Corporate Governance and Banks' Performance: An Empirical Study

Naresh Kumar[1], Dr. Sudesh[2]

[1](*Senior Research Fellow, University School of Management, Kurukshetra University, Kurukshetra, India)*
[2](*Chairperson & Professor, USM, Kurukshetra University, Kurukshetra, India)*

ABSTRACT: *Corporate Governance is more a way of business life than a mere legal compulsion. There is nothing laudable about complying with conditions or practices which any financial institutions are forced to adopt through the process of legal prescription. Financial institutions must focus on their core objective of earning profits, but the earning and sharing of profits needs to be aligned with expectations of stakeholders. The objective of the study is to analyze the impact of corporate governance on the performance of selected top five public sector banks and private sector banks as per market capitalization. The required secondary data is collected from corporate governance reports and audited annual reports of selected banks for the time period of five years i.e. from year 2010-11 to year 2014-15.Panel data regression and Pearson correlation tools are used with help of SPSS. The study found that board size has positive significance impact on Return on Equity, Return on Asset and Net Non-Performing Asset whereas the ratio of outside directors and number of meetings have negative significance impact on Return on Equity in selected public sector banks. Increase in board size and ratio of outside directors have positive impact on performance variables Return on Equity and Return on Asset whereas decrease in the board size and ratio of outside directors have negative impact on Return on Asset in selected private sector banks.*

Keywords: *Governance, NPA, ROA, ROE*

I. INTRODUCTION

Banks in India as corporate are as much required to be governed under corporate governance norms of New Companies Act 2013 and Revised Clause 49 of SEBI regulations as other companies. Additionally, they are also covered under the internationally followed Basel Committee norms [1]. The Basel Committee norms relate only to commercial banks and financial institutions. The developments of new technologies, globalization, deregulation and major industry consolidation have placed the banking industry at a strategic crossroads. Therefore, banks face a more competitive and more volatile global environment than other companies. In general, banking sector is highly sensitized to public scrutiny and is more vulnerable to the risk of attracting adverse publicity through failings in governance and stakeholder relationships. Governance issues in banks more particularly in public sector banks assume immense significance, but unfortunately these are less discussed and deliberated. Reason identified to it is the prevalent of government ownership across the institutions and multiplicity of regulatory and supervisory legislations. Governance is more than just Board processes and procedures. It involves the full set relationships among a company's management, its Board, its shareholders, its employees and the community in which it is located. The quality of governance is directly linked to the policy framework. In 21st century, stability and prosperity will depend on the strengthening of capital markets and the creation of strong corporate governance systems. Cadbury Committee Report (1992) described, corporate governance is the system by which the companies are directed and controlled [2]. World Bank (2002) analyzed corporate governance from two different perspectives. From the company's point of view, the stress is put on the relations between the various stakeholders such as owners, management, employees, customers, suppliers, investors and communities. From another perspective in defining corporate governance is reliable path where the corporate governance structures can be established [3]. So, a nation's system of corporate governance can be seen as an institutional matrix that structures the relations among owners, boards, and top managers, and determines the goals pursued by the corporation.

II. LITERATURE REVIEW

Wilson (2006) found that poor corporate governance can lead market to lose confidence in the inability of a bank to properly manage it assets and liability which could in turn trigger a bank liquidity crisis [4]. **Adams and**

Mehran (2003) identified a significant positive correlation between corporate governance variable board size and bank performance variable Tobin's Q [5]. **Wolfgang (2003)** stated that good corporate governance lead to higher profit, higher sales growth, increased valuation and lower capital expenditure [6]. **Zahra and Pearce (1989)** found that an effective board having greater proportion of non-executive directors is significant to banking companies' performance [7]. **Ezzamel and Watson (1993)** also found that non-executive directors were positively associated with profitability of UK financial institutions [8]. **Kesner (1987)** explored the relationship between the proportion of executive directors and market returns and result found that there is a positive and significant relationship between these two factors [9]. **Andres et al. (2005)** researched that there is a negative relationship between board size and banks' performance [10]. **Velnampy and Nimalathasan (2008)** examined the impact of firm size on profitability of Bank of Ceylon and Commercial Bank of Ceylon in Sri Lanka during period from 1997 to 2006 and found that there is a positive relationship between firm size and profitability in Commercial Bank of Ceylon Ltd. But there is absence of such relationship in Bank of Ceylon [11].

III. OBJECTIVE & RESEARCH METHODOLOGY

The objective of the study is to analyze the impact of corporate governance on the performance of selected public sector banks. Descriptive cum exploratory research design is used for present study to obtain information concerning the current status of the phenomena and to describe "what exists" with respect to variables. Top five public sector banks i.e. SBI, Bank of Baroda, PNB, IDBI Bank, Central Bank & top five private sector banks i.e. HDFC Bank, ICICI Bank, Kotak Mahindra, Axis Bank, IndusInd Bank; as per market capitalization on dated 31st January 2016 are selected from the listed banks on BSE. This study is purely based on secondary data. The required secondary data of governance is collected from corporate governance reports of selected banks whereas performance variable data is collected from audited annual reports of respective banks for the time period of five years i.e. from year 2010-11 to year 2014-15. The selected corporate governance variables are board size **(bcos),** ratio of outside directors **(rod)** and number of meetings held in a year **(nmet)**. The performance variables, namely return on equity **(roe)**, return on asset **(roa)** and net non-performing asset **(nnpa)** are selected for present study. Panel data regression and Pearson correlation tools are used with help of SPSS.

Panel data analysis is a statistical method which deals with two-dimensional are cross sectional (group effects) and times series (time effects). The panel data regression model looks like

$$y_{it} = a + bx_{it} + \varepsilon_{it}$$

Where y=dependent variable, x= independent variable, a and b= coefficients, i and t= indices for individuals and time, ε_{it}=error term

Fixed group effect model: It examines group differences in intercepts. It assumes g the same slopes and constant variance across entities or subjects. A group (individual specific) effect is time invariant and considered a part of the intercept; ut is allowed to be correlated to other regressors. Fixed group effect model use least squares dummy variable (LSDV) and within effect estimation methods e.g. Ordinary least regressions (OLS) regressions with dummies. Fixed effects are tested by the (incremental) F test. If the null hypothesis is not rejected, the pooled OLS regression is favoured. The functional forms of panel data models are as follows.

$$\textbf{Fixed group effect model: } Y_{it}=(\alpha+\mu_{it})+X_{it}\,\beta+(\mu_{it}+v_{it})\text{.....n}$$

Where α_i (i=1....n) is the unknown intercept for each entity (n entity-specific intercepts); Y_{it} is the dependent variable (DV), where i entity and t- time; X_{it} represents one independent variable (IV); β is the coefficient for that IV; μ_{it} is the error term

The random effect model: It estimates variance components for groups (or times) and error. Random effect model generalized least squares when the variance structure among groups is known. Random effects are examined by the Lagrange Multiplier (LM) test. The Hausman specification test compares fixed effect and random effect models. If the null hypothesis is not rejected in the model, it shows that the individual effects are uncorrelated with the other regressors. So the random effect model is better than fixed effect model.

$$\textbf{Random group effect model: } Y_{ij}=\mu+U_i+W_{ij}$$

Where μ is the average score for entire population, W_{ij} is the individual specific error, U_i is the difference between average score at i and average score of the total.

IV. ANALYSIS

In order to assess the relationship between corporate governance (CG) and banks' performance, Pearson correlation is used.

H_0^1= There is no relationship between CG and selected public sector banks' performance

Table I Relationship between CG and Selected Public Sector Banks' Performance

Pearson Correlation Coefficients						
Variables	Bcos	rod	nmet	roe	roa	nnpa
bcos	1	(.909)*	0.052	0.117	-0.113	0.119
rod		1	0.096	0.099	-0.113	0.183
nmet			1	0.070	-0.146	0.169
roe				1	(0.572)*	-0.183
roa					1	-0.112
nnpa						1
*** represent significant correlation at 0.01 level (2-tailed)**						

Source: Computed by authors

From the above analysis it is observed that there is low degree positive correlation between of bcos & rod variable of CG with roe and nnpa. There is low degree negative correlation between all three CG variables with performance variable roa. It can be concluded that there is no significant relationship between selected CG variables and performance variables. Hence, null hypothesis is accepted.

H_0^2= There is no relationship between CG and selected private sector banks' performance

Table II Relationship between CG and Selected Private Sector Banks' Performance

Pearson Correlation Coefficients						
Variables	Bcos	rod	nmet	roe	roa	nnpa
bcos	1	(.594)*	-0.128	0.006	-0.105	(.420)*
rod		1	0.027	0.041	(-0.380)*	0.197
nmet			1	0.152	0.022	(-0.452)*
roe				1	(0.572)*	-0.218
roa					1	(-0.262)*
nnpa						1
*** represent significant correlation at 0.01 level (2-tailed)**						

Source: Computed by authors

Table II depicts that there is low degree positive correlation between of bcos, rod & nmet variable of CG with roe. There is low degree negative correlation between bcos with performance variable roa. But, there is significant relationship between bcos and nnpa, rod and roa & between nmet and nnpa. Hence, null hypothesis is rejected at 0.01 level.

The panel data regression consists of three models namely Pooled OLS model, fixed effect model and Random effect model (GLS). These models are used to identify the most suitable model among three. This will help to assess impact of corporate governance variables on the performance of selected banks. In order to find out the best model among three, Wald test and Hausman test are used. In addition to that Durbin Waston test is also used to find out the serial correlation and Variance impact factor (VIF) for multicollinearity among the variables used in the model. The Wald test is used to find out the suitable model among the pooled OLS model and Fixed effect model with the help of chi-square value. The Hausman test (H test) is used to find out which model is appropriate between fixed and random effect model with the help of chi-square value. The Durbin Waston is used to see that, there is no first order serial correlation in the error term between the variables. The multicollinearity refers to an approximate linear relationship between two or more explanatory variables. This test is performed with the help of variances inflation factor (VIF), it lies in between the variables. Here the maximum VIF for board size is 1.76 and the minimum VIF for outside directors' ratio is 1.25. In general the VIF is less among the variables, and then the model will be a better model for prediction. The impact of corporate governance on the performance of select public sector banks is assessed in terms of return on equity with the help of panel data regression model. The models of the Panel data regression are

$$\mathbf{roe_{it}\ (performance)= \alpha+ \beta_1 bcos_{it}+ \beta_2 rod_{it}+ \beta_3 nmet_{it}+\varepsilon_{it}}$$

$$\mathbf{roa_{it}\ (performance)= \alpha+ \beta_1 bcos_{it}+ \beta_2 rod_{it}+ \beta_3 nmet_{it}+\varepsilon_{it}}$$

$$\mathbf{nnpa_{it}\ (performance)= \alpha+ \beta_1 bcos_{it}+ \beta_2 rod_{it}+ \beta_3 nmet_{it}+\varepsilon_{it}}$$

H_0^3= There is no significant impact of CG variables on selected public sector banks' performance

Table III CG and its Impact on ROE, ROA and NNPA (Public Sector banks)

Variables	**ROE**			**ROA**			**NNPA**		
	Pooled OLS I	Fixed Effect Model II	Random Effect Model (GLS) III	Pooled OLS I	Fixed Effect Model II	Random Effect Model (GLS) III	Pooled OLS I	Fixed Effect Model II	Random Effect Model (GLS) III
Const	(38.09)***	(49.69)***	(48.09)***	(0.71)	(0.64)	(0.70)	(3.65)	(11.98)***	(3.65)
	(14.64)	(15.09)	(13.25)	(0.87)	(0.60)	(0.74)	(2.91)	(4.35)	(3.93)
	[3.28]	[3.29]	[3.63]	[0.81]	[1.07]	[0.95]	[1.25]	[2.76]	[0.92]
Bcos	(-0.14)	(6.43)*	(-0.14)	(0.40)***	(0.613)***	(0.41)**	(1.07)***	(2.02)***	(1.07)
	(2.86)	(3.84)	(3.56)	(0.15)	(0.21)	(0.20)	(0.35)	(0.74)	(1.05)
	[0.05]	[1.68]	[-0.04]	[2.61]	[2.86]	[2.03]	[3.04]	[2.73]	[1.02]
Rod	(-1.90)	(-14.62)**	(-1.90)	(-0.46)	(-1.03)***	(-0.46)	(3.82)***	(-1.63)	(3.082)**
	(4.02)	(6.05)	(5.61)	(0.31)	(0.34)	(0.32)	(1.19)	(1.96)	(1.66)
	[-0.47]	[-2.42]	[-0.34]	[-1.50]	[-3.00]	[-1.45]	[3.22]	[-0.83]	[2.29]
Nmet	(-8.30)**	(-6.73)***	(-8.30)**	(-0.17)	(0.02)	(-0.17)	(0.70)	(1.97)**	(0.70)
	(3.62)	(2.05)	(3.27)	(0.20)	(0.16)	(0.18)	(1.06)	(0.88)	(0.96)
	[-2.30]	[-3.29]	[-2.53]	[-0.60]	[0.14]	[-0.93]	[0.66]	[2.22]	[0.72]
N	25	25	25	25	25	25	25	25	25
F Test	2.40 (0.04)	2.93 (0.00)		3.01 (0.01)	4.22 (0.00)		3.76 (0.00)	2.95 (0.00)	
R-squared	0.14	0.51		0.17	0.60		0.20	0.51	
Durbin-Waston	1.76	2.13		1.76	1.97		2.15	2.03	
Wald Test Chi-square		11.58 (0.17)			20.55 (0.00)			31.70 (0.00)	
Hausman Test Chi-square			12.32 (0.03)			1.98 (0.85)			3.79 (0.58)
*****,** , * represent statistically significant at 0.01, 0.05 and 0.10 level respectively.**									

Source: Computed by authors

Table III depicts that the Wald test's Chi square value (11.58) is not significant (for ROE), it indicates that the data are pooled and it is appropriate to use Pooled OLS than fixed effect model. In Hausman test, the estimated chi-square value (12.32) is significant, it depicts that the error terms are correlated with one or more explanatory variables in the model. Hence the fixed effect model is considered to be more appropriate than random effect model. Wald test's Chi square values 20.55 and 31.70 are significant (in case ROA and NNPA respectively), it indicates that the data are not pooled and it is appropriate to use fixed effect model than Pooled OLS. In Hausman test, the estimated chi-square values 1.98 and 3.79 are not significant, it depicts that the error terms are uncorrelated with one or more explanatory variables in the model. Hence the random effect model is considered to be more appropriate than fixed effect model. But, with the help of LM test, it found that it is better to use Pooled OLS model in case of ROA and NNPA.

The fixed effect model (in case of ROE) reveals that board size (bcos) has positive significance impact on ROE in the performance of banks at 0.10 level. The ratio of outside directors (rod) and number of meetings (nmet) has negative significance impact on ROE 0.05 and 0.01 levels. The R-squared value is 0.51 which tells that corporate governance (independent variables) have 51 per cent impact on the return on equity (dependent variable). The Durbin-waston (2.13) shows that there is no first order serial correlation in the error term between the variables. The F values 2.93 is significant. So the null hypothesis is rejected.

Pooled OLS model (in case of ROA) reveals that board size (bcos) has positive significance impact on ROA. The R-squared value is 0.20 which tells that CG variables have only 20 percent impact on ROA. The Durbin-

Waston (2.15) shows that there is no first order serial correlation in error term between variables. F value 3.76 is also significant, so null hypothesis is rejected.

Pooled OLS model (in case of NNPA) reveals that increase in the board size and ratio of outside directors have positive impact on NNPA. The R-squared value is 0.59 which tells that CG variables have only 59 percent impact on NNPA. The Durbin-Waston (1.85) shows that there is no first order serial correlation in error term between variables. F value 21.75 is significant, so null hypothesis is rejected.

H_0^4= There is no significant impact of CG variables on selected private sector banks' performance

Table IV CG and its Impact on ROE, ROA and NNPA (Private Sector Banks)

Variables	**ROE**			**ROA**			**NNPA**		
	Pooled OLS I	Fixed Effect Model II	Random Effect Model (GLS) III	Pooled OLS I	Fixed Effect Model II	Random Effect Model (GLS) III	Pooled OLS I	Fixed Effect Model II	Random Effect Model (GLS) III
const	(14.23)*	(40.07)**	(15.23)	(2.91)***	(1.58)	(2.91)***	(-5.65)**	(-1.90)	(-5.61)**
	(7.56)	(13.46)	(14.38)	(0.84)	(1.60)	(1.74)	(1.71)	(4.38)	(3.99)
	[2.01]	[2.97]	[1.06]	[3.47]	[1.05]	[1.95]	[-2.25]	[-0.76]	[-1.92]
bcos	(1.09)	(0.24)*	(1.09)	(-0.54)***	(0.08)	(-0.41)**	(2.07)***	(2.00)	(2.07)***
	(1.96)	(3.68)	(4.16)	(0.24)	(0.21)	(0.26)	(0.35)	(0.78)	(1.03)
	[0.55]	[0.06]	[0.26]	[-2.70]	[0.86]	[-2.08]	[6.03]	[2.75]	[2.06]
rod	(-0.19)	(0.27)*	(-0.19)	(-0.32)***	(0.06)	(-0.76)*	(0.82)***	(0.63)	(.82)**
	(0.96)	(1.51)	(2.22)	(0.11)	(0.14)	(0.32)	(0.09)	(0.98)	(0.66)
	[-0.20]	[0.18]	[0.41]	[-2.81]	[0.45]	[-1.65]	[5.22]	[0.81]	[2.20]
nmet	(1.38)	(-1.86)**	(1.38)	(-0.06)	(-0.45)	(-0.07)	(0.50)	(1.95)	(0.19)
	(2.80)	(1.98)	(3.32)	(0.25)	(0.34)	(0.25)	(1.06)	(0.88)	(0.54)
	[0.49]	[-0.94]	[0.42]	[-0.24]	[-0.94]	[-0.95]	[0.56]	[1.32]	[0.65]
N	25	25	25	25	25	25	25	25	25
F Test	0.67 (0.04)	3.24 (0.00)		0.90 (0.48)	4.19 (0.00)		21.75 (0.00)	8.95 (0.00)	
R-squared	0.16	0.54		0.07	0.60		0.59	0.761	
Durbin-Waston	1.64	1.82		1.46	1.87		1.85	2.31	
Wald Test Chi-square		13.03 (0.11)			28.55 (0.00)			18.72 (0.18)	
Hausman Test Chi-square			7.98 (0.07)			3.30 (0.65)			3.83 (0.54)
*****,** , * represent statistically significant at 0.01, 0.05 and 0.10 level respectively.**									

Source: Computed by authors

Table IV depicts that the Wald test's Chi square values (13.03 and 18.72) are not significant (in case of ROE and NNPA) which indicate that the data are pooled and it is appropriate to use Pooled OLS than fixed effect model. In Hausman test, the estimated chi-square value 7.98 is significant in case of ROE and 3.83 is not significant in case of NNPA. It depicts that the error terms are correlated with one or more explanatory variables in the model and the fixed effect model is considered to be more appropriate than random effect model in case of ROE, whereas error terms are uncorrelated with one or more explanatory variables in the model and hence, random effect model is considered to be more appropriate than fixed effect model in case of NNPA. But, with the help of LM test, it found that it is better to use Pooled OLS model in case of NNPA. Wald test's Chi square value is 28.55 (in case ROA), it indicates that the data are not pooled and it is appropriate to use fixed effect model than Pooled OLS. In Hausman test, the estimated chi-square value 3.30 is not significant, it depicts that the error terms are uncorrelated with one or more explanatory variables in the model. Hence the random effect model is considered to be more appropriate than fixed effect model. But, in comparison with random effect model with Pooled OLS model with help of LM test, it is found better to use Pooled OLS model in case of ROA.

The fixed effect model (in case of ROE) reveals that increase in board size and ratio of outside directors have positive impact on performance variable ROE. The r-Squared value is 0.54 which tells CG variable have 54 percent impact on ROE. The Durbin-Waston test result shows that there is no first order serial correlation in the error term between variables. F-value 3.24 is significant and null hypothesis is rejected. Decrease in the number of meetings has negative impact on ROE.

Pooled OLS model (in case of ROA) reveals that decrease in the board size and ratio of outside directors have negative impact on return on asset. The R-squared value is 0.06 which tells that CG variables have only 6 percent impact on ROA. The Durbin-Waston (1.46) shows that there is no first order serial correlation in error term between variables. F value 0.90 is not significant, so null hypothesis is accepted.

Pooled OLS model (in case of NNPA) reveals that increase in the board size and ratio of outside directors have positive impact on net non-performing asset. The R-squared value is 0.59 which tells that CG variables have only 59 percent impact on NNPA. The Durbin-Waston (1.85) shows that there is no first order serial correlation in error term between variables. F value 21.75 is significant, so null hypothesis is rejected.

V. CONCLSION

The present study has examined the impact of CG variables on performance variables of selected banks. It is found that there is no significant relationship between selected CG variables and performance variables in selected public sector banks, but significant relationship is found between selected CG variables and performance variables in selected private sector banks. The study concludes that board size (bcos) has positive significance impact on ROA, ROE and NNPA; whereas the ratio of outside directors (rod) and number of meetings (nmet) have negative significance impact on ROE in selected public sector banks. Increase in board size (bcos) and ratio of outside directors (rod) have positive impact on performance variables ROE and ROA whereas decrease in the board size (bcos) and ratio of outside directors (rod) have negative impact on ROA in selected private sector banks.

REFERENCES

[1] Basel Committee on Banking Supervision, Enhancing Corporate Governance in Banking Organisations, 1999
[2] A. Cadbury, Report of the committee on the Financial Aspects of Corporate Governance, 1992.
[3] World Bank, Report on observation of standards and codes (ROSC). *Corporate Governance Assessment of Georgia* [PDF Document], 2002, Retrieved from www.worldbank.org/ifa/Georgia%20ROSC%20Final%202002-03-28.pdf
[4] I. Wilson, Regulatory and Institutional Challenges of Corporate Governance in Nigeria Post Banking Consolidation. *The Nigerian Economic Summit Group (NSESC), 2006*, 1-9.
[5] R. Adams, and H. Mehran, Is Corporate Governance Different for Bank Holding Companies?. *Economic Policy Review*, 2003, 123-142.
[6] D. Wolfgang, *The Impact Of Corporate Governance On Firms Performance*. Department of Corporate Finance. University of Basel, 2003
[7] S.A. Zahra, and J.A. Pearce, Board of Directors and Financial Performance: A Review and Integrative Model, *Journal of Management, 15*, 1989, 291-334.
[8] M. A. Ezzamel, and R. Watson, Organizational Form, Ownership Structure, and Corporate Performance: A Contextual Empirical Analysis of UK Companies, *British Journal of Management, 4(3)*, 1993, 161-76.
[9] I.F. Kesner, Directors' stock Ownership and Organizational Performance: An Investigation of Fortune 500 Companies, *Journal of Management, 13*, 1987, 499-508.
[10] P.D. Andres, V. Azofra, & F. Lopez, Corporate boards in OECD countries: Size, composition, functioning and effectiveness, *Corporate Governance, 13(2)*, 2005, 197-210.
[11] T. Velnampy, and B. Nimalathasan, An association between organisational growth and profitability: A study of commercial Bank of Ceylon Ltd. Srilanka, *Economic and Administrative Series, 2*, 2008, 46-57.