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Impact of Corporate Governance on Financial Performance of A & B Class Banks in Nepal

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Abstract

This paper examines the impact of corporate governance on the financial performance of A and B class banks in Nepal. The study utilizes panel data from 26 commercial banks and 8 national-level development banks over a 10-year period from 2011 to 2020. Various corporate governance indicators, including Board Size, Board Independence, Frequency of Board Meetings, Audit Committee Size, and the presence of Female Directors, are used as explanatory variables. The performance indicators, Return on Assets (ROA) and Return on Equity (ROE), serve as dependent variables. Control variables such as Leverage and Firm Size, along with macroeconomic variables like GDP and Inflation, are also included. The research employs both Fixed and Random Effect Models, chosen based on the results of the Hausman test, to analyze the data. These models allow the researchers to assess variations among different banks and within individual banks over time.The findings reveal that all corporate governance indicators, namely Board Size, Board Independence, Frequency of Board Meetings, Audit Committee Size, and Female Directors, are insignificant in explaining firm performance as measured by ROA using the Random Effect Model. However, the control variable: Firm Size, shows a significant positive relationship with ROA, while Leverage and macroeconomic variables (GDP and Inflation) do not significantly affect ROA. Similarly, when measuring firm performance using ROE with the Fixed Effect Model, all corporate governance indicators remain insignificant. Firm Size and GDP show a significant positive relationship with ROE, whereas Leverage and Inflation are insignificant.Overall, the use of both Fixed and Random Effect Models indicates that corporate governance has an insignificant impact on firm performance. This suggests that, in the context of A and B class banks in Nepal, corporate governance does not play a significant role in influencing financial performance.

Keywords: Panel study; fixed and random effect; board Size; board independence; frequency of board meeting; audit committee; female director; firm Size, leverage; GDP; inflation; return on asset; return on equity.

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1. Introduction

1.1 Overview

The author in [1] defined corporate governance as a process to encompass how an organization is managed, its corporate and other structures, its culture, its policies and strategies and ways in which it deals with its various stakeholders. Corporategovernance deals with structures, policies and procedures applied by business firms to achievetarget objectives, missions and visions about stockholders, suppliers, customers, employees, and regulatory agencies etc. It is the structure through which a firm's objectives are set, attainingobjectives and monitoring firm's performance [2].

Corporate governance and financial performance are the subjects to be considered by academicians, practitioners, policy makers and regulatory bodies. Corporate governance hasbeen one of the main areas among studies of scholars and policy makers after the 1990s. In modernworld, when several high-profile corporate scandals in USA (AIG Insurance, Arthur Anderson,Enron, Lehman Brothers, Tyco, WorldCom, Xerox, etc.), Asian Financial Crisis (1997/98) andelsewhere in the world which triggered an in-depth reflection on regulatory role of government in protecting interests of shareholders. Moreover, corporate scandals (2001/02) led to the Sarbanes-Oxley Act of 2002 and to various amendments to the US stock exchanges' regulations. Since then, the issue of corporate governance continues to receive a high level of attention.

In the early 2000s, the massive bankruptcies and criminal malfeasance of the corporations including Enron, WorldCom, as well as lesser corporate debacles, such AdelphiaCommunications, America Online (AOL), Arthur Anderson, Global Crossing, and Tyco led to increased shareholder and governmental interest in corporate governance. One of the largest corporate scams in India, Satyam Computers (Vasishth & Rajput, 2010) in India and similar failure of financial institutions show the importance of governance and ethics in managing corporations Reference [3]. The stake of the financial sector in Nepalese economy is significant. Economic growth in recent years has been facilitated by the growth of the financial sector. From the Association of Southeast Asian Nations (ASEAN) crisis to recent scandals in Nepalese financial sector, good corporate governance has been felt essential for sustainable growth of corporate financial sector.

The author in [4] identified protection of shareholders' rights, clarity in duties and responsibilities of all stakeholders involved, disclosure and transparency, legal frameworks thatsufficiently address good governance mechanism are all important to ensure a healthy growthof financial sector.

Corporate governance has become a topical issue because of its immense contributionto the economic growth and development of a nation. The impact of corporate governance on firm performance has received enormous attention in economic and finance literature in recentyears. The corporate finance has become popular in the recent decades since the massive Asian financial crisis and WorldCom scandals. 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 [5]. Bank governance was altered tremendously during the 1990s and early 2000s,principally due to bank ownership changes, such as mergers and acquisitions [6].

Despite several studies having been undertaken on the subject matter in the globalarena, there is still much debate on the relationship between corporate governance and firm performance and more soon the relationship between corporate governance and performance of commercial banks and Development banks. The banking sector plays a crucial intermediary role in any economy. The intent interestof mass public, government, stakeholders, regulating bodies and management towards corporate governance is increasing with the escalating cases of financial irregularities. Nepalese banking sector too demands effective corporate governance mechanism owing to the changes made in the recent monetary policy and unified directives by Nepal Rastra Bank (NRB).

A global financial challenge in late 2007 raised various questions to settle financial sector stability and which become a central challenge to bank regulators and supervisors. Poor corporate governance of the banks can drive the market to lose confidence in the ability of a bank, then it leads to economic crisis in a country and invites systemic risk [7].

The most of prior empirical studies on corporate governance and financial performanceand their issues are based on developed countries, mainly from US and UK firms. The corporategovernance literature in the US and UK focuses on the role of the Board as a bridge between owners and management [8].

In an environment in which ownership and management have become widely separated,owners are unable to exercise effective control over the management or Board. Minimal research has been done on developing countries, and these studies are mainly focused on corporate governance environment, legal measures, and their implementation. Due to dynamicand globalization of business environment factors, Nepalese firms are facing tremendous challenges for their survival, growth, and profitability. The preponderance of prior empirical studies on corporate governance and financial performance carried out in developed countriesbut a very few studies have been administered in developing countries and there is lacking in-depth studies in developing countries like Nepal.

As there is very limited research on the efficiency of Nepalese commercial banks regarding corporate governance and necessity of this research arose from the fact that no research on the impact of corporate governance in the performance of Nepalese developmentBanks and there is no proper research analysis of corporate governance on which address bothimpact of Commercial and Development banks in Nepalese Context. This research shall find the corporate governance of Commercial Banks and Development Banks i.e. A and B class financial institutions and their performance to explore the relation between them.

1.2 Problem Statement

Corporate Governance has become one of the buzzworthy issues in the contemporary corporate world. The issues of corporate governance such as board size, board independence, frequency of board meetings, remuneration of directors and CEOs etc. have tremendous influence on the performance of the banks and financial institutions. There have been several corporate governance failures in Nepalese as well as international context from time to time which has urged the need to have a rigorous corporate governance culture for the stability of firms.

The corporate scandal of Punjab National Bank of fetching loans without collateral which exhibits the lack of proper governing mechanism in the credit appraisal process has been the hot topic in the corporate governance arena.

Similarly, it has been found that the audit committee of PNB is not headed by a person having accounting or financial management expertise, and the government nominees are shown as NED's which is against the SEBI regulation. It may not be in the interest of the public and taxpayer to keep these banks in the public sector if these scams go unchecked which has concluded that the effective board is invaluable. Likewise, the recent and dramatic insolvency of Wire card, a payment processor and financial service provider company has thrust corporate governance and industry regulation in Germany firmly in the spotlight.

For a developing country like Nepal, Corporate Governance reforms are more significant as it helps to attract more foreign direct investment and mobilizes greater savings through capital markets [9]. The Corporate Governance scenario gathered momentum only after 2002 when the central bank of Nepal, Nepal Rastra Bank (NRB) issued Corporate Governance directives. Till today, the regulatory requirements of Nepal Rastra Bank (NRB) solely act as the Corporate Governance benchmark.

The Bank run of Nepal Bangladesh Bank (NB Bank) in November of 2006 and the Vibor Bikas Bank (VBB) crisis in 2011 which the Central Bank (NRB) had to rescue VBB, are the two remarkable banking crises in Nepal. Vibor Bikas Bank's crisis can be compared to Lehman Brothers [10].

Similarly, the bankruptcy of the Nepal Development Bank in 2009 was also one of the dark phases of the Nepalese banking sector [11]. However, all three cases were linked to the failures in the implementation of Corporate Governance. In 2005 the central bank of Nepal, Nepal Rastra Bank issued directives to strengthen Corporate Governance, but it, however, reported several lapses in several banks.

There have been numerous corporate governance failures in Nepalese banks including the Nepal Development Bank Limited, the first commercial bank of Nepal, Nepal Bank Limited, Nepal Bangladesh Bank, Lumbini Bank, Gurkha Development Bank, United Development Bank in several times. The recent governance issues in Nepalese commercial banks have captured the limelight giving rise to demands for greater transparency and accountability in the way banks are controlled and managed.

It has been found that the promoters and chief executive officer (CEO) of Deva Development Bank are involved in banking frauds worth millions of rupees at the Narayanpur branch of the bank. An investigation carried out by police shows that 56 people, including promoters and the CEO, are involved in a banking fraud worth Rs 180 million.

The central bank was unable to deal with the cases related to Nepal Share Markets and Finance Ltd, Crystal Finance Ltd and Narayani Development Bank Ltd for long as the board of directors of the concerned BFIs had filed cases against central bank's policy to force them to transfer ownership to revive the financial institutions. Nepal Rastra Bank has said that lack of corporate governance on part of the institutions themselves and lack of supervisory capacity of NRB were the major reasons for the failure of the concerned financial institutions. Following the failure of class 'B' and class 'C' financial institutions mostly, NRB has expanded risk-based supervision for development banks and finance companies. Gurkha Development Bank was declared troubled by Nepal Rastra Bank (NRB) on March 25, 2011. The huge fund embezzled by the then directors of the bank caused the bank to fall into trouble.

With no improvement two years after declaring it troubled, NRB took over the management of the bank in 2012.

Poor corporate governance of the banks can drive the market to lose confidence in the ability of a bank, then it leads to economic crisis in a country and invite systemic risk [12]. With such cases in the banking industry in national context we have evidenced development banks failure, governance issues but no commercial banks have yet failed. It is found that despite having several problems in the banking industry leading to its failure, the prominent cause is directly related to lack of corporate governance on part of the institutions.

Despite the enormous growth of financial institutions within a short period, an equal number of cases of failure, fraud and malpractice have found important space in news and print media since the past few years in the Nepalese financial sector. The financial sector is passing through a transitional phase that includes number of institutional governance reform such as financial sector reform program, effective application of laws and regulations that is expected to enhance the institutionalization of corporate governance [13].

Another subsisting issue is that the research regarding the impact of corporate governance in the Nepalese banking context is limited. Hence, the correlation between corporate governance such as Board Size, Board Independence, frequency of board meetings, Audit Committee, Female Director in the Board and Bank Performance is still not clearly established. Also, studies regarding the impact of corporate governance on banks' financial performance in developing countries are relatively limited than that of developed economies.

Hence, based on the above findings and recent insights of the study on the relationship between corporate governance and performance in banking firms in different parts of the world are inconclusive or even contradictory. Thus, it has ignited the need of more research to be done in the banking arena to identify the factors affecting the corporate governance and establish the relationship between corporate governance and firm's performance between A and B class institutions in Nepal. Also, previous research has mostly considered Commercial banks only; this paper would explore corporate governance influence on performance of A and B class institutions in Nepal.

1.3 Research Objectives

To understand the impact of corporate governance of Nepalese A and B class institutions and its impact on performance of (BFIs).

1.4 Significance of the Study

This study will be helpful for the regulators in making policy regarding Corporate Governance by understanding the intensity of impact on A and B class financial institutions.Furthermore, it also helps the management committee of BFIs to implement various policies appropriately by considering the consequences.

2. Literature Review

Corporate governance is the system by which business corporations are operated, regulated, monitored, and controlled for promoting corporate fairness, transparency, and accountability [14]. 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 [15].

The author in [16] also noted that corporate governance is more crucial in the banking industry because of its role being the custodian of public funds due to high leverage of responsibility. Furthermore, he mentioned that banks are organism of financial intermediaries and have a position of trust in economic system. Because of these intensive obligations banksare very sensitive to ineffective corporate governance.

In the study conducted by authors in [17], they found that corporate governance and firm performance are unrelated. On the other hand, authors in [18] found that corporate governance is significantly correlated with firm performance. In contrast,the result of author in [19] showed that there is an insignificant impact of corporate governancevariables (Board Size, Firm Size and Ownership Structure) on ROA as well as ROE in Commercial Banks.

The authors in [20] examined the relationship between bank efficiency and boards' sizeusing the data of 18 banks operating in the UK over the period 2001-2006. As a result of the research, they have found a positive relationship between board size and bank efficiency. Author in [21] analyzed relationship between corporate governance and bank performance in Hong Kong and found significant relationship between board size and bank performance. However,authors in [22] advocate that "larger board size leads to slower and less-efficient decision-making processes in firms, thus it causes communication problemsand hence negatively affects the firm performance".

The authors in [23] noted that their studies comprise data from 69 banks operating in Canada, the United Kingdom, France, Italy, Spain and the United States over the period 1996-2005 have found results of a mixed character between boards' size and performance in banking.

In the context of Nepal, author in [24] 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. The author in Reference [25] 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.

The author in [26] investigates the relationship between board mechanisms (audit committee size, audit committee composition, board size, and board composition) and firm performance (ROA) based on the annual reports of listed companies in the year 2011 of non- financial firms in the Saudi Market. For this study, data collected from a sample of 102 non- financial listed companies, and the study could not provide a significant relationship between the size of the audit committee and firm performance where it showed an insignificant relationship between board size and firm performance.The author in [27] discover that board size has negative effect on financial performance of commercial banks in Nepal. The result is also supported by study done by author in [28] among Nepalese firms (seven commercial banks, seven development banks, five finance company, one trading company, two manufacturing, two hydropower, two hotels and four insurance companies) depict that board size is negatively related with ROA. This is according to organizational theory where boards with large number of members take comparatively longer time take to decisions [29].

The authors in [30] observed effect of board size, board diversity, outside directors' percentage and board meeting frequency on bank performance and revealedthat all explanatory variables are positively related with return on equity in the state banks as well as private banks except board diversity and board meeting frequency. The study concludedthat board diversity has a strong negative effect on return on assets.

The authors in [31] analyzed relationship between corporate governance andperformance in Italian firms using regression model and observed that board size has positive and statistically significant relationship with firm performance which implies larger board sizefirms have higher performance.

The authors in [32] studied the annual data of all listed financial firms on the Bahrain Bourse over the period of 2011-2016. The results show that board size, ownership concentration and auditor's reputation have a positive and significant impact on firms' return on assets (ROA), whereas the percentage of independent directors and the annual number of board meetings have negative and significant impact on firms' return on equity (ROE). CEO duality is found to not be an important determinant factor of firms' performance, as the resultssuggest that it shows an insignificant effect on ROA, ROE and stock returns (SPR). Furthermore,a firm's size and leverage are found to have a negative and insignificant relationship with a firm's performance.

The author in [33] Studied the Corporate Governance and Firm Performance: Empirical Evidence from India and analyze inter-linkages between corporate governance, ownership structure, capital structure, and firm performance in India. The study employs panel data of all CNX Nifty companies from 2008 to 2012. Using LSDV panel data models and 2SLS modelthe study reveals that good corporate governance practices adopted by companies are positively related to financial performance. Board independence, number of board committees, and director remuneration are found to have positive relationship while larger board size, ownership by promoters, and financial leverage have negative relationship with performance.

The author in [34] examined the corporate governance and influence on financial performance of Nepalese firms for the period of fiscal year 2009/10 to 2015/16 using descriptive and causal comparative research design. The result of this paper reveals that profitmargin and return on assets of firms are positively related with age, market to book ratio and overall corporate governance index which implies that higher age, market to book ratio and corporate governance increase financial performance of Nepalese firms.

Further, the regression result of the study shows that size of assets and debt ratio have negative effect and ownership concentration has no relationship with firms' financial performance.

The author in [35] studied the Role of Corporate Governance on the Performance ofInsurance Companies of Nepal and found that the study used descriptive cum causal relationalresearch design. Firm ownership and board size are considered as the key variables of corporategovernance while debt to equity ratio, firm size, firm age and firm growth are considered as control variables.

The dependent variable firm performance is measured by return on assets (ROA) and return on equity (ROE). The study used five-year data from 2009/10 to 2016/17 with 135 firm year observations. The study concluded that corporate governance affects the firm performance in the Nepalese insurance sector. Board size has a negative impact

on ROA whilefirm size and firm ownership has a positive impact on ROA and ROE. The variable debt to equity has a negative and significant impact on ROE respectively.

The authors in [36] argue that outside directors are better monitors of managers, as they have an incentive to develop their reputation as experts in decision control. The authors in [37] report that firms with a higher proportion of independent directors had superior performance. The author in [38] revealed that audit committee and portion of independent directors have positive, but board size has negative effect on financial performanceof commercial banks in Nepal.

In emerging market countries like Nepal, improving corporate governance might serveseveral important public policy objectives. Good corporate governance reduces emergingmarket vulnerability to financial crises, reinforces property rights, reduces transaction costs and the cost of capital, and leads to capital market development.

The above discussion revealsthat there is no consistency in the findings of various studies concerning the effect of corporategovernance on the performance of the firms. Therefore, this study has been conducted to examine the impact of corporate governance on firm performance of Nepalese Commercial and Development Banks.

2.1 Conceptual Framework

Based on the various literature and empirical evidence, the following framework has been used. The performance proxies are used as Return on Assets (ROA), Return on Equity (ROE). Corporate Governance is measured using Board Size (BS), Board Independence (BI), Frequency of Board Meeting (BM), Audit Committee Size (AC) and Female Director Presencein the Board (dummy, If yes =1, No=0). Leverage (L), Firm Size (FS) are considered as ControlVariables and Gross Domestic Production (GDP), Inflation Rates (IR) are considered as macroeconomics variables.

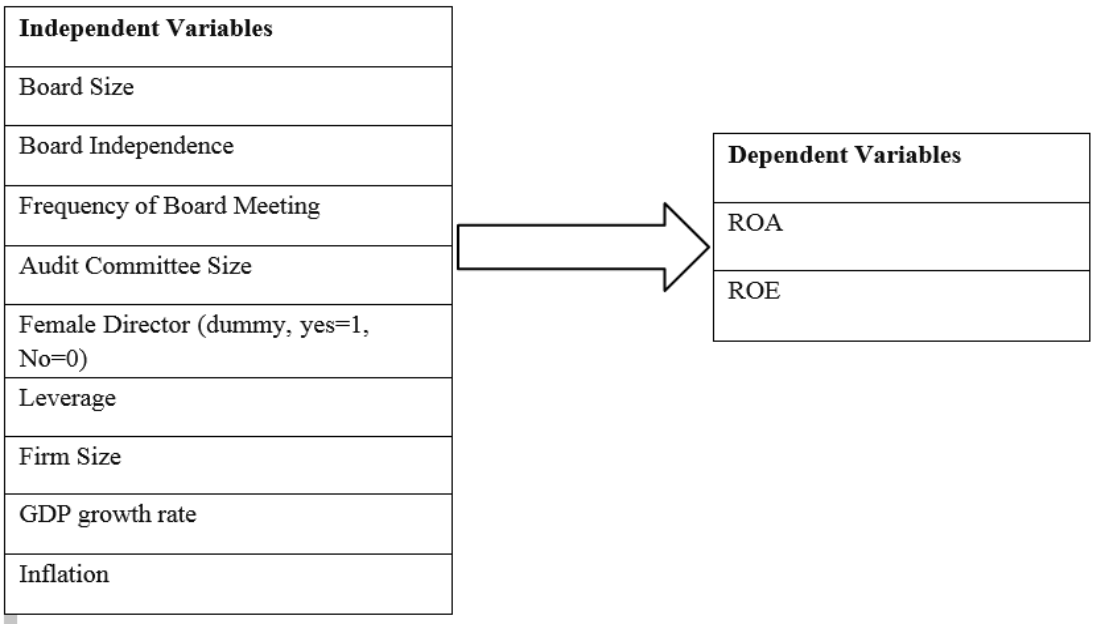

Figure 1: Conceptual Framework

3. Research Methodology

3.1 Research Design

This research is designed in a way to establish causal relationship between the dependent and independent variable. It is quantitative research. All the data is taken from secondary source, i.e. Annual reports of A and B class Banks in Nepal. The population of thisresearch is all Commercial and National Level Development Banks. Panel data of 10 years isused to derive the relationship.

3.2 Population and Sample

From Population size the sample of this research taken is 26 commercial banks and 8 national level development banks (as of 2021 September). Thus, 26 commercial banks and 8 national level Development banks are considered to derive the finding of the research. The study has considered panel data to address the probable issues arising from dissimilarities in the efficiency of management, work culture, risk taking and innovation although banks are supervised using same parameters by NRB. Further, the Nepalese Banking system witnessed a breakthrough in the last decade such as implementation of merger bylaws, shift from BASEL II to BASEL III, increment in the capital base, adoption of risk-based supervision from compliance-based supervision etc. In this context, this study has considered a periodfrom 2011 to 2020. The secondary data source consists of all the quantitative information about the Banks available to the public.

3.3 Research Methods

To analyze the Corporate Governance and impact on their performance, secondary data is used. In addition to that, the study adopts balanced panel data. Panel data benefits the study by allowing researchers to control unobserved heterogeneity and providing sufficient data to reduce biasness is the parameter estimators as they have both cross sectional and time series dimensions.

This study applied pool OLS,Fixed-Effect and Random-Effect models to test the various hypotheses. The Fixed-Effect and Random Effect models allow the researchers to examine variations among cross-sectional units simultaneously with variations within individual units over time. It assumes that regression parameters do not change over time and do not differ between variouscross-sectional units, enhancing the reliability of the coefficient estimates. The dependent variable is financial performance, independent variables are Board Size, Board Independence,Frequency of Board Meeting, Audit Committee, Female Director in the Board, while control variables are Leverage and Firm Size and Macroeconomic variables are GDP and Inflation.

3.4 Variables

The variables of the study can be divided into dependent and independent variables. Return on Assets (ROA) and Return on Equity (ROE) are taken as dependent variables. For independent variables Board Size, Board Independence, Frequency of Board Meeting, Audit Committee, Female Director in the Board, while control variables are Leverage and Firm Sizeand Macroeconomic variables are GDP and Inflation.

Particulars	Variables	Description or Measurement
ROA	Dependent	Return on Assets
ROE	Dependent	Return on Equity
Board Size	Independent	Total no of directors in Board
Board Independence	Independent	Total no of independent directors in Board
Frequency of Board Meeting	Independent	No of Meeting held in year
Audit Committee	Independent	Total members of an audit committee
Female Director	Independent	Dummy (if yes=1, No=0)
Leverage	Control	Total Liabilities/Total Assets
Firm Size	Control	Total Assets
GDP	Macroeconomics	Gross Domestic Product
Inf	Macroeconomics	Inflation Rate

Figure 2

ROA: ROA is a useful statistic for computing profitability for banks having similar profiles as it avoids distortions that are introduced by distortions in Financial Leverage. It shows effectiveness of management in utilization of resources. It gives a sign of capital strength for a Bank and Financial Institution [39]. The ROA was thought to be a better measure of the banks' performance in each period, giving an idea ofhow efficient existing management is in using its assets to generate its current earnings. This ratio measures how efficiently the company can manage its assets to generate the profit duringthe year. It tells the operating efficiency of the business.

ROE: Return on Equity represents the rate of return generated by the owner's equity employed in the business. Though stockholders of banks prefer higher equity, higher equity comes with higher risk [40]. Also,a huge drop in equity might cause violation of capital requirement and lead to the risk of insolvency.

Board Size: Board size is a member of board committee or board director. The board size is the number of board members of A and B class Banks. This study will examine the effect of the size of the board in the performance of the A and B class Banks. The authors in [41] noted that the board size has a negative impact on the firm's performance. The boardof directors can be described in terms of size, structure, tenure and voting mechanisms. On the hand people are hardwired for horse trading; hence it is easier to reach common ground when fewer people are involved in decision making [42]. The authors in [43] found out that smaller board size is associated with more success of the firms. However, author in [44] found a negative relationship between boardsize and firm performance.

Board Independence: Board independence refers to the percentage of the total number of independent non-executive directors to the total number of directors [45]. The authors in [46] found a negative relationship between board independence and firmperformance. The authors in [47] found that there is no relationship between board composition and firm performance. According to author in [48], independent directors can bring independence into the board and add to diversity of skills and expertise of the directors. Independent directors can alleviate agency problems and curb managerial self-interest [49].

Frequency of Board Meeting

Frequency of Board Meetings refers to the total number of meetings held in a particularfiscal year of a particular bank. The authors in [50] found that frequent board meetings result in good management and supervision quality and therefore positively influences the economic performance of firms. The authors in [51] stated that board meetings can help managers understand the problems of their firms and produce quick solutions to solve emerging problems. In contrast, authors in [52] documented a negative correlation between ROA and the frequency of holding regular meetings by a board.

Firm Size: The firm size is a natural logarithm of total assets of the Banks and Financial Institution.According to author in [53] the size of company is considered in this study as control variablesto have a relationship with other factors. Optimum firm size is dependent on a variety of internal and external factors. Growing a company is like blowing up a balloon. Your first viewbreaths, though difficult, produce immediate results. Subsequent breaths expand the balloon proportionally until it nears capacity. On average, larger companies have better performance as they can diversify their risk. Furthermore, a larger company has a larger market share and market power in respect of customers and investment volume. Firm size is likely to have a positive impact on corporate governance mechanisms because of scale differences in costs of compliance, operations, market regulations, and agency problems [54].

Leverage (LEV): Leverage is calculated as the ratio of total debt to total assets. On the one hand, debt plays a crucial role in reducing the agency costs of free cash flows by preventing investments in non-positive net present value (NPV) projects and can thus be considered as a corporate governance mechanism. On the other hand, debt may increase the likelihood of bankruptcy andcredit risks, which may deprive a firm from investing in profitable investment opportunities (Jensen, 1986). Leverage is the ratio of long-term debt to total debt of a firm. Though the capital structure of a firm does not much affect its market value (Modigliani-Miller framework), yet, if agency cost of the firm reduces because of higher levels of debt, then capital structure will have a significant relationship with firm performance [55]. Therefore, leverage has been taken as a control variable in our study.

Audit Committee: Audit committee is viewed as an important element of corporate governance because independent directors of the audit committee can, through various monitoring processes, keepin check the faulty conduct of managers. The author in [56] argued that independence of the audit committee was an important part of audit committee effectiveness. An independent audit committee may help in ensuring the reliability of the financial reporting process by keeping a check on manipulative, self-centered activities of managers. Governance codes all over the world require firms to set up audit committees and ensure their independence.

Firms that have more independent members in their audit committees have a lesser probability of becoming victims of fraud [57]. The authors in [58] suggested that earnings management was toned-down by independent audit committees. The authors in [59] also found an inverse relationship between audit committee independence and earnings management. The author in [60] examined relationship between corporate governance andfinancial performance of Nepalese commercial banks and revealed that audit committee has positive effect on financial performance of commercial banks in Nepal.

Female Director: The authors in [61] investigated the relationship between females on board andtheir impact on corporate governance and firm performance in US firms. They found a femalewith more attendance records and the female part of monitoring committees. However, they found an adverse effect of board gender diversity on firm performance with companies with weak governance measured by takeover defenses. The authors in [62] examined the effect of board diversity measured by several womendirectors and the number of ethnic minority directors on firm performance. They do not find any significant relationship between board diversity and firm performance in US corporations. Another important study in the Anglo-American context is done by author in [63]. They took fortune 1000 firms and investigated the impact of diversity on the firm value. The results suggested that the percentage of women on board and ethnic diversity have a positive and significant effect on firm performance.

The authors in [64] explored the relationship between women directors and firm performance in China by keeping in view the critical mass theory. They found a positive and significant effect of the female executive on firm performance as compared to the non- executive female director on board. Also, a board with three or more female directors had a more pronounced effect on firm performance as compared to the firms with two or less than two female board members.

GDP: GDP must have positive contribution in whole economy, banking performance and riskreduction as with increase in GDP bank's level of business rises leading to more earnings. The authors in [65] confirm that there is an association between economic growth and performance of financial sector. The authors in [66] studied performance of five largest banks in United States. They proved that GDP did not directly affect the profit levelof the U.S banking sector. The author in [67] used GMM and pooled OLS estimation approach to study US banks. The result of both regression models indicates no considerable relationship.

Inflation: Inflation as a macroeconomic variable is important to control banking fragility. Inflation is found to have a negative significant impact on ROA [68]. The authors in [69] also identified that inflation has a strong impact on Bank's profitability.

3.5 Model Specification

Panel data regression was employed in the study. The panel data regression test is divided into three names: pool OLS, fixed effect model, random effect model and Hausman test to justify the best and appropriate model to be adopted. The Fixed-Effect and Random Effect models allow the researchers to examine variations among cross-sectional units simultaneously with variations within individual units over time [70]. It assumes that regression

parameters do not change over time and do not differ between variouscross-sectional units, enhancing the reliability of the coefficient estimates.

The performance proxies are used as Return on Assets (ROA) and Return on Equity (ROE). Corporate Governance is measured using Board Size (BS), Board Independence (BI), Frequency of Board Meeting (BM), Audit Committee Size (AC) and Female Director (dummyif yes=1, No=0). Leverage (L) and Firm Size (FS) are considered as Control Variables. Gross Domestic Product (GDP) and Inflation Rates (IR) are considered as macroeconomics variables.

Financial Performance = *f* (board size, board independence, frequency of board meetings, AuditCommittee, Female Director, Leverage, Firm Size, Gross Domestic Product, Inflation Rates)

$Yit = \beta o + \beta 1BOS + \beta 2BODIND + \beta 3FRBM + \beta 4AC + \beta 5FD + e_t$

$Yit = \beta o + \beta 1BOS + \beta 2BODIND + \beta 3FRBM + \beta 4AC + \beta 5FD + \beta 6LE + \beta 7FS + e_t$

$Yit = \beta o + \beta 1BOS + \beta 2BODIND + \beta 3FRBM + \beta 4AC + \beta 5FD + \beta 6LE + \beta 7FS + \beta 8GDP + \beta 9INF + e_t$

Where:

e_t,, the error term which account for other possible factors that could influence

Yit represents firm performance variables which are: Return on Assets and Return on Equityfor A and B Class Banks at time t.

Since different financial performance proxies were employed, the above modelwas therefore modified as below to determine the relationship between firm performance and Corporate Governance of A and B class Banks in Nepal.

$ROAit = \beta o + \beta 1BOS + \beta 2BODIND + \beta 3FRBM + \beta 4AC + \beta 5FD + \beta 6LE + \beta 7FS + \beta 8GDP + \beta 9INF + e_t$

$ROEit = \beta o + \beta 1BOS + \beta 2BODIND + \beta 3FRBM + \beta 4AC + \beta 5FD + \beta 6LE + \beta 7FS + \beta 8GDP + \beta 9INF + e_t$

Where: ROA and ROE represent firm performance variables which are: Return on assets andReturn on equity for A and B class Banks at time t.

Model 1= ROA (Return on Assets)

Model 2= ROE (Return on Equity)

3.6 Hypothesis

H0: There is no significant impact of corporate governance on financial performance of A andB class Banks in Nepal.

H1: There is significant impact of corporate governance on financial performance of A and Bclass Banks in Nepal.

4. Empirical Results and Discussion

Variable	Obs	Mean	Std. Dev.	Min	Max
Bank	340	17.5	9.825168	1	34
Year	340	2015.5	2.876515	2011	2020
ROA	340	1.474294	.8163194	-3.43	4.01
ROE	340	15.22494	6.656155	-9.08	36.23
BOS	340	7.1	1.20789	4	11
BODIND	340	.3029412	.4602073	0	1
FRBM	340	19.05882	5.152776	11	39
AC	340	3.367647	.6358144	2	6
FD	340	.4617647	.4992707	0	1
LE	340	85.48548	5.789562	62	94.62379
lnFS	340	24.44789	.974144	21.41907	26.30965
GDP	340	4.297446	3.145646	-2.088379	8.977279
INF	340	7.105977	2.165058	3.627096	9.45981

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Figure 3

4.1 Descriptive Statistics

The above result shows the descriptive statistics comprises observation, minimum, maximum, mean and standard deviation of the sampled 34 firms from 2011 to 2020 for 10 years. Board size refers to the number of board members, Board Independence refers to number of independent directors in the board. Frequency of Board Meeting refers to the number of board meetings held in a year. Audit committee refers to the number of audit personnel in the committee.Female director refers to number of females in the board; taken as dummy if (yes=1, No=0). Leverage refers to the total debt scaled by total assets. Firm size refers to the total assets as logof TA. ROA refers to the net income scaled by total assets; ROE refers to the net income scaled by total equity.

The above result shows the descriptive statistics of both Commercial and Development Banks. There are 340 observations in each variable showing that the data is highly balanced. The mean ROA for banks is 1.47% with a standard deviation of 0.8163194. The mean ROE is 15.22% with mean SDROE of 6.656155. The mean Board Size is 7.1 with Standard deviation of 1.20789. It shows that the average board size of Nepalese firms is approximately 7 members (mean = 7.1).

The mean frequency of Board Meeting in a year is 19.05 with Standard deviation of 5.152776. It shows that the average board meeting held in a year of Nepalese firms is approximately 19 (mean = 19.05). The mean Board Independence, Audit Committee, Female Director in Board, Leverage and Firm Size are 0.302, 3.367, 0.461, 85.48% and 24.44 with average GDP of 4.29% and average inflation of 7.10%. The GDP and Inflation, being macroeconomic indicators of an economy, are same for commercial as well as development banks. Female Director is a dummy variable taking the value of 1 if there is presence of female in the board and 0 if there is no presence.

4.2 Pearson's correlation Matrix

	ROA	ROE	BOS	BODIND	FRBM	AC	FD
ROA	1.0000						
ROE	0.4073*	1.0000					
BOS	-0.0368	0.0353	1.0000				
BODIND	0.1274*	0.0035	0.0356	1.0000			
FRBM	-0.1141*	0.0445	0.2526*	0.1417*	1.0000		
AC	0.1661*	0.0373	0.0519	0.1223*	0.0285	1.0000	
FD	0.1895*	0.0094	-0.1110*	0.4036*	0.0582	0.0584	1.0000
LE	-0.0217	0.2677*	0.0929	0.0590	0.1268*	0.2529*	0.0416
lnFS	0.3541*	0.1293*	0.1874*	0.3718*	0.1399*	0.3894*	0.3600*
GDP	0.0530	0.0296	-0.0480	-0.0451	-0.0248	-0.0285	-0.0106
INF	-0.1985*	-0.0663	0.1431*	-0.4634*	-0.1261*	-0.0747	-0.4973*

	LE	lnFS	GDP	INF
LE	1.0000			
lnFS	0.2928*	1.0000		
GDP	-0.0143	-0.0054	1.0000	
INF	-0.0454	-0.4865*	-0.3613*	1.0000

Figure 4

The correlation between corporate governance and firm performance is explained in this section and presented above. The correlation coefficients reveal the degree of relationship between firm performance and variables affecting firm performance of the sample firms. The value of correlation coefficient ranges from +1 to -1. The above result shows the correlation between different variables taken for the study.ROA and ROE are positively correlated at 5% significance level with a coefficient of 0.4073. There is a positive correlation between BODIND, AC, FD and FS with ROA having coefficient of 0.1274, 0.1661, 0.1895, and 0. 3541.There is Negative correlation between FRBM, INF withROA having coefficient of -0.1141, -0.1985. There is also a positive correlation between LE, FSwith ROE having coefficient of 0.2677, 0.1293. There is a positive correlation between FRBM,FS, INF with BOS having coefficient of 0.2526, 0.1874, 0.1431 and negative correlation between FD and ROE having coefficient of –0.1110. FRBM, AC, FD, FS are positively correlated with BODIND having coefficient of 0.1417, 0.1223, 0.4036, 0.3718 and negativelycorrelated with INF having coefficient of -0.4634. LE, FS are positively correlated with FRBM having coefficient of 0.1268, 0.1399 and INF is negatively correlated with coefficient of -0.1261. FS is positive and INF is negative.

Correlated with FD having coefficients of 0.3600 and -0.4973. FS is positively correlated with LE and INF is negatively correlated with FS with coefficient of 0.2928 and -0.4865. INF is negatively correlated with GDP with

coefficient of -0.3613. Another important way of examining the explanatory variables is to test for potential multicollinearity which is tested by producing a correlation matrix [71]. The higher thelinear relation, the higher would be the chances of misinterpretation among independent variables.It is apparent that none of the variables have been observed high correlation more than 0.8 is considered as the problem of multicollinearity. The correlation coefficients are generally low except with some variables. The highest correlation has been observed to be - 0.4973 between leverage and Female Director. Thus, all the variables included in this study canbe incorporated into the further regression analysis.

vif

Variable	VIF	1/VIF
INF	2.39	0.417942
lnFS	1.91	0.524388
FD	1.47	0.678009
BODIND	1.45	0.691186
GDP	1.33	0.751913
BOS	1.24	0.808356
AC	1.21	0.823284
FRBM	1.12	0.896266
LE	1.11	0.898488
Mean VIF	1.47	

Figure 5

After Pool Regression Multicollinearity test has been conducted to check the existence among independent variables. Multicollinearity is a phenomenon where another correlated variable influences one predictor variable in multiple regression. This increases the standard errors of the coefficient by making some variables statistically insignificant when they shouldbe significant [72]. The most common method of measuring the multicollinearity is variance inflation factor (VIF) which quantifies the severity of multicollinearity in the estimated regression and provides an estimate of how much variance has increased because of collinearity. A VIF of 10 or more indicates the existence of multicollinearity among the independent variables, and it needs to be addressed [73]. However, while compiling VIF, the data in Table 4, it was found that all the variables are less than 2.4. Overall, the matrix indicates that multicollinearity is not an issue. Therefore,we can conclude that our regression model has no multi-collinearity.

4.3 Regression Result (Fixed & Random Effect)

4.3.1 Pooled OLS Regression Model

In the pooled OLS regression model, the study pulled all the 340 observations and ranthe regression for the two models, neglecting the cross section and time series nature of data. The result of the pooled OLS regression model is presented in Table 1 and Table 2

Table 1: Pooled Regression ROA

Model 1 (Dependent Variable= ROA) Period (2011-2020)				
Variable	Coefficient	Std. Error	t-statistic	Prob.
BOS	-0.0423903	0.0374766	-1.13	0.259
BODIND	-0.0087422	0.1065706	-0.08	0.935
FRBM	-0.0215182	0.0083738	-2.57	0.011
AC	0.0664599	0.0713557	0.93	0.352
FD	0.1193828	0.0992796	1.2	0.230
LE	-0.0181066	0.0075336	-2.4	0.017
lnFS	0.3343094	0.0584646	5.72	0.000
GDP	0.0167132	0.01493	1.12	0.264
INF	0.0161157	0.0291828	0.55	0.581
_cons	-4.902561	1.398145	-3.51	0.001
R-squared			0.1786	
Adj R-squared			0.1562	
Prob(F-Statistics)			0.0000	

Table 2: Pooled Regression ROE

Model 2 (Dependent Variable= ROE) Period (2011-2020)				
Variable	Coefficient	Std. Error	t-statistic	Prob.
BOS	0.330477	0.3231698	0.10	0.919
BODIND	-0.6635204	0.9189845	-0.72	0.471
FRBM	0.0033361	0.722097	0.05	0.963
AC	-5681823	0.6153178	-0.92	0.356
FD	-0.4645545	0.8561124	-0.54	0.588
LE	0.299582	0.649642	4.61	0.000
lnFS	0.5047808	0.5041547	1.00	0.317
GDP	0.189434	0.1287446	0.15	0.883
INF	-0.179703	0.2516506	-0.71	0.476
_cons	-19.4995	12.05655	-1.62	0.107
R-squared			0.0813	
Adj R-squared			0.0562	
Prob(F-Statistics)			0.0009	

ROA= -4.9025- 0.0423*BOS- 0.0087*BODIND- 0.0215*FRBM+ 0.0664*AC+ 0.1193*FD- 0.0181*LE+ 0.3343*lnFS+ 0.0167*GDP+ 0.0161*INF

ROE=-19.4995+ 0.0330*BOS- 0.6635*BODIND+0.0033*FRBM-0.5681*AC- 0.4645*FD+ 0.2995*LE+

0.5047*lnFS+ 0.0189*GDP- 0.1797*INF

The results of the pooled OLS regression models for the two periods are shown in Table1 and 2 where all the variables, except leverage, firm size and frequency of board meeting depict an insignificant result in model 1 and all the variables except leverage depicts an insignificant result in model 2. After conducting pooled regression, the results have shown that the Adjusted R-squarevalue is 0.9239. All the coefficients are significant as well. But these results are not meaningfulfor the panel data, as it does not consider the cross sectional and time effect.

4.4 Fixed Effect Model

The fixed effect model allows for heterogeneity or individuality among the five firms by allowing having its own intercept value. The term fixed effect is because intercept may differ across firms, but intercept does not vary over time, that is, it is time invariant. The result of the fixed effect model is presented in Table 7 (ROA) and Table 8 (ROE).

Table 3: Fixed Effect Model 1: ROA

Model 1 (Dependent Variable= ROA) Period (2011-2020)				
Variable	Coefficient	Std. Error	t-statistic	Prob.
BOS	-0.0404167	0.0456987	-0.88	0.377
BODIND	0.0619947	0.1109955	0.56	0.577
FRBM	0.0075553	0.0148489	0.51	0.611
AC	-0.1549035	0.1143464	-1.35	0.177
FD	-0.0666626	0.1079746	-0.62	0.537
LE	-0.0010434	0.113056	-0.09	0.927
lnFS	0.3017172	0.1097786	2.75	0.006
GDP	0.0127821	0.0144229	0.89	0.376
INF	0.0016665	0.341711	-0.05	0.961
_cons	-5.179318	2.766638	-1.87	0.062
R-sq:				
Within			0.0959	
between			0.0969	
Overall			0.0952	
Prob(F-Statistics)			0.0004	

Table 4: Fixed Effect Model 2: ROE

Model 2 (Dependent Variable= ROE) Period (2011-2020)				
Variable	Coefficient	Std. Error	t-statistic	Prob.
BOS	0.1945853	0.3885577	0.50	0.617
BODIND	-0.7097058	0.9437514	-0.75	0.453
FRBM	0.3617074	0.1262544	2.86	0.004
AC	-0.2108966	0.9722422	-0.22	0.828
FD	-1.578188	0.9180656	-1.72	0.087
LE	0.1191986	0.0961272	1.24	0.216
lnFS	3.634952	0.9334042	3.89	0.000
GDP	0.2207037	0.1226323	1.80	0.073
INF	0.5597231	0.2905433	1.93	0.055
_cons	-95.37885	23.52364	-4.05	0.000
R-sq:				
Within			0.1182	
between			0.0029	
Overall			0.0275	
Prob(F-Statistics)			0.0000	

ROA= -5.1793+ 0.0404*BOS+ 0.0619*BODIND+ 0.0075*FRBM- 0.1549*AC- 0.0666*FD- 0.0010*LE+ 0.3017*lnFS+ 0.0127*GDP- 0.0016*INF

ROE= -95.3788+ 0.1945*BOS- 0.7097*BODIND+ 0.3617*FRBM- 0.2108*AC- 1.5781*FD+ 0.1191*LE+ 3.6349*lnFS+ 0.2207*GDP- 0.5597*INF

Presented in Table 3 and Table 4 are the fixed effect regression models for the two models under consideration. Both the model Prob > F is significant, and it can be seen in the estimated models that all the variables depict conflicting coefficients in the two models. In another word, the result of the model 1 except firm size all the variables are insignificant. For model 2 except frequency of board meeting and firm size all the variables are insignificant as per fixed effect Model.

4.5 Random Effect Model

The random effect model assumed that all the 34 firms have a common mean value forthe intercept. The result of the random effect model is presented in Table 5 and Table 6.

Table 5: Random Effect Model 1: ROA

Model 1 (Dependent Variable= ROA) Period (2011-2020)				
Variable	Coefficient	Std. Error	t-statistic	Prob.
BOS	-0.0462456	0.0410533	-1.13	0.26
BODIND	0.0411721	0.1062604	0.39	0.698
FRBM	-0.010796	0.0109955	-1.01	0.314
AC	-0.0392707	0.0902646	-0.44	0.664
FD	-0.0058748	0.0115296	-0.06	0.954
LE	-0.0095521	0.0092909	-1.03	0.304
lnFS	0.34056	0.0777477	4.38	0.000
GDP	0.0151329	0.0138159	1.10	0.273
INF	0.0093656	0.0297866	0.31	0.753
_cons	-5.504702	1.904355	-2.89	0.004
R-sq:				
Within			0.0855	
between			0.3042	
Overall			0.1624	
Prob(F-Statistics)			0.0000	

Table 6: Random Effect Model 2: ROE

Model 2 (Dependent Variable= ROE) Period (2011-2020)				
Variable	Coefficient	Std. Error	t-statistic	Prob.
BOS	-0.0060071	0.3535463	-0.02	0.986
BODIND	-0.5996596	0.9177252	-0.65	0.513
FRBM	0.1684538	0.0940252	1.79	0.073
AC	-0.4858081	0.7733451	-0.63	0.530
FD	-1.083321	0.876205	-1.24	0.216
LE	0.2030722	0.796955	2.55	0.011
lnFS	1.684483	0.6642457	2.54	0.011
GDP	0.0925959	0.1194604	0.78	0.438
INF	0.0952897	0.256682	0.37	0.710
_cons	-45.24184	16.25333	-2.78	0.005
R-sq:				
Within			0.097	
between			0.0442	
Overall			0.0556	
Prob(F-Statistics)			0.0021	

ROA= -5.5047- 0.0462*BOS+ 0.0411*BODIND- 0.0110*FRBM- 0.0392*AC- 0.0058*FD- 0.0095*LE+ 0.3405*lnFS+ 0.0151*GDP+ 0.0093*INF

ROE= -45.2418- 0.0060*BOS- 0.5996*BODIND+ 0.1684*FRBM- 0.4858*AC- 1.0833*FD+ 0.2030*LE+ 1.6844*lnFS+ 0.0925*GDP- 0.0952*INF

Presented in Table 5 and Table 6 are the Random effect regression for the two modelsunder consideration. Both the model Prob > F is significant, and it can be seen in the estimatedmodels that all the variables depict conflicting coefficients in the two models. In another word,the result of the model 1 except firm size all the variables are insignificant. For model 2 exceptfirm size and female director all the variables are insignificant as per Random effect Model.

4.6 Hausman Test

After running fixed effect and random effect regression, both the models have shown significant results. But the estimates are saved in memory to conduct the **Hausman test** and determine the better model among the two. To ascertaining the appropriateness of either of these estimated models, the study employed this test to know which of the models to accept for analytical and policy implication purpose in each of the periods under consideration;this is the model that was analyzed in explaining the disparity or not between the two models**.**Having estimated the two methods above, the study decided on the best model to accept.

4.7 Hypothesis

H0: Random effect model is appropriate.

H1: Fixed effect model is appropriate.

NB: If the probability value is statistically significant, the study shall use fixed effect mode,otherwise, random effect model.

Table 7: Result of Hausman Test

Extract from Hausman Test Results				
	ROA (2011-2020)		**ROE (2011-2020)**	
Test Summary	Chi-sq.statistic	Prob.	Chi-sq.statistic	Prob.
Cross-section (Fixed & Random)	11.19	**0.1305**	22.67	**0.0019**

Deriving the Chi-square values of the cross-section random in Table 7, the probability values of the chi-square statistics are 0.1305 and 0.0019 for the model one (ROA) and two (ROE) respectively, the vales for model one i.e. ROA Prob. value is greater than 0.05 which means that alternative hypothesis is accepted for model 1 which is Fixed Effect Model and thevalue for model two i.e. ROE; Prob. value is less than 0.05 which means we cannot reject nullhypothesis So, Random Effect Model is Appropriate for Model 2.

4.8 Result and Analysis

4.8.1 Random Effect Model Accepted for Model 1: ROA

Table 8: Result Random Effect for Model 1: ROA

Model 1 (Dependent Variable= ROA) Period (2011-2020)				
Variable	Coefficient	Rob. Std. Error	z-statistic	Prob.
BOS	-0.0462456	0.0612965	-0.75	0.451
BODIND	0.0411721	0.1173297	0.35	0.726
FRBM	-0.010796	0.009353	-1.18	0.236
AC	-0.0392707	0.0841988	-0.47	0.641
FD	-0.0058748	0.1306074	-0.04	0.964
LE	-0.0095521	0.0122606	-0.78	0.436
lnFS	0.34056	0.0889854	3.83	0.000
GDP	0.0151329	0.0100418	1.51	0.132
INF	0.0093656	0.0417361	0.22	0.822
_cons	-5.504702	1.804201	-3.05	0.002
R-sq:				
Within			0.0855	
between			0.3042	
Overall			0.1624	
Prob(F-Statistics)			0.0000	

ROA= -5.5047- 0.0462*BOS+ 0.0411*BODIND- 0.0110*FRBM- 0.0392*AC- 0.0058*FD- 0.0095*LE+ 0.3405*lnFS+ 0.0151*GDP+ 0.0093*INF

The result derived from the random effect has been tested for first order autocorrelationand heteroscedasticity as mentioned in annexure IX and X. Robust regression has been appliedto solve the problem and the result is mentioned in table 8.

In the random effect model, the difference across units are assumed to be uncorrelatedwith the repressors. Looking at the Prob > chi2 value which is 0.000 is less than 0.05, thus wecan say that this random effect model is significant.

4.8.1.1 R-square (overall, within and between)

The overall R-square of the data is 0.1624 which indicates that on average, 16.24% of the variance in the dependent variable- ROA can be explained by all nine independent variables**:** Board Size, Board Independence, Frequency of board meeting, Audit committee, Female Director, Leverage, Firm Size, GDP and Inflation. Also, the R-square within value is 0.0855 which indicates that 8.55% of the variation in the ROA within Banks is explained by Board Size, Board Independence, Frequency of board meeting, Audit committee, Female Director, Leverage, Firm Size, GDP and Inflation over time. The R-square between values is 0.3042 which means that 30.42% variation in Return on Assets between Banks is explained by BoardSize, Board Independence, Frequency of board meeting, Audit committee, Female Director, Leverage, Firm Size, GDP and Inflation.

Analyzing the estimated random effect in model 1 as shown in Table 8, it is evident that all the explanatory variables Board Size, Board Independence, frequency of BoardMeeting, Audit committee, Female Director are insignificant. The control Variable Firm Size is positively significant with coefficient of 0.34056. It explains that 1 unit rise in Firm Size raises ROA by 0.3405 units. The control variable Leverage and Macro Economic Variable (GDP, Inflation) are also insignificant with Firm Performance measured by ROA. The Insignificant result of all independent variables shows that corporate governance has no impacton performance (measured by ROA) of A and B class banks in Nepalese context.

4.8.2 Fixed Effect Model Accepted for Model 2: ROE

Table 9: Result Fixed Effect for Model 2: ROE

Model 2 (Dependent Variable= ROE) Period (2011-2020)				
Variable	Coefficient	Rob. Std. Error	t-statistic	Prob.
BOS	0.1945853	0.5451348	0.36	0.723
BODIND	-0.7097058	0.9391865	-0.76	0.455
FRBM	0.3617074	0.1807132	2	0.054
AC	-0.2108966	1.263319	-0.17	0.868
FD	-1.578188	1.361925	-1.16	0.255
LE	0.1191986	0.1552147	0.77	0.448
lnFS	3.634952	1.121408	3.24	0.003
GDP	0.2207037	0.0987573	2.23	0.032
INF	0.5597231	0.4461094	1.25	0.218
_cons	-95.37885	27.40221	-3.48	0.001
R-sq:				
Within			0.1182	
between			0.0029	
Overall			0.0275	
Prob(F-Statistics)			0.0006	

ROE= -95.3788+ 0.1945*BOS- 0.7097*BODIND+ 0.3617*FRBM- 0.2108*AC- 1.5781*FD+ 0.1191*LE+ 3.6349*lnFS+ 0.2207*GDP- 0.5597*INF

The result derived from the fixed effect has been tested for first order autocorrelation and heteroscedasticity as mentioned in annexure XII and XIII. Robust regression has been applied to solve the problem and the result is mentioned in table 9.

4.8.2.1 R-square (overall, within and between)

11.22% variation in ROE within Banks is explained by Board Size, Board Independence, frequency of board meeting, Audit committee, Female Director, Leverage, FirmSize, GDP and Inflation. 0.29% variation in ROE between Banks is explained by Board Size, Board Independence, frequency of board meeting, Audit committee, Female Director, Leverage, Firm Size, GDP and Inflation. Overall, 2.75% variation in ROE between Banks is explained by Board Size, Board Independence, frequency of board meeting, Audit committee,Female Director, Leverage, Firm Size, GDP and Inflation.

Analyzing the estimated fixed effect in model 2 as shown in Table 9, it is evident that all the explanatory variables Board Size, Board Independence, frequency of Board Meeting, Audit committee, Female Director are insignificant. The control Variable Firm Size is positively significant with coefficient of 3.634952. It explains that1 unit rise in

Firm Size raisesROA by 3.6349 units. The control variable Leverage and macro-economic Variable Inflation are also insignificant with Firm Performance measured by ROE. The macro-economic variable GDP is positively significant with coefficient of 0.220703. It explains that 1 unit rise in GDP raises ROE by 0.2207 units. The Insignificant result of all independent variables shows that corporate governance has no impact on performance (measured by ROE) of A and B class banks in Nepalese context.

5. Discussions, Conclusion & Implications

5.1 Discussion

The study establishes a relationship between corporate governance and performance ofA and B class Banks in Nepal. As per the Insignificant result of (ROA, ROE) which is Proxy of Performance and all explanatory variables which is proxy of Corporate Governance, alternate hypothesis can't be accepted which states that there is significant impact of corporategovernance on financial performance of A and B class Banks in Nepal. This means that null hypothesis is accepted and implies that there is no significant impact of corporate governance on financial performance of A and B class Banks in Nepal.

The Pooled Ordinary Least Square (OLS) regression estimation technique was adoptedin carrying out the analysis of the study. There are 34 firms (cross sections) and there are 8 variables in each model such as return on asset (ROA), Board size (BOS), Board independence (BOIND), Frequency of Board Meeting (FRBM), Audit Committee (AC), Female Director (FD), Gross Domestic Product (GDP) and Inflation rate (INF) for **model 1** and Return on equity (ROE), Board size (BOS), Board independence (BOIND), Frequency of Board Meeting (FRBM), Audit Committee (AC), Female Director (FD), Gross Domestic Product (GDP) and Inflation rate (INF) for model 2. Hence, the study analyzed the relationship between return on asset and return on equity (ROA and ROE the dependent variables) and 7 explanatory variables for model one and two respectively.

Based on previous studies, some researchers indicated that there is positive relationship between board size and firm performance [74]. The author in [75] found that there is a positive but weak relationship between board size and firm performance. On the other hand, some researchers argued that there is negative relationship between these two variables [76].

The above finding contradicts the study of author in [77] tested whether board size had any impact on the performance, which was measured by ROA and ROE. Data was collected from top 100 publicly listed companies in Bursa Malaysia. The results indicated that board sizewas insignificant suggesting no influence on the ROE, and it had a weak negative relationshipwith the ROA.Similarly, authors in [78] research was based on a sample of 16 government-linked companies listed on Bursa Malaysia for the period of 2007 to 2012. Their results showed an insignificant relationship between board size and firm performance. This study also shows that Board Size does not have significant relationship between Board Size and (ROA, ROE) confirms the findings of the research of authors in [77,78] . However, contradict with authors in [77] that shows negative relationship with ROA. The other finding indicated that there was no relationship between board independence and firm performance and this study confirms the finding of authors in [77] regarding board independence.

The authors in [79] computed governance scores for 2,327 individual firms registered in Institutional Shareholder Services (ISS) as of February 1, 2003. They reporteda negative relationship between the independence of directors and ROE, profit margin,dividend yield and stock repurchase. They realized that firms would be better off if they weremonitored by executive directors who engaged in actual management activities. This is also confirmed by (Salim and his colleagues, 2016) who found an insignificant relationship between the independencyof the board's directors and the performance of the Australian banks, which supports the stewardship theory. This study confirms the finding of author in [80] but contradict with author in [79].

The author in [80] studied the relationship between the annual number of board meetings and the efficiency of Australian banks for the period of 1999 and 2013 by conducting Data Envelop Analysis (DEA). The study found that firms with more frequent committee meetings performed better than their counterparts. This study contradicts the findings.

The authors in [81] used ROE and ROA to measure firm performance. The authors used linear regression analysis, and according to their results, firm size was significantly and negatively related to firm performance measured by ROE, but positively andsignificantly related to ROA. This research confirms the finding of Cahaya and Riwayati (2016) with ROA however, the relationship with ROE is positive and significant.

The author in [82] the impact of financial leverage on firm performance: the case of non- financial firms in Kenya. The study analyzed the data from the three models using random effect model after the Hausman test results preferred the random effect model while Levin LinChu test results for unit roots indicated that the data was stationary. The results revealed that there is a significant negative relationship between leverage and return on assets. This study contradicts with the finding of Kale (2018). This study shows an insignificant relationship between ROA and ROE.

The authors in [83] investigated gender diversity in Chinese listed firms and authors in [84] used firms from 73 developing countries. Both studies report that female directors significantly affect firm performance in the developing markets, in which listed firms are less regulated. Bycontrast, other studies do not find evidence that females directly influence firm performance. The authors in [85] report a negative association between female directors and firm performance in the US. The author in [86] reports that there is no association between the presence of female directors on a board and firm performance for FTSE100 companies. This study confirms the findings of authors in [86] and contradicts with the findings of authors in [83].

This study shows an insignificant relationship between audit committee size and companyperformance. This result is in line with the research of authors in [87] who investigated the relationship between the size of audit committee and performance of the firm (ROA & ROE) in DSE in 2006 using a sample of 93 non-financial listed firms and the study revealed that there was no significant relationship between audit committee size and firm performance. This study confirms the findings.

The authors in [88] studied performance of five largest banks in United States. The result proved that GDP did not directly affect the profit level of U.S banking sector. The author in [89] used GMM and pooled OLS estimation

approach to study US banks. The result of both regression models indicates no considerable relationship. The author in [90] determined the macroeconomic indicators affecting the listed Jordanian banks. Result demonstrated negative impact of GDP and inflation with ROA and ROE. This study contradicts the findings of authors in [88,90]

5.2 Conclusion

The present study serves as a pointer to the corporate governance and firm performancerelationship for Nepalese Banking Industry. Results of the study show that the relationship between corporate governance and firm performance is insignificant which means that there isno relationship between corporate governance and firm performance from quantitative analysis.

The findings in this study have important implications for including into practice for corporate governance across developing countries in general and emerging countries in particular. Theoretically, it implies that good corporate governance practices lead to reduced agency costs. Hence, this implies that firms of the developing world can possibly enhance theirperformance by implementing good corporate governance practices. Previous Research in thisare shows that firm that comply with corporate governance practices can expect to achieve higher accounting and market performance. However, my study concludes that there is no relationship between Corporate Governance and Firm Performance. In Nepalese context corporategovernance quantitative factor such as Board Size, Frequency of board meeting, Presence of independent director in the board, Audit committee size, female directors in board doesn't shows the significant impact on Firm Performance as per this study of 26 commercial and 8 National Level Development bank in Nepal.This study finds the impact of several governance indicators and company performance indicators shows no relationship between corporate governance and firm performance from quantitative analysis. It explains that in Nepalese context the Board size, Frequency of board meeting, Presence of independent director in the board, Audit committee size, and female director efficiency might matters rather than numbers. The efficiency of board, theircomposition, board meeting efficiency, audit committee and female director efficiency might have impact on the firm performance measured by ROA and ROE, and this can be considered in future research studies.

5.3 Implications

The study shows that corporate governance is insignificant for continuous balancing offirm performance of A and B Class Banks in Nepal. The study also reveals that corporate governance in terms of Board Size, Frequency of board meeting, Presence of independent director in the board, Audit committee size, and female director doesn't serve as a good predictor for firm's Performance Measured by ROA and ROE. The qualitative aspects of board,their composition, board meeting efficiency, audit committee and female director efficiency might have impact on the firm performance measured by ROA and ROE, and this can be considered in future research studies.

5.4 Limitations of Study

The present study is subject to certain limitations. Firstly, the study does not consider variables like age of firm, growth of firm, efficiency of corporate governance indicators, capital intensity. Secondly, corporate governance is a broad issue, this study is focused solely on the banking industry. As a result, the findings of this study may not apply to all industries. Thirdly, only financial performance indicators ROA and ROE are studied out of the several

aspects in relations with corporate governance. The results of the study should be interpreted considering these limitations and future researchers should attempt to overcome them while doing further research in this area.

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