

CORPORATE GOVERNANCE PRACTICES AND FIRM PERFORMANCE IN EMERGING ECONOMIES-EVIDENCE FROM INDIAN BANKS

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Abstract *Effective Corporate Governance (CG) practices by adhering to regulatory guidelines, fostering transparency, and prioritising stakeholder interests have the potential to enhance financial outcomes. In the context of this intervening relation of CG and financial performance, the present research examines the CG practices in emerging economies through the case of banking sector in India and investigates its relationship with financial performance. Based on a sample of six public and six private Indian banks (with the highest market capitalisation) and using data from their annual reports for the time period (2010–2011 to 2019–2020), the unique Indian CG Scorecard (designed by BSE, IiAS, and IFC) is employed to calculate CG scores. Panel data regression analysis is applied to study the relation between CG scores and firm performance measures. The findings reveal that the CG score had a significant positive relation with market-based performance measure Tobin's Q but its relationship with accounting measures ROA and ROE could not be established.*

Keywords: *Corporate Governance, Indian CG Scorecard, Indian Banks, Financial Performance, Emerging Economies, Sustainable Growth*

JEL Classification: *E58, G21, G34 O5*

INTRODUCTION

Corporate Governance (CG) frauds have been a significant concern across the globe and emerging economies like India are no exception to it. India has witnessed multiple high-profile scams like PC Jewellers, Yes Bank, ICICI, and PNB, stemming from weak governance practices, compromised ethical standards, and inadequate regulatory oversight. These frauds have had severe repercussions on stakeholders, undermining investor confidence and having disastrous effects on the broader financial ecosystem. Consequently, these scams have accentuated the importance of robust governance frameworks based on transparency, regulatory compliance, and ethical conduct. Such effective CG practices have the potential to promote long term sustainability, enhance investor confidence, and ensures the long-term viability of the business.

Against the backdrop of this interesting context the relationship between CG and the financial performance

of banks is investigated in an emerging market taking the case of India. The originality of the present research lies in the employment of the unique Indian CG Scorecard based on widely accepted G20/OECD principles of CG contextualised for Indian markets. The International Finance Corporation (IFC) and the Bombay Stock Exchange (BSE) in collaboration with Institutional Investor Advisory Services India Limited (IiAS) developed this comprehensive scorecard called the Indian CG Scorecard, which can be used by all stakeholders, investors, and regulators in their decisions regarding companies. In the present research CG score of banks is calculated based on this scorecard and its relationship with accounting and market-based performance measures is ascertained to explore the impact of CG practices on financial performance of banks.

The research has strong implications for members of the board, senior management, and bank practitioners in an emerging market like India to assess the current status of their CG practices and improvise their CG practices to ensure long term profitability of banks and sustainable growth. The

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study also persuades regulators and policymakers to frame and enforce robust CG policies to boost market confidence and encourages other stakeholders like capital providers, investors, and employees to uphold higher benchmarks of CG standards.

REVIEW OF LITERATURE AND THEORETICAL BACKGROUND

A review of past literature exhibits that the impact of various CG attributes on the financial performance of firms has been investigated by several studies. Whilst numerous researchers have observed a positive relationship between CG practices and performance (Roy, 2016; Chauhan et al., 2016; Abang'a et al., 2022; Almaqtari et al., 2020; Farooq et al., 2022; Singh & Pillai, 2022; Erena et al., 2022), conversely, a few of them confirmed that no significant relationship exists between CG disclosure practices and firm performance (Arora & Sharma, 2016; Olaoye & Adeyemi, 2021).

Salim et al. (2016) studied the effect of CG practices on the efficiency of Australian banks and found that the size of the board and the number of committee meetings positively affects bank efficiency. Similar results were found by Arora and Sharma (2016); Bansal and Sharma (2016); Adeabah et al. (2019); Saha and Kabra (2019); Bezawada (2020); Bhatia and Gulati (2021), and Abang'a et al. (2022). Contrary to this, no significant relationship between board composition and the number of board meetings with bank performance was evidenced by many studies (Kumar & Singh, 2012; Mayur & Saravanan, 2017; Orazalin, 2019; Mulchandani et al., 2020). Nonetheless, some studies found that the size of the board and the risk management committee have an adverse effect on financial performance (Aslam & Haron, 2020; Mohan & Chandramohan, 2018; Bezawada, 2020).

Bhagat and Bolton (2019) studied the CG practices of 100 US financial institutions and found that ownership of shares by directors positively affects firm performance but is negatively related to future bank risk. Mulchandani et al. (2020) also evidenced the positive effect of the ownership of shares by directors on firm performance. Furthermore, the positive effect of board gender diversity on firm performance was also witnessed (Das & Dey, 2016; Mulchandani et al., 2020; Bhatia & Gulati, 2021; Abang'a et al., 2022; Boadi et al., 2022). Conversely Saha and Kabra (2019) did not find any effect of gender diversity on firm performance. Mittal et al. (2019) also studied different indices of CG mechanism of SENSEX listed 30 companies over the period of seven years and observed that only the disclosure policy and no other index of CG has significant impact on ROE and RoCE. Later Sharma and Dey (2022)

observed that CEO duality and audit committee size have a positive and significant impact on the Return on Assets (ROA) and Return on Equity (ROE) and the tenure of the CEO has a positive effect on the Net Interest Margin (NIM) and market-based performance measure (Tobin's Q).

It is often alleged that the adoption of good CG practices leads to better firm performance (Almaqtari et al., 2020; Puni & Anlesinya, 2020; Thaker et al., 2021; Farooq et al., 2022; Singh & Pillai, 2022; Erena et al., 2022). Nevertheless, some studies find no significant relationship between CG practices and the financial performance of firms (Arora & Sharma, 2016; Shukla, 2020; Olaoye & Adeyemi, 2021). In contrast there are a few studies that observe that CG parameters may negatively affect firm performance (Guo & Kga, 2012; Aslam & Haron, 2020; Bezawada & Adavelli, 2020). Thus, the relationship between CG and firm performance, as exposed by the review of literature, is mixed. Based on the review, the following hypothesis is proposed.

OBJECTIVES AND HYPOTHESES DEVELOPMENT

The current research aims to study the relationship between CG and the financial performance of banks in an emerging market taking the case of India. To meet the aforesaid objective, the following hypotheses have been framed:

H₀₁: There is no significant relationship between quality of CG practices and financial performance i.e., a better quality of CG does not lead to a better financial performance.

H₀₂: There is no significant relationship between quality of CG practices related to Rights & Equitable treatment of shareholders and financial performance.

H₀₃: There is no significant relationship between the quality of CG practices related to the role of stakeholders in CG and financial performance.

H₀₄: There is no significant relationship between the quality of CG practices related to the disclosures and transparency and financial performance.

H₀₅: There is no significant relationship between the quality of CG practices related to the responsibilities of the board and financial performance.

RESEARCH METHODOLOGY

The present study is analytical in nature based on the analysis of secondary data using various statistical tools and techniques.

Sources of Data

The sample frame consists of six public and six private banks operating in India, selected on basis on highest market capitalisation as on 31-03-2020. (Source: https://www.nseindia.com/corporates/content/compliance_info.htm) The required data for the study is secondary data taken from bank's websites, audited financial statements, official company documents on the company websites, and stock exchange filings. The time period of the data covers 2010–2011 to 2019–2020.

The scorecard used in the study is the Indian CG Scorecard designed by IiAS, IFC Washington, and BSE India

(available at <https://www.iiasadvisory.com/governance-scorecard>) with a set of 70 questions based on G20/OECD principles (Principles II, IV, V, and VI) of CG, grouped into four categories –Rights and Equitable Treatment of Shareholders, Role of Stakeholders in CG, Disclosures and Transparency, and Responsibilities of the Board. The scorecard requires the evaluation to be conducted only on publicly available data. The weightages assigned to each category are based on the number of questions in each category and the relative importance of the questions in that category within the Indian CG framework as depicted in Table 1. The banks can also be ranked based on these scores as exhibited in Table 1.

Table 1: Number of Questions and Weights Assigned to Different Categories

Category	Number of Questions	Maximum Attainable Score	Category Weight (%)
Rights and equitable treatment of shareholders	19	38	30
Role of stakeholders	9	18	10
Disclosure and transparency	23	46	30
Responsibilities of the board	19	38	30
Total	70		100

Ranks of Banks based on CG Scores				
Score Range	70-100	60-69	50-59	<50
Rank	Leadership	Good	Fair	Basic

Source: https://www.ifc.org/wps/wcm/connect/8f451d64-3274-4b72-a6fc-75770ce69e5e/CG_Scores_S%26P_BSE_100_Companies_Handbook.pdf?MOD=AJPERES&CVID=mfgA1oU#:~:text=The%20goal%20of%20a%20scorecard,with%20regards%20to%20such%20companies.

The final CG score is obtained by adding the category scores (weighted) of all the four categories. The weighted category scores were obtained using the below mentioned formula.

Category Score =

$$\frac{\text{Aggregate score of all questions under category}}{(\text{Number of applicable questions in the category} \times 2)} \times \text{Category Weight}$$

Total Score = Category Score1 + Category Score2 + Category Score3 + Category Score4

The CG score was calculated for all the ten years individually and then an average score for the ten years under study was calculated.

Variables and Measures

• Firm Performance Measures

The study involves three firm performance measures. One is the *market-based performance measure* Tobin's Q. This methodology was used by Garg (2007) which is stated to be a slightly changed version of the computation [(MV of

common stock + BV of preferred stock + BV of LTD)/ BV of total assets], given by Chung and Pruitt (1994) which is reported to be almost 96 percent approximation of actual Q. The modification was made to make it compatible with the manner of reporting in the Indian context. Tobin's Q is an unambiguous measure of the value added by management and can also capture the value of future investment opportunities.

The other two measures are *accounting based performance measures*, namely Return on Assets (ROA) and Return on Equity (ROE).

• Corporate Governance (CG) Measures

The CG measures used in the study are the weighted category scores obtained from the scorecard. The variables P1 (Rights and equitable treatment of shareholders), P2 (Role of stakeholders in CG), P3 (Disclosures & Transparency), P4 (Responsibilities of the board) refer to the scores of the banks in the four categories of parameters respectively and CG denotes the aggregate CG scores pertaining to all the parameters.

- *Control Variables*

Table 2 presents the various variables used in the study.

The study employs two control variables namely firm size and leverage.

Table 2: Description of Variables Used in the Study

Sr. No.	Variables	Full form	Description
Panel A: Firm Performance Measures (Dependent Variables)			
1.	TQ	Adjusted Tobin's Q (Market based performance measure)	[(MV of common stock + BV of preference stock + BV of borrowings + BV of CL)/ BV of total assets as denoted by FA + INV + CA] <i>(with all values computed at the end of the year)</i>
2.	ROA	Return on Assets	PBDIT/Total Assets
3.	ROE	Return on Equity	PBDIT/(Paid-up equity capital + reserves and funds)
Panel B: Corporate Governance Measures (Independent Variables)			
1.	CG	Corporate Governance	Aggregate Corporate governance scores
2.	P1	Scores in category 1 parameters	Corporate Governance Scores related to Rights and equitable treatment of shareholders.
3.	P2	Scores in category 2 parameters	Corporate Governance Scores related to Role of stakeholders in corporate governance
4.	P3	Scores in category 3 parameters	Corporate Governance Scores related to Disclosures & Transparency
5.	P4	Scores in category 4 parameters	Corporate Governance Scores related to Responsibilities of the board
Panel C: Control Variables			
1.	LBVA	Firm Size	Logarithm of book value of total assets
2.	LEV	Leverage	(Borrowings/Total Assets) *100

Statistical Techniques and Empirical Model

To investigate the relationship between CG and firm performance, panel regression analysis has been applied. Before applying this method, various assumptions of the regression were tested. The various issues of normality, autocorrelation, heteroskedasticity, and multicollinearity were addressed.

The model for analysis is defined as:

$$\text{Firm Performance} = \beta_0 + \beta_1(\text{CG}) + \beta_2(\text{SIZE}) + \beta_3(\text{LEVERAGE}) + \epsilon_i$$

Subsequently, following regression equations were framed:

$$\text{TQ} = \beta_{it} + \beta_1(\text{P1})_{it} + \beta_2(\text{P2})_{it} + \beta_3(\text{P3})_{it} + \beta_4(\text{P4})_{it} + \beta_5(\text{LBVA})_{it} + \beta_6(\text{LEV})_{it} + \epsilon_{it}$$

$$\text{ROA} = \beta_{it} + \beta_1(\text{P1})_{it} + \beta_2(\text{P2})_{it} + \beta_3(\text{P3})_{it} + \beta_4(\text{P4})_{it} + \beta_5(\text{LBVA})_{it} + \beta_6(\text{LEV})_{it} + \epsilon_{it}$$

$$\text{ROE} = \beta_{it} + \beta_1(\text{P1})_{it} + \beta_2(\text{P2})_{it} + \beta_3(\text{P3})_{it} + \beta_4(\text{P4})_{it} + \beta_5(\text{LBVA})_{it} + \beta_6(\text{LEV})_{it} + \epsilon_{it}$$

$$\text{TQ} = \beta_{it} + \beta_1(\text{CG})_{it} + \beta_2(\text{LBVA})_{it} + \beta_3(\text{LEV})_{it} + \epsilon_{it}$$

$$\text{ROA} = \beta_{it} + \beta_1(\text{CG})_{it} + \beta_2(\text{LBVA})_{it} + \beta_3(\text{LEV})_{it} + \epsilon_{it}$$

$$\text{ROE} = \beta_{it} + \beta_1(\text{CG})_{it} + \beta_2(\text{LBVA})_{it} + \beta_3(\text{LEV})_{it} + \epsilon_{it}$$

[Where 'i' represents the bank and 't' is for time].

DATA ANALYSIS

The category wise weighted scores of the sampled banks are presented in Table 3 and Table 4.

The CG disclosure practices of the banks have shown great improvement over the years, as evident from the scores. Furthermore, Private Banks seem to have better CG practices than public banks, as advocated by the CG scores, with HDFC Bank being the leader in CG disclosure.

Table 3: Category Wise CG Scores of Public and Private Sector Banks in India

Sr. No.	Governance Parameters	Year	Public Sector Banks						Private Sector Banks					
			SBI	BoB	PNB	BOI	UBOI	CB	HDFC	KMB	ICICI	AXIS	BB	YB
1.	Rights and equitable treatment of shareholders	2010-2011	18.75	20.29	21.18	15.94	14.06	16.88	19.99	19.41	17.5	14.12	-	16.76
		2011-2012	18.75	20.29	21.18	15.94	14.06	16.88	19.99	19.41	17.65	14.12	-	16.76
		2012-2013	18.75	20.29	21.18	15.94	14.06	16.88	19.99	19.41	17.65	15	-	16.76
		2013-2014	18.75	20.29	21.18	16.88	15.94	16.88	19.99	20.29	17.65	15	-	19.41
		2014-2015	18.75	22.06	21.18	18.75	16.88	18.75	21.67	20.29	17.65	16.76	-	19.41
		2015-2016	19.41	22.06	21.18	18.75	16.88	18.75	21.67	19.99	17.65	16.76	14.06	21.18
		2016-2017	19.41	22.06	21.18	18.75	16.88	18.75	21.67	21.18	17.65	17.65	14.06	21.18
		2017-2018	20.62	22.06	21.18	20.63	16.88	20.63	22.5	21.18	17.5	17.65	15	19.9
		2018-2019	20.62	22.06	21.18	20.63	19.69	20.63	22.5	21.18	17.5	17.65	15	20.83
		2019-2020	20.62	23.82	21.18	20.63	19.69	21.18	22.89	22.05	17.5	17.65	19.41	20.83
2.	Role of stakeholders in CG	AV	19.44	21.53	21.18	18.28	16.5	18.62	21.29	20.44	17.59	16.24	15.51	19.30
		2010-2011	4.44	3.33	5	3.89	3.89	4.44	6.67	2.78	2.78	4.44	-	3.89
		2011-2012	4.44	3.33	5	3.89	3.89	4.44	6.67	3.33	2.78	4.44	-	3.89
		2012-2013	4.44	3.33	5	4.44	3.89	4.44	6.67	3.33	2.78	5	-	3.89
		2013-2014	5	3.89	5	5	3.89	4.44	6.67	3.89	3.33	5	-	3.89
		2014-2015	5	3.89	5.56	5	5	4.44	6.67	3.89	3.89	6.11	-	3.89
		2015-2016	5	4.44	6.67	5	6.11	4.44	6.67	3.89	3.89	6.11	5	4.44
		2016-2017	5	5.56	6.67	5	6.67	5	6.67	3.89	3.89	6.11	5	5
		2017-2018	5.56	6.67	7.22	5	6.67	5.56	7.78	3.89	4.44	6.11	6.11	5.55
		2018-2019	5.56	6.67	7.22	5	6.67	5.56	7.78	3.89	4.44	5.56	6.11	5.55
3.	Disclosures and Transparency	2019-2020	5.56	5.56	6.67	5	6.67	5.56	8.33	3.89	4.44	5.56	6.11	5.55
		AV	5	4.67	6	4.72	5.34	4.83	7.06	3.67	3.67	5.44	5.67	4.55
		2010-2011	19.57	20.22	22.17	17.61	20.22	16.96	21.52	20.87	20.87	22.82	-	15.65
		2011-2012	19.57	20.22	22.17	17.61	20.22	16.96	21.52	20.87	20.87	22.82	-	15.65
		2012-2013	19.57	20.22	22.17	18.26	20.22	16.96	21.52	20.87	20.87	22.82	-	15.65
		2013-2014	19.57	20.22	22.17	18.26	20.22	16.96	21.52	21.52	20.87	22.82	-	17.61
		2014-2015	19.57	21.52	22.17	19.57	20.22	16.96	21.52	21.52	20.87	23.48	-	18.91
		2015-2016	19.57	22.83	22.17	19.57	20.22	16.96	21.52	21.52	20.87	24.78	18.91	18.91
		2016-2017	20.22	22.83	22.83	19.57	21.52	16.96	22.82	21.52	20.87	24.78	19.57	18.91
		2017-2018	20.22	22.83	22.83	19.57	22.17	18.26	23.48	22.17	20.87	24.78	19.57	20.87
		2018-2019	20.22	22.83	22.83	20.87	22.83	18.26	23.48	22.17	20.87	24.78	20.22	20.22
		2019-2020	21.52	22.83	22.83	20.87	22.83	18.26	23.48	22.17	20.87	24.78	20.22	20.22
		AV	19.96	21.66	22.43	19.18	21.07	17.35	22.24	21.52	20.87	23.87	19.7	18.26

Sr. No.	Governance Parameters	Year	Public Sector Banks						Private Sector Banks					
			SBI	BoB	PNB	BOI	UBOI	CB	HDFC	KMB	ICICI	AXIS	BB	YB
4.	Responsibilities of the board	2010-2011	24.17	16.67	13.33	17.5	16.67	11.67	20.53	18.95	18.16	19.74	-	16.30
		2011-2012	24.17	16.67	13.33	19.17	16.67	11.67	20.53	18.95	17.37	19.74	-	16.30
		2012-2013	24.17	16.67	15	23.33	16.67	11.67	21.32	18.95	18.16	19.74	-	16.96
		2013-2014	24.17	16.67	19.17	23.33	17.50	11.67	22.89	19.73	18.16	20.53	-	16.96
		2014-2015	24.17	16.67	16.67	23.33	18.33	14.17	22.89	20.52	18.95	20.53	-	16.96
		2015-2016	24.17	16.67	16.67	23.33	18.33	15	22.89	22.10	18.95	20.53	19.99	17.61
		2016-2017	24.99	17.49	16.67	23.33	18.33	16.67	22.89	21.32	18.95	20.53	19.99	18.26
		2017-2018	24.99	17.49	19.99	23.33	19.99	16.67	25.26	21.32	19.74	22.11	21.67	20.22
		2018-2019	24.99	17.49	19.99	23.33	19.99	16.67	25.26	21.32	19.74	22.11	21.67	20.22
		2019-2020	24.99	17.49	19.99	23.33	19.99	17.5	25.26	21.32	19.74	23.68	21.67	20.22
		AV	24.5	17	17.08	22.33	18.25	14.34	22.97	20.45	18.79	20.92	21	18
5.	Total	2010-2011	66.93	60.51	61.68	54.94	54.84	49.95	68.71	62.01	59.31	61.12	-	52.6
		2011-2012	66.93	60.51	61.68	56.61	54.84	49.95	68.71	62.56	58.67	61.12	-	52.6
		2012-2013	66.93	60.51	63.35	61.97	54.84	49.95	69.5	62.56	59.46	62.56	-	53.26
		2013-2014	67.49	61.07	67.52	63.47	57.55	49.95	71.07	65.43	60.01	63.35	-	57.87
		2014-2015	67.49	64.14	65.58	66.65	60.43	54.32	72.75	66.22	61.36	66.88	-	59.17
		2015-2016	68.15	66	66.69	66.65	61.54	55.15	72.75	67.5	61.36	68.18	57.96	62.14
		2016-2017	68.15	67.94	67.35	66.65	63.4	57.38	74.75	67.91	61.36	68.18	58.62	63.35
		2017-2018	71.39	69.05	71.22	68.53	65.71	61.12	79.02	68.56	62.55	70.65	62.35	66.54
		2018-2019	71.39	69.05	71.22	69.83	69.18	61.12	79.02	68.56	62.55	70.1	63	66.82
		2019-2020	72.69	69.7	70.67	69.83	69.18	62.5	79.96	69.43	62.55	71.67	67.41	66.82
		AV	68.75	64.85	66.7	64.51	61.15	55.14	73.24	66.07	60.91	66.38	61.87	60.1

Source: Author's calculation based on secondary data.

Table 4: Ranking of Banks based on CG Scores

Sector	Public Sector Banks						Private Sector Banks					
Bank	SBI	Bank of Baroda	Punjab National Bank	Bank of India	Union Bank of India	Canara Bank	HDFC Bank	Kotak Mahindra Bank	ICICI Bank	AXIS Bank	Bandhan Bank	YES Bank
Average Score	69	65	67	65	61	55	73	66	61	66	62	60
Rank	Good	Good	Good	Fair	Good	Fair	Leadership	Good	Good	Good	Good	Good

Source: Author's calculation based on CG scorecard of individual banks.

To understand the relationship between CG practices and firm performance, panel data multiple regression has been used. The descriptive statistics of the variables under the present study as presented in Table 5, clearly show that the

control variable, log of total assets, is the variable with the highest variability (S.D.=20.28) whereas market-related performance measure, Tobin's Q, is the variable with the least variability (S.D.=0.97).

Table 5: Descriptive Statistics of CG Score and Firm Performance

Variable	N	Minimum	Maximum	Mean	Std. Deviation	Skewness
CG Score	113	49.00	79.00	63.7257	6.25963	-.323
Log of Total Assets	113	.50	97.00	34.5088	20.28458	.871
Tobin's Q	113	-3.00	3.40	.7491	.96814	-.614
Return On Assets	113	-52.00	22.00	6.5735	13.25398	-2.140
Return On Equity	113	19.900	27.500	2.23186E1	1.174548	1.592
Leverage	113	.64	29.00	10.7793	6.09699	1.133
Category I	113	46.00	79.00	63.2566	7.24542	-0.460
Category II	113	27.00	83.00	49.2124	12.61126	0.353
Category III	113	56.00	82.00	69.2389	6.31647	-0.266
Category IV	113	38.00	84.00	63.4513	11.56425	-0.400

Source: Author's calculation based on secondary data.

Assumptions of Multiple Regression

- *Normality of Data:* The skewness and kurtosis statistics as depicted in Table 5, clearly show that the data for CG scores, category scores, Log of Total Assets and Tobin's Q variables are normally distributed (as the values lie within the range of ± 1.0), whereas for variables ROA, ROE and leverage the standard skewness is -2.140, 1.592 and 1.133 respectively which lies outside the range of ± 1.0 , thereby indicating that the data is not normally distributed. Therefore, to

analyse such nonparametric data, greater intention must be paid, and a robust standard error analysis is required to test any hypothesis related to this data.

- *Multicollinearity:* To check the presence of multicollinearity between variables, a correlation analysis was carried out. Both Pearson's correlation (parametric) and Spearman's correlation (non-parametric) tests were conducted to consider the non-normally distributed variables. The results are presented in Table 6 and Table 7.

Table 6: Pearson Correlation Analysis between Variables

Variables	Corporate Governance Score	Tobin's Q	Return on Assets	Return on Equity	Log of Total Assets	Leverage
Corporate Governance Score	1					
Tobin's Q	0.099	1				
Return on Assets	0.020	-0.071	1			

Variables	Corporate Governance Score	Tobin's Q	Return on Assets	Return on Equity	Log of Total Assets	Leverage
Return on Equity	-0.117	-0.021	0.879	1		
Log of Total Assets	0.285*	-0.165***	0.115	0.000	1	
Leverage	0.020	-0.087	0.354*	0.267*	-0.201**	1

Source: Author's calculation based on secondary data.

Note: ***Correlation is significant at the 0.10 level (2-tailed).

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

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

The analysis of Table 7 shows spearman's correlation analysis and reveals that Tobin's Q is positively and significantly correlated with CG score and ROA whereas it is positively but insignificantly correlated with ROE. Also, CG score is positively and significantly correlated to ROA but insignificantly correlated to ROE. ROE and ROA

are also positively correlated to each other. Leverage is positively and significantly correlated with ROA and ROE. Since the values of the coefficients are less than 0.9 there is no multicollinearity as stated by Field (2009). Also, the VIF is 1.09 which is less than 10 thereby negating the presence of any multicollinearity as stated by Kennedy (1992).

Table 7: Spearman's Correlation between Variables

Variables	Corporate Governance Score	Tobin's Q	Return on Assets	Return on Equity	Log of Total Assets	Leverage
Corporate Governance Score	1					
Tobin's Q	0.181***	1				
Return on Assets	0.018	-0.013	1			
Return on Equity	-0.128	-0.067	0.844*	1		
Log of Total Assets	0.410*	-0.231**	-0.211**	-0.226**	1	
Leverage	0.060	-0.082	0.405*	0.161***	-0.119	1

Source: Author's calculation based on secondary data. Note: ***Correlation is significant at the 0.10 level (2-tailed).

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

- **Heteroskedasticity:** The Breusch-Pagan / Cook-Weisberg test for heteroskedasticity was used to test for the presence of heteroskedasticity. The results of the test in all cases are shown in Table 8.

Table 8: Breusch-Pagan / Cook-Weisberg Test for Heteroskedasticity

Variables	Prob>chi ²
Tobin's Q, CG, LBVA & LEV	0.0000
ROA, CG, LBVA& LEV	0.0022
ROE, CG, LBVA& LEV	0.0018
ROA P1 P2 P3 P4 LBVA LEV	0.0127
ROE P1 P2 P3 P4 LBVA LEV	0.0000
TQ P1 P2 P3 P4 LBVA LEV	0.0000

Source: Author's calculation based on secondary data.

Table 8 clearly shows that our data does have heteroskedasticity. Thus, for studying the relationship between the CG score and firm performance measures (Tobin's Q, ROA and ROE), the robust standard error option is used. Multiple regression was carried out using OLS

regression with a robust standard error technique and the results are tabulated in Table 9.

Table 9: Regression with Robust Standard Error of Average CG Score on Firm Performance

Variable	Coefficients		
	Tobin's Q	ROA	ROE
CG	13.553* (0.0000)	-0.009 (0.544)	-0.315 (0.137)
Log of Total Assets	-64.59* (0.0000)	0.186 (0.162)	1.153 (0.239)
Leverage	5.513* (0.002)	0.0684* (0.000)	0.646* (0.003)
Constant	661.96** (0.011)	-3.57 (0.160)	-5.93 (0.776)
R-squared(%)	35.05	17.20	9.76
F-statistic	22.19*	7.65*	3.47**

Source: Author's calculation based on secondary data.

Note: *Values significant at 0.01 significance level

** Values significant at 0.05 significance level

*** Values significant at 0.10 significance level

() p-value in parantheses.

RESULTS AND DISCUSSION

CG Score and Market Based Performance Measure

The results from the Table 9 clearly show that CG score is positively and significantly related to the market based firm performance measures. Hence hypothesis H_{01} is rejected, and CG score is found to have a significant and positive relation with the market related performance measure i.e. Tobin's Q at 5 percent significance level. The highly positive relation of Tobin's Q with the aggregate CG score is also validated by the increasing efforts being put in by the banks to level up their CG standards leading to increasing corporate governance scores over the years and better market based firm performance.

CG Score and Accounting Based Performance Measure

On the contrary the relationship of aggregate CG score with accounting performance measures ROA and ROE could not be established as it was found to be insignificant. This may be because the data set is not large enough causing insignificant

results as Greene (1991) stated and recommended. Surprisingly, the relation, though insignificant, is negative, this is primarily because public sector banks in India have been suffering from dwarfism, and their ROA and ROE have been decreasing for quite a few years until 2019 while the CG scores has been increasing due to the banks putting in efforts to benchmarking their CG standards a level up.

On the other hand, Log of Total Assets (control variable) has significant and negative relation with Tobin's Q at 1 percent significance level. Leverage also has positive and significant relation with ROA, ROE and Tobin's Q. These overt results substantiate the validity of other results rescinding the presence of errors.

The R-squared value shows that how much change in the dependent variables is explained by changes in the independent variables. The R-squared values for Tobin's Q, ROA, and ROE is 35.05 percent, 17.20 percent and 9.76 percent respectively thereby showing that 35.05 percent change in Tobin's Q is explained by CG, 17.20 percent change in ROA is explained by CG and 9.76 percent change in ROE is explained by CG. The F- statistic values for Tobin's Q and ROA are significant at 1percent level of significance and for ROE at 5 percent level of significance clearly showing the goodness of fit of the present regression model.

Table 10: Regression with Robust Standard Error of Individual CG Category Scores on Firm Performance

Variables	Coefficients		
	Tobin's Q	ROA	ROE
P1 Rights and equitable treatment of shareholders	4.963* (0.008)	-0.023 (0.060)	-0.381* (0.006)
P2 Role of stakeholders in CG	-1.04 (0.613)	0.0002 (0.980)	0.008 (0.959)
P3 Disclosures and Transparency	0.457 (0.854)	-0.015 (0.354)	-0.191 (0.423)
P4 Responsibilities of the board	7.62* (0.000)	0.012 (0.190)	0.059 (0.668)
Log of Total Assets	-66.22* (0.000)	0.122 (0.323)	0.361 (0.699)
Leverage	3.84 (0.162)	0.058* (0.009)	0.525 (0.095)
Constant	803.57* (0.009)	-0.858 (0.731)	26.33 (0.262)
R-squared(%)	40.08	20.64	12.74
F-statistic	13.46*	6.71*	3.12*

Source: Author's calculation based on secondary data. Note: *Values significant at 0.01 significance level.

** Values significant at 0.05 significance level. *** Values significant at 0.10 significance level.

() p-value in parentheses.

The Table 10 shows Tobin's Q has significant and positive relationship with category I parameters which relate to rights and equitable treatment of shareholders. Hence H_{02} is rejected. This implies that the treatment of shareholders, the quality of shareholder meetings, policies on related party transactions, conflict of interests and the mechanism of grievance handling, all these factors improve the market-based bank performance. Tobin's Q was also found to have significant positive relation with Category IV parameters that relate to the responsibilities of the board. Hence H_{05} is rejected, and this directly points to the contribution of Board and committee composition, training for directors, Board evaluation, Director remuneration, succession planning, gender diversity and the presence of robust internal audit framework in enhancing the bank performance in India. The relationship between Tobin's Q and category II (Role of stakeholders in CG) and III (parameters related to disclosures and transparency) was found to be insignificant, consequently null hypothesis H_{03} and H_{04} are accepted. Hence no significant relationship could be established between quality of CG practices related to the Role of stakeholders or CG practices of disclosures and transparency and financial performance of Banks in India.

ROA and ROE have positive but insignificant relationship with category II parameters that relate to the role of stakeholders in corporate governance, category III parameters relating to disclosures and transparency and category IV parameters focusing on the responsibilities of the board. However, ROE has negative and significant relationship with category I parameters related to the rights and equitable treatment of shareholders, which is justified because of the deteriorating performance of public sector banks. Thus, the regression analysis shows that there is a significant positive relationship between the quality of overall CG disclosure practices and the market based financial performance, though the relation could not be established equally across all categories. Likewise insignificant impact of quality of overall CG disclosure on accounting based financial performance was observed.

As a result, better quality of CG promotes superior financial performance as measured by market-based performance measures. The results of the present study are consistent with the results of Almaqtari et al. (2020); Puni and Anlesinya (2020); Thaker et al. (2021); Farooq et al. (2022); Singh and Pillai (2022); Erena et al. (2022) but in contrast to the results of Guo and Kga (2012); Aslam and Haron (2020); Bezawada and Adavelli (2020). Hence it is evident from results that better CG practices undeniably lead to improved market based firm performance, and better firm value.

CONCLUSION AND MANAGERIAL IMPLICATIONS OF THE STUDY

Gradual progression towards adoption of better CG practices is evident across all banks in India. Evidently private sector banks have outperformed the public sector banks in CG implementation. Nevertheless, there is still great scope for improvement in CG disclosure practices by incorporating non-mandatory disclosure norms along with mandatory requirements to build market confidence and investor trust.

Research results indicate that CG practices are positively and significantly related to market based firm performance measures. This substantiates that working towards benchmarking up the CG standards does lead to enhanced market value and increased investor confidence. Thus, firms can ameliorate their market value by boosting the CG standards. Further, Good CG contributes to sustainable economic development by enhancing the performance of companies and increasing their access to outside capital (Source: https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/ifc+cg/why+corporate+governance)

Even though India is an emerging economy, its CG practices in banking sector are comparable to the CG practices across developed nations. Nevertheless further impetus on effective enforcement and disclosure of CG practices is vital for promoting accountability and transparency, market confidence, stakeholder trust, and overall sustainable economic development. Banks are the backbone of any economy, having a stimulating effect on the financial health of the entire economy, and Indian economy is no exception to this. Hence it is crucial for Indian banking sector to follow best CG practices.

Though emerging economies are progressing towards better CG practices, certain deterrents of regulatory enforcement, institutional capacity, investor protection, and cultural adaptation are still impending. Furthermore, with the growing importance of ESG frameworks, companies need to integrate their ESG practices into CG systems to meet stakeholders' expectations and create sustainable value.

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