Capital Structure and Profitability of Commercial Banks in Nepal

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Abstract

The study intends to look into how capital structure affects a Nepalese commercial bank's profitability. The statistical analysis of the study includes the secondary data. Using software for analysis, Descriptive and a casual comparative analysis has been conducted by gathering data from bank websites and using correlations and multiple regression models for hypothesis testing. Out of the entire population, 12 bank has taken as a sample for the study. The capital structure and profitability have been investigated as a cause and effect relationship using a casual comparative research design. In this study NIM is used as dependent variables, and leverage ratio, bank size, liquidity ratio, and capital ratio are independent variables. As a statistical tool, the following tools are used: mean, standard deviation, correlation, multiple regression model, and hypothesis testing. Excel and SPSS are both used to evaluate those variables. Leverage Ratio has a negative and significant impact with NIM on Nepal's commercial banks. Bank Size has remained negatively and insignificantly impacted with NIM. The Liquidity Ratio shows significantly and positively affects with NIM. The capital ratio has a significant and favorable impact on NIM. However, Banks should value the significance of other variables.

Key word: leverage ratio, bank size, liquidity ratio and capital ratio.

Introduction

We note various publications that focused on low-income emerging economies, such as Ethiopia as seen to examine how capital structure affects bank profitability (Ayalew, 2021). Once more, we note earlier studies that examined one of the developing nations in Asia, such as Bangladesh (Rana-Al-Mosharrafa & Islam, 2021). Previous research focused on determining the impact of solely capital structure on bank profitability, while some studies focused on examining the impact of non-interest revenue on profitability (Ayalew, 2021).
Yet, only a small amount of research has been done on the combined effects of capital structure, operational effectiveness, and non-interest revenue on the profitability of the banking sector (Hossain & Ahamed, 2021).

The balance or comparison between own capital and foreign capital is known as capital structure. Long-term and short-term debt in this situation constitutes foreign capital. While the company's own money is split between retained earnings and ownership interests, the goal is to raise the company's market value (Brigham & Ehrhardt, 2011).

One of the most crucial elements for an organization is capital. Actually, without funding, no organization could exist. Without money, it is impossible to start any kind of business, whether it be a small convenience store or a large corporation. Every organization begins with a zero balance and only comes into being when its owners, shareholders, or promoters provide capital. Every group ought to have adequate funding to operate. Banks are the main source of capital, but they also need to generate capital to operate their businesses. Due to the banks' responsibility to the general public their depositor’s bank capital is very important. So, banks need to have enough capital to protect depositors' interests (Patheja, 1994).

The general public provides a significant quantity of deposits to commercial banks. The depositors believe that making a deposit into a bank is secure and comforting. But what happens if the bank does not have enough capital to act as a safety net against unforeseen losses in the future? Hence, a bank's capital needs to be adequate to shield its counterparties and depositors from risks like credit and market risk. Otherwise, banks would spend all of the depositors' money for their own gain, which would cause the depositors to lose money. Currently, the NRB, which oversees banks and financial institutions in Nepal, has made it mandatory for B class and C class financial institutions to use DCGC to insure individual depositors up to two lakhs (Paudel, 2009).

The Commercial Bank Act of 2031 BS and the Company Act of 2063 BS both regulate the establishment of commercial banks. However, Nepal Rastra Bank (NRB), which oversees banks and other financial organizations, has the authority to set the capital requirements as well as other specifications. Since it is Nepal's central bank, NRB is obligated to pay close attention to depositors' interests. It should be remembered that the commercial banks of Nepal collected more over Rs. 586,356.80 million from depositors in the middle of July 2013, according to the banking and financial statistics of NRB. Such a large sum of money needs be secured, and NRB is primarily responsible for doing so.

When the company's internal profits are insufficient to fund the capital requirements of the fiercely competitive and sophisticated banking industry. The study's findings will be useful in choosing the capital structure that will maximize bank profitability. The commercial bank has been an essential component of economic growth. In developed nations, they serve as facilitators to raise money via the smart combination of investment portfolios, but in Nepal, the function of commercial banks as a crucial tool for raising money internally through various banking schemes in the economy is still being realized.

Therefore, operating performance and debt ratio are passively related. Additionally, according to pecking order theory, profitability has a negative relationship with book value financial leverage ratio since equity financing is expensive (Myers & Majluf, 1984). When the company's internal
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profits are insufficient to fund the capital requirements of the fiercely competitive and sophisticated banking industry. The study's findings will be useful in choosing the capital structure that will maximize bank profitability. The commercial bank has been an essential component of economic growth. In developed nations, they serve as facilitators to raise money via the smart combination of investment portfolios, but in Nepal, the function of commercial banks as a crucial tool for raising money internally through various banking schemes in the economy is still being realized.

Therefore, among other pre-requisition processes, the process of capital accumulation should be sped up to improve the background of the country's economic state. Commercial banks are the sources of funding for trade and industry, which are crucial to a nation's financial and economic health. By investing the savings money in the productive sector, they aid in the production of capital. To boost the economy of a developing nation like Nepal, the rural population needs a variety of financial services. The majority of countries have a concentration of banks in urban and semi-urban areas. Due to the high risk and little return, they disregard the rural sector, despite the fact that without it, other economic sectors cannot grow.

A company's capital structure, which consists of the debt and equity used to finance the company, shows its overall financial structure. Capital structure and a company's capacity to meet stakeholder demands are closely tied. As a result, this foundation is a crucial piece of knowledge that should not be ignored. Capital structure refers to how businesses finance their assets by combining stock, debt, and hybrid securities (Saad, 2010).

The proportionate relationship between debt and equity is referred to as the capital structure. A company's capital structure is the ratio of debt to equity in that organization. The choice of capital structure has important financial ramifications since it influences shareholder risk and return, which in turn affects share market value (Pandey, 2005). The concept of capital structure is important in financial management. The percentage of debt and equity capital is referred to as capital structure. To ensure a trade-off between risk and reward, debt and equity must be perfectly balanced.

Therefore, a capital structure that has a suitable ratio of debt to equity is said to have an optimal capital structure. An ideal financial structure makes better use of society's capital resources, increasing total social wealth. Additionally, by giving businesses more opportunities to make future investments that will generate wealth, it stimulates economic growth and investment. An economy needs financial institutions to grow and prosper. The development of the banking business has a significant impact on the expansion of any economy. Banks play a crucial role in determining an economy's trend. The financial system's most important institutions are often considered to be those in the banking sector.

The banking sector offers market transparency, performs risk transfer and risk management tasks, and deals with intricate financial markets and instruments that support a nation's economy's growth. The commercial bank plays a key role among these financial entities. In accordance with the central bank's instructions and the prevailing regulatory framework, these commercial banks serve as a bridge between unithof funds that are in surplus and those that are in deficit. By acting as a middleman between depositors and borrowers, banks generate income (Omondi & Muturi, 2013). Commercial banks must prosper regardless of the state of the
economy. It has become necessary for the central bank to oversee commercial banks by directives and qualitative measures in order to protect commercial banks.

**Objective**

The study's major goal is to determine the causes and effects of capital structure on the profitability of those banks from 2069–2070 to 2078–2079 in terms of financial performance by selecting twelve sample banks. The objectives are listed as follows:

1. To examine the impact of leverage ratio on profitability (NIM).
2. To analyze the impact of bank size on profitability (NIM).
3. To assess the impact of liquidity ratio on profitability (NIM).
4. To examine the impact of capital ratio on profitability (NIM).

**Theoretical Framework**

Theoretical framework, to put it simply, is the framework that a research study's theory is built around. This means that it provides a description of the theory that underlies the research study and explains the causes of the research problem's existence. There will be some development of the research's theories and motivations in this section. Additionally, the theory that will support the research study will be chosen, along with the concept and factors that support it. This section of the research will focus on the dependent and independent variables that affect the research study.

The profitability of the bank is impacted by a number of independent variables on different bases. The kind of investment that investors are willing to make, though, will determine this. This indicates that long-term investors typically rely on fundamental variables while short-term investors typically concentrate mostly on technical and economic elements. Market sentiment is also important to short-term investors.

Since the majority of the factors in this study relate to economic issues, some of these variables are listed here. The graphic that follows illustrates the theoretical background for these variables.

_Source: Mehzabin, Shahriar, Hoque, Wanke, & Azad, 2022._

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**Capital Structure**

- Leverage Ratio
- Bank Size
- Liquidity Ratio
- Capital Ratio (CAP)

**Profitability**

- Net Interest Margin (NIM)
Since, the research study has based on the data from the financial report, NIM is the dependent variables. And, NIM is directly impacted by additional factors. Leverage ratio, bank size, liquidity ratio, capital ratio (CAP), and operating efficiency will also be independent variables, because they are unaffected by other variables.

Methodology

A methodical approach to tackling the research topic is known as research technique. In other words, research methodology refers to the procedures and techniques used throughout the entire course of the investigation. The term "research methodology" refers to the different sequential processes that a researcher must take while analyzing a topic with specific goals in mind, along with the justification for each step (Kothari, 1994:9). Under the (Gebrayel et al., 2018; Mercier Sussa et al., 2018; Salloum et al., 2019; Salloum et al., 2015), the estimated model used in this study is consistent. Furthermore, panel data estimations include panel and bank specific influences that take into account persistent variability over time and are involved in randomized elements, producing an effective conclusion. Furthermore, by using cross-sectional or time-series investigations, this econometric approach enables the examination of dynamic impacts, which are typically challenging to establish (Athanasoglu et al., 2008).

The complete process by which we try to solve issues or find answers to questions is known as research methodology. It is founded on various philosophies, concepts, and mechanisms. It is a method for addressing the research problem in a methodical manner. It is the procedure for finding a problem's solution by the deliberate and methodical gathering, evaluation, and interpretation of data. It contains various types of research designs, population and sample, sources of data, data collection and processing procedures, and data analysis tools and techniques (statistical and financial tools, software to be used in the research). It also includes various dependent and independent variables (Arellano & Bover, 1995).

The procedure utilized to gather data and information in order to make business decisions. The methodology could involve both current and historical data, as well as published research, interviews, surveys, and other research methods. The multiple sequential stages that researchers take while analyzing a topic with certain goals in mind are referred to as research methodology. Various data from the balance sheet, profit and loss account, and financial statement of Commercial Bank provided by NRB required for this report were sorted out for the preparation of this thesis, along with information from the annual report of Banking from a few books and publications. Financial and statistical tools have been utilized to examine and interpret the many financial aspects of Commercial banks after the necessary data has been sorted. The report has been created in this manner.

The plan and framework a researcher create to carry out his or her research project from beginning to end is referred to as the research design. A casual comparative research design is used to study the causes and effects among twelve commercial banks' capital structures and profitability. Because comparative study design is concerned with historical phenomena, it has been applied in this situation. It is a procedure for methodically and impartially gathering, analyzing, confirming, and summarizing prior evidence in order to draw a conclusion. Commercial bank capital structure management is also concerned with historical data. Consequently, a descriptive and analytical research approach has been used for this particular
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investigation. This help to obtaining facts and enough information as per requirements. The population of this study is made up of the 22 commercial banks that are now operating throughout the nation. Out of 22 commercial banks, 12 banks are focused of the study's sample. The researcher has researched the capital structure and profitability of commercial banks in Nepal in a casual comparative study. Only twelve banks has chosen using purposive sampling to provide a sample for a casual comparison research. As follows:

**Table 1** List of Sampled Banks with no. of Observations.

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Name of commercial</th>
<th>Abbreviations</th>
<th>Sample Period</th>
<th>No. of Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Agriculture Development Bank</td>
<td>ADBL</td>
<td>2069/70-2078/79</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>Nepal Bank Limited</td>
<td>NBL</td>
<td>2069/70-2078/79</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>Everest Bank Limited</td>
<td>EBL</td>
<td>2069/70-2078/79</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>Himalayan Bank Limited</td>
<td>HBL</td>
<td>2069/70-2078/79</td>
<td>10</td>
</tr>
<tr>
<td>5</td>
<td>Nabil Bank Limited</td>
<td>NABIL</td>
<td>2069/70-2078/79</td>
<td>10</td>
</tr>
<tr>
<td>6</td>
<td>NIC Asia Bank Limited</td>
<td>NICA</td>
<td>2069/70-2078/79</td>
<td>10</td>
</tr>
<tr>
<td>7</td>
<td>Siddhartha Bank Limited</td>
<td>SBL</td>
<td>2069/70-2078/79</td>
<td>10</td>
</tr>
<tr>
<td>8</td>
<td>Global IME Bank Limited</td>
<td>GBIME</td>
<td>2069/70-2078/79</td>
<td>10</td>
</tr>
<tr>
<td>9</td>
<td>Civil Bank Limited</td>
<td>CBL</td>
<td>2069/70-2078/79</td>
<td>10</td>
</tr>
<tr>
<td>10</td>
<td>Kumari Bank Limited</td>
<td>KBL</td>
<td>2069/70-2078/79</td>
<td>10</td>
</tr>
<tr>
<td>11</td>
<td>Laxmi Bank Limited</td>
<td>LBL</td>
<td>2069/70-2078/79</td>
<td>10</td>
</tr>
<tr>
<td>12</td>
<td>Nepal SBI Bank Limited</td>
<td>SBI</td>
<td>2069/70-2078/79</td>
<td>10</td>
</tr>
</tbody>
</table>

The researcher has chosen ADBL, NBL, EBL, HBL, NABIL, NICA, SBL, GBIME, CBL, KBL, LBL and SBI Bank. Because there have been numerous commercial banks founded.

**Table 2**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Measures</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leverage Ratio</td>
<td>Computed by the ratio of total debt to total assets.</td>
<td>Ayalew (2021), Mkadmi et al. (2021)</td>
</tr>
<tr>
<td>Bank Size</td>
<td>Bank size, computed by the natural logarithm of total assets ln (TA)</td>
<td>Adusei (2015), Ali and Puah (2019)</td>
</tr>
<tr>
<td>Liquidity Ratio</td>
<td>Computed by the ratio of Current Assets to Current Liabilities.</td>
<td></td>
</tr>
<tr>
<td>CAP</td>
<td>Capital ratio, computed by the ratio of total equity to total assets.</td>
<td>Rana-Al-Mosharraf and Islam (2021)</td>
</tr>
<tr>
<td>NIM</td>
<td>Measure of net interest margin, Computed by ratio of investment Return minus interest expenses to Average earning assets.</td>
<td>Shrieves and Dahl (1992)</td>
</tr>
</tbody>
</table>
Multiple regression is a flexible technique for data analysis that may be used to look at the relationship between any independent variable and the dependent variable. Relationships can be nonlinear, independent variables can be quantitative or qualitative, and the influence of one or more factors with or without the influence of other variables is thought to be study able, according to Cohen et al. A statistical method for analyzing relationships between variables is regression analysis. The focus is on the link between the dependent variable and one or more independent variables, and it contains numerous approaches for modeling and evaluating multiple variables.

Profitability = f (LR, BS, CRR, CAP)

Model I will try to find out the effect of variable with Net Interest Margin. The model is given below:

\[ \text{NIM} = \beta_0 + \beta_1 \text{LR} + \beta_2 \text{BS} + \beta_3 \text{CRR} + \beta_4 \text{CAP} + \epsilon_i \]..........................(i)

Where,

- \( \beta_0 \) = Constant term
- \( \text{NIM} \) = Net Interest Margin
- \( \text{LR} \) = Leverage Ratio
- \( \text{BS} \) = Bank Size
- \( \text{CRR} \) = Liquidity Ratio
- \( \text{CAP} \) = Capital Ratio
- \( \beta_1, \beta_2, \beta_3, \beta_4 \) = regression coefficient
- \( \epsilon_i \) = error terms

**Data Analysis**

The fundamental organizing and categorization of the data for the analysis is the presentation of the data. The data will be in raw form once data collecting is finished. The information will still remain on note cards, data gathering forms, and in preliminary estimates. Data organization, tabulation, statistical analysis, and inference making include data analysis. The analysis and presentation of the data gathered are the topics of this chapter. Twelve separate sector have been used by NEPSE to categorize the listed companies, and samples were taken based on these sectors. The analysis in this chapter is broken down into the sections below, which deal with the capital structure both directly and indirectly.

Data analysis and presentation are the main topics of this chapter. In this study, an effort has been made to examine the data gathered utilizing a variety of graphical displays as well as financial and statistical techniques. Comparative balance sheet, Comparative profit and loss accounts from 2069/70 to 2078/79 are also included.
Table 3 Descriptive Statistics all Sampled Banks

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leverage Ratio</td>
<td>120</td>
<td>4.12</td>
<td>16.06</td>
<td>8.8176</td>
<td>2.44348</td>
</tr>
<tr>
<td>Bank Size</td>
<td>120</td>
<td>23.63</td>
<td>26.75</td>
<td>25.3878</td>
<td>.66002</td>
</tr>
<tr>
<td>Liquidity Ratio</td>
<td>120</td>
<td>3.05%</td>
<td>37.52%</td>
<td>15.7561%</td>
<td>10.04281%</td>
</tr>
<tr>
<td>Capital Ratio</td>
<td>120</td>
<td>5.86%</td>
<td>19.54%</td>
<td>10.8707%</td>
<td>2.95153%</td>
</tr>
<tr>
<td>Net Interest Margin</td>
<td>120</td>
<td>1.99%</td>
<td>6.31%</td>
<td>3.4771%</td>
<td>0.81801%</td>
</tr>
<tr>
<td>Valid N (list wise)</td>
<td>120</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Calculation using SPSS version 26 under Appendix I

Table 3 shows the leverage ratio from minimum of 4.12 to maximum 16.06 leading to average of 8.81. The size presented by total assets of the selected banks during the study period has 25.38 with the minimum of 23.63 and a maximum of 26.75. Likewise, the liquidity ratio has a minimum value of 3.05 percent and a maximum of 37.52 percent with mean 15.75 percent. The average capital ratio of the selected banks during the study period is 10.87 percent with a minimum value of 5.86 percent and a maximum 19.54 percent. The NIM has a minimum value of 1.99 percent and a maximum of 6.31 percent with a mean 3.47 percent. Therefore, the maximum mean and minimum mean statistic of the sampled banks are bank size from minimum of 23.63 to maximum 26.75 leading to average of 25.38 and net interest income has a minimum value of 1.99 percent and a maximum of 6.31 percent with mean 3.47 percent.

Table 4 Correlation of sampled banks

<table>
<thead>
<tr>
<th></th>
<th>LeverageRatio</th>
<th>BankSize</th>
<th>LiquidityRatio</th>
<th>CapitalRatio</th>
<th>Net Interest Margin</th>
</tr>
</thead>
<tbody>
<tr>
<td>LeverageRatio</td>
<td>Pearson Correlation</td>
<td>1</td>
<td>-.084</td>
<td>.041</td>
<td>-.940**</td>
</tr>
<tr>
<td>BankSize</td>
<td>Pearson Correlation</td>
<td>1</td>
<td>-.003</td>
<td>.088</td>
<td>-.073</td>
</tr>
<tr>
<td>LiquidityRatio</td>
<td>Pearson Correlation</td>
<td>1</td>
<td>.026</td>
<td>.360**</td>
<td></td>
</tr>
<tr>
<td>CapitalRatio</td>
<td>Correlation</td>
<td>1</td>
<td>.415**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net Interest Margin</td>
<td>Pearson Correlation</td>
<td>1</td>
<td>-</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Source: Calculation using SPSS version 26 under Appendix I
Relationship between Leverage Ratio and NIM

The Pearson Correlation Coefficient between the independent variable Leverage Ratio and dependent variable NIM is -.283. Which implies that there is a negative correlation with NIM of the overall sampled banks. It indicates that large NIM results in lower the leverage ratio. This can be concluded that NIM is negatively correlated with LE at 1 percent significant level i.e. (r = -.283, p=0.00 >0.01).

Relationship between Bank Size and NIM

The Pearson Correlation Coefficient between the independent variable Bank Size and dependent variable NIM is -.073. Which implies that there is a negative correlation with NIM of all sampled banks. NIM results in lower the bank size. This can be concluded that NIM is negatively correlated with BS at 1 percent significant level i.e. (r = -.073, p=0.00 >0.01).

Relationship between Liquidity Ratio and NIM

The Pearson Correlation Coefficient between the independent variable liquidity ratio and dependent variable NIM is .360. Which implies that there is a positive correlation of liquidity ratio with NIM of all sampled banks. It indicates that large NIM results in higher the liquidity ratio. This can be concluded that NIM is positively correlated with CRR at 1 percent significant level i.e. (r = .360, p=0.00<0.01).

Relationship between Capital Ratio and NIM

The Pearson Correlation Coefficient between the independent variable Capital Ratio and dependent variable NIM is .415. Which implies that there is a positive correlation of Capital Ratio with NIM. It indicates that large NIM results in higher the Capital ratio. This can be concluded that NIM is positively correlated with CAP at 1 percent significant level i.e. (r = .415, p=0.00 <0.01).

Regression Analysis

Regression is based on the multivariate statistics statistical principle, which requires simultaneous observation and analysis of multiple statistical result variables. The technique is used in design and analysis to conduct trade studies across several dimensions while taking into account all of the variables' effects on the key responses. The coefficient of determination, abbreviated R2, is employed in statistics when describing statistical models whose primary goal is the forecasting of future results based on other pertinent data. A regression line's R2 value, which typically ranges from 0 to 1, indicates how well it fits a collection of data. A regression line fits the data well if the R2 is close to 1, but a regression line does not fit the data well if the R2 is close to 0. In order to account for the inclusion of new variables in the model, adjusted R2 is employed. The regression model is expanded when more independent variables are included.

Unadjusted R2 will almost always rise, but it will never fall. Even if the additional factors don't contribute much to the explanation of the dependent variable, this will still happen. Adjusted R2 is correlated for the number of independent variables in the model to make up for this. The outcome is an adjusted R2, which can change depending on whether the model's capacity for explanation is increased or decreased by the addition of a new variable. Always, corrected R2
will be less than unadjusted. An ANOVA table displays the results of the analysis. "Source," "SS or Sum of Squares," "df - for degrees of freedom," "MS - for mean square," "F- ratio of F," and "P, Probe, Probability, sig, or sig. of F" are the names of the columns in this table. We can determine whether a difference between two groups is "significant" using the t-test. Analysis of variance (ANOVA) is a statistical method used to find significant variations between means. Often, "1%," "5%," and "10%" are used to denote substantial levels.

**Table 5: Model Summary**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.609(^a)</td>
<td>.371</td>
<td>.349</td>
<td>.0066004</td>
</tr>
</tbody>
</table>

\(^a\) Predictors: (Constant), Capital Ratio, Liquidity Ratio, Bank Size, Leverage Ratio

Source: Calculation using SPSS version 26 under Appendix I

R represents the multiple correlation coefficient with a range lies between -1 and +1. Based on table 5 the R value has remained 0.609 of the sampled banks. It means net interest margin had a positive relationship with leverage ratio, bank size, liquidity ratio and capital ratio. R square represents the coefficient of determination and ranges between 0 and 1. Since R square value was .371, it means 37.1% of the variation in net interest margin was caused by leverage ratio, bank size, liquidity ratio and capital ratio of the sampled banks.

**Table 6: Anova Test**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>.003</td>
<td>4</td>
<td>.001</td>
<td>16.944</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>.005</td>
<td>115</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>.008</td>
<td>120</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^a\) Dependent Variable: Net Interest Margin

\(^b\) Predictors: (Constant), Capital Ratio, Liquidity Ratio, Bank Size, Leverage Ratio

Source: Calculation using SPSS version 26 under Appendix I

The dependent variable net interest margin was regressed on predicting variable of leverage ratio, bank size, liquidity ratio and capital ratio. The independent variables significantly predict net interest margin F (4, 115) = 16.944, P<0.01, which indicates that the four factors under study have a significant impact on net interest margin of sampled banks.
Table 7: Multiple Regression Analysis (Sampled Bank, NIM)

<table>
<thead>
<tr>
<th>Coefficients⁴</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>.008</td>
</tr>
<tr>
<td>Leverage Ratio</td>
<td>.003</td>
<td>.001</td>
</tr>
<tr>
<td>Bank Size</td>
<td>-.001</td>
<td>.001</td>
</tr>
<tr>
<td>Liquidity Ratio</td>
<td>.024</td>
<td>.006</td>
</tr>
<tr>
<td>Capital Ratio</td>
<td>.314</td>
<td>.061</td>
</tr>
</tbody>
</table>

⁴. Dependent Variable: Net Interest Margin

Source: Calculation using SPSS version 26 under Appendix I

Table 7 shows that leverage ratio, liquidity ratio and capital ratio has positive relation with the dependent variable of the all sampled bank. Because, researcher has found the audited and unaudited data but not published data in some fiscal year of the some sampled commercial banks. It indicates statistically significant, because the p value for this variable is lower than 0.05. This indicates that when the leverage ratio, liquidity ratio and capital ratio of the sampled banks increase, its results to increase the net interest margin of the banks. Bank Size has negative relation with the dependent variable. It indicates statistically insignificant because the p value for this variable is higher than 0.05. This indicates that when the bank size of the sampled banks increase, which results to decrease the net interest margin of the banks.

Discussion

The result shows Leverage Ratio has remained significant negative correlation with NIM. This distinguishes with Leverage Ratio increases the bank profitability (Mehzabin, Shahriar, Hoque, Wanke, & Azad, 2022). Bank Size has remained insignificant negative correlation with NIM. This indicates that it differs from H₂ in some way. Because, Mehzabin, Shahriar, Hoque, Wanke, and Azad (2022) explain Bank Size enhances the profitability. In a similar study, Liquidity Ratio has remained significant positive correlation with NIM. It means that it causes similar with H₁. Lower predicted bankruptcy costs reduce the cost of finance and risk exposures, allowing for greater money to support more revenue-generating firms, increasing profitability (Berger, 1995; Bourke, 1989; Hassan & Bashir, 2003). Tarek alKayed et al. (2014) previously explained that banks might enhance their equity capital to lower predicted bankruptcy expenses or liquidation and, as a result, increase expected profitability. Because, capital invests in the current assets and liquid assets. The capital ratio continues to have a strong positive relation with NIM. It implies that the effects are similar with those of H4 Doku, Kpekpena, and Boateng, (2019). Capital structure and bank performance. Berger (1995) discovered a positive and statistically significant association between capital to asset ratio and bank profitability and stated
that increasing bank capital to asset ratio is beneficial for riskier banks in terms of reducing predicted bankruptcy costs and interest expenditures.

**Conclusion**

This study aims to determine how much the capital structure impacts the banking sector's profitability. For the chosen organizations, Leverage Ratio continues to show a consistent, negative relationship with NIM. It is still true that loan and deposit have declined while growth rate, bonus dividends, and investment opportunities have increased. Interest rates have increased, and there are more non-performing loans. Furthermore, across all studied banks, there is a negligible negative correlation between bank size and NIM. A rise in reserves, a higher rate of growth, a decrease in bonus dividends or a continuation of current trends in the expansion of investment opportunities, a decline in deposits and lending, an increase in non-performing loans, and an increase in interest rates are all indicated. All of the examined Banks' liquidity ratios still show a strong positive correlation with NIM. It says it causes an increase in deposits and landings, a drop in nonperforming loans, an increase in reserves, an increase in growth rate, a decrease in bonus dividends or a constant, an increase in investment opportunities, and a reduction in interest. The Capital Ratio of each studied bank has continued to show a strong positive correlation with NIM. It suggests that it leads to an increase in deposits and lending, reduced non-performing loans, an increase in interest rates but a decrease in reserves, and an increase in bonus payouts but a decrease in investment opportunities. The outcome is affected by leading bank standards, tax laws, the CSER Committee's participation, and the presence of foreign directors. Despite the fact that the data on Bank Size, Liquidity, and Capital were a limitation for this study, we nonetheless advise that comparable analyses be performed for future studies that encompass all of the country's banks. This study has given us a framework for understanding the mix of leveraged finance used by Nepalese banks.

**Implications**

The research has long-term relevance to Nepal's banking industry; nonetheless, the study contains three main flaws that should be addressed in future research endeavors. For starters, the study did not take into account macroeconomic aspects such as GDP, inflation rate, and competitiveness. Second, the study focused on measured variables while ignoring unmeasured variables such as government regulation, political stability, and social conditions. Furthermore, the analysis can be expanded by integrating additional control variables such as bank insolvency risk, bank concentration, and credit risk. The study could be expanded in the near future to include the concepts of financial inclusion and microfinance to enhance bank profit margins, as many Nepalese nations are transitioning from developing to developed economies. Which could have given more information about the general performance of banks. Lastly, to improve the reliability of the findings, future research should focus on extending the study's time frame and adding a few more financial variables. The study's consequence is that bank managers appear to be interest expense aware and, as a result, consider increasing bank capital ratio to minimize creditors' demand for higher yields on deposits in exchange for the projected expropriation of their claims by shareholders. To improve their profitability, commercial bank managers should intentionally seek cheaper sources of funding, such as consumer short term funding via attractive interest rates. This is evidenced by the recent increase in short term deposit mobilization methods and campaigns by commercial banks in the country to increase their
deposit base. Meanwhile, bank managers must guarantee that overhead expenses, which have a detrimental impact on bank profitability, are kept to a minimum. Finally, the favorable association between capital to asset ratio and performance provides acceptance to the Bank of Nepal’s bank capitalization strategy.

References


