“Evaluating the influence of corporate governance mechanisms and bank-specific factors on the performance of Nepalese commercial banks”

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EVALUATING THE INFLUENCE OF CORPORATE GOVERNANCE MECHANISMS AND BANK-SPECIFIC FACTORS ON THE PERFORMANCE OF NEPALESE COMMERCIAL BANKS

Abstract

This purpose of the study is to evaluate the influence of corporate governance mechanisms factors: board size, board independence, capital adequacy ratio, as well as bank-specific factors: dividend payout ratio and firm size, on the performance of Nepalese commercial banks. The study covered 10 years' secondary data from 2013/14 to 2022/23, derived from the annual reports and websites of four selected commercial banks that were listed on the Nepal Stock Exchange: Kumari Bank Limited, Himalayan Bank Limited, Prabhu Bank Limited, and Prime Commercial Bank. A non-probability sample method, especially the purposive sampling approach, was used in this study. Earnings per share (EPS) is regarded to be the dependent variable, whereas two elements, namely, corporate governance mechanisms and bank-specific factors, are considered to be independent variables. Data analysis was carried out using the SPSS 25 software, which includes descriptive statistics, Pearson correlation, and multiple linear regression. The empirical results indicate that board size has a favorable influence on EPS, but this association does not reach statistical significance. In contrast, board independence has a notable and statistically significant negative impact on EPS. The capital adequacy ratio is positively correlated with EPS. However, the impact of firm size on EPS is not statistically significant. On the other hand, the dividend payout ratio has a significant positive effect on EPS.

Keywords

- capital adequacy ratio
- earnings per share
- commercial banks
- bank-specific factors

JEL Classification

- G21
- G24
- G34

INTRODUCTION

In today's global economy, the banking sector is crucial to a country's economic and social progress. By extending credit to companies and easing the process of importing and exporting goods, banks play an essential supporting role in the global economy. In the context of Nepal, the banking industry plays a significant role in the growth of the nation by developing a vast network of financial infrastructure, which in turn ensures the financial stability of the country. According to the Nepal Rastra Bank (Central Bank), the commercial banking sector is adequately capitalized and subject to effective regulation. This sector's reach extends beyond urban centers, reaching even the most remote areas of the country, thereby contributing to the upliftment of the rural economy.

With the implementation of merger and acquisition policy by NRB, the number of commercial banks has decreased considerably and reached to 20 in FY 2022/23. As of mid-July 2023, the total number of BFIs has decreased to 112. Among these, there are 54 BFIs categorized as A, B, and C. Institutions falling under categories “A”, “B”, “C”, and “D” are actively engaged in merger processes. Presently, Nepal hosts 20
commercial banks (category A), 17 development banks (category B), 17 finance companies (category D), and 58 microfinance institutions. This number of BFIs is anticipated to further decline, with the central bank spearheading efforts to encourage significant mergers among commercial banks, aiming to reduce the overall count of financial institutions. It is also acknowledging that total deposits of the commercial banks have increased from Rs. 4,442.42 billion in FY 2021/22 to Rs. 5,086.24 billion in FY 2022/23. Similarly, loans and advances of commercial banks reached to Rs.4265.57 billion as of mid-July 2023, compared to a total of Rs. 4153.45 billion as of mid-July 2022 with increment of 2.70 percent. Total assets of commercial banks increased by 6.72 percent to Rs.6180.51 billion when compared to Rs.5791.58 billion of the previous year. Nepal’s economic growth is directly or indirectly linked to the Nepalese banking industry, which provides financial aid and other banking services such as deposit acceptance, loan lending, agricultural and rural development, etc.

The current study contributes to the literature by suggesting corporate governance mechanism factors and bank-specific factors that impact the earnings per share of commercial banks. The results have significant implications for the performance of banks in terms of earnings per share, particularly for policy makers in emerging economies like Nepal.

1. LITERATURE REVIEW

Earnings per share maximization boosts a company’s share price. As value changes, share prices rise and fall. An organization’s earnings per share come from the remaining shares of mutual stock. Share earnings also assist individuals understand other companies’ profitability (Inyiama, 2014). Earnings attitude detailed substantial trendy the lifetime of firm’s enactment for development, investment and stockholders for the principal extension (Balaputhiran, 2014). Johl et al. (2015) investigated the association between board qualifications and company success in Malaysian publicly traded companies. The results show that the size of the board, the amount of board diligence, and the frequency of board member meetings all have a substantial influence on the profitability of individual enterprises. On the contrary, board size significantly affects UK businesses’ Tobin’s q and earnings per share (Guest, 2009). The relationship between board size and company value as assessed by EPS is not statistically significant (Gherghina, 2015). While ownership concentration had a favorable but negligible effect on earnings per share, board size was determined to have a negative and statistically significant influence (Cyril & Chinakpude, 2019). Alam and Akhtar (2017) found no significant correlation between selected variables, specifically in the relationship between board independence and earnings per share, a key performance measure for banks. Buallay et al. (2017) found no association between board independence and Saudi stock exchange-listed company performance. They studied 36 scheduled commercial banks from 2001 to 2014. It was discovered by Gafoor et al. (2018) that the independence of the board of directors has a significant connection to the performance of individual banks.

There was a poor relationship between governance and the financial performance of Bangladeshi banks, and this relationship was influenced by the corporate board’s size and independence (Kutubi, 2001). The board’s influence on the firm’s worth is positive and statistically significant (Alimehmeti & Paletta, 2014). One important feature of the board of directors that stands out within the governance structure is its size (Tibiletti et al., 2020). Mohd Asif Intezar et al. (2020) found no correlation between board independence and bank profitability per share. Their findings show that board independence does not affect bank performance. There was a substantial relation between the number of independent directors on the boards of state-owned banks and the performance of such banks. (J. Sarkar & S. Sarkar, 2018). Alam and Fahmida (2017) studied Bangladeshi commercial banks and found that there is a direct relationship between ROA and capital adequacy ratio. Their analysis also revealed a nonlinear relationship between CAR and ROE and EPS. Conversely, Lukas and Basuki (2015) found that there was no significant association between the capital adequacy ratio and the performance of banks that were listed on the Indonesian stock exchange between the years 2008 and 2012. The empirical results of the Capital Adequacy Ratio are significantly related to the per-
formance of banks. Using CAR and ROE as two dependent variables simultaneously, the study uses 128 data from 16 separate Vietnamese commercial banks from 2010 to 2017 (Dao, 2020).

Thirumagal and Vasantha (2018) found a statistically significant negative relationship between the dividend payout ratio and shareholder wealth. Conversely, an independent study revealed a positive and significant association between the dividend payout ratio and earnings per share. Yusuf (2013) analyzed Nigerian deposit money banks using multiple regressions and correlation analysis. The results revealed a detrimental relationship between the banks’ performance and their dividend payout ratio. Idewele and Murad (2019) examined fifteen banks listed on the Nigerian Stock Exchange from 2009 to 2014 to assess the impact of dividend payout ratio on financial performance. Their analysis revealed a positive and significant correlation between banks’ financial success and their dividend payout ratio. Murekefu and Ouma (2012) examined the link between dividend payout ratio and listed company profitability using 2002–2010 Nairobi Securities Exchange data. Dividend policy was relevant since their regression analysis showed a substantial positive association.

Rachmawati and Sherlita (2021) depicted the application of terms like sales growth, company size, profitability, and Earnings Per Share (EPS) within manufacturing enterprises listed on the Indonesia Stock Exchange. The results indicated that company size does not impact profits per share. Oktaviani (2020) used EPS as a moderator to look at how firm size and growth affected firm value. Firm size had no discernible impact on firm value, firm growth had a negative effect, and earnings per share (EPS) moderated the connection among company size, growth, and value. Ali et al. (2015) investigated the impact of firm size on earnings management in Pakistan’s textile sector, utilizing 10 years’ data from 50 selected enterprises. Their findings demonstrated a positive relationship between earnings management and company size. Nalarreason et al. (2019) examined how debt and firm size affect manufacturing earnings management using 2013–2017 Indonesia Stock Exchange data. The study found a favorable association between Indonesian manufacturing firm size, debt, and earnings management. Indah Sari and Rokhmania (2020) investigated the factors influencing the earnings response coefficient by examining the independent variables, including firm size, firm growth, earnings growth, and capital structure. The study indicated that firm size, firm growth, and capital structure did not exhibit a significant influence on the earnings. Saleh (2023) examined the impact of financial ratios, company size, and operating cash flows on earnings per share. The study revealed that both company size and financial leverage exerted a statistically significant influence on earnings per share.

The study aims to investigate the influence of corporate governance mechanisms and bank-specific factors on the performance of four selected merged commercial banks listed on the Nepal Stock Exchange. To achieve the purpose, the study’s objectives are to investigate whether the patterns of board size, board independence, capital adequacy ratio, dividend payout, and firm size are influencing their performance. Hence, this study establishes several hypotheses to test the influence of corporate governance mechanisms and bank-specific factors on bank performance. These hypotheses are as follows:

\[ H_1: \text{Board size significantly influences earnings per share.} \]

\[ H_2: \text{Board independence significantly influences earnings per share.} \]

\[ H_3: \text{Capital adequacy ratio significantly influences earnings per share.} \]

\[ H_4: \text{Firm size significantly influences earnings per share.} \]

\[ H_5: \text{Dividend payout ratio significantly influences earnings per share.} \]

2. METHODOLOGY

The research methodology adopted in this study plays a crucial role in shaping the objectives, findings, and presentation of outcomes derived from the gathered data. The study’s fundamental data are sourced from secondary outlets like publications and the annual reports of commercial banks listed on the Nepal Stock Exchange (NEPSE). This study employed a non-probability sampling approach, specifically utilizing the purposive
sampling method. The study’s sample was collected during the years 2013/14 to 2022/23. From a group of twenty operating commercial banks, four merged, Kumari Bank Limited, Himalayan Bank Limited, Prabhu Bank Limited, and Prime Commercial Bank, were selected to be included in the study for a period of ten years. Earnings per share as a measure of performance, serving as the dependent variable and corporate governance mechanism factors such as board size, board independency, and capital adequacy ratio, alongside bank-specific factors like dividend payout ratio and firm size, were considered as independent variables. To analyze the collected data, the study utilized a combination of descriptive analysis, Pearson correlation, and regression analysis. Descriptive analysis provided a comprehensive overview of the data, while Pearson correlation helped identify potential relationships between variables. Multiple linear regression analysis, on the other hand, allowed for a deeper exploration of the relationships between the independent and dependent variables, helping to assess the impact of corporate governance and bank-specific factors on performance measures.

Model:

\[ \text{EPS} = \beta_0 + \beta_1 \text{BSIZE} + \beta_2 \text{BIND} + \beta_3 \text{CAR} + \beta_4 \text{FSIZE} + \beta_5 \text{DPR} + \epsilon_i, \]

where \( \text{EPS} \) = Earnings per share; \( \text{BSIZE} \) = Board size; \( \text{BIND} \) = Board Independency; \( \text{CAR} \) = Capital adequacy ratio; \( \text{FSIZE} \) = Firm size; \( \text{DPR} \) = Divided Payout Ratio; \( \beta_0 \) = Constant; \( \beta_1, \beta_2, \beta_3, \beta_4, \beta_5 \) = Coefficient of Independent Variables; and \( \epsilon_i \) = Error term.

3. RESULTS

Table 1 presents descriptive statistics for several variables related to \( \text{BSIZE}, \text{BIND}, \text{CAR}, \text{FSIZE}, \text{DPR}, \) and \( \text{EPS} \). For \( \text{BSIZE} \) the minimum value of 5.00 and maximum value of 9.00 indicate the range of board sizes across the sample, with an average (mean) board size of 7.2500 and a Std. deviation of 1.23517, indicating the variability around the mean. The skewness value of \(-0.763\) suggests a slight negative skew, indicating that the distribution of board sizes is slightly skewed to the left, while the kurtosis value of \(-0.665\) indicates that the distribution is relatively platykurtic, meaning it is less peaked than a normal distribution. The \( \text{BIND} \) values range from a minimum of 0.00 to a maximum of 1.00. The mean of 0.4750 indicates that, on average, banks in the sample are more likely to be publicly traded. The skewness and kurtosis values suggest a relatively symmetric distribution with negative kurtosis.

The \( \text{FSIZE} \) ranges from a minimum of 23.78 to a maximum of 26.66, with a mean of 25.4163 and a Std. deviation of 0.69675. The skewness and kurtosis values suggest a relatively symmetric distribution with negative kurtosis. The \( \text{DPR} \) values range from a minimum of 0.00 to a maximum of 12.00, with a mean of 2.1403 and a Std. deviation of 3.37417. The skewness and kurtosis values indicate a positively skewed and leptokurtic distribution.

Source: Conceptual model developed by authors.
The \( \text{EPS} \) values range from a minimum of \(-15.24\) to a maximum of \(35.15\), with a mean of \(19.2865\) and a Std. deviation of \(10.06102\). The skewness and kurtosis values indicate a slightly negatively skewed and leptokurtic distribution.

Table 2 presents correlations between different variables in the dataset. Looking at the relationship between “\( \text{BSIZE} \)” and “\( \text{BIND} \),” there were getting a Pearson correlation value of \(-0.154\). Board independence and board size appear to have a weak inverse relationship, with the former tending to diminish somewhat as the latter grows, according to this negative correlation. On the other hand, \( p = 0.343 \) indicates that the connection is not significant at the 0.05 level, suggesting that this link might be attributed to chance alone. Alternatively, “\( \text{CAR} \)” and “\( \text{BIND} \)” have a moderately favorable correlation of 0.453. So, it seems that the \( \text{CAR} \) tends to go up in tandem with \( \text{BIND} \). There is a high probability that the observed association is not due to chance, as this correlation is statistically significant at the 0.01 level \( (p = 0.003) \). A moderately positive correlation of 0.331 indicates that “\( \text{DPR} \)” and “\( \text{EPS} \)” are also somewhat related. There appears to be an important association between the two variables, since the correlation is statistically significant at the 0.05 level \( (p = 0.037) \).

Table 3 represents the model summary and gives a thorough account of how well the regression model performed in explaining the dependent variable’s variance. With an R-squared value of 0.367, the model’s independent variables explain around 36.7% of the variation in earnings per share (\( \text{EPS} \)). After accounting for the model’s complexity and offering a more cautious estimate of the explained variance, the adjusted R Square, which takes into account the number of predictors in the model, is marginally lower at 0.274. No substantial autocorrelation was found in the regression model’s residuals, as shown by the Durbin-Watson statistic of 1.882, which is near to the ideal value of 2.

Table 4 displays the ANOVA results. The significance level (Sig.) is reported as 0.006, indicating statistical significance at the 0.05 level. This result provides more evidence that the predictor factors have a substantial combined effect on the dependent variable.
Table 5 presents a regression analysis exploring the relationship between EPS and other predictor factors. A one-unit increase in board size is predicted to result in earnings per share rise of about 1.983 units, according to the beta coefficient for BSIZE, which is 1.983 with a standard error of 1.184. On the other hand, \( p = 0.103 \) indicates that this correlation is not statistically significant at the 0.05 level. An increase in board independence is associated with a fall in earnings per share (EPS) of around 6.559 units, according to BIND's beta coefficient of –6.559 with a standard error of 3.459. The correlation is rather weak, even though it is statistically significant at the 0.10 level (\( p = 0.066 \)). A rise of about 2.989 units in earnings per share (EPS) is indicated by CAR's beta coefficient of 2.989, with a standard error of 1.288. At the 0.05 level of significance, this link is found (\( p = 0.026 \)). There is a negative correlation between increasing company size and earnings per share (EPS), as indicated by the beta coefficient of –3.831 for FSIZE and a standard error of 2.311. On the other hand, \( p = 0.106 \) indicates that this correlation is not significant at the 0.05 level. The beta coefficient for dividend payout ratio (DPR) is 1.257 with a standard error of 0.449, suggesting that a 1.257-unit increase in earnings per share (EPS) is the outcome of increasing the dividend payout ratio. There is a statistically significant link between the two variables (\( p = 0.008 \)) at the 0.05 level. In addition, the predictor variables do not show any signs of severe multicollinearity, with tolerance values ranging from 0.615 to 0.881 and VIF values from 1.135 to 1.625.

The descriptive statistics shows the central tendency for all variables used in the study, which are Minimum, Maximum, Mean, Standard Deviation, Skewness and Kurtosis. Table 3 summarizes the descriptive statistics for various variables in the study. The variables include BSIZE, BIND, CAR, FSIZE, DPR, and EPS, with corresponding measures such as minimum, maximum, mean, standard deviation, skewness, and kurtosis. BSIZE ranges from 5.00 to 9.00, with a mean of 7.250 and a standard deviation of 1.23517. This indicates that all banks maintain a board size ranging from a minimum of 5 directors to a maximum of 9 directors for their operations. Similarly, BIND ranges from 0.00 to 1.00, with a mean of 0.4750 and a standard deviation of 0.50574, indicating that banks typically have only one independent director on the board. CAR ranges from 8.68 to 14.89, with a mean of 12.4223 and a standard deviation of 1.25041. This suggests that the minimum and maximum CAR maintained by banks are 8.68 and 14.89, respectively, which aligns satisfactorily with the mean value of 12.4223. FSIZE has a range of 23.78 to 26.66, a mean of 25.4163, and a standard deviation of 0.69675. With a mean of 25.4163, FSIZE is positioned close to the maximum value, suggesting that the average firm size aligns well with the upper range of sizes observed. DPR ranges from 0.00 to 12.00, with a mean of 2.1403 and a standard deviation of 3.37417. The minimum DPR of 0.00 suggests instances where banks did not distribute dividends to shareholders. Finally, EPS ranges from –15.24 to 35.15, with a mean of 19.2865 and a standard deviation of 10.06102.

### Table 5. Regression analysis

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized coefficients</th>
<th>Standardized coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Collinearity statistics</th>
</tr>
</thead>
<tbody>
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<td></td>
<td>B</td>
<td>Std. error</td>
<td>Beta</td>
<td>Tolerance</td>
<td>VIF</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>65.581</td>
<td>55.442</td>
<td>–</td>
<td>1.183</td>
</tr>
<tr>
<td>2</td>
<td>BSIZE</td>
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<td>1.184</td>
<td>0.243</td>
<td>1.675</td>
</tr>
<tr>
<td>3</td>
<td>BIND</td>
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<td>3.459</td>
<td>–0.330</td>
<td>–1.896</td>
</tr>
<tr>
<td>4</td>
<td>CAR</td>
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<td>1.288</td>
<td>0.372</td>
<td>2.322</td>
</tr>
<tr>
<td>5</td>
<td>FSIZE</td>
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<td>2.311</td>
<td>–0.265</td>
<td>–1.658</td>
</tr>
<tr>
<td>6</td>
<td>DPR</td>
<td>1.257</td>
<td>0.449</td>
<td>0.421</td>
<td>2.796</td>
</tr>
</tbody>
</table>

Note: Dependent Variable: EPS.
The minimum EPS value of –15.24 signals periods where banks incurred negative earnings per share, suggesting financial losses or unfavorable performance.

Table 5 displays the results of the regression analysis, examining the association between independent variables (corporate governance mechanisms and bank-specific factors) and the dependent variable (earnings per share). The beta coefficient for BSIZE is 1.983, indicating that a one-unit increase in board size is associated with an expected increase in EPS by approximately 1.983 units. However, this relationship lacks statistical significance at the 0.05 level (p = 0.103). Hence, Hypothesis 1 (Board size significantly influences earnings per share) is accepted. This empirical finding aligns with Gherghina (2015).

The result indicates a significant negative effect of board independence on earnings per share at the 10% significance level, with a beta coefficient of –6.559. This implies that for each unit increase in board independence, EPS is expected to decrease by approximately 6.559 units. This finding contrasts with the previous study by Mohd Asif Intezar et al. (2020). Consequently, Hypothesis 2 (Board independency significantly influences earnings per share) is rejected.

The beta coefficient for the capital adequacy ratio indicates a positive value of 2.989, suggesting that a unit increase in the capital adequacy ratio leads to an increase in EPS by 2.989 units. This result implies that the capital adequacy ratio positively supports the EPS of a bank. However, since the probability value is less than 5 percent (p-value < 0.05), this observation is statistically significant. Hence, the findings of the study align with those of Alam and Fahmida (2017). Consequently, Hypothesis 3 (Capital adequacy ratio significantly influences earnings per share) is rejected.

The beta coefficient for firm size is –0.831, indicating a negative effect of firm size on EPS. Specifically, this suggests that as firm size increases by 1 percent, EPS is expected to decrease by 0.831 percent. However, with a p-value of 0.106, this result is not statistically significant at the 5 percent level. The empirical result of the current study aligns with previous research by Rachmawati and Sherlita (2021). Consequently, Hypothesis 4 (Firm size significantly influences earnings per share) is accepted.

The dividend payout ratio exhibits a beta coefficient of 1.257, indicating a positive impact on EPD. Specifically, a 1 percent increase in the dividend payout ratio is associated with a 1.257 percent increase in EPS. This result is statistically significant at the 5 percent level, with a p-value of 0.008. The favorable influence of dividend payout ratio on EPS is supported by this statistically significant finding. These results are in line with those reported by Thirumagal and Vasantha (2018). Consequently, Hypothesis 5 (Dividend payout ratio significantly influences earnings per share) is rejected.

CONCLUSION

The study’s purpose was to analyze the influence of corporate governance mechanisms and bank-specific factors on earnings per share of selected commercial banks in Nepal. The results indicate that there is a positive association between BSIZE and EPS, which means that bigger boards could be linked to greater EPS. On the other hand, BIND is inversely related to EPS, suggesting that more board independence might be associated with lower EPS. A greater dividend payout ratio may be linked to better earnings per share since DPR has a positive association with EPS. The capital adequacy ratio has a statistically significant positive impact on EPS. Likewise, the dividend payout ratio demonstrates a positive impact on EPS. Conversely, board independence shows a significant negative impact on EPS.

The study concluded that healthy corporate governance mechanism factors and careful handling of bank-specific factors significantly improve the financial performance of commercial banks. Academic literature is enriched, and stakeholders seeking to optimize bank performance in a competitive financial context might find practical implications in these results.
AUTHOR CONTRIBUTIONS

Conceptualization: Padam Dongol.
Data curation: Sajeeb Kumar Shrestha.
Formal analysis: Sajeeb Kumar Shrestha.
Funding acquisition: Padam Dongol.
Investigation: Padam Dongol.
Methodology: Padam Dongol.
Project administration: Sajeeb Kumar Shrestha.
Resources: Sajeeb Kumar Shrestha.
Software: Padam Dongol.
Supervision: Sajeeb Kumar Shrestha.
Validation: Padam Dongol.
Visualization: Sajeeb Kumar Shrestha.
Writing – original draft: Padam Dongol.
Writing – reviewing & editing: Sajeeb Kumar Shrestha.

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