Impact of Ownership Structure and Board Structure on the Performance of Non-Financial Institutions of Nepal

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Abstract

This study examines the impact of ownership structure and board structure on the performance of non-financial institutions of Nepal. Return on assets and return on equity are selected as the dependent variables. The selected independent variables are concentrated ownership, institutional ownership, managerial ownership, board size, CEO duality, board independence, gender inclusive on board, and existence of audit committee on board. The study is based on secondary data with 105 observations from 16 listed non-financial institutions. The data were collected from annual reports of selected non-financial institutions. The correlation coefficients and regression models are estimated to test the significance and importance of ownership structure and board structure on the performance of non-financial institutions of Nepal.

The study showed that board size has a positive impact on return on equity and return on assets. It indicates that larger the board size, higher would be the return on equity and return on assets. Similarly, board independence has a positive impact on return on equity and return on assets. It indicates that increase in number of independent directors on the board leads to increase in return on equity and return on assets. Likewise, gender inclusive on board has a positive impact on return on equity and return on assets. It indicates that presence of female director in the board leads to increase in return on equity and return on assets. Further, existence of audit committee on board has a positive impact on return on equity and return on assets. It indicates that increase in audit committee members leads to increase in return on equity and return on assets. In addition, CEO duality has a negative impact on return on equity and return on assets. It indicates that if one person serves as the chairman of the board of directors' leads to decrease in return on equity and return on assets. Likewise, concentrated ownership has a positive impact on return on equity and return on assets. It indicates that higher the concentrated ownership, higher would be the return on equity and return on assets. Moreover, institutional ownership has a positive impact on return on equity and return on assets. It indicates that higher shares held by entities, higher would be the return on equity and return on assets. Further, managerial ownership has a positive impact on return on equity and return on assets. It indicates that higher the shares held by directors of board and management, higher would be the return on equity and return on assets.

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Keywords: concentrated ownership, institutional ownership, managerial ownership, board size, CEO duality, board independence, gender inclusive on board, existence of audit committee on board, return on assets, return on equity

1. Introduction

The concept of corporate governance has gained significant public interest due to its apparent importance in maintaining the economic health of corporations. During financial crises, regulators, governments, and academics have shown heightened enthusiasm for examining corporate governance to bolster investors' confidence and attract more funding to businesses (LaPorta *et al.,* 2000). Corporate governance encompasses how an organization is managed, its corporate and other structures, culture, policies and strategies, and the ways in which it deals with its various stakeholders (Barrett, 2002). The need for corporate governance arises because of the separation of management and ownership in the modern corporations. Since, corporate governance is used to run companies and the board of directors is responsible for governance and the development of a company's strategy (Pass, 2004). It is expected that corporate performance is affected by corporate governance attributes. However, it should be noted that performance measurements might include other attributes rather than corporate governance mechanisms. Performance measurement provides the information needed to assess the extent to which an organization delivers value and achieves excellence. This definition also relates well to the balanced scorecard. The usual four scorecard dimensions include financial, customer, internal processes, innovation and learning are implied: financial aspects are included in "delivering value", customers and stakeholders are key to the definition, while internal processes, innovation and learning are central to the way organizations are managed (Moullin, 2007).

Fauzi and Locke (2012) examined the board structure, ownership structure and performance of New Zealand listed-firms. The study found that board of directors, board committees, and managerial ownership have positive and significant impact on firm performance. Meanwhile, non-executive directors, female directors on the board and concentrated ownership have negative impact on firm performance. Similarly, El-Habashy (2019) examined the effect of board and ownership structures on the performance of publicly listed companies in Egypt. The study showed that governance index and institutional shareholding have positive impact on firm performance but managerial ownership and ownership concentration have an insignificant

impact on accounting and market performance. The study also indicated a positive correlation between board size and firm performance. Likewise, Shah and Hussain (2012) examined the impact of ownership structure on firm performance of non-financial listed companies at Karachi Stock Exchange. The study found that managerial ownership has a significant but negative relationship with firm performance, whereas concentrated ownership has an insignificant relationship with firm performance. Hashmi *et al.* (2015) assessed the board effectiveness, ownership structure and corporate performance. The study revealed that there is a significant and positive relationship between independent directors, board size and firm performance. Likewise, the study showed that ownership concentration and dual role of CEO have positive impact on corporate financial performance. Further, Jameson *et al.* (2014) examined the controlling shareholders, board structure, and firm performance. The study stated that controlling shareholder in firms have statistically significant negative impact on firm performance.

Mohamed *et al.* (2013) examined the impact of corporate governance on firm performance in Egyptian listed companies. The study revealed that ownership structure has no significant impact on firm performance but board structure has a significant impact on firm performance. Similarly, Marimuthu (2008) assessed ethnic diversity on boards of directors and its implications on firm financial performance. The study revealed that ethnic diversity has positive impact on financial performance. Likewise, Mandala *et al.* (2018) determined the relationship between board structure and performance of financial institutions in Kenya. The study found that board structure and board activity operationalized as the number of meetings in a year have significant influence on performance of financial institutions. Similarly, Surachai and Nongnit (2019) examined the effect of board and ownership structures on the performance of the companies listed on the Stock Exchange of Thailand (SET) during the period 2001-2014. The study showed that board independence has a significant impact on corporate performance. In contrast, the study showed that board independence has a negative impact on firm performance measured by return on assets. Similarly, Apochi *et al.* (2022) analyzed the ownership structure, board of directors and financial performance in Nigeria. The study found that board size, share of women on the boards, and the independence of the board have mixed relationship with financial performance.

Karamoy and Tulung (2020) assessed the effect of financial performance and corporate governance to stock price in non-bank financial industry. The study revealed managerial ownership, institutional ownership and the

composition of the independent commissioner partially and simultaneously does not significantly influence the stock price of the non-bank financial industry. Further, Kapopoulos and Lazaretou (2007) examined the corporate ownership structure and firm performance from Greek firms. The study revealed that concentrated ownership structure has a positive impact on firm performance. Further, Almudehki and Zeitun (2012) examined the ownership structure and corporate performance in Qatar. The study showed that concentrated ownership and board ownership have positive impact on firm performance measured by return on assets and return on equity. Likewise, Charfeddine and Elmarzougui (2010) assessed the institutional ownership and firm performance in France. The study found that institutional ownership has a significant but negative impact on firm performance. In addition, Chen *et al.* (2008) examined the CEO duality and firm performance. The study showed that CEO duality has a significant but negative impact on firm performance.

Duru *et al.* (2016) examined the relationship between CEO duality and firm performance: The moderating role of board independence. The study found that a joint leadership structure, i.e., CEO duality has a statistically negative impact on firm performance. Similarly, Green and Homroy (2018) analyzed the female directors, board committees and firm performance. The study revealed that there is a positive impact of female board representation on firm performance. Likewise, Kweh *et al*. (2019) assessed the board gender diversity, board independence and firm performance in Malaysia. The study found that female directors and independent directors have negative impact on firm performance. Further, Liu *et al.* (2015) examined the board independence and firm performance in China. The study found that there is a positive relationship between board independence and firm performance. In addition, Qinghua *et al.* (2007) analyzed the audit committee, board characteristics and quality of financial reporting in Chinese securities market. The study revealed that companies, having a higher percentage of independent directors, are more likely to generate higher firm performance.

In the context of Nepal, Lamichhane (2018) examined the corporate governance and financial performance in Nepal. The study found that size of the assets and debt ratio have negative impact on firm performance and ownership concentration has no relationship with firms' financial performance. Similarly, Subedi (2018) assessed the role of corporate governance on the performance of insurance companies of Nepal. The study found that board size has a negative impact on return on assets while firm size and firm ownership have positive impact on return on assets and return on equity.

Likewise, Poudel and Hovey (2012) determined the corporate governance and efficiency in Nepalese commercial banks. The study found that bigger board size and lower proportion of institutional ownership led to better efficiency in the commercial banks. Likwise, Yadav *et al.* (2016) examined the effect of board size, audit committee and board meetings on firm performance in Nepalese enterprises. The study revealed that audit committee independence, audit committee have positive relationship with return on equity and return on assets. However, the study also revealed that there is a negative but significant impact of board size on return on equity. In addition, Dongol (2021) found that there a negative relationship between board gender diversity and firm performance measured by return on equity and return on assets. In addition, Dhungana *et al.* (2020) examined the corporate governance index and firm performance: A case of Nepal. The study found that firm size has a positive impact on firm performance. Likewise, Lama *et al.* (2015) revealed that there is a negative relationship between board size and firm performance measured by return on assets.

Bhattrai (2017) examined the effect of corporate governance on financial performance of bank in Nepal. The study found out that the board size negatively impacts the financial performance of commercial banks in Nepal whereas number of independent directors positively impacts the financial performance of commercial banks in Nepal. Similarly, Pradhan and Shyam (2015) accessed corporate governance and bank performance in Nepal. The result showed that the impacts of board size are positive with return on assets whereas the executive CEO has positive impact on return on assets. Board size and executive CEO have positive impact on ROE. Maharjan (2019) further examined corporate Governance and Financial Performance of Insurance Companies in Nepal. The study highlighted that audit committee were found to positively impact the financial performance of insurance companies. Board size is found to be negative towards insurance performance. The study also concludes CEO duality has the negative impact on the performance of the insurance company. Firm with large in size with high board meeting tend to perform well. Singh *et al.* (2018) further examined corporate governance and bank performance: empirical evidence from Nepal. Study found that as the manager's ownership decreases, the firm's value decreases.

Adhikari (2023) examined the corporate governance and bank performance in Nepal. The study revealed that female board member and firm size have significant impact on return on equity but board size and audit committee meeting have an insignificant impact on return on equity. The study

also showed that there is a positive relationship between female board and return on equity. Similarly, Bajagai (2019) analyzed the impact of ownership structure and corporate governance on capital structure of Nepalese listed companies. The study found that institutional shareholding and managerial shareholding have positive impact on capital structure. Likewise, Ojha (2016) examined the ownership structure, risk and performance in Nepalese banking industry. The study revealed that there is a significant impact of ownership structure and bank specific variables on return on assets and return on equity.

The above discussion shows that empirical evidences vary greatly across the studies on the impact of ownership structure and board structure on the performance of non-financial institutions. Though there are above mentioned empirical evidences in the context of other countries and in Nepal, no such findings using more recent data exist in the context of Nepal. Therefore, in order to support one view or the other, this study has been conducted.

The major objective of the study is to examine the impact of ownership structure and board structure on the performance of non-financial institutions of Nepal. Specifically, it examines the relationship of concentrated ownership, institutional ownership, managerial ownership, board size, CEO duality, board independence, gender inclusive on board, and existence of audit committee on board with performance of non-financial institutions of Nepal.

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

2. Methodological aspects

The study is based on the secondary data which were gathered from 16 non-financial listed companies out of 112 non-financial companies listed in the NEPSE by the end of mid-July 2023, leading to a total of 105 respondents. The study employed cross-sectional data method. The main sources of data include AGM report of respective companies. Table 1 shows the list of non-financial companies for the study along with the number of observations.

Table 1

List of non-financial companies for the study along with the number of observations

S.N.	Industry Category	Population (N)	Sample (n)	Sample %	No of observations
1	Hotels And Tourism	7	1	6.25%	9
2	Hydro Power	79	9	56.25%	54
3	Manufacturing And Processing	19	5	31.25%	37
4	Others	3	1	6.25%	5
5	Trading	4	0	0%	0
Total		**112**	**16**	**100%**	**105**

Source: AGM Reports

Thus, the study is based on 105 observations.

The model

The model used in this study assumes that performance of non-financial institutions depends upon ownership structure and board structure. The dependent variables selected for the study are return on equity and return on assets. Similarly, the selected independent variables are concentrated ownership, institutional ownership, managerial ownership, board size, CEO duality, board independence, gender inclusive on board, and existence of audit committee on board. Therefore, the model takes the following form:

$$ROE = \beta_0 + ß_1 CO + ß_2 IO + ß_3 MO + ß_4 BS + ß_5 CD + ß_6 BI + ß_7 GB + ß_8 EB + e_{it}$$

$$ROA = \beta_0 + ß_1 CO + ß_2 IO + ß_3 MO + ß_4 BS + ß_5 CD + ß_6 BI + ß_7 GB + ß_8 EB + e_{it}$$

Where,

ROE = Return on equity as measured by the ratio of net profit after tax to total shareholders' fund, in percentage.

ROA = Return on asset as measured by the ratio of net profit after tax to total assets, in percentage.

CO = Concentrated ownership as measured by the total shares held by top five shareholders, in percentage.

IO = Institutional ownership as measured by the shares held by entities, in percentage.

MO = Managerial ownership as measured by the shares held by directors of board and management, in percentage.

BS = Board size as measured by the total members on board, in number.

CD = CEO duality

BI = Board independence as measured by the member represents board of directors as independent, in number.

GB = Gender inclusive on board as measured by the female member in board of directors, in number.

EB = Existence of audit committee on board as measured by the member of audit committee represents on board of director of the firm, in number.

The following section describes the independent variables used in this study along with the hypothesis formulation.

Concentrated ownership

The concentrated ownership refers to the portion of shares held by top shareholders. Shah and Hussain (2012) examined the impact of ownership structure on firm performance. The study found that concentrated ownership has an insignificant relationship with firm performance. Similarly, El-Habashy (2019) found that concentrated ownership has an insignificant impact on market performance. Likewise, Hashmi *et al.* (2015) examined the board effectiveness, ownership structure and corporate performance. The study showed that there is an adverse relationship between ownership concentrations and corporate financial performance. In addition, Ahmed *et al.* (2012) examined the impact of concentrated ownership on firm performance in Karachi stock exchange. The study found that concentrated ownership has a negative impact on market performance. In contrast, Almudehki and Zeitun (2012) assessed the ownership structure and corporate performance in Qatar. The study revealed that concentrated ownership has a positive impact on firm performance. Based on it, this study develops the following hypothesis:

H_1: There is a negative relationship between concentrated ownership and firm performance.

Institutional ownership

El-Habashy (2019) examined the effect of board and ownership

structures on the performance of publicly listed companies in Egypt. The study revealed that institutional shareholding has a positive impact on firm performance. Similarly, Poudel and Hovey (2012) assessed the corporate governance and efficiency in Nepalese commercial banks. The study showed that lower proportion of institutional ownership led to better efficiency in the commercial banks. Likewise, Fauzi and Locke (2012) found that institutional ownership has a negative impact on firm performance in New Zealand. In addition, Duggal and Millar (1999) found that institutional ownership has a positive impact on firm performance. However, Charfeddine and Elmarzougui (2010) revealed that institutional ownership has a significant negative impact on firm performance. Based on it, this study develops the following hypothesis:

H_2: There is a positive relationship between institutional ownership and firm performance.

Managerial ownership

Shah and Hussain (2012) examined the impact of ownership structure on firm performance evidence from non-financial listed companies at Karachi Stock Exchange. The study revealed that managerial ownership has a negative impact on firm performance. Similarly, El-Habashy (2019) found that managerial ownership has a negative impact on firm performance. Further, Fauzi and Locke (2012) examined the board structure, ownership structure and firm performance: A study of New Zealand listed firms. The study revealed that managerial ownership has a positive and significant impact on firm performance. In contrast, Almudehki and Zeitun (2012) showed that board ownership has a positive impact on firm performance. Likewise, Wahba (2013) found that managerial ownership has a negative relationship between firm performance managerial ownership. Based on it, this study develops the following hypothesis:

H_3: There is a negative relationship between managerial ownership and firm performance.

Board size

Hashmi *et al.* (2015) revealed that there is a significant positive impact of board size on firm performance. Similarly, Mandala (2018) examined the relationship between board structure and performance of financial institutions in Kenya. The result indicated that there is a significant positive impact of

board size on firm performance. Likewise, Pradhan (2015) revealed that board size has a positive impact on firm performance measured by return on assets and return on equity. In contrast, Silwal (2016) examined the impact of corporate governance on the performance of Nepalese firms. The study found that board size has a negative impact on firm performance. Further, Poudel and Hovey (2012) showed that bigger board size led to better efficiency in the commercial banks. Based on it, this study develops the following hypothesis:

H_4: There is a positive relationship between board size and firm performance.

CEO duality

Hashmi *et al*. (2015) assessed the board effectiveness, ownership structure and corporate performance in Pakistan. The result revealed that there is a negative impact of dual role of CEO on the corporate financial performance. Similarly, Pradhan (2015) found that executive CEO has a negative impact on return on assets. Likewise, Rao (1996) examined the impact of CEO duality on firm performance. The study revealed that there is a negative relationship between CEO duality and firm performance. Further, Chen (2008) found that there is a negative relationship between CEO duality and firm performance. Based on it, this study develops the following hypothesis:

H_5: There is a negative relationship between CEO duality and firm performance.

Board independence

Board independence refers to the composition of a company's board of directors with a significant proportion of directors who have no material relationship with the company or its management. Hashmi *et al.* (2015) found that there is a positive relationship between board independence and firm performance. Similarly, Yadav *et al.* (2016) assessed the effect of board size, audit committee and board meetings on firm performance in Nepalese enterprises. The study depicted that board independence has a positive impact on firm performance measured by return on assets and return on equity. Likewise, Liu *et al.* (2015) examined the board independence and firm performance in China. The study showed that there is a positive relationship between board independence and firm performance. Further, Kweh (2019) analyzed the board gender diversity, board independence and firm performance in Malaysia. The study revealed that board independence has a positive impact on performance of firms. Based on it, this study develops the following hypothesis:

H_6: There is a positive relationship between board independence and firm performance.

Gender inclusive on board

Greena and Homroy (2017) examined the female directors, board committees and firm performance. The study demonstrated that there is a positive relationship between female board representation and firm performance. Similarly, Marimuthu (2008) found that female on board has a positive impact on firm performance. In contrast, Dongol (2021) assessed the corporate governance framework and financial performance of Nepalese banking sector. The study highlighted that there is a negative relationship between board gender diversity on financial performance measured by return on equity and return on assets. Further, Fauzi and Locke (2012) found that female directors on the board has a positive impact on firm performance. Based on it, this study develops the following hypothesis:

H_7: There is a positive relationship between female on board and firm performance.

Existence of audit committee on board

Qinghua (2007) examined the audit committee, board characteristics and quality of financial reporting: An empirical study on Chinese securities market. The study revealed that audit committee on board has a positive impact on firm performance. Similarly, Silwal (2016) found that existence of audit committee on board have positive impact on firm performance measured by return on equity. Likewise, Sitienei (2022) found that audit committee has a positive impact on financial performance. Further, Poudel and Hovey (2012) revealed that audit committee has a positive impact on firm performance. Based on it, this study develops the following hypothesis:

H_8: There is a positive relationship between existence of audit committee on board and firm performance.

3. Results and discussion

Descriptive statistics

Table 2 presents the desscriptive statistics of selected dependent and independent variables during the period 2014/15 to 2022/23.

Table 2

Descriptive statistics

This table shows the descriptive statistics of dependent and independent variables of 16 non-financial listed companies out of 112 non-financial companies leading to a total of 105 observations. The dependent vatriables are ROE (Return on equity as measured by net profit after tax to total shareholders' fund, in percentage) and ROA (Return on asset as measured by net profit after tax to total assets, in percentage). The independent variables are CO (Concentrated ownership is defined as total shares held by top five shareholders, in percentage), IO (Institutional ownership is defined as shares held by entities, in percentage), MO (Managerial ownership is defined as shares held by directors of board and management, in percentage), BS (Board size is defined as total members on board, in number), CD (CEO Duality is defined as chairman of the board and CEO are the same individual, in numbers), BI (Board independence is defined as member represents board of directors as independent, in number), GB (Gender inclusive on board is defined as female member in board of directors, in number) and EB (Existence of audit committee on board is defined as member of audit committee represents on board of director of the firm, in number).

Variables	Minimum	Maximum	Mean	S.D.	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
BS	4	11	7.32	1.740	0.458	0.236	-0.544	0.467
BI	0	1	0.55	0.500	-0.214	0.236	-1.993	0.467
GB	0	1	0.66	0.477	-0.672	0.236	-1.579	0.467
EB	0	1	0.93	0.251	-3.525	0.236	10.627	0.467
CD	0	1	0.66	0.477	-0.672	0.236	-1.579	0.467
CO	0.00	98.00	47.114	32.256	0.010	0.236	-1.229	0.467
IO	0.00	98.00	48.537	30.991	-0.041	0.236	-0.998	0.467
MO	0.00	14.00	3.553	3.873	1.308	0.236	1.082	0.467
ROE	-0.157	0.770	0.143	0.176	1.338	0.236	1.670	0.467
ROA	-0.804	.4500	0.073	0.135	-1.870	0.236	16.766	0.467

Source: SPSS Output

Correlation analysis

Having indicated the descriptive statistics, Pearson's correlation coefficients are computed and results are presented in Table 3.

Table 3

Kendall's Tau correlation coefficient matrix

This table shows the correlation coefficients of dependent and independent variables of 16 non-financial listed companies out of 112 non-financial companies leading to a total of 105 observations. The dependent vatriables are ROE (Return on equity as measured by net profit after tax to total shareholders' fund, in percentage) and ROA (Return on asset as measured by net profit after tax to total assets, in percentage). The independent variables

are CO (Concentrated ownership is defined as total shares held by top five shareholders, in percentage), IO (Institutional ownership is defined as shares held by entities, in percentage), MO (Managerial ownership is defined as shares held by directors of board and management, in percentage), BS (Board size is defined as total members on board, in number), CD (CEO duality is defined as chairman of the board and CEO are the same individual, in numbers), BI (Board independence is defined as member represents board of directors as independent, in number), GB (Gender inclusive on board is defined as female member in board of directors, in number) and EB (Existence of audit committee on board is defined as member of audit committee represents on board of director of the firm, in number).

Variables	ROE	ROA	BS	BI	GB	EB	CD	CO	IO	MO
ROE	1									
ROA	0.852**	1								
BS	0.096	0.119	1							
BI	0.349**	0.281**	0.358**	1						
GB	0.378**	0.331**	0.046	0.318**	1					
EB	0.197*	0.200*	0.352**	0.297**	0.370**	1				
CD	-0.249**	-0.264**	0.075	-0.005	-0.479**	-0.193*	1			
CO	0.319**	0.237**	0.295**	0.534**	0.337**	0.367**	-0.138	1		
IO	0.296**	0.216**	0.293**	0.499**	0.328**	0.350**	-0.144	0.922**	1	
MO	0.233**	0.192**	-0.188*	0.282**	0.379**	0.308**	-0.232**	0.328**	0.359**	1

Notes: The asterisk signs (**) and (*) indicate that the results are significant at one percent and five percent level respectively.

Table 3 shows that board size has a positive relationship with return on equity. It indicates that higher the board size, higher would be the return on equity. Similarly, board independence has a positive relationship with return on equity. It indicates that increase in number of independent directors on the board leads to increase in return on equity. Likewise, gender inclusive on board has a positive relationship with return on equity. It indicates that presence of female director in the board leads to increase in return on equity. Further, existence of audit committee on board has a positive relationship with return on equity. It indicates that increase in audit committee members leads to increase in return on equity. In addition, CEO duality has a negative relationship with return on equity. It indicates that if one person serves as the chairman of the board of directors' leads to decrease in return on equity. Likewise, concentrated ownership has a positive relationship with return on equity. It indicates that higher the concentrated ownership, higher would be the return on equity. Moreover, institutional ownership has a positive relationship with return on equity. It indicates that higher shares held by entities, higher would be the return on equity. Further, managerial ownership has a positive relationship with return on equity. It indicates that higher the shares held by directors of board and management, higher would be the return on equity.

Similarly, board size has a positive relationship with return on assets. It indicates that higher the board size, higher would be the return on assets. Similarly, board independence has a positive relationship with return on assets. It indicates that increase in number of independent directors on the board leads to increase in return on assets. Likewise, gender inclusive on board has a positive relationship with return on assets. It indicates that presence of female director in the board leads to increase in return on assets. Further, existence of audit committee on board has a positive relationship with return on assets. It indicates that increase in audit committee members leads to increase in return on assets. In addition, CEO duality has a negative relationship with return on assets. It indicates that if one person serves as the chairman of the board of directors' leads to decrease in return on assets. Likewise, concentrated ownership has a positive relationship with return on assets. It indicates that higher the concentrated ownership, higher would be the return on assets. Moreover, institutional ownership has a positive relationship with return on assets. It indicates that higher shares held by entities, higher would be the return on assets. Further, managerial ownership has a positive relationship with return on assets. It indicates that higher the shares held by directors of board and management, higher would be the return on assets.

Regression analysis

Having analyzed the Pearson's correlation coefficients, the regression analysis has been carried out and the results are presented in Table 4. More specifically, it presents the regression results of concentrated ownership, institutional ownership, managerial ownership, board size, CEO duality, board independence, gender inclusive on board, and existence of audit committee on board on return on equity.

Table 4

Estimated regression results of concentrated ownership, institutional ownership, managerial ownership, board size, CEO duality, board independence, gender inclusive on board, and existence of audit committee on board on return on equity

The results are based on panel data of 16 non-financial listed companies out of 112 non-financial companies leading to a total of 105 observations and the model is $ROE = \beta_0 + ß_1 CO + ß_2 IO + ß_3 MO + ß_4 BS + ß_5 CD + ß_6 BI + ß_7 GB + ß_8 EB + e_{it}$ where, the dependent variable is ROE (Return on equity as measured by net profit after tax to total shareholders' fund, in percentage). The independent variables are CO (Concentrated ownership is defined as total shares held by top five shareholders, in percentage), IO (Institutional ownership is defined

as shares held by entities, in percentage), MO (Managerial ownership is defined as shares held by directors of board and management, in percentage), BS (Board size is defined as total members on board, in number), CD (CEO duality is defined as chairman of the board and CEO are the same individual, in numbers), BI (Board independence is defined as member represents board of directors as independent, in number), GB (Gender inclusive on board is defined as female member in board of directors, in number) and EB (Existence of audit committee on board is defined as member of audit committee represents on board of director of the firm, in number).

Model	Intercept	Regression coefficients of								Adj. R_bar^2	SEE	F-value
		BS	BI	GB	EB	CD	CO	IO	MO			
1	0.129 (0.075)	0.002 (0.010)								0.009	0.177	0.036
2	0.068 (2.841)**		0.136 (4.244)**							0.141	0.164	18.015
3	0.042 (1.565)			0.154 (4.635)**						0.165	0.161	21.480
4	0.007 (0.114)				0.145 (2.141)*					0.033	0.174	4.582
5	0.211 (7.449)**					-0.104 (2.967)**				0.070	0.170	8.802
6	0.046 (1.624)						0.002 (4.113)**			0.133	0.164	16.919
7	0.049 (1.616)							0.002 (3.673)**		0.107	0.167	13.490
8	0.120 (5.156)**								0.006 (1.455)	0.011	0.176	2.116
9	0.041 (0.579)	0.000 (0.012)		0.154 (4.608)*						0.156	0.162	10.636
10	0.189 (2.511)*	0.003 (0.322)				-0.104 (2.97)**				0.062	0.171	4.414
11	0.061 (0.709)	0.008 (0.717)							0.008 (1.607)	0.006	0.176	1.310
12	0.001 (0.033)			0.116 (3.153)**			0.001 (2.682)**		0.001 (0.169)	0.205	0.157	9.925
13	0.037 (0.462)	0.001 (0.058)		0.152 (4.264)**					0.001 (0.127)	0.148	0.163	7.028
14	0.009 (0.313)		0.100 (3.091)**	0.121 (3.424)**					0.005 (0.032)	0.222	0.156	10.875

Notes:

i. Figures in parenthesis are t-value
ii. The asterisk signs (**) and (*) indicate that the results are significant at one percent and five percent level respectively.
iii. Return on equity is the dependent variable.

Table 4 shows that the beta coefficients for board size are positive with return on equity. It indicates that board size has a positive impact on return on equity. This finding is consistent with the findings of Hashmi *et al.* (2015). Similarly, the beta coefficients for board independence are positive with return on equity. It indicates that board independence has a positive impact on return on equity. This finding is consistent with the findings of Yadav *et al.* (2016). Likewise, the beta coefficients for gender inclusive on board are positive with return on equity. It indicates that gender inclusive on board has a positive impact on return on equity. This finding is inconsistent with

the findings of Dongol (2021). Further, the beta coefficients for existence of audit committee on board are positive with return on equity. It indicates that existence of audit committee on board has a positive impact on return on equity. This finding is consistent with the findings of Qinghua (2007). Moreover, the beta coefficients for CEO duality are negative with return on equity. It indicates that CEO duality has a negative impact on return on equity. This finding is similar to the findings of Hashmi *et al*. (2015). Similarly, the beta coefficients for concentrated ownership are positive with return on equity. It indicates that concentrated ownership has a positive impact on return on equity. This finding is similar to the findings of Shah and Hussain (2012). Likewise, the beta coefficients for institutional ownership are positive with return on equity. It indicates that institutional ownership has a positive impact on return on equity. This finding is similar to the findings of Fauzi and Locke (2012). Further, the beta coefficients for managerial ownership are positive with return on equity. It indicates that managerial ownership has a positive impact on return on equity. This finding is similar to the findings of Almudehki and Zeitun (2012).

Table 5 shows the estimated regression results of concentrated ownership, institutional ownership, managerial ownership, board size, CEO duality, board independence, gender inclusive on board, and existence of audit committee on board on return on assets.

Table 5

Estimated regression results of concentrated ownership, institutional ownership, managerial ownership, board size, CEO duality, board independence, gender inclusive on board, and existence of audit committee on board on return on assets

The results are based on panel data of 16 non-financial listed companies out of 112 non-financial companies leading to a total of 105 respondents and the model is ROA = β0 + ß1 CO + ß2 IO + ß3 MO + ß4 BS + ß5 CD + ß6 BI + ß7 GB+ ß8 EB + e_{it} where, the dependent variable is ROA (Return on equity as measured by net profit after tax to total assets, in percentage). The independent variables are CO (Concentrated ownership is defined as total shares held by top five shareholders, in percentage), IO (Institutional ownership is defined as shares held by entities, in percentage), MO (Managerial ownership is defined as shares held by directors of board and management, in percentage), BS (Board size is defined as total members on board, in number), CD (CEO duality is defined as chairman of the board and CEO are the same individual, in numbers), BI (Board independence is defined as member represents board of directors as independent, in number), GB (Gender inclusive on board is defined as female member in board of directors, in number) and EB (Existence of audit committee on board is defined as member of audit committee represents on board of director

of the firm, in number).

Model	Intercept	Regression coefficients of								Adj. R_bar^2	SEE	F-value
		BS	BI	GB	EB	CD	CO	IO	MO			
1	0.023 (0.394)	0.007 (0.914)								0.002	0.136	0.835
2	0.033 (1.741)		0.073 (2.852)**							0.064	0.131	8.134
3	0.028 (1.250)			0.071 (2.600)**						0.052	0.132	6.761
4	0.001 (0.020)				0.078 (1.479)					0.011	0.135	2.188
5	0.103 (4.608)**					-0.045 (1.621)				0.015	0.135	2.626
6	0.020 (0.878)						0.001 (2.871)**			0.065	0.131	8.245
7	0.025 (1.033)							0.001 (2.404)*		0.044	0.133	5.781
8	0.062 (3.430)**								0.003 (0.995)	0.000	0.136	0.989
9	0.017 (0.294)	0.006 (0.829)		0.070 (2.559)*						0.050	0.132	3.714
10	0.016 (0.243)	0.003 (0.415)			0.070 (1.226)					0.003	0.135	1.172
11	0.049 (0.828)	0.008 (0.991)				-0.046 (1.661)				0.015	0.135	1.804
12	0.021 (0.376)	0.001 (0.072)						0.001 (2.205)*		0.035	0.133	2.865
13	0.023 (0.341)	0.011 (1.328)							0.005 (1.384)	0.007	0.135	1.380
14	0.025 (0.394)	0.005 (0.655)		0.066 (2.240)*	0.0180 (0.304)					0.041	0.133	2.485
15	0.032 (0.558)				0.008 (0.144)	-0.031 (1.102)	0.001 (2.309)*		0.002 (0.491)	0.054	0.132	2.491

Notes:

i. Figures in parenthesis are t-value
ii. The asterisk signs (**) and (*) indicate that the results are significant at one percent and five percent level respectively.
iii. Return on assets is the dependent variable.

Table 5 shows that the beta coefficients for board size are positive with return on assets. It indicates that board size has a positive impact on return on assets. This finding is consistent with the findings of Mandala (2018). Similarly, the beta coefficients for board independence are positive with return on assets. It indicates that board independence has a positive impact on return on assets. This finding is consistent with the findings of Kweh (2019). Likewise, the beta coefficients for gender inclusive on board are positive with return on assets. It indicates that gender inclusive on board has a positive impact on return on assets. This finding is consistent with the findings of Marimuthu (2008). Further, the beta coefficients for existence of audit committee on board are positive with return on assets. It indicates that existence of audit committee on board has a positive impact on return on assets. This finding is consistent with the findings of Sitienei (2022). Moreover, the beta coefficients for CEO duality are negative with return on assets. It indicates that CEO duality has a

negative impact on return on assets. This finding is similar to the findings of Chen (2008). Similarly, the beta coefficients for concentrated ownership are positive with return on assets. It indicates that concentrated ownership has a positive impact on return on assets. This finding is similar to the findings of Almudehki and Zeitun (2012). Likewise, the beta coefficients for institutional ownership are positive with return on assets. It indicates that institutional ownership has a positive impact on return on assets. This finding is similar to the findings of Duggal and Millar (1999). Further, the beta coefficients for managerial ownership are positive with return on assets. It indicates that managerial ownership has a positive impact on return on assets. This finding is similar to the findings of Fauzi and Locke (2012).

4. Summary and conclusion

The concept of corporate governance has gained significant public interest due to its apparent importance in maintaining the economic health of corporations. During financial crises, regulators, governments, and academics have shown heightened enthusiasm for examining corporate governance to bolster investors' confidence and attract more funding to businesses. Corporate governance encompasses how an organization is managed, its corporate and other structures, culture, policies and strategies, and the ways in which it deals with its various stakeholders. The need for corporate governance arises because of the separation of management and ownership in the modern corporations. The theory of agency argues that the managers may behave opportunistically to maximize their own welfare. Since, corporate governance is used to run companies and the board of directors is responsible for governance and the development of a company's strategy.

This study attempts to examine the impact of ownership structure and board structure on the performance of non-financial institutions of Nepal. This study is based on the secondary data 16 non-financial listed companies out of 112 non-financial companies leading to a total of 105 observations.

The major conclusion of this study is that board size has a positive relationship with return on equity and return on assets. Similarly, board independence has a positive relationship with return on equity and return on assets. Likewise, gender inclusive on board has a positive relationship with return on equity and return on assets. It indicates that presence of female director in the board leads to increase in return on equity and return on assets. Further, existence of audit committee on board has a positive relationship

with return on equity and return on assets. It indicates that increase in audit committee members leads to increase in return on equity and return on assets. In addition, CEO duality has a negative relationship with return on equity and return on assets. Likewise, concentrated ownership has a positive relationship with return on equity and return on assets. It indicates that higher the concentrated ownership, higher would be the return on equity and return on assets. Moreover, institutional ownership has a positive relationship with return on equity and return on assets. Further, managerial ownership has a positive relationship with return on equity and return on assets. Likewise, the study also concluded that gender inclusive on board followed by existence of audit committee on board is the most influencing factor that explains the changes in the return on equity in the context of Nepalese non-financial institutions. Similarly, the study also concluded that existence of audit committee on board followed by board independence is the most influencing factor that explains the changes in return on assets in the context of Nepalese non-financial institutions.

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