

# Corporate Board Size and Its Impact on Firm Performance: An Empirical Study on Commercial Banks

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## Abstract

*This study examines the corporate board size and its impact on the firm performance. This study identifies the banks with directors less than seven on the board and directors equal to or more than seven, based on eight years of data taken from 2013 to 2020 of Nepalese commercial banks. The study covers 27 banks as sample banks for the study. The Return on equity and Return on assets measures the firm performance. Corporate board size and firm performance are measured by using the Independent Sample t-test. The finding of results demonstrates that banks with less than seven directors on the board and banks with equal to or more than seven directors on the board have yet to find a significant impact on the firm performance of the commercial banks.*

**Keywords:** Board size, Firm performance, Return on equity, Return on assets.

## 1. Introduction

Corporate governance is the system of accountability among shareholders, the boards of directors, and the management of a corporate entity (Lusaka, 2005). Nowadays, it is also the major area of academic research in industrialized and developing countries around the world (Nazar, 2012). Thus, in today's business environment, there is more competition. It is now more important than ever to ensure that corporate governance successfully safeguards the interests of shareholders. The concept of corporate governance is how suppliers supply the money to the company and ensure that they will receive a return on investment. The word "corporate governance" mainly refers to protections that help small investors avoid being usurped by managers and powerful stockholders. (Shleifer & Vishny, 1996; La Porta et al., 1999). A substantial quantity of corporate governance literature covers the effectiveness of boards of directors.

The size of the board is an important aspect of corporate governance. According to the agency theory, lower board sizes may be associated with better corporate financial performance. Smaller board size is less difficult for coordination and communication issues. Additionally, due to the issue of the span of control, smaller boards are likely more successful at monitoring management's activities than larger boards because they are harder for the CEO to influence. As a result, smaller boards may result in greater financial performance for the company.

(Lipton & Lorsch, 1992; Jensen, 1993). While the resource-dependence approach is in favor of large boards, the agency theory places a major emphasis on the value of smaller boards. On the other side, the resource dependence theory proposed that larger boards with more directors are good at minimizing reliance on external resources because they may offer more opportunities for environmental links than smaller boards. (Pfeffer & Salancik, 1978)

Corporate board members play a vital role in the firm's corporate governance, and understanding this relationship is crucial to our understanding of corporate governance. (Guest, 2009). Advising and monitoring are the two main roles of directors (Raheja, 2005). The advising role entails giving the CEO knowledgeable advice. (Fama & Jensen, 1983). The board of directors' second role is to appoint the CEO. Chief Executive Officers and other top executives, assess their performance and make sure that management adheres to for shareholders' interests (Hermalin & Weisbach, 1998). If an executive's performance is below standard, they are replaced.

Most firms' performance indicators start with financial performance measures. (Bloxham, 2002), it is also an important part of evaluating the overall success of the company (Parker, 2000). ROA and ROE are better indicators of corporate financial performance (Stern et al., 2004). The banking sector of Nepal has very special and plays an essential role in the achievement of the continuous economic growth of the nation. It comprises licensed commercial banks, which dominate the financial system and account for the highest capital utilization in the financial system. Banks are offering payment services, making it easier for all companies to conduct their financial transactions. (Wilathgamuwa, 2018). This study aims to determine the relationship between the corporate board size and the performance of the banks. This article follows the following sections: section 2 explains the review of the literature on board size and company performance. Section 3 includes the formation of the hypothesis. Section 4 describes the methodology used to evaluate the major hypothesis supported by the model and data. Section 5 explains the results and discussion. Section 6 concludes the study.

## 2. Literature review

**Agency theory:** In order to manage the company, shareholders appoint directors, who are also required to operate in their best interests. During the period, managers acted in accordance with their own interests because there was no affiliation between the company's shareholders and managers, and these created conflicts of interest. Given that circumstance, independent board members can lower this risk by overseeing and managing the managers' section. (Alqatan, Chbib, & Hussainey, 2019). Arosa, Iturralde, and Maseda, (2013) examined the protecting shareholders against managers' self-interest requires a robust monitoring mechanism. Therefore, organizations benefit from having many independent directors to keep an eye on the behavior of executives. Otherwise, an agency relationship is a legally binding agreement between a business's owners and management. In these arrangements, the owners give the company's management authority to decide on their behalf. It creates a chasm between owners and managers, which in turn causes agency difficulties and conflicts of interest. Each side is

looking out for their interests. According to the study, changing the conduct of the board of directors is the most effective strategy for addressing the agency's problem.

**Resource dependency theory :** Suganya and Kengatharan (2017) emphasized that a board of directors is more than just its members; they are also a company's capital. Directors provide organizations with resources such as information, skills, and knowledge as well as access to crucial organizational components. It aids in maximizing the firm's worth. So, the firms should attract external directors with knowledge in different areas. Based on resource dependency theory, Anis et al., (2017) explained how the board plays a vital role in connecting the firm with external resources in order to boost its performance and image. The resource dependence theory's function is to connect businesses with helpful third-parties. Thus, the organizations benefit from having a broad and diverse board since it provides a conduit to external resources (Erik Meyer, 2013). The influence of outside resources on internal organisational dynamics is the subject of resource dependence theory. The Board of Directors serves as a connecting mechanism between the Organisation and its Resources. Companies can benefit from having a wide variety of directors, and a board with a wide range of backgrounds and perspectives can help the company tap into more resources (Abeyirigunawardana, 2018).

**Board size and firm performance:** Jensen (1993) argues that “Keeping boards small can improve their performance. When boards get beyond seven or eight people they are less likely to function effectively and easier for CEO to control.” Similarly, Lipton and Lorsch (1992) state “when a board has more than ten members it becomes more difficult for them all to express their ideas and opinions.” and add that the overcrowding on American corporate boards results in financial losses for shareholders, job losses for staff, and a decline in the corporation's ability to compete on the global stage. According to Lipton and Lorsch (1992), boards should only include seven or eight members. They also support the idea of smaller boards. The argument used against large boards is that it is more difficult and expensive for a large number of individuals to communicate, coordinate, and make decisions than it is for a smaller group. Somathilake, (2005), Hewathenna, Haleem, and Jamaldeen, (2015) found that there is a direct and negative correlation between board size and firm performance.

According to Gafoor, Mariappan, and Thyagarajan (2018), boards of Indian banks with a size between 6 and 9 have a significantly positive link with company performance. The size of the board is a factor in how much it monitors and advises management on various matters, and it also contributes to the bank's decision-making competency. However, boards larger than 9 become inconsequential in terms of a company's success.

Majeed et al., (2020) investigated the board size and directors' composition related to the financial performance of Pakistani and Chinese commercial banks, covering the period of 2009 to 2018. Based on the results of a panel regression model, there is no significant

association between the size of Pakistani commercial banks' boards of directors and their financial performance. However, a significant and positive correlation was found to exist between the number of directors on a board and the financial performance of Chinese commercial banks.

Bektas and Kaymak (2009) found that the relationship between board size and bank performance is not statistically significant; however, the findings suggest a negative correlation between board size and bank profitability using the BIST data set and 12 banks. Dogan and Yildiz (2013) uncovered the effect board size has on a company's financial success using information from 2005-2010 and 2006-2008.

### Hypothesis

H<sub>1</sub>: There is a significant difference in firms' performance with directors less than seven on the board and directors equal to or more than seven on the board.

### 3. Methodology

Altogether, there are 27 commercial banks operating in Nepal, and all the banks were taken as sample banks for the study which has been listed on the Nepal Stock Exchange from the year 2013 to 2020 period. An independent sample t-test was conducted to determine the impact of corporate board size and bank performance. The study focused on the directors less than seven on the board and equal to or more than seven on the board of commercial banks. Bank performance such as ROE and ROA two financial measures were used for this study. An Independent sample t-test was used to determine the impact of the no. of directors on the board and bank performance of Nepalese commercial banks.

### 4. Results and Discussion

Table 1.1 Descriptive statistics of ROE and ROA by grouping variables (No. of directors on the board)

| Descriptive Statistics                   |  |    |         |                |                 |
|--|--|----|---------|----------------|-----------------|
| No. of directors participated in a board |  | N  | Mean    | Std. Deviation | Std. Error Mean |
| ROE                                      | Directors less than seven in a board             | 8  | 13.9550 | 3.23503        | 1.14376         |
|  | Directors equal to or more than seven in a board | 19 | 15.4663 | 5.48072        | 1.25736         |
| ROA                                      | Directors less than seven in a board             | 8  | 1.5913  | 0.85119        | 0.30094         |
|  | Directors equal to or more than seven in a board | 19 | 1.5937  | 0.34761        | 0.07975         |

Table 1.2 Independent Samples t-test results

| Independent Samples Test |                             |   |       |                              |        |                 |                 |                       |   |         |
|--------------------------|-----------------------------|---|-------|------------------------------|--------|-----------------|-----------------|-----------------------|---|---------|
|                          |                             | Levene's Test for Equality of Variances |       | t-test for Equality of Means |        |                 |                 |                       |   |         |
|                          |                             | F                                       | Sig.  | t                            | df     | Sig. (2-Tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference |         |
|                          |                             |   |       |                              |        |                 |                 |                       | Lower                                     | Upper   |
| ROE                      | Equal variances assumed     | 0.494                                   | 0.488 | -0.724                       | 25     | 0.476           | -1.51132        | 2.08860               | -5.81287                                  | 2.79024 |
|                          | Equal variances not assumed |   |       | -0.889                       | 21.775 | 0.384           | -1.51132        | 1.69975               | -5.03849                                  | 2.01586 |
| ROA                      | Equal variances assumed     | 3.621                                   | 0.069 | -0.011                       | 25     | 0.992           | -0.00243        | 0.22691               | -0.46977                                  | 0.46490 |
|                          | Equal variances not assumed |   |       | -0.008                       | 8.002  | 0.994           | -0.00243        | 0.31133               | -0.72032                                  | 0.71546 |

Table 1.1 demonstrates the descriptive measures of ROE and ROA by a grouping variable (No. of directors who participated in a board). Altogether, there are 27 commercial banks operating in a country. Out of 27 banks, 8 banks have less than 7 directors on the board and 19 banks have equal to or more than 7 directors on the board. The mean ROE of the banks that have less than 7 directors participating on the board is 13.9550 (SD 3.23503) and banks that have equal to or more than 7 directors participating on the board is 15.4663 (SD 5.48072). Likewise, the mean ROA of those have less than 7 directors participating on the board is 1.5913 (SD 0.85119) and banks that have equal to or more than 7 directors participating on the board is 1.5937 (SD 1.5937)

Table 1.2 displays the independent sample t-test result. The first portion of the table indicates Levene's test results. This test is done to understand if the variances of ROE and ROA in the two categories of no. of directors participated on the board (directors less than 7 on the board and directors equal to or more than 7 on the boards) are homogeneous (equal) or not. Here, the p-value (Sig.) of Levene's test, is 0.488. Since the p-value is  $> 0.05$ , it indicates the variances of ROE of banks that have directors less than 7 on the board and directors equal to or more than 7 on the board are equal. Therefore, Levene's test p-value is  $> 0.05$ , so the study considered the t-test results of "Equal Variances assumed". An independent-samples t-test was conducted to compare the bank performance (ROE) of banks that have directors

less than 7 on the board and directors equal to or more than 7 on the board. Based on the results, there were no significant differences ( $t(25) = -0.724$ ,  $p = 0.476$ ) in scores for banks that have less than 7 participated on the board ( $M = 13.9550$ ,  $SD = 3.23503$ ) and banks that have equal to or more than 7 directors participated on the board ( $M = 15.4663$ ,  $SD = 5.48072$ ). The magnitude of the differences in the means (mean difference =  $-1.51132$ , 95% CI:  $-5.81287$  to  $2.79024$ ) was very small. Hence, the alternative hypothesis is rejected and the null hypothesis is accepted. Therefore, the mean ROE of directors less than 7 on the board and directors equal to or more than 7 on the boards is not different ( $p = 0.476$ )

Similarly, the p-value (Sig.) of Levene's test, is 0.069. Since the p-value is  $> 0.05$ , it indicates the variances of ROA of banks that have directors less than 7 on the board and directors equal or more than 7 on the boards are equal. Therefore, Levene's test p-value is  $> 0.05$ , so the study considered the t-test results of "Equal Variances assumed". An independent-samples t-test was conducted to compare the bank performance (ROA) for banks that have directors less than 7 on the board and directors equal to or more than 7 on the boards are equal. There were no significant differences ( $t(25) = -0.011$ ,  $p = 0.992$ ) in scores for banks that have directors less than 7 on the board ( $M = 1.5913$ ,  $SD = 0.85119$ ) and banks that have equal to or more than 7 directors on the board ( $M = 1.5937$ ,  $SD = 0.34761$ ). The magnitude of the differences in the means (mean difference =  $-0.00243$ , 95% CI:  $-0.46977$  to  $0.46490$ ) was very small. Hence, the alternative hypothesis is rejected and the null hypothesis is accepted. Therefore, the mean ROA of directors less than 7 on the board and directors equal to or more than 7 on the boards is not different ( $p = 0.992$ )

## 5. Conclusions

This study offers new insights into the relationship between no. of directors on the board (directors less than seven on the board and directors equal to or more than seven on the board) and firm performance. In all, there are 27 commercial banks in the country; all of them were used as sample banks for the study. The eight years of data were collected between 2013 and 2020. According to the study's findings, banks have less than seven directors on their boards, while those with seven or more directors did not significantly affect the success of the company. This finding is comparable to that of Majeed et al. (2020), who found no correlation between board size and the financial success of Pakistani commercial banks. As a result, the strategy of increasing the number of directors on the board did not significantly improve the financial performance of the banks. Because doing so would increase the expense to the company, this analysis advised against it.

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