.524548 | S.D. dependent var    | 0.160553  |
| S.E. of regression | 0.110706 | Akaike info criterion | -1.387013 |
| Sum squared resid  | 0.784378 | Schwarz criterion     | -0.910608 |
| Log likelihood     | 71.48054 | Hannan-Quinn criter.  | -1.196009 |
| F-statistic        | 6.810514 |                       |           |
| Prob(F-statistic)  | 0.000000 |                       |           |

Table 6 shows the results of fixed effect analysis of all the independent variables on Tobin's Q. BOD and AC are having the highest positive co-efficient. CAR and Net NPA ratio have negative co-efficient. The significance of BOD, RC and CAR ratio is below 0.05, which indicates that these variables are having significant relation with CG practices of banks. The overall effect as per table 7 can be seen that R square is 0.614824, which means that 61% of variation in Tobin's Q can be explained by Corporate Governance practices. F – Statistic is also significantly high which proves the validity of the model.

**Direction of correlation between dependent and independent variables**

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

**Table 8:** Table showing the direction of relationship of dependent variable with independent variables

|           | BOD      | AC       | RC       | NC       | RM       | D        | CAR      | Net NPA  |
|-----------|----------|----------|----------|----------|----------|----------|----------|----------|
| PBV       | Positive | Positive | Positive | Positive | Positive | Positive | Negative | Negative |
| Tobin's Q | Positive | Positive | Positive | Positive | Positive | Positive | Negative | Negative |

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

**V. Conclusion**

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 CG index was prepared and multiple regression analysis was run taking market-related variables as dependent factors.

The overall impression is that corporate governance does have impact on the firm's value supporting the findings of Ammannet al.(2010),RahayuandAnggraeni (2019), and Ciftci et al. (2019) especially the board of directors is found to be the most significant element that influenced the bank's value India.All the CG variables are positively correlated to both PBV and Tobin' Q.

The consistent increase in the scores of corporate governance index of all the banks suggests that there is an improvement in governance practices. Especially, whatever are the mandatory requirements of the Clause 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 a careful monitoring. Since, the governance practices have effect on 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 CG index 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.

## VI. Limitations and Scope for future research

This study covers a period of eight years from 2009 to 2016 to capture a range of effects of corporate governance reforms in India. The study can be extended further backwards by increasing the study period. This can also include the study period from 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 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

- Aebi, V., Sabato, G. and Schmid, M. (2012). Risk Management, Corporate Governance, And Bank Performance in The Financial Crisis, *Journal of Banking & Finance*, 36, 3213–3226.
- Ammann, M., Oesch, D., & Schmid, M. M. (2011). Corporate governance and firm value: International evidence. *Journal of Empirical Finance*, 18(1), 36–55.
- Andres, P. D. and Vallelado, E. (2008). Corporate governance in banking: The role of the board of directors, *Journal of Banking & Finance*, 32(12), 2570–2580.
- Bebchuk, L., Cohen, A., and Ferrell, A. (2009). What Matters in Corporate Governance?, *The Review of Financial Studies*, 22(2), 783–827.
- Bhagat, S., Balton, B. and Romano, R. (2008). The Promise and Peril of Corporate Governance Indices, *Columbia Law Review*, 108(8), 1803–1882.
- Black, B., Carvalho, A. G., Khanna, V., Kim, W. and Yurtoglu, B. (2014), “Methods For Multicountry Studies of Corporate Governance: Evidence from The BRIKT Countries, *Journal of Econometric*, 183(2), 230–240.
- Buallay, A., Hamdan, A., and Zureigat, Q. (2017). Corporate governance and firm performance: evidence from Saudi Arabia, *Australasian Accounting, Business and Finance Journal*, 11(1), 78–98.
- Chi, J. (2005), “Understanding the Endogeneity between Firm Value and Shareholder Rights”, *Financial Management*, 34(4), 65–76
- Ciftci, I., Tatoglu, E., Wood, G., Demirbag, M., and Zaim, S. (2019). Corporate governance and firm performance in emerging markets: Evidence from Turkey. *International Business Review*, 28(1), 90–103.
- Colpan, A. M., Yoshikawa, T., Hikino, T. and Miyoshid, H. (2007), “Japanese Corporate Governance: Structural Change and Financial Performance” *Asian Business & Management*, 6, 89–113.
- Cunat, V., Gine, M. and Guadalupe, M. (2012), “The Vote Is Cast: The Effect of Corporate Governance on Shareholder Value”, *The Journal Of Finance*, 67 (5), 1943–1977.
- Daines, R., Gow, I. and Larcker, D. (2009), “Rating the Ratings: How Good are Commercial Governance Ratings?”, Stanford, CA, Rock Center for Corporate Governance, Stanford University, Working Paper 1–360.
- Daniel, O. (2014), “Modelling Risk Management in Banks: Examining Why Banks Fail”, PhD. Walden University
- Deb, R. (2013), “Corporate Governance Practices In Indian Banks”, *Journal of Business Management & Social Sciences Research (JBM&SSR)*, 2(5), 36–50.
- Gedajlovic, E. and Shapiro, D. M. (2002), “Ownership Structure and Firm Profitability in Japan”, *Academy of Management Journal*, 45(2), 565–575.
- Gopalan, R. (2006), “Essays on Corporate Governance”, PhD. University of Michigan
- Khodadadi, V., Khazami, S. and Aflatooni, A. (2010), “The Effect of Corporate Governance Structure on the Extent of Voluntary Disclosure In Iran”, *Business Intelligence Journal*, 3(2), 151–164.

- Lemmon, M. L. and 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.
- Levine, R. (2004), "The corporate governance of banks: A concise discussion of concepts and evidence", The World Bank.
- Lupu, D. and Nichitean, A. (2011), "Corporate Governance and Bank Performance in Romanian Banking System", *The Annals of the Ștefăncel Mare*, 11(1), 219-225.
- Marishetty, V. B. (2011), "Corporate governance survey: A holistic view for altruistic practice", *IIMB Management Review*, 23, 30-38.
- Mehran, H., Morrison, A. and Shapiro, J. (2011), "Corporate Governance and Banks: What Have We Learned from the Financial Crisis?" Federal Reserve Bank of New York, Staff Report no. 502
- Mitra, A. and Pattanayak, M. (2012), "Business Groups, Block Holdings and Firm Value", *International Journal Of Disclosure And Governance*, 10, 39 – 57.
- Moosa, I. (2013), "Governance Indicators as Determinants of Operational Risk", *International Journal of Disclosure and Governance*, 12(2), 132-143.
- Nicolăescu, E. (2012), "The Mechanisms of Corporate Governance and Their Empirical Relation to Firm Performance", *Economics, Management and Financial Markets*, 7(4), 203–208.
- Oesch, D. (2011), "International Corporate Governance and Firm Value", PhD. University Of St. Gallen
- 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, ESJ*, 8(28), 155-164.
- Pant, M. and Pattanayak, M. (2007), "Insider Ownership and Firm Value: Evidence from Indian Corporate Sector", *Economic and Political Weekly*, 42(16), 1459-1467.
- Rahayu, I., & Anggraeni, D. (2019). Corporate Governance, Corporate Social Responsibility and Firm Value: Economic Value Added as the Intervening Variable. *Proceeding UII-ICABE*, 1(1), 15-22.
- Rose, C., Munch-Madsen, P. and Funch, M. (2013), "Does Board Diversity Really Matter? Gender Does Not, But Citizenship Does", *Int. Journal of Business Science And Applied Management*, 8(1), 15-27.
- Saidat, Z., Silva, M., & Seaman, C. (2019). The relationship between corporate governance and financial performance: Evidence from Jordanian family and nonfamily firms. *Journal of Family Business Management*, 9(1), 54-78.
- Sarkar, J., Sarkar, S. and Sen, K. (2012), "Corporate Governance Index for Large Listed Companies in India, Indira Gandhi Institute of Development Research", Mumbai. Working Paper No. 2012-009.
- Sehgal, A. and 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.
- Utama, C. A. and 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.
- Wahyudi, S. M., and Chairunesia, W. (2019). The Effect of Good Corporate Governance on Investment Decisions and Profitability and Its Impact on Corporate Value. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 9(3), 140-149.
- 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.
- Zheka, V. (2005), "Corporate Governance, Ownership Structure and Corporate Efficiency: The Case of Ukraine, *Managerial and Decision Economics*, 26(7), 451-460.