Effect of corporate governance on financial performance of Nepalese commercial banks

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Abstract- This study examines the impact of corporate governance on financial performance of Nepalese commercial banks. The return on assets (ROA) and return on equity (ROE) are the dependent variables. Women on board of director (WD), audit committee size (AS), firm size (FS), board size (BS), board independence (BI), foreign ownership (FO) and credit deposit ratio (CD) are the independent variables. The data are collected from the annual reports of selected commercial banks. Total of 23 commercial banks of Nepal are included in this study from 2012/13 to 2016/17 leading to a total of 115 observations. The regression and correlation models were estimated to test the significance and importance of corporate governance and performance of Nepalese commercial banks.

The findings shows that board independence has a significant negative relation on return on assets but insignificant negative impact on the return on equity. The credit deposit ratio also shows a significant negative impact on return on equity but insignificant negative relation with return on assets. Lastly, the firm size has insignificant positive impact on return on assets but a significant positive impact on return on equity.

Index Terms- Corporate governance, audit size, board independence, firm size, board size, women on board of director, credit deposit ratio, foreign ownership, return on assets, return on equity.

I. INTRODUCTION

Bank is the financial institution that accepts deposit from the public and creates credit. Bank collects money from surplus unit and provides it to deficit unit. It helps in the smooth flow of money from one sector to another. Banks and Financial institutions are classified according to BAFIA Act.

According to Nepal Rastra Bank commercial Banks are graded as 'A' class financial institution. Commercial bank is established to provide short term loan to traders so it is called commercial bank. But at present commercial bank has been providing loan to several sectors like agriculture, industry, trade, tourism, etc. It has been providing not only short term loan rather providing medium and long term loan. There are altogether 28 commercial bank in Nepal. Nepal Bank Limited is the first commercial bank of Nepal which was established on 1991 B.S. Nepal Rastra Bank was established on 2013/ 01/14 B.S. In 2022 BS, another commercial bank was established i.e. Rastriya Banijya Bank. Agricultural Development Bank was then established on 2024/10/07 to help the agriculture side of the country. After liberalization policy, the first joint venture bank, Nepal Arab bank was established in 2041/03/29.

Corporate Governance refers to the management and control of the corporation which tries to reduce or eliminate the problems between the Principal- Agent. The principal delegates the rights to the manager to act in the best interest of the principal. Nepalese financial sector has yet to establish full good governance practices to become the more reliable and competitive sector of the economy. The board plays crucial role in corporate governance mechanism.

Corporate governance is the way power is exercised over corporate entities (Tricker, 2015). Cochran & Wartick (1988) defined corporate governance as "...an umbrella term that includes specific issues arising from interactions among senior management, shareholders, boards of directors and other corporate stakeholders". According to Lu & Batten (2001), corporate governance refers to the private and public institutions, including laws, regulations and accepted business practices, which together govern the relationship, in a market economy, between corporate managers and entrepreneurs (corporate insiders) on one hand, and those who invest resources in corporations, on the other". In recent years, the focus on corporate governance has increased due to the increased number of bankruptcies caused by fraud or errors in financial accounting. The reason behind those cases was the absence of corporate governance regulations in the organizations leading to the implementation of different accounting practices, increment in personal interest and biased reporting (Ioana & Mariana , 2014). Financial performance helps to measure how well organization is able to use its assets to generate the revenue. It helps to measure the firm's financial health over a given period of time. Financial performance is used by different analyst to compare the company's performance with other firms under same industry by analyzing the annual report like balance sheet, income statement, cashflow statement.

The main aim of this article is to identify the factors that have significant impact of corporate governance on financial performance.

II. REVIEW OF LITERATURE

According to Basel Committee on Banking Supervision (BCBS, 2005), corporate governance for banking organizations is arguably of greater importance than for other companies, given the crucial financial intermediation role of banks in an economy. Corporate governance in the banking system has assumed

heightened importance and has become an issue of global concern because it is required to lead to enhanced services and deepening of financial intermediation on the part of the banks and enables proper management of the operations of banks. To ensure this, both the board and management have key roles to play to ensure the institution of corporate governance (Nworji et al., 2011).

Fallatah & Dickins (2012) found that corporate governance and firm performance are unrelated. On the other hand, Ahmed and Hamdan (2015) found that corporate governance is significantly correlated with firm performance. Another different result was founded by Gupta & Sharma (2014), they found that corporate governance has limited impact on the firm's share prices and on its performance.

Corporate Governance is crucial to build a marketplace trust and attract investors in the corporation, as well as, corporate governance encourage investors' confidence by ensure the existence of independent board of directors. Moreover, it helps provide a high level of confidence degree which is very necessary for the whole market operation, as it considers adherence to business ethics principles (Guo & KGA, 2012).

Bhagat & Bolton (2008) found a negative relationship between board independence and operating performance. The overwhelming majority of work finds that having a more independent board of directors does not lead to better performance and may actually lead to worse performance. In contrary, Elloumi & Gueyié (2001) concluded that firms with high ratio of independent directors in a board face less frequent financial pressure. In addition, when a business environment worsens, firms with many independent directors have had lower probability of filing for bankruptcy (Daily et al., 2003).

Belkhir (2009) found a positive relationship between board size and performance. The study has provided evidence for theories predicting that smaller boards of directors are more effective, increasing the number of directors in banking firms does not undermine performance. In contrary, Lipton & Lorsch (1992) argued that due to co-ordination problems in larger boards and difference in regulation and control, larger boards are less effective than smaller boards.

According to Boudiab (2017), audit committee independence and meeting have a positive significant with the performance, but, the size of the audit committee has an insignificant relation with the performance. Therefore, study recommended reduction of size of audit committee.

Majumdar (1997) found that firm size and age of firms have a direct impact on firm-level productivity and profitability. The study also found that older firms are found to be more productive and less profitable, whereas the larger firms are, conversely, found to be more profitable and less productive.

As for the involvement of female directors in the firm performance, Green & Homroy (2018) represents a positive effect of board gender diversity on firm performance. In contrary, results of Pasaribu (2017) indicate that there is little evidence that female directors have a positive and strong relationship with firm performance.

Return on asset measures company's earnings in relation to all the funds it has at its disposal. It is believed better the governance model; more efficient would be the asset utilization. Return on Equity measures how much return is being generated by the company on the money invested by the shareholders. It is one of the most important parameters for the investors in the company (Gupta & Sharma, 2014). Maher & Andersson (2002) found about effect of corporate governance followed by companies on their financial performance.

In the context Nepal, Pradhan (2014) found that board size has a positive and significant impact on ROA and ROE whereas the total assets and executive CEO have insignificant effect on ROE and ROA.

Acharya (2018) indicated that corporate governance structures, e.g. board size, existence of CFO, percentage of minority directors and the percentage of female directors have statistically positive effect on performance, while the percentage of external director has a negative impact on bank performance.

Sigdel & Koirala (2015) found a positive and significant role of classification policy of the central bank in promoting better governance.

In contrary, the result of Bhusal, et al. (2015) showed that there is an insignificant impact of corporate governance variables (Board Size, Firm Size and Ownership Structure) on ROA as well as ROE in Commercial Banks.

Lamichhane (2018) revealed that profit margin and return on assets of firms are positively related with age, market to book ratio and overall corporate governance index of Nepalese firms. Further, the regression result of the study showed that size of assets and debt ratio have negative effect and ownership concentration has no relationship with firms' financial performance.

The findings of Poudel & Hovey (2013) showed that bigger board and audit committee size and lower frequency of board meeting and lower proportion of institutional ownership led to better efficiency in the commercial banks.

Bhattarai (2017) revealed that audit committee and portion of independent directors have positive but board size has negative effect on financial performance of commercial banks in Nepal.

The above discussion reveals that there is no consistency in the findings of various studies concerning the effect of corporate governance on the performance of the firms. Therefore, this study has been conducted to examine the impact of corporate governance on the Nepalese commercial banks. Specifically, it examines the impact of board size, female directors, number of independent directors, size of audit committee, firm size and total credit to total deposit ratio (CDR) on financial performance (ROA and ROE) of Nepalese commercial banks.

The remainder of this study is organized as follows: section two describes the sample, data and methodology. Section three presents the empirical results and final section draws conclusion and discusses the implications of the study findings.

III. RESEARCH METHODOLOGY

This study is based on the secondary data which were gathered for 23 commercial banks. The main sources of data are Banking and Financial Statistics published by Nepal Rastra Bank and annual reports of the respective banks. These data were collected from 2012/13- 2016/17. Table 1 shows the number of commercial banks selected for the study along with study period and the number of observations.

	Name of commercial banks	Study period	Number of observations
1	Nabil Bank Limited	2012-2016	5
2	Standard Chartered Bank Nepal Limited	2012-2016	5
3	Laxmi Bank Limited	2012-2016	5
4	Machhapuchchhre Bank Limited	2012-2016	5
5	Everest Bank Limited	2012-2016	5
6	Kumari Bank Limited	2012-2016	5
7	Nepal SBI Bank Limited	2012-2016	5
8	Nepal Investment Bank Limited	2012-2016	5
9	Himalayan Bank Limited	2012-2016	5
10	Janata Bank Limited	2012-2016	5
11	Sunrise Bank Limited	2012-2016	5
12	Prime Commercial Bank Limited	2012-2016	5
13	Civil Bank Limited	2012-2016	5
14	Citizen Bank International Limited	2012-2016	5
15	Mega Bank Nepal Limited	2012-2016	5
16	Nepal Bangladesh Bank Limited	2012-2016	5
17	Century Commercial Bank Limited	2012-2016	5
18	NMB Bank Limited	2012-2016	5
19	Sanima Bank Limited	2012-2016	5
20	NIC ASIA Bank Limited	2012-2016	5
21	NCC Bank Limited	2012-2016	5
22	Prabhu Bank Limited	2012-2016	5
23	Siddhartha Bank Limited	2012-2016	5
	Total observations for banking enterprises		115

The model

The model estimated in this study assumes that the firm performance depends on several corporate governance variables. The corporate governance variables considered are board size, board independence, audit size, foreign ownership, women directors, credit deposit ratio, and firm size. Therefore, the model takes the following form:

Firm performance = f (board size, board independence, audit size, foreign ownership, women directors, credit deposit ratio, and firm size)

More specifically,

$ROA = \alpha + \beta_1 BS + \beta_2 BComp + \beta_3 AS + \beta_4 FO + \beta_5 WD + \beta_6 CD + \beta_7 FS + e$

$ROE = \alpha + \beta_1 BS + \beta_2 BComp + \beta_3 AS + \beta_4 FO + \beta_5 WD + \beta_6 CD + \beta_7 FS + e$

Where,

ROA = Return on assets defined as net income to total assets, in percentage.

ROE = Return on equity defined as net income to total equity, in percentage

BS = Board size defined as total number of directors in the board

BComp = Board Independence (total number of independent directors on the board)

AS = Audit Size (total members in audit committee)

FO = Foreign ownership (defined as foreign investment to total equity capital, in percentage)

WD = Women on Board of Directors (Total number of women directors on the board)

<u>Control variables</u>

CD = Credit deposit ratio (the percentage of total credit to total deposits)

FS = Firm Size defined in terms of total assets, in millions of Rupees.

The following section describes the independent variables used in this study.

Board size

Board size is the total number of directors appointed in the board. The board of directors is highest body of company that is responsible for managing the firm and its operation. Lipton and Lorsch (1992), Jensen (1993), Yermack (1996), and Coles et al. (2008) found that smaller board size is associated with more success of the firms. However, Klein (1998), Dalton et al. (1999) found a negative relationship between board size and firm performance. Based on it, the study develops the following hypothesis.

H_1: *There is positive relationship between board size and firm performance*

Board independence

Board independence defined as the total number of professional directors in the board. Berghe and Baelden (2005) examined the issue of independence as an important factor in ensuring board effectiveness through the monitoring and strategic roles of the directors. Bhagat and Black (2002) found that firms with more independent boards do not perform better. Bhagat and Bolton (2008) found a negative relationship between board independence and firm performance. Bhagat and Bolton (2009) argued that having a more independent board of directors does not lead to better performance and may actually lead to worse performance. Hermanlin and Weibach (1991) found that there is

no relationship between board composition and firm performance. Based on it, the study develops the following hypothesis.

H_2: *There is positive relationship between board independence and firm performance*

Audit size

Audit firm size is highly associated with a greater level of disclosure. The audit committee can play a vital role in reducing information asymmetry between corporate managers and providers of finance as financial reporting is the most important mode of communicating the financial performance of a company to stakeholders (Dhaliwal et al., 2006; Krishnan, 2009). The studies of Kim et al. (2011) found that different sizes of audit firms do not significantly affect the audit quality. Bouaziz (2012) indicated that audit committee has an important impact on the financial performance of firms as measured by return on assets and return on equity. Farouk and Hassan (2014) found that auditor size and auditor independence have significant impacts on the financial performance of firms. Based on it, the study develops the following hypothesis.

H_3: *There is negative relationship between audit size and firm performance*

Foreign ownership

Foreign ownership or control of a business or natural resource in a country by individuals who are not citizens of that country or by companies whose headquarters outside that country. Boardman et al. (1997) found that foreign subsidiaries were more profitable and productive than their domestic counterparts. Kang and Stulz (1997) found that foreigners investing in Japan tend to underweight smaller and highly leveraged. Moreover, they found that holdings are relatively large in firms with large export sales. Gugler (1998) found significant and negative relationship between ownership concentration and profit margin. Barbosa and Louri (2005) found that ownership by foreign investors had a positive and significant effect on the profitability of firms. Douma et al. (2006) found that foreign firms performed better than domestic ones in terms of Return on assets (ROA) and Tobin's Q. Based on it, the study develops the following hypothesis.

H_4: *There is positive relationship between board independence and firm performance*

Women on board of directors

Women directors have the ability to connect and inspire well the company's women partners, even the women employees of the company to interact and work better. Lückerath-Rovers (2013) affirmed the positive association of women members in the boardroom toward financial performance in particular and firm performance. Davies report (2012) found that there was a positive relationship between female directors and firm performance. However, Adams and Ferreira (2009) reported a negative association between female directors and firm performance. Haslam et al. (2010) reported that there was no association between the presence of female directors on a board and firm performance. Gregory-Smith et al. (2013) did not find evidence that the presence of females on boards is associated with higher firm performance. Based on it, the study develops the following hypothesis.

H_5: *There is positive relationship between women director in board and firm performance*

Credit deposit ratio

Credit-Deposit Ratio is the proportion of loan assets created by a bank from the deposits received. Pandya (2015) found that there exists statistically significant relationship between ROA. On the other hand ROE was found not to be statistically significant. However, Berger (1995) found evidence for a positive relationship between the ratios of capital to asset and returns on equity. Al-sabbagh, (2004) established the relationship between profitability and capital adequacy of commercial banks. Sharifi & Akhter (2016) found that the CDR impact positively on public sector bank's financial performance. Based on it, the study develops the following hypothesis.

H_6: *There is positive relationship between credit deposit ratio and firm performance*

Firm size

The size of an individual bank is measured by the total assets of the firms. The size is measured as natural logarithms of total assets. Devereux and Schiantarelli (1990), Athey and Laumas (1994) and Vogt (1994) found that large firms displayed higher investment-cash flow sensitivities. Roy (2008) explains that large banks can carry out a large number of different activities, so they can diversify their business portfolio and hence, credit risk will be decreased and performance will be increased. Pervan and Viši (2012) found that firm size has a significant (but weak) positive influence on firm profitability. Based on it, the study develops the following hypothesis.

H_7: *There is positive relationship between firm size and firm performance*

IV.   DATA ANALYSIS

Descriptive statistics

Table 2 shows the descriptive statistics for the selected variables considered in this study. It clearly shows that the average return on assets has minimum value of -5.020 percent and a maximum of 4.890 percent, leading to the mean value of 1.576 percent and the average return on equity has minimum value of 3.850 percent and a maximum of 33.170 percent, leading to the mean value of 16.007 percent.

Table 2: Descriptive statistics

The table shows the descriptive statistics of dependent and independent variables. The dependent variables are return on assets (ROA, defined as net income to total assets, in percentage) and return on equity (ROE, defined as net income to total equity, in percentage), independent variables are women directors in board (WD, defined as number of women directors in company board), audit size (AS, defined as the total number of members in audit committee of the companies), firm size (FS, in terms of billions, defined as natural logarithms of total assets), board size (BS, defined as the total members in the company board), board independence, foreign ownership (FO, defined as the foreign investment to total equity capital, in percentage) and credit deposit ratio (CD, defined as total credit to total deposit, in percentage).

Variables	Minimum	Maximum	Mean	Std. Deviation
ROA	-5.020	4.890	1.576	0.917
ROE	3.850	33.170	16.006	6.006
BComp	0.000	3.000	1.643	0.975
BS	5.000	11.000	7.435	1.402
FS	5.827	256.545	53.313	34.273
AS	2.000	5.000	3.452	0.829
WD	0.000	2.000	0.261	0.514
FO	0.000	0.750	0.120	0.215
CD	48.920	186.630	81.007	16.435

Correlation analysis

Having indicated the descriptive statistics, the Pearson correlation coefficients have been computed for banking enterprises and results have been presented in the Table 3.

Table 3: Correlation matrix

The table shows the Pearson correlation coefficients amount different dependent and independent variables. The dependent variables are return on assets (ROA, defined as net income to total assets, in percentage) and return on equity (ROE, defined as net income to total equity, in percentage), independent variables are women directors in board (WD, defined as number of women directors in company board), audit size (AS, defined as the total number of members in audit committee of the companies), firm size (FS, defined as natural logarithms of total assets), board size (BS, defined as the total members in the company board), board independence, foreign ownership (FO, defined as the foreign investment to total equity capital, in percentage) and credit deposit ratio (CD, defined as total credit to total deposit, in percentage). The correlation coefficients are based on the 23 commercial banks with 115 observations for the period 2012/13 to 2016/17.

Variables	ROA	ROE	BS	WD	BComp	FS	FO	CD	AS
ROA	1								
ROE	0.491**	1							
BS	-0.268**	-0.209*	1						
WD	0.032	-0.174	-0.146	1					
BComp	-0.259**	0.029	0.223*	0.065	1				
FS	0.103	0.335**	-0.105	-0.209*	-0.103	1			
FO	0.316**	0.512**	-0.237*	0.143	-0.209*	0.284**	1		
CD	-0.036	-0.380**	0.156	-0.062	-0.038	-0.213*	-0.455**	1	
AS	0.034	0.010	0.229*	0.009	0.060	0.091	0.106	-0.139	1

Note: The asterisk signs (**) and (*) indicate that the results are significant at 1 percent and 5 percent levels respectively.

The result shows that there is positive relationship of woman on board with return on assets which indicates that higher the number of woman on board of directors, higher would be the return on assets. However, the study observed negative relationship between women on board of directors with return on equity indicating that increase in woman on board of directors leads to decrease in return on equity. There is positive relationship of size of audit committee with return on assets and return on equity which reveals that larger the number of audit committee, higher would be return on assets and return on equity. Similarly, credit deposit ratio has negative relationship with the return on assets and return on equity which reveals that an increase in credit deposit ratio leads to decrease in return on assets and return on equity.

Similarly, firm size has positive relationship with return on assets and return on equity indicating that increase in firm size leads to increase in return on assets and return on equity. Similarly, board size has negative relationship with return on assets and return on equity, which reveals that increase in board size leads to decrease in return on return on assets and return on equity .There is positive relationship between numbers of board independence return on equity which reveals that higher the number of independent directors, higher would be the return on equity. However, a negative relationship has been observed between the independent directors and return on assets. There is positive relationship of foreign ownership with return on assets and return on equity which reveals that increase in percentage of foreign ownership leads to higher return on assets and return on equity.

Regression analysis

Taking the indicated Pearson correlation coefficients, the regression analysis has been carried out and the results are presented in Table 4. More precisely, the table shows the regression results of Women on Board of Directors, audit size, firm size, board size, Board independence, foreign ownership and credit deposit ratio on return on assets for Nepalese commercial banks.

Table 4: Estimated regression results of women on board of directors, audit size, firm size, board size, Board independence, foreign ownership and credit deposit ratio on return on assets

The results are based on panel data of 23 commercial banks with 115 observations for the period of 2012/13 to 2016/17 by using linear regression model. The model is $ROA= \alpha + \beta_1 BS + \beta_2 BComp + \beta_3 AS + \beta_4 FO + \beta_5 WD + \beta_6 CD + \beta_7 FS + e$, where the dependent variable is return on assets (ROA, defined as net

income to total assets, in percentage) and the independent variables are women directors in board (WD, defined as number of women directors in company board), audit size (AS, defined as the total number of members in audit committee of the companies), firm size (FS, defined as natural logarithms of total assets), board size (BS, defined as the total members in the company board), board independence, foreign ownership (FO, defined as the foreign investment to total equity capital, in percentage) and credit deposit ratio (CD, defined as total credit to total deposit, in percentage).

ROA Model	Intercept	Regression Coefficients							Adj R_bar²	SEE	F-statistics
		WD	AS	BS	BComp	FO	CD	FS			
1	1.562 (16.198)**	0.057 (0.337)							.008	.922	0.114
2	1.448 (3.921)**		0.037 (0.360)						.008	.921	0.130
3	2.879 (6.415)**			-0.175 (2.952)**					.063	.888	8.715
4	1.977 (12.054)**				-0.244 (2.843)**				.059	.894	8.080
5	1.415 (15.139)**					0.013 (3.546)**			.092	.874	12.576
6	1.724 (4.014)**						-0.002 (0.388)		.008	.921	0.151
7	-0.478 (0.317)							0.192 (1.366)	.008	.914	1.866
8	1.413 (4.014)**		0.000 (0.005)			0.013 (3.510)**			.084	.878	6.232
9	2.888 (6.229)**	-0.014 (0.083)		-0.176 (2.920)**					.055	.892	4.323
10	2.186 (4.842)**				-0.246 (2.849)**		-0.003 (0.498)		.053	.897	4.137
11	3.035 (5.314)**			-0.146 (2.351)*	-0.197 (2.256)*		-0.001 (0.118)		.090	.879	4.713

12	1.211 (2.284) *				-0.177 (2.062) *	0.014 (3.202) **	0.006 (1.070)			.125	.862	6.405
13	0.922 (0.532)		0.0 86 (0. 102)	-0.1 33 (2.0 87) *	-0.150 (1.713)	0.012 (2.506) **	0.008 (1.361)	0.078 (0.538)	.139	.855	4.051

Note: The asterisk signs (**) and (*) indicate that the results are significant at 1 percent and 5 percent levels respectively.

The result shows that the beta coefficients for women director in BOD are positive with return on assets. It indicates that women director in BOD has positive impact on return on assets. This finding is similar to the findings of Lückerath-Rovers (2013). However, the beta coefficients for audit size are positive with return on assets. It indicates that audit size has a positive impact on return on assets. This finding contradicts with the findings of Dhaliwal et al. (2006); Krishnan & Ramachandran (2009). The beta coefficients for board size are negative with return on assets. It indicates that larger board size has negative impact on return on assets. This finding is consistent with the findings of Coles et al. (2008). Likewise, the beta coefficients of board independence are negative with return on assets. It indicates that board independence has negative impact on return on assets. This finding is contrary with the findings of Berghe & Baelden (2005) but is consistent with Bhagat & Bolton (2008), who found a negative relationship between board independence and operating performance.

The results show that the beta coefficients for foreign ownership are positive with return on assets. It indicates that foreign ownership has positive impact on return on assets. The results are similar with Kang & Stulz (1997). The results show that the beta coefficients for credit deposit ratio are negative with return on assets. It indicates that credit deposit ratio has negative impact on return on assets which is contrary to the findings of RBI (2015); Singh & Tandon (2012). The results also show that the beta coefficients for firm size are positive with return on assets. It indicates that firm size has positive impact on return on assets which is similar with the findings of Devereux & Schiantarelli (1990), Athey & Laumas (1994) and Vogt (1994).

Table 5 shows the regression results of women directors on board, audit size, firm size, board size, board independence, foreign ownership and credit deposit ratio on return on equity for Nepalese commercial banks.

Table 5: Estimated regression results of women on board of directors, audit size, firm size, board size, Board independence, foreign ownership and credit deposit ratio on return on equity

The results are based on panel data of 23 commercial banks with 115 observations for the period of 2012/13 to 2016/17 by using linear regression model. The model is ROE= α + β_1 BS + β_2 BComp + β_3 AS + β_4 FO + β_5 WD + β_6 CD + β_7 FS + e, where the dependent variable is return on equity (ROE, defined as net income to total equity, in percentage) and the independent variables are women directors in board (WD, defined as number of women directors in company board), audit size (AS, defined as the total number of members in audit committee of the companies), *firm size (FS, defined as natural logarithms of total assets), board size (BS, defined as the total members in the company board), board independence, foreign ownership (FO, defined as the foreign investment to total equity capital, in percentage) and credit deposit ratio (CD, defined as total credit to total deposit, in percentage).*

ROE Model	Intercept	Regression Coefficients									
		WD	AS	BS	BComp	FO	CD	FS	R²	SEE	F-value
1	16.537 (26.600) **	-2.034 (1.881)							.022	5.941	3.538
2	15.749 (6.516) **		0.075 (0.110)						.009	6.033	0.012
3	22.665 (7.605) **			-0.896 (2.273) *					.035	5.899	5.167
4	15.711 (14.146) **				0.174 (0.298)				.008	6.056	0.089
5	14.292					0.143			.2	5.1	40.1

	(25.811)**				(6.340)**			56	81	95
6	27.250 (10.368)**				-0.139 (4.365)**		.1337	5.581	19.053
7	-37.229 (4.339)**				4.973 (6.214)**		.248	5.208	38.616
8	20.057 (7.071)**			0.119 (4.786)**	-0.068 (2.071)*		.277	5.108	22.828
9	-21.871 (2.267)*			-0.093 (3.095)**	4.239 (5.253)**		.301	5.021	25.564
10	17.323 (6.261)**		-0.398 (1.118)	0.137 (5.901)**			.257	5.176	20.767
11	28.219 (10.802)**	-2.317 (2.302)*			-0.143 (4.588)**		.169	5.4775	12.586
12	15.385 (7.384)**		-0.321 (0.544)		0.144 (6.342)**		.251	5.198	20.120

13	-5.516 (0.553)	-2.392 (2.601)**	-0.307 (0.554)	-0.520 (1.486)	0.847 (1.759)	0.110 (4.325)**	-0.043 (1.397)	2.600 (3.141)**	.408	4.640	12.135

Note: The asterisk signs (**) and (*) indicate that the results are significant at 1 percent and 5 percent levels, respectively.

4. The result shows that the beta coefficients for women director in BOD are negative with return on equity. It indicates that women director in BOD has negative impact on return on equity. This finding is contradictory with the findings of Lückerath-Rovers (2013). However, the beta coefficients for audit size are positive with return on equity. It indicates that audit size has a positive impact on return on equity. This finding contradicts with the findings of Dhaliwal et al. (2006); Krishnan & Ramachandran (2009). Likewise, the beta coefficients for board size are negative with return on equity. It indicates that larger board size has negative impact on return on equity. This finding is consistent with the findings of Coles et al. (2008). In contrary, Lipton & Lorsch (1992) suggests that due to co-ordination problems in larger boards and difference in regulation and control, larger boards are less effective than smaller boards. Likewise, the beta coefficients of board independence are positive with return on equity. It indicates that board independence has positive impact on return on equity. This finding is consistent with the findings of Berghe & Baelden (2005). The results show that the beta coefficients for foreign ownership are positive with return on equity. It indicates that foreign ownership has positive impact on return on equity which is consistent finding of Kang & Stulz (1997). The results show that the beta coefficients for credit deposit ratio are negative with return on equity. It indicates that credit deposit ratio has negative impact on return on equity which is contradictory to the finding of RBI (2015); Singh & Tandon (2012). The results also show that the beta coefficients for firm size are positive with return on equity. It indicates that firm size has positive impact on return on equity which is consistent with the findings of Devereux & Schiantarelli (1990), Athey & Laumas (1994) and Vogt (1994).

V. SUMMARY AND CONCLUSION

Banks today are the largest financial institutions around the world, with branches and subsidiaries throughout everyone's life. However, commercial banks are facing risks when they are operating. Credit risk is one of the most significant risks that banks face, considering that granting credit is one of the main sources of income in commercial banks. Therefore, the management of the risk related to that credit affects the profitability of the banks.

This study aims at determining the effects of corporate governance on performance of Nepalese commercial banks. It is based on the secondary data of 23 commercial banks with 115 observations for the period of 2012 to 2016. As initial approximation to the theory, this study hypothesized that the commercial banks performance depends on several corporate governance and control variables such as Board size, audit size, board independence, women directors, foreign ownership, credit deposit ratio and firm size.

The study of banking enterprises revealed that average female director is 0.261 while average audit size is 3.452. The average credit deposit ratio is 81.007 percent and average firm size is Rs. 53313.262 million. Similarly, average board size, number of independent directors and foreign ownership is 7.435 persons, 1.643 persons and 0.120 respectively.

The result shows that credit deposit ratio is negatively related to return on assets and return on equity. It means higher the credit deposit ratio; lower would be the return on assets and return on equity respectively. Similarly, the board size is negatively related with return on assets and return on equity. It means that higher the board size, lower would be the return on assets and return on equity respectively. Similarly, audit size is positively related to return on assets and return on equity respectively. The firm size is positively related to return on assets and return on equity. Women on board of director have positive relationship on return on assets and negative relation with return on equity. Board independence has negative relationship with return on assets and positive relation on return on equity. Foreign ownership has positive relationship with return on assets and on return on equity. The study shows that women on BOD, audit size, foreign ownership, and firm size have positive impact on return on assets of Nepalese commercial banks. However, bank size, board independence and credit deposit ratio have negative impact on return on assets of Nepalese commercial banks. The study concludes that board size, board independence and foreign ownership have 5% significant impact on the return on assets of Nepalese commercial banks.

The study shows that audit size, foreign ownership, board independence and firm size have positive impact on return on equity of Nepalese commercial banks. However, women in BOD, bank size, and credit deposit ratio have negative impact on return on equity. The study concludes that board size has 1% significant impact on the return on equity of Nepalese commercial banks. The study concludes that foreign ownership, credit deposit ratio and firm size have 5% significant impact on return on equity of Nepalese commercial banks.

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