

IMPACT OF MERGER ON PROFITABILITY OF COMMERCIAL BANKS IN NEPAL

A Dissertation submitted to the Office the Dean, Faculty of Management in
partial fulfillment of the requirements for the Master's Degree

by

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CERTIFICATION OF AUTHORSHIP

I hereby corroborate that I have researched and submitted the final draft of dissertation entitled “**Impact of Merger on Profitability of Commercial Banks in Nepal**”. The work of this dissertation has not been submitted previously for the purpose of conferral of any degrees nor has it been proposed and presented as part of requirements for any other academic purposes.

The assistance and cooperation that I have received during this research work has been acknowledged. In addition, I declare that all information sources and literature used are cited in the reference section of the dissertation.

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REPORT OF RESEARCH COMMITTEE

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Abbreviations

ANOVA	Analysis of Variance
ATM	Automated Teller Machine
BAFIA	Bank and Financial Institution Act
BFI	Bank and Financial Institution
BoAN	Bank of Asia Nepal
CAMELS	Capital adequacy, Asset quality, Management capability, Earnings, Liquidity and Sensitivity to market risk
CAR	Capital Adequacy Ratio
CDR	Credit Deposit Ratio
CIME	Center for monitoring Indian Economy
EPS	Earnings Per Share
GBL	Global Bank Limited
GBIME	Global IME Bank Global Bank Limited
MBS	Master's degree in Business Studies
MFIs	Micro finance Institutions
NEA	Nepal Electricity Authority
NIC	Nepal Industrial and Commercial
NPL	Non Performing Loan
NPM	Net Profit Margin
NRB	Nepal Rastra Bank
RBB	Rastriya Banijya Bank
ROA	Return on Assets
ROE	Return on Equity
S.D.	Standard Deviation
SPSS	Statistical Package for Social Sciences

Abstract

Consolidation, acquisitions, and mergers have long been a feature of the corporate sector. Therefore, the goal of this study was to determine how mergers and acquisitions affected Nepal's commercial banks' profitability performance. The purpose of this study is to investigate the relationship between mergers and acquisitions and the commercial banks' financial viability. For this study, analytical and descriptive research designs are employed. A sample of three commercial banks is chosen at random. The study also attempted to evaluate the companies' ten-year data, which included five years prior to and five years following the merger. Regression, correlation, mean, and standard deviation are some of the tools used in data analysis. The information is taken from selected commercial banks' annual reports from different years. The results indicate that the capital has improved following a merger of two or more BFIs. On the other hand, no substantial impact on return on equity is shown by the variables, while only NPL has a significant impact on return on assets.

Keywords: commercial bank, merger and acquisition, return on equity, and return on assets

CHAPTER I

INTRODUCTION

1.1 Background of the study

Throughout the history of mergers and acquisitions, M&A operations have emerged as a crucial component of the strategy for businesses looking to improve performance and establish a strong presence in a cutthroat marketplace. Synergy, which is produced when two organisations with complementary strengths and limitations come together for a common goal, is the primary goal of mergers and acquisitions. Mergers and acquisitions are one of the most effective corporate strategies that businesses utilise to adapt to changes in the economic environment and globalisation, claims Harvey (2015). In Zeremba and Plotnicki (2016) Consider mergers and acquisitions as a type of corporate restructuring that helps businesses regain or strengthen their market advantage. Mergers and acquisitions are another risk management tactic used by businesses, helping them diversify their risks and increase their value Agbloyor et al. (2012).

Mergers and consolidations may have non-financial as well as financial reasons. The financial incentive arises when a merger enables the acquiring company to achieve risk reduction while possibly preserving the firm's rate of return, thereby creating a favourable portfolio impact. Combining the two businesses that profit from various business cycle stages could lessen the performance variability between them. The desire to increase management and marketing capacities and the acquisition of new items are examples of non-financial motivations. According to a study by Novickyte et al. (2015), there are three main reasons why banks merge or acquire: maximising the bank's assets or return; attempting to satisfy the management's eager desires; and elements that foster an environment that is conducive to such transactions.

Following the adoption of a mixed economic model and economic liberalisation regulations in the 1980s, Nepal's financial industry saw an incredible increase in the number of financial institutions. But there were also significant difficulties and complications brought about by the unnatural increase in number of BFIs. The financial

indicator has revealed the fragility and impending collapse of the Nepalese financial sector. Numerous BFIs have combined with one another following the implementation of the Merger Bylaw 2068(B.S.). Over time, this has resulted in the growth and improvement of the banking sector in Nepal. The NRB raised the minimum paid-up capital requirements for commercial banks to Rs. 8 billion and for national level development banks to Rs. 2.5 billion through the 2015 monetary policy. The NRB's demand has improved the environment for the merger and acquisition process even further.

The 2011 merger of a finance firm and a development bank in Nepal marked the start of the country's merger wave. Development banks had 120 merger BFIs until 2020, compared to 27 MFIs. With 63 BFIs merging to produce 24 new ones, 2017 was the year with the most BFI mergers. By 2020, 63 financing businesses, 27 MFIs, 120 development banks, and 44 commercial banks had taken part in the merger operations. The forced merger method used by NRBs in recent times to boost their capital and improve their market competitiveness has contributed to the decline in the number of commercial banks.

There has been a wave of mergers between large commercial banks, according to the policy announced by the Nepal Rastra Bank. In Nepal, there used to be thirty-two commercial banks. There are now just 20 commercial banks left in the country after the NRB requested that the banks raise their paid-up capital. It is anticipated that there would be even less number of commercial banks remaining following the recent and impending mergers. To establish banks that are capable of making investments and are competitive, the central bank has been promoting mergers.

According to Singh and Das (2018) the goal of maximising profits motivates banks; just like it does every other type of business. In order to satisfy the needs of their employees, customers, stockholders, and regulatory body, banks operate with the goal of optimising profits. Public deposits are invested by commercial banks in industries that generate the highest income or rate of return on assets. Commercial banks' earnings are dependent on a number of factors, including their interest rate, the amount and duration of loans they give, and the kind of investments they make in other assets. The bank should make enough money after paying all of its expenditures, including interest to depositors and various administrative charges, to be able to provide fair dividends to its shareholders,

who help the bank, grow its capital. In addition, commercial banks are required to maintain the reserves and provisions set forth by the central bank. To put it simply, commercial banks are businesses established with the goal of optimising the value of the capital invested by shareholders at a manageable risk level. The variables Return on Equity, Return on Asset, and Net Interest Margin are used to evaluate how profitable commercial banks are. Net income or profit after taxes is divided by total assets to determine the return on assets. Net income over the average total assets is another way to assess it. A higher ROA indicates superior bank performance (Garrinson & Norren, 2005). Net income, or profit after taxes, divided by the total equity in common stock is the return on equity, or ROE. This ratio assesses the degree to which management has used shareholder funds sensibly while protecting investors' interests and maximising their net worth.

In addition, the computation of return on loan and advances demonstrates how effectively the management is making use of the available deposits. Good loan activity performance is indicated by a high volume of interest income, and vice versa. Interest income is essential to the growth of a bank's profits.

Brief introduction of sample banks

Rastriya Banijya Bank Limited

Establishing under the unique legislation "Rastriya Banijya Act, 2021," Rastriya Bnijya Bank functioned under the "Commercial Bank Act, 2031" until Baishak 2063, when it was re-registered as a public limited company (19 May 2006). Currently, the bank conducts commercial banking operations in accordance with the terms of the "Bank and Financial institutions Act 2073" (2017) and functions as a "A" class financial institution licenced by Nepal Rastra Bank.

Following the May 2, 2018, merger of RBB with NIDC Development Bank, the bank's paid-up capital exceeded 9 billion, and its total loans outstanding were Rs. 115.73 billion. RBB had Rs. 8.58 billion in total paid-up capital prior to the transaction. Following the merger, RBB emerged as the second-biggest bank. Currently, the bank has Rs. 14.94 billion in total paid-up capital. It is the only commercial bank that the Nepali government owns in its whole.

Global IME Bank

Established in 2007, Global Bank Limited (GBL) was Nepal's first "A" class commercial bank, offering a full range of commercial banking services. With paid up capital of Rs. 1 billion, the bank had the greatest capital base when it was founded. Since then, the bank's paid-up capital has grown to Rs. 18.97 billion. The Nepal Stock Exchange lists the bank as a "A" category business and allows public trading of its shares.

After the successful merger of Global Bank Ltd. (a "A" class commercial bank), IME Financial Institution (a "C" class finance company), and Lord Buddha Finance Ltd. (a "C" class finance company) in 2012, the name Global Bank became Global IME Bank Ltd. (GBIME). In 2013, Global IME bank Ltd. combined with two more "B" class development banks, namely Social Development Bank and Gulmi Bikas Bank. A second merger between Global IME Bank and Commerz and Trust Bank Nepal Ltd. (a "A" class commercial bank) occurred later in 2014. The bank purchased Reliable Development Bank Limited, a "B" class development bank, and Pacific Development Bank between 2014 and 2016. In 2019–20, Janata Bank Nepal Limited (a "A" class commercial bank) and Hathway financing Limited (a "C" class financing company) were combined into Global IME Bank Limited. Following a recent merger, Global IME Bank Limited and Bank of Kathmandu began operating together on January 10, 2023, under the new name Global IME Bank Limited.

NIC Asia Bank Limited

On July 21, 1998, NIC Asia Bank was founded as Nepal Industrial and Commercial Bank. On June 30, 2013, it changed its name to NIC Asia Bank following a successful merger with Bank of Asia. This was the first merger in the history of Nepalese banking between the two commercial banks. NIC Asia bank is now regarded as one of Nepal's most prosperous commercial banks.

The Banker, Financial Times, and UN named NIC Asia "Bank of the Year 2013-Nepal" following the merger. This is the Bank's second time receiving this esteemed award; the first time was in 2007. Based on factors like capital base, size of balance sheet, number of branches, ATM network, and customer base, NIC Asia Bank is currently among the biggest private sector commercial banks in the nation. The bank operates a network of 289 ATMs, 270 branches, 37 extension counters, 22 branchless banking locations, and all

of Nepal's major financial hubs. Meritocracy, transparency, professionalism, teamwork, and service excellence are values that the Bank holds dear. All departments within the Bank have adopted these fundamental principles, which are represented in every decision the Bank makes when conducting business.

For the first time in the history of Nepali banking, two commercial banks, Nepal Industrial and Commercial (NIC) Bank and Bank of Asia Nepal (BoAN), combined to form NIC Asia Bank Limited. As a result, NIC Asia is now among the top banks in the nation in terms of capital size and branch network.

1.2 Problem Statement

The NRB's 2011 merger bylaw made it easier for financial institutions in unstable circumstances to grow and prosper through mergers and acquisitions. NRB implemented these rules in an effort to strengthen and advance the feeble and troublesome financial industry. Currently, the central bank is nearly in control of the BFIs, but from the BFIs' perspective, it's unclear if the merger bylaw is beneficial or not. Shrestha et al.(2018) concluded that mergers and acquisitions had positive impact on stakeholders and financial performance. However, Patel (2018) drew negative results of merger on return on assets. Similarly, Kunwar and Paudel (2023) showed the negative impact of merger and acquisition on banks profitability. The study of Sharma (2018) suggested using new financial indicators such as profitability and leverage to do further research on the consequences of mergers and acquisitions. This study attempts to determine if the merger bylaw has had a favourable or negative impact on the BFIs' profitability in light of these facts and circumstances. The profitability metrics using variables like ROA, ROE, CAR, CDR and NPL of three BFIs both before and after their merger are examined in this study.

This study focuses on finding the answers to the following questions:

- What is the impact of merger on return on assets?
- What is the impact of merger on return on equity?
- At what extent is the bank able to increase its capital adequacy ratio?

1.3 Objectives of the study

The general objective of the study is to analyze the impact of merger on financial performance of commercial banks in Nepal

1. To evaluate the profitability of bank before and after merger.
2. To analyze whether the merger helps in improving the profitability position of the banks.

1.4 Rationale of the study

Planners and decision-makers will benefit from the study's potential findings, which could assist them optimise stockholder value by looking into bylaw provisions and how they affect financial performance. The purpose of the study is to identify performance-related variables and determine whether the merger of BFIs results in any efficiency advantages. Furthermore, the study will add to the body of knowledge and research for academics or students studying the same subject. It will also provide light on the connection between mergers and acquisitions and the performance of commercial banks.

1.5 Limitations of the study

Major limitations of the study are as follows:

- i. The sample data used in the study is relatively small, this might bring question in the statistical validity of the results.
- ii. The study is based on descriptive and comparative research design. Other research design has been ignored in the study.
- iii. The finding of the study could not be generalized to manufacturing and trading enterprises because the study is only based on the financial sector.
- iv. The financial data may not cover actual figure of the industry as the analyzing part of the study only covers Global IME Bank, NIC Asia Bank and Rastriya Banijya Bank Ltd.

Apart from the performance evaluation, other performance ratios like risk, cash flow has been ignored to know the performance of financial institutions that has undergone for merger and acquisition strategy.

CHAPTER II

LITERATURE REVIEW

2.1 Conceptual Review

Merger:

The ultimate objective of the companies is to maximise profits, which can be done by developing new divisions, growing and expanding their activities, or going outside the company through takeovers, joint ventures, mergers and acquisitions (M&As), takeovers, amalgamations, etc. In the current globalised environment, mergers and acquisitions (M&A) have emerged as the most favoured long-term strategy for business strengthening and restructuring. A merger is the coming together of two or more businesses to form a single, new company. Creating synergy; which says that one plus one is more than two is the primary justification for mergers and acquisitions. In the context of banks, mergers are started for a variety of reasons, including accessing new markets, cutting costs through economies of scale, enhancing a company's marketing position, expanding internationally, hiring skilled staff, learning new skills and knowledge, acquiring a new computer base, and exploring cutting-edge technologies. BFIs can profit from new business prospects brought about by changes in the political and technological landscape through M&A. It also contributes to increased cost and profit efficiency.

1. **Horizontal Mergers:** A company that offers the same or a comparable product line and services to the end consumer—that is, one that is in the same industry and at the same stage of production—merges or acquires another company in a horizontal merger. In this scenario, businesses are typically direct rivals. Global IME Bank and Janata Bank's merger is a case of a horizontal merger.
2. **Vertical Mergers:** The goal of a vertical merger is to unite two businesses that are producing similar goods and services along the same value chain, with the sole distinction being the stage of production at which they are functioning. Turner Corporation and Time Warner Incorporated are two examples of vertical mergers.
3. **Concentric Mergers:** Concentric mergers occur when businesses in the same industry that serve the same clients come together, but their product offerings

differ. Coca-Cola, for instance, collaborates with Six Flags Entertainment Company.

4. **Conglomerate Merger:** Conglomerate mergers occur when two businesses, regardless of production stage, decide to unite even though they are in entirely distinct industries. Usually, this is done in an effort to diversify into different businesses and lower risks. The merging of Walt Disney and American Broadcasting Company is an example of a conglomerate.

Motives of merger: Mergers are driven by many factors and rationales. The major motives of merger in Nepalese context are as follows:

Synergy: When two or more firms are combined to form one, the combined value is expected to be more than each individual. The efficiency obtained from the combination is said to be the synergy. Synergy can be obtained from the operational or financial efficiency. Economies of scale help in reducing cost, thereby creating synergy.

Efficiency gains: Efficiency is utilizing the available resources in such a way that the production of goods and services are to the optimum. Merger brings greater efficiency with the diversified resources which helps banking in building strong and more competitive position in the industry.

Growth: Growth in terms of capital and resources, occupancy of market and diversified products and services are the major motives of merger in banking sector. Banks can grow either by acquiring another bank for more opportunity to grow and expand. The growth ultimately will reduce threat in the market and potential competitors.

2.2 Theoretical Review

Theories on merger and acquisition

There are some theories that are used to explain the reason of the firm to engage in merger and acquisition.

- i. **Power theory:** Growing market power is the ultimate goal of any market participant or group of participants (individuals, companies, partnerships, or

others) in order to influence price, quality, and the nature of the production in the market place. This, in turn, can lead to uncompetitive high and risk-free profits Montgomery (1985). According to the theory of market power, mergers and acquisitions reduce the number of banks and reduce competition, which increases market concentration and increases the damage.

- ii. **Resources theory or synergy theory:** "The amount of economy that will result from a merger will depend on the amount of the resource held by the firm, relative to total amount present in the economy, and availability of opportunities to use this resources," according to synergy theory Chatterjee, (1986). Through synergies in operating and financing, a merger or acquisition is expected to increase future cash flow and firm value. This can be attributed to an increase in economy of scale through firm size expansion or an increase in economy of scope due to specific combination advantages between the merged firms. The benefits of new tax-saving options, cost savings from increased efficiency, and revenue growth from cross-selling and up-selling all contribute to synergy. This hypothesis predicts improved performance from bidders as well as targets Hankir et al. (2011).
- iii. **"Eat or be eaten" theory of mergers:** The following presumptions form the foundation of the "eat or be eaten" argument, according to Gorton et al. (2005): Initially, managers can favour maintaining the independence of their companies. It is probable that managers from acquired companies will have less authority or possibly lose their positions in the new company. Second, there is a situation where a minimum of some mergers add value. Thirdly, a company of a certain size is unable to buy out a larger company. The acquisition is harder to finance the larger it is. Accordingly, the major policy tenet of the "eat or be eaten" idea is that companies may engage in mergers and acquisitions to preserve their independence, grow their business, safeguard the jobs of its management, or prevent being purchased by other companies Rehan et al. (2018) Put another way, managers may engage in mergers and acquisitions for defensive reasons. Specifically, they may seek to grow their companies through acquisitions, which will lessen the possibility of their companies being acquired.
- iv. **Agency theory:** According to agency theory, managers have an incentive to grow their companies beyond their current size. Growth expands the resources under managers' control, which gives them more power. Because changes in

remuneration are favorably correlated with growth in sales, it is also linked to an increase in managers' compensation Hankir et al. (2011). According to agency theory, bidding banks' management engages in mergers and acquisitions for their own gain, disregarding the financial rationale Asimakopoulos & Athanasoglou, (2013). Hubris theory is comparable to agency theory. According to the hubris theory, bidder banks' management is paying a comparatively high price because they have overconfidently identified the undervalued target banks Asimakopoulos & Athanasoglou, (2013). Bidder performance is anticipated to decline in accordance with agency theory and hubris theory Hankir et al. (2011).

History of Merger in Nepal

The first known merger in Nepal's history occurred when Nepal Electricity Authority (NEA) and Eastern Electricity Corporation amalgamated in the late 1980s. Despite occasional instances of mergers and acquisitions (including management takeovers) in between, mergers and acquisitions were not recognised to be a regular strategic activity in the Nepalese corporate sector.

Following stricter capital adequacy guidelines and a rise in the minimum capital requirement imposed by Nepal Rastra Bank (NRB), merger and acquisition activity has abruptly surged since 2011, particularly in the banking and financial industry. The number of banks and financial institutions has decreased as a result of the central bank's intention to do so, which was expressed in monetary policies and merger and acquisition bylaws with provisions for M&A facilitation and indirect provisions for coercive merger.

Based on accessible information, there have been significant bank and financial institution merger and acquisition activities since 2011, mostly due to the Central Bank's imposition of higher minimum capital requirements. Up until October 2017, there were 151 banks and financial institutions in total; however, there are just 107 banks and financial institutions as on April 2024, which is listed below:

Table 1

Number of Institutions before and after Merger

Particulars	Class of Institutions				
	A	B	C	D	Total
Licensed Institutions (Pre-merger)	31	39	27	54	151
Licensed Institutions Reduced/added	11	22	10	1	44
Licensed Institutions (Post-Merger)	20	17	17	55	107

Source: *Nepal Rastra Bank*

2.3 Empirical review

Adhikari (2023) attempted to examine the effect of merger on the financial performance of Nepalese commercial banks. NIC Asia, Global IME Bank limited, Bank of Kathmandu Limited and Prabhu Bank Limited were taken as samples for the study. To determine the multicollinearity of variables, data from both before and after the merger were analyzed using the VIF test and multiple regression analysis. Financial performance measures included EPS, NWPS, P/E ratio, CD ratio, CAR, NPL ratio, ROA, ROE, and NPM. Nepalese commercial banks have benefited from mergers, as seen by the substantial post-merger improvements in profitability in terms of EPS, ROA, and NPM. However, following the merger, metrics including the CD ratio, CAR, and NPL ratio did not exhibit any appreciable improvements. The most notable influence on ROA during the pre- and post-merger phases was CAR. The study concludes that the success of the merger also depends on the financial position of the merging banks, management competency, public trust, and shareholders confidence, which should not be compromised while selecting the ideal partner for merger.

Adhikari et al. (2023) compared the financial performance of the overall commercial banking sector and selected commercial banks on an individual basis before and after the mergers and acquisitions policy intervention. Financial ratios that were taken into account for the measurement of performance before and after the merger included profitability, liquidity, leverage, and shareholder wealth. Seven commercial banks that

merged between 2013 and 2020 were selected as a sample. To determine whether there was a significant difference between the sample banks' pre- and post-merger conditions, the study employed a paired sample t-test. The results showed that, following a merger, the commercial banking industry as a whole greatly increased its leverage and liquidity ratios. Other metrics, like profitability and shareholder wealth, on the other hand, revealed inconsistent and negligible results following the merger.

Kunwar and Paudel (2023) studied the financial performance analysis of pre-post-merger of commercial bank in Nepal to examine whether the profit and the capital adequacy position of the banks changes after the merger. Eight commercial banks are chosen at random as the sample bank from a total of 26 banks. Variables including CAR, NPL, spread ratio, NPM, ROA, ROE, EPS, and cash to total assets ratio were analyzed using descriptive statistics, correlation, and T-test for the data gathered from secondary sources. The outcomes demonstrate a favorable influence on metrics such as the cash to total assets ratio, return on equity, and capital adequacy ratio. Non-performing loans, spread ratios, net profit margins, return on assets, and earnings per share all saw unfavorable changes, though. The whole outcome demonstrates that mergers and acquisitions have a detrimental effect on banks' profitability. The study recommends adopting the factors like size, liquidity ratios, leverage ratio and working capitals to study about the pre-post-merger and acquisition changes on financial performance.

Singh et al. (2023) under the comparative analysis of pre and post-merger: effect on the financial performance of Microfinance institution in Nepal; studied variables like EPS, ROE, ROA, NPM and current ratio to analyse the effect of merger. Merged Microfinance institutions were taken as sample where data were taken from secondary sources. The study used paired sample t-tests to analyse the data. The result of the study found that the merger strategy of Microfinance Institutions in Nepal does not have impact in financial performance. However, the increase in debt to equity ratio indicated that the situation of the Microfinance Institutions worsened after the merger.

Goet (2020) centered on the question, "Does bank merger improve profitability?" It also uses various accounting ratios to investigate how the merger affected the bank's profitability. Ratios that are thought to be the most dependable and effective for assessing the bank's profitability include stability and profitability ratios. Additionally helpful in logical decision-making and long-term planning for the bank's improvement were these

accounting ratios. To test the study's aims, a descriptive and correlation research design was employed. It was dependent on arbitrary data that was gathered from particular banks' annual reports. For the purposes of this study, Citizens Bank International Ltd. has been selected as a sample bank. Out of Nepal's twenty-seven commercial banks, the bank has been selected as a purposive technique. For analysis purposes, the study used six years of data, three years of pre-merger and three years of post-merger data. The findings showed that while several financial measures improved following the merger, the majority of them did not show any fundamental improvement in either situation. However, since just three years' worth of financial extents were taken into account, it's likely that things would get better in subsequent years. While overseeing mergers and acquisitions, considerable increments were made as time goes on achieving the improvement in the profitability and execution of banks.

Musah et al. (2020) on "The Effect of Mergers and Acquisitions on Bank Performance in Ghana" looked at how mergers and acquisitions affected the financial performance of banks using three metrics: net profit margin, return on assets, and return on equity. Over a ten-year period, from 2009 to 2018, data were gathered from the annual reports of eight commercial banks, and descriptive statistics, regression analysis, and correlation analysis were used for analysis. The study's conclusions suggest that a bank's financial performance may not always be enhanced by mergers and acquisitions. Nonetheless, the findings demonstrated that, in comparison to smaller banks, larger banks benefit from economies of scale and better financial performance. The results suggest increase in cost of operations in the post- merger period as evidenced in the negative association between mergers and acquisitions and net profit margin. The study recommends that companies should adopt a comprehensive strategy to reduce cost in post- merger and acquisition period in order to maximize profitability.

Ali and Ullah (2019) studied 'the role and impact of merger and acquisition of banking sector in Pakistan' to identify the nature of impact of mergers and acquisitions on Pakistan's financial performance. Further the study also analyses the aspects of mergers and acquisitions on financial and economic performance of banks. The study takes three independent variables: Profitability, Liquidity and Solvency and their measures to analyze the impact of merger and acquisition on the financial performance of banks in Pakistan. Five commercial banks that were involved in merger and acquisition process were selected as the sample of the population. The study period includes two years before and

two years after merger. The results of empirical and theoretical research shown that there is a positive relationship between merger and acquisition and liquidity ratios of banking institutions: and negative impact on profitability and solvency in short term. As it is said that Global financial recession started at the end of 2007 and lasted up to 2011, the study was conducted during the same period so the recession might have affected the M&A in banks. However, the study suggests that to identify whether the reason for negative influence of merger and acquisition on the financial and economic performance is recession or not, the study should be conducted considering the neutral and recessionary free year like 2014.

Bipin (2018) studied the impact of merger on financial performance of banks in Nepal. The financial and accounting data of six commercial banks for the three years before merger and three years after merger were collected from annual reports of the banks. The variables like ROE, ROA, Non-performing loan ratio and capital adequacy ratio were considered for the analysis of impact of merger. The study used SPSS software where frequency and percentage analysis, cross tabulation, independent sample t- test, paired test, ANOVA test, multiple regression analysis and correlation analysis were tested for the evaluation of the data. The result of the study found that ROE has significant impact, where ROE significantly change after the merger. Likewise, CD ratio also significantly changed with the merger; BFIs lowered down the CDs after the merger. ROA, NPL and CAR did not significantly change after the merger. Through the independent t-test there was no any difference between the pre- merger and post-merger performance of the banks.

Gautam (2018) on the study of Impacts of non-performing loans on profitability of Nepalese commercial banks concluded that the factors such as NPL, CDR and interest income affect the profitability of Nepalese commercial banks. The study was based on hundred observations from different ten commercial banks of Nepal. The regression models were employed to test the impact of non-performing loan on profitability of commercial banks. The beta coefficient for CDR, net profit to loans and advances, NPL ratio and interest income are positive on ROA. Likewise, beta coefficient is positive for credit deposit ratio, net profit to loan and advances whereas negative for the NPL and interest income on ROE. The R-square results for both models show that ROA and ROE are important variables to influence the profitability of commercial banks of Nepal.

Patel (2018) in his study of 'Pre & Post Merger financial Performance: An Indian Perspective' compares the before and after merger position of long term profitability using paired t-test with respect to selected Indian banks for a period of 2003/04 to 2013/14. The financial performance is evaluated on the basis of variables like business per employee, profit per employee, return on assets (ROA), return on equity (ROE), Net profit ratio, and yield on advance and yield on investment. Secondary data contain the profitability ratios, balance sheet and profit and loss account of the selected banks. The ACE Equity database software, Reserve Bank of India reports and publications, the Centre for Monitoring Indian Economy (CIME), and reports and publications from Indian Banker's associations are the sources of the trustworthy data. The judgmental sampling method is used to choose the sample banks. The banks that engaged in merger and acquisition activities between 2002 and 2010 comprised the study's population. The analysis comes to the conclusion that while the merger and acquisition had a negative impact on the banks' profitability, it had a good impact on their earnings per share, yield on loans, yield on investments, profit per employee, and business per employee. Assets equity, investment and advances of those banks were increased. The study suggests that there should be optimum utilization of human as well as other available resources, so that maximum profit could be gained through merger and acquisition.

Sharma (2018) under the study 'Effect of bank's merger and acquisitions in Nepal: Study of selected banks' has concluded that the financial indicators of merged BFIs have experienced an improvement in performance. The impacts of the merger on the financial performance of commercial banks were assessed by a comparison of pre- and post-merger data. A descriptive study design was employed, in which respondents' responses to both open-ended and closed-ended questionnaires were obtained. MS Excel was used to assess and show the data objectively, creating column charts as a result. The data analysis produced a favorable analytical outcome. The study suggests using new financial indicators, such as profitability and leverage, to do additional research on the consequences of mergers and acquisitions on the financial performance of various sectors, including its influence on employees, consumers, shareholders, and the financial market. Moreover, in order to get more precise data, the author suggests to follow better research techniques and method as well as more sample should be taken into consideration.

Rehan et al. (2018) conducted research on 'to identify the effect of mergers and acquisitions on profitability of banks in Pakistan.' The variables used in the study were

Debt to equity ratio, Return on capital employed, net profit margin, gross profit margin and return on equity.t-test was conducted for the data that were collected from the annual report of the banks to find out the effect before and after merger and acquisition. The study concluded that the return on capital employed had significant increase after M&A whereas effect on NPM, Debt equity ratio, and return on equity were insignificant. The study recommends minimizing gross profit margin for the improvement of financial performances and efficiency. It is also recommended that the assets of the banks should be used against liabilities, further the study suggests to rely more on equity financing than on debt financing.

Singh and Das (2018) on the study of ‘ Impact of post- merger and acquisitions activities on the financial performance of banks: study of Indian private sector and public sector’ concluded that the merger announcement in the banking sector typically result in no cumulative return on the stocks of acquiring banks but significantly positive return on stock of targeted banks. During the study secondary data were collected from the bank’s published annual report and different websites as well as various journals and magazines. Post- merger performance, market valuation, credit policy and different financial parameters were taken into consideration during the study. Uniform financial institutions rating system popularly known as CAMELS as advocated by Basel I&II norms has also been used to measure the post-merger performance of selected banks during the period of 2010/11 and 2015/16. The study recommended that policies and strategies instituted by management, for instance the credit policy, should be re- visited in order to enhance internal and external operation, the logistical framework support should be improved; a more comprehensive approach to integrated marketing communications mix should be put in place in the promotion of the Bank’s existing and added products so as to gain more market share.

Shrestha, Thapa and Phuyal (2017) conducted ‘A comparative study of merger effect on financial performance of banking and financial institutions in Nepal.’ The study's goals were to evaluate stakeholders' perceptions of the merger and compare the financial performance of the combined banks and financial institutions to their pre-merger performance. A sample of six banks and financial institutions was chosen for the research. Information was gathered from both primary and secondary sources. The t-test of changes in performance metrics was applied in conjunction with the comparison of financial ratios. This study discovered that, in contrast to mergers between smaller BFIs,

which primarily include other parties than commercial banks as bidders, mergers involving larger and more stable parties, such commercial banks, have a favourable influence on performance. Most of the time, there is a considerable decline in credit quality following a merger, and profitability metrics like ROA and ROE are negatively impacted. The author came to the conclusion from the study that choosing the correct partners for a merger requires careful consideration and should not be seen as the only way to solve market obstacles.

Anthony (2017) in his study titled 'Effects of Merger and Acquisition on Financial Performance: Case Study of Commercial Banks', a research focused on the financial performance of commercial banks in Kenya which was merged between 1999 and 2005. Comparative analysis of the bank's performance pre and post-merger periods was conducted to establish whether mergers lead to improved financial performance before and after merging. Secondary data from financial statements was collected for 5 years before and after the merger and analyzed with the aid of statistical tools. The population used in this study was all the 36 Kenyan commercial banks that have undergone mergers. The study focused on the financial performance of the merged Kenyan banks before and after merger. The study established that merger was influencing profitability of banks, the study conclude that mergers and acquisitions influence capital adequacy ratio positively and influence long-term solvency ratio positively. The study recommends that those firms facing constraints on the market should consolidate their energies by restoring the merger and acquisition so as to expand their profitability as the merger acquisition is not just for the best interest of the mangers but also shareholders as it leads to an increase in shareholders' wealth as opposed to each financial institution operating separately on its own.

Bhatta (2016) studied the effect of banks merger on shareholders wealth and post-merger situation of Nepalese banking industry. The effect of independent variables like cost efficiency, ROA, ROE and Capital on dependent variable EPS was examined through descriptive analysis and correlation and regression we employed to measure the effect of merger on the shareholders wealth. Global IME Bank Limited and NIC Asia Bank Limited were selected as sample of the study. Data were collected from secondary sources and analysed. Quantitative techniques such as mean, standard deviation, coefficient of correlation and regression were used for the descriptive and statistical analysis. The overall result of the study showed that except ROA, no other independent

variable showed any impact on earnings per share. The study suggests that ROA being the influencing factors in shareholders wealth creation, the external factors also affects the banks performance and ultimately affects the shareholders wealth.

Abdulazeez et al. (2016) examined the impact of mergers and acquisitions on the financial performance of some selected banks in Nigeria. Return on assets, return on equity and earnings per share were taken into consideration as the indicators of financial performance of the selected banks. Twenty five banks that were recapitalized through issue of common stock and mergers and acquisitions were taken as sample. Data were collected from annual reports and accounts of selected banks. Ex- post facto research design was used where t-test were used to analyze data through SPSS. The study shows that merger is beneficial only in the cases where large and stable parties such as commercial banks are involved and the financial performance of bidder BFIs improves after the merger but changes are not significant.

Joash and Njangiru (2015) examined whether the merger had any effect on the banks, performance in Kenya. The goal of the study is to ascertain how mergers and acquisitions impact shareholders' value and what impact they have on profitability. An investigation was conducted on fourteen banks that had been purchased or combined between 2000 and the present. Both open-ended and closed-ended questions from surveys were used to gather data. Using SPSS, the gathered data was examined in order to determine the correlation coefficient. According to the study, mergers and acquisitions increased the combined or acquiring banks' stockholders' value. A researcher suggested that before beginning the merger or acquisition process, thorough feasibility studies should be conducted. It was recommended that effect of merger/acquisitions in other sectors of the economy should be established with a view of drawing a parallel with the effects of the same processes in the banking sector.

J K et al. (2015) on “Impact and Challenges of Merger and Acquisition in Nepalese Banking and Financial Institutions” studied the impact of merger and acquisition on employees, customers and shareholders. NIC Asia Bank Ltd., which was formed after the merger with NIC Bank and Bank of Asia Nepal, was taken as sample for the study. Variables taken for the study were ROE, ROA, CAR, NPL, CD ratio, EPS to analyse the impact on shareholders. Data were analysed and presented quantitatively using SPSS and MS-Excel. Analysis showed that indicators like EPS, ROE has decreased whereas NPL

has increased, which is non-beneficial for shareholders. Variables such as ROA and CAR showed positive changes which is beneficial for the shareholders. The study recommends involving with expert or investment banks for full- fledged merger advisory service to avoid delay and cumbersome process of merger observed in Nepal.

Duksaite and Tamosiuniene (2009) in their book titled 'why companies decide to participate in mergers and acquisitions' described the most common motives for company's decision to participate in mergers and acquisitions transactions. The reason is growth, synergy, access to intangible assets, diversification, horizontal and vertical integration and so on arises from the primary company's motive to grow. Most of the motivations for mergers and acquisitions feature serve as means of reshaping competitive advantage within their respective industries. However, it may be that some of the motives identified affect some industries more than others, and in that sense they can be expected to be associated with a greater intensity of mergers and acquisitions in certain sectors rather than others. They also concluded that there can be minor variations in terms of the impact on operating performance following mergers, when the acquiring and acquired firms are of different relative size, as measured by market value of equity.

2.4 Research gap

A research gap is a difference between earlier and current research. These are unexplored areas or subjects with room for more research and explanation. Previous papers and theses about the effect of mergers on commercial banks' financial performance were examined in order to find research gaps, and the studies' research gaps were then reduced. The following factors primarily set this study apart from earlier research studies:

- i. This study focuses on measuring and comparing profitability of commercial banks before and after merger.
- ii. Ratios like ROA, ROE, Credit Deposit ratio, Non-performing loan and capital adequacy ratio are used to analyze and compare profitability of commercial banks which are different than past researcher.
- iii. To be precise about our findings and conclusion, data of five years before merger and five years after merger are considered for the study.
- iv. The sample banks used in the study are Rastriya Banijya Bnak ltd., NIC Asia Bank Limited and Global IME bank Limited.

- v. The study focuses on to what extent the merger and acquisition impacts on the profitability of the banks depending on the selected variables.

CHAPTER III

RESEARCH METHODOLOGY

3.1 Research design

This study is based on descriptive and causal comparative research designs. The annual reports of the banks are analyzed and evaluated on the basis of past journals, books and research. The research work studies the pre-merger and post-merger profitability performance of the merged entity by using different financial indicators and statistical tools. Means and standard deviations are used as descriptive analysis whereas, correlation and regression analysis are done to know the cause and effect of independent variables on dependent variables.

3.2 Population and sample and Sample Design

The population refers to the industries of same nature and its services and product in general. Therefore, the total commercial banks that are gone through merger and acquisition process constitute the population of the study. The banks selected for the study is the sample of the study. The banks selected for studying the impact of mergers and acquisition on various variables represents the Nepalese economy. Only limited banks were selected for in depth financial analysis taking into account the constraints of uniformity of data for the said periods. For sample commercial banks: Global IME Bank Limited, NIC Asia Bank Limited and Rastriya Banijya Bank Limited are taken into account

Table 2

Name of Institutions before and after Merger

S. N.	Institution 1	Institution 2	Name after Merger	Merger date
1	Commerz and Trust Bank Nepal Ltd.	Global IME Bank Ltd.	Global IME Bank Ltd.	2014
2	NIC Bank	Bank of Asia Nepal	NIC Asia Bank Ltd.	30/06/2013
3	NIDC Development Bank	Rastriya Banijya Bank Ltd.	Rastriya Banijya Bank Ltd.	2/5/2018

Sample design

Three banks that have gone through merger phase are selected randomly from the population of 21 commercial banks of Nepal. Those banks are selected with a view of generalizing the research findings in the industry.

3.3 Nature and Sources of Data

Secondary data were collected from the annual reports of the selected banks, Nepal Rastra Bank different research journals and books. To get a realistic and authentic outcome of the finding the secondary data were taken with high precaution.

3.4 Method of analysis

Different financial and statistical tools are used to analyze the collected data and to achieve the objective of the study. Because of the limited time and resources, simple analytical statistical tools such as mean, standard deviation, correlation and regression analysis are used in the study.

Mean

Mean is the arithmetic average of a range of values or quantities computed by dividing the total of all values by the number of values. It refers to the average that is used to

derive the central tendency of the data. The arithmetic mean is the most commonly used and readily understood measure of central tendency. It can be calculated as follows:

$$\text{Mean } (\bar{X}) = \frac{\sum X}{N}$$

Where

\bar{X} = Mean of the values

$\sum X$ = Summation of the values

N = No. of Observations

Standard deviation

Standard deviation is the measure of dispersion, that is used to quantify the amount of variation or dispersion of a set of data values. It can be defined as the positive square root of variance. A useful property of the standard deviation is that, unlike the variance, it is expressed in the same units as the data. If the data points are farther from the mean, there is higher deviation within the data set. Thus, the more spread out the data, the higher the standard deviation. It can be calculated as follows;

$$\text{S.D.} = \sqrt{\frac{\sum(x-\bar{x})^2}{n-1}}$$

Where,

n-1 = Number of observations in Series X,

$\sum(x - \bar{x})^2$ = Summation of Square of Deviation from mean value.

Correlation

Correlation is a statistical tool used to measure how strong a relation is between two variables. Correlations are useful because they can indicate a predictive relationship that can be exploited in practice. In this study, correlation is calculated to find the degree of relation between independent and dependent variables for all sample. It can be calculated as follows:

$$r = \frac{n\sum XY - \sum X \sum Y}{\sqrt{n\sum X^2 - (\sum X)^2} \sqrt{n\sum Y^2 - (\sum Y)^2}}$$

Where;

n = Quantity of Information

Σx = Total of the First Variable Value

Σy = Total of the Second Variable Value

Σxy = Sum of the Product of & Second Value

Σx^2 = Sum of the Squares of the First Value

Σy^2 = Sum of the Squares of the Second Value

Regression Analysis

Regression analysis tells the direction of movement but it does not tell the relative movement in the variables under study. Regression analysis helps us to know the relative movement in the variables. Multiple regression analysis is a statistical tool, which facilitates in estimating or predicting the value of dependent variable from the value of independent variable. In this study, ROA and ROE are dependent variable and CDR, NPL, and CAR are considered as independent variables. Generally, in multiple regression analysis, method of least square is computed for this purpose. The multiple regression equation is:

$$\text{Model 1: ROA} = a + b_1\text{CDR} + b_2\text{NPL} + b_3\text{CAR}$$

$$\text{Model 2: ROE} = a + b_1\text{CDR} + b_2\text{NPL} + b_3\text{CAR}$$

Where,

a = Regression intercept or constant value

b = Beta coefficient of multiple regression.

ROA = Return on total assets

ROE = Return on equity

CDR = Credit Deposit Ratio

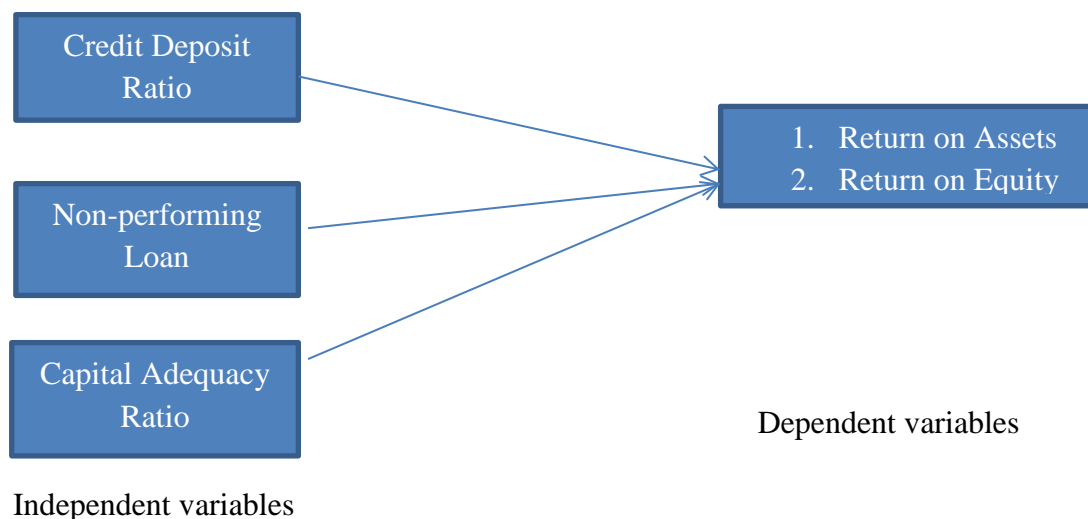
NPL = Non-performing Loan

CAR= Capital Adequacy Ratio

3.4 Research framework and definition of variables

A conceptual model known as a research framework illustrates the connections between the various elements that have been determined to be significant to the issue at hand. The results of earlier study are presented coherently, and a scientific foundation supporting the hypotheses and assumptions is developed. The link between the independent and dependent variables is presented. The literature serves as the foundation for developing the variable relationships.

Figure 1 Research Framework



Source: Shrestha *et al.*, 2017

Independent variables:

Credit deposit ratio: CD ratio is the ratio of how much a bank lends out of deposits it has mobilized. It indicates how much of each rupee of deposit goes toward credit markets in a particular region. A very low ratio indicates banks are not making full utilization of their deposits and a very high ratio indicates more reliance on deposits for lending purpose. CD ratio helps in assessing a bank's liquidity.

$$CD \text{ Ratio} = \frac{\text{Total Loans and Advances}}{\text{Total Deposits}} \times 100$$

Non- performing loan: A non- performing loan is a bank loan that is subject to late repayment or is unlikely to be repaid by the borrower in full. The higher amount of non-performing loan prevents banks from lending more to business and consumers.

$$\text{Non performing loan ratio} = \frac{\text{Total Non performing Loan}}{\text{Total Loans and Advances}} \times 100$$

Capital Adequacy ratio: Capital adequacy ratio is a measure of how much capital a bank has available. It is the percentage of bank's risk- weighted credit exposures. The purpose of Capital adequacy ratio is to establish that banks have enough capital on reserve to overcome a certain amount of loss before being at risk for becoming insolvent.

$$\text{Capital Adequacy Ratio} = \frac{\text{Total Capital}}{\text{Risk Weighted Assets}} \times 100$$

Dependent variables:

Return on Assets (ROA): ROA defined as the ratio of net income after to total assets, was used as proxy for management efficiency. This ration is an indicator of managerial efficiency; it indicates how capable the management of the bank has been converting the bank's assets into net earnings. Higher ROA shows the better utilization and management on the assets into net earnings, Higher ROA shows the better utilization and management on the assets and extends profit level. This ratio depicts how efficiency a bank management is utilizing mobilizing its assets to generate profit.

$$ROA = \frac{\text{Net Income after Tax}}{\text{Total Assets}} \times 100$$

Return of Equity (ROE): Return of Equity (ROE) measures the rate of profit generated by utilizing the shareholder's funds. In other word, ROE is a profitability ratio that measures the ability of a bank to generate profit from its shareholders investment in banks. It is used to analyze financial performance by showing how much profit each rupees of common stockholders' investment has been utilized by the firm. It is calculated by dividing the profit after taxes by average shareholder's equity

$$ROE = \frac{\text{Net Income after Tax}}{\text{Average Shareholders Equity}} \times 100$$

CHAPTER IV

RESULTS AND DISCUSSION

In this research the majority of the data were collected from the Rastriya Banijya Bank, global IME Bank and NIC Asia Bank. Data are collected from the annual reports of the sample banks as well as “bank Supervision Report of Nepal Rastra Bank, data before five years of merger and after five years of mergers are analyzed through different quantitative techniques such as mean value and standard deviation.

4.1 Descriptive Analysis

Descriptive analysis such as minimum, maximum, mean and standard deviations are calculated and analyzed considering the data before and after the merger for the simpler interpretation of data.

Table 3

Descriptive Statistics before Merger

	Descriptive Statistics				
	N	Minimum	Maximum	Mean	Std. Deviation
ROA	15	0.42	3.33	1.49	0.71
ROE	15	4.78	76.95	24.13	21.00
CDRATIO	15	0.58	0.86	0.75	0.08
CAR	15	6.02	14.02	11.40	1.84
NPL	15	0.09	5.60	2.30	1.72
Valid N (listwise)	15				

Non-performing loan ranges between 0.09 and 5.60 with mean of 2.30. NPL has standard deviation of 1.72 before merger. Capital Adequacy Ratio has minimum of 6.02 and maximum of 14.02 whereas mean and standard deviation are 11.40 and 1.84 respectively. Similarly, Credit Deposit Ratio has the lowest deviation among the variable with value 0.08 where minimum and maximum ranges from 0.58 and 0.86 with mean value 0.75. Return on Assets range from 0.42 to 3.33 with mean and standard deviation of 1.49 and 0.71 respectively. Return on Equity has the highest standard deviation of 21 where minimum maximum and mean are 4.78, 76.95 and 24.13 respectively.

Table 4

Descriptive Statistics after Merger

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
ROA	15	0.78	2.31	1.48	0.36
ROE	15	7.09	27.94	15.66	4.45
CDRATIO	15	0.67	0.91	0.81	0.06
CAR	15	11.37	14.31	12.78	0.90
NPL	15	0.07	4.75	2.01	1.29
Valid N (listwise)	15				

Non-performing loan ranges between 0.07 and 4.844 with mean of 2.10. NPL has standard deviation of 1.302 after merger. Capital Adequacy Ratio has minimum of 11.368 and maximum of 14.305 whereas mean and standard deviation are 12.874 and 0.917. Similarly, Credit Deposit Ratio has the lowest deviation among the variable with value 0.067 where minimum and maximum ranges from 0.672 to 0.913 with mean value 0.814. Return on Assets range from 0.781 to 2.311 with mean and standard deviation of 1.508 and 0.338 respectively. Return on Equity has the highest standard deviation of 4.049 where minimum, maximum and mean are 11.431, 27.939 and 16.657 respectively.

4.2 Correlation Analysis

Table 5

Correlation analysis of variables before Merger and after Merger

		Correlations (Before Merger)					Correlations (After Merger)				
		ROA	ROE	CD RATIO	CAR	NPL	ROA	ROE	CD RATIO	CAR	NPL
ROA	r	1					1				
	p-value	-					-				
ROE	r	0.658**	1				0.922**	1			
	p-value	0.008	-				0.000	-			
CD RATIO	r	-0.483	-0.688**	1			-0.116	-0.130	1		
	p-value	0.068	0.005	-			0.681	0.643	-		
CAR	r	0.159	-0.578*	0.366	1		0.167	0.262	-0.044	1	
	p-value	0.571	0.024	0.180	-		0.553	0.346	0.875	-	
NPL	r	0.484	0.785**	-0.794**	-0.427	1	0.657**	0.671**	-0.610*	0.281	1
	p-value	0.068	0.001	0.000	0.112	-	0.008	0.006	0.016	0.311	-

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

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

c. Listwise N=15

Table 5 shows the correlation among the dependent variables and independent variables during the study period of five years before and after merger. The relationship between ROA and other independent variables is not significant before merger but after merger, relationship between ROA and NPL is positively significant at 0.01 level. The relationship between ROE and CD ratio before merger is negatively significant at 0.01 level whereas relationship with NPL is positively significant at same level. The relationship of ROE with CD ratio does not show any significant relation after merger but ROE and NPL after merger are positively significantly correlated at 0.01 level. There is negative correlation of ROA with CD ratio before merger whereas the correlation of ROA with ROE CAR and NPL is positive. The same trend of correlation continues after merger also.

4.3 Regression Analysis

Table 6

Regression analysis of NPL, CAR and CD ratio on ROA

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1 (Pre-Merger)	0.656 ^a	0.431	0.276	0.60681
2 (Post Merger)	0.753 ^a	0.567	0.449	0.27197

a. Predictors: (Constant), NPL, CAR, CD RATIO

Table 6 is the model summary of pre-merger and post-merger regression analysis of NPL, CAR and CD ratio on ROA. The pre-merger R Square of 0.431 indicates that there is 43.1 percent of the total variation in dependent variable explained by the independent variables. Similarly, R square of 0.567 after merger shows that there is 56.7 percent of the total variation in dependent variable explained by the independent variables.

Table 7

Analysis of Variance on ROA

ANOVA^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1 (Pre-Merger)	Regression	3.067	3	1.022	2.776	0.091 ^b
	Residual	4.050	11	0.368		
	Total	7.117	14			
2 (Post Merger)	Regression	1.065	3	0.355	4.801	0.022 ^b
	Residual	0.814	11	0.074		
	Total	1.879	14			

a. Dependent Variable: ROA

b. Predictors: (Constant), NPL, CAR, CD RATIO

The ANOVA table 7 is the pre- merger and post- merger regression analysis of NPL, CAR and CD ratio on ROA. Regression results after merger show that overall relationship between dependent and independent variables are significant at level 0.05 whereas pre-merger regression analysis shows no significant results.

Table 8

Regression Coefficient of CDR, CAR and NPL on ROA

		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1 (Pre-Merger)	(Constant)	0.948	2.859		0.332	0.746
	CDRATIO	-2.508	3.117	-0.301	-0.805	0.438
	CAR	0.177	0.098	0.457	1.815	0.097
	NPL	0.182	0.159	0.440	1.140	0.278
2 (Post Merger)	(Constant)	-0.755	1.491		-0.506	0.623
	CDRATIO	2.611	1.410	0.470	1.852	0.091
	CAR	-0.034	0.085	-0.084	-0.401	0.696
	NPL	0.275	0.075	0.967	3.660	0.004

a. Dependent Variable: ROA

Table 8 shows the estimated regression result of NPL, CAR and CD ratio on ROA. The regression result before merger shows that there is negative impact of CD ratio on ROA of bank. It indicates that higher the CD ratio, lower would be the ROA of the commercial banks. When CD ratio is increased by 1 unit, ROA of the banks is decreased by 0.301 unit. However, there is positive impact of CAR and NPL on ROA. It indicates that higher the CAR and NPL, higher would be the ROA. When CAR and NPL are increased by 1 percent, ROA would increase by 0.457 and 0.440 percent respectively.

The regression result after merger shows that there is negative impact of CAR on ROA of bank. It indicates that higher the CAR, lower would be the ROA of the commercial banks. When CAR is increased by 1 unit, ROA of the banks is decreased by 0.084 units. However, there is positive impact of CD ratio and NPL on ROA. It indicates that higher the CD ratio and NPL, higher would be the ROA. When CD ratio and NPL are increased by 1 unit, ROA would increase by 0.470 and 0.967 units respectively. Regression results after merger show that overall relationship between dependent and independent variables are significant at level 0.05

Table 9

Regression analysis of NPL, CAR and CD ratio on ROE

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1 (Pre-Merger)	.834 ^a	0.696	0.613	13.05776	
2 (Post Merger)	.758 ^a	0.575	0.459	3.28052	

a. Predictors: (Constant), NPL, CAR, CDRATIO

Table 9 is the model summary of pre-merger and post-merger regression analysis of NPL, CAR and CD ratio on ROE. The pre-merger R Square of 0.696 indicates that there is 69.6 percent of the total variation in dependent variable explained by the independent variables.

Table 10

Analysis of Variance on ROE

ANOVA^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1 (Pre-Merger)	Regression	4299.854	3	1433.285	8.406	.003 ^b
	Residual	1875.557	11	170.505		
	Total	6175.411	14			
2 (Post Merger)	Regression	160.014	3	53.338	4.956	.020 ^b
	Residual	118.380	11	10.762		
	Total	278.394	14			

a. Dependent Variable: ROE

b. Predictors: (Constant), NPL, CAR, CDRATIO

The ANOVA table 10 of pre-merger and post-merger regression analysis of NPL, CAR and CD ratio on ROE. Regression results before and after merger show that overall relationship between dependent and independent variables are significant at level 0.05.

Table 11

Regression Coefficient of CDRATIO, CAR and NPL on ROE

		Coefficients ^a				
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1 (Pre-Merger)	(Constant)	75.637	61.515		1.230	0.245
	CDRATIO	-38.056	67.080	-0.155	-0.567	0.582
	CAR	-3.324	2.098	-0.291	-1.584	0.141
	NPL	6.539	3.431	0.537	1.906	0.083
2 (Post Merger)	(Constant)	-16.225	17.979		-0.902	0.386
	CDRATIO	29.746	17.003	0.440	1.749	0.108
	CAR	0.093	1.027	0.019	0.090	0.930
	NPL	3.229	0.905	0.934	3.568	0.004

a. Dependent Variable: ROE

Table 11 shows the estimated regression result of NPL, CAR and CD ratio on ROE. The regression result before merger shows that there is negative impact of CD ratio and CAR on ROE of bank. It indicates that higher the CD ratio and CAR, lower would be the ROE of the commercial banks. When CD ratio and CAR are increased by 1 unit, ROA of the banks is decreased by 0.155unit and 0.291 units respectively. However, there is positive impact of NPL on ROE. It indicates that higher the NPL, higher would be the ROE. When NPL is increased by 1 unit, ROE would increase by 0.537 units.

The regression result after merger shows that there is positive impact of CD ratio, CAR and NPL on ROE of banks. It indicates that higher the CD ratio, CAR and NPL, higher would be the ROE of the commercial banks. When CD ratio is increased by 1 unit, ROE of the banks is increased by 0.440 units. Similarly, when CAR and NPL are increased by 1 unit, ROA would increase by 0.019 and 0.934 units.

4.4 Discussions

Using secondary data analysis, this study focused on concluding all examination of mergers and acquisitions and their effects on the financial performance of Nepal's commercial banks. Descriptive analysis and an analytical model were used in the study to determine the trends and relationships between mergers and acquisitions and the financial performance of Nepali banks. In accordance with the study's objectives, a theoretical framework was used to identify the variables that affected the sampled banks'

performance following their merger. These variables included the credit deposit ratio, capital adequacy ratio, non-performing loan, return on equity, and return on assets of the banks. It is evident that there is a rise in merger and acquisition activity among banking and financial institutions in Nepal. It is primarily because of the 2011 Merger by rules that the NRB placed on BFIs in Nepal. Because the BFIs were underperforming the market, the NRB first had to apply forcible merger. Later BFIs themselves opted for merger activities, the basic reasons were liquidity crunch, capital requirement and open market.

From the data, it can be observed that there is no significant increase in the ROA after the merger. The study of Goet (2020) revealed that the financial performance in the areas of profitability and stability has been satisfactory after merger. Similarly, Anthony (2017) also stated that the merger was influencing profitability of the banks. The findings indicated increased financial performance in terms of return on assets, capital adequacy and long term solvency ratios. However, as per the study of Patel (2018) there is negative impact of merger on ROA of banks, whereas the earnings per share, profit per employee and business per employee showed positive impact of merger. As per the study result of Joash and Njangiru (2015) the effect of mergers and acquisitions did not have a significant effect on the amount of dividend declared to shareholders and frequency of dividend declaration, but there was positive significant effect on the market share gross profit and net profit.

The observation of data showed that there is negative impact of merger on ROE. Anthony (2017) stated that the merger was influencing profitability of the banks. The findings indicated increased financial performance in terms of return on assets, capital adequacy and long term solvency ratios. The capital adequacy ratio increased significantly after the merger. The non-performing loan of the banks also decreased, which is positive indicator of financial performance.

CHAPTER V

SUMMARY AND CONCLUSION

An overview of the findings regarding the effect of mergers on the profitability of Nepali commercial banks is given in this chapter. The study makes suggestions on how bank management might enhance the financial performance of the banks after a merger or acquisition based on the conclusions presented in chapter four. In addition, the study's goal is taken into consideration while presenting the recommendations, which are followed by suggestions for additional research.

5.1 Summary

A merger is a combination of two or more businesses in order to raise finance and remain in business. Efficiency improvements resulting from the realisation of economies of scale and scope are attributed to bank mergers. By enacting the Merger by Law 2011 AD, which is based on the Company Act 2006 AD article 177 and the BAFIA 2006 AD articles 68 and 69, which put pressure on all BFIs to combine immediately as a consolidation, the central bank intended to strengthen the state of the financial industry. The Nepal Rastra Bank was forced to merge in order to raise capital and fortify their ability to compete in the market, not because they wanted to. The purpose of the study was to determine whether mergers resulted in better performance from Nepal's commercial banks. The study's goal was to ascertain how mergers and acquisitions affected Nepal's commercial banks' financial results. The researcher employed an analytical and descriptive research design to achieve this research. The three banks that were chosen for this study's sample were Global IME Bank Limited, NIC Asia Bank Limited, and Rastriya Banijya Bank Limited. These banks merged in 2014, 2013 AD, and 2018 AD, respectively. Five years prior to and five years following a merger, financial statements from the reputable banks' annual reports are used to gather data. Both statistical and financial tools are employed to analyse the data. In addition to mean, standard deviation, correlation, and regression for data analysis, ratio analysis is employed as a financial tool. The study's history, problem description, aims, limitations, and justification are all included in the first chapter, making it easier in understanding the basis of mergers and acquisitions and how they affect a bank's financial performance. The

theoretical and empirical review included in the study's second chapter greatly aids in the researcher's concept development while choosing relevant and sufficient variables for the investigation. It also makes it easier for a researcher to create the conceptual framework that serves as the study's guide. The research gap informs the study about the shortcomings and the gaps that were not able to be examined. The research framework and definitions, research designs, population and sample size, type and sources of data, technique of analysis, and an explanation of the methodologies employed in this study are all covered in the third chapter. This chapter offers fundamental approaches, including statistical, analytical, and descriptive tools, for analysing and interpreting the data gathered over the course of the fiscal year's 10 years. SPSS software is used to measure and analyse the variables in order to get meaning from the acquired data. The gathered data are analysed and presented in tables in the research study's fourth chapter in accordance with APA format guidelines. Data are shown for each of the three banks' financial ratios: Rastriya Banijya Bank, NIC Asia Bank, and Global IME Bank. There is a summary, a conclusion, and a recommendation in the last chapter. It has accurately stated the research study's overall findings, attempted to draw inferences, and attempted to offer users of the research study sound advice.

5.2 Conclusion

The situation for the commercial banking industry as a whole is comparable to that of the sample banks, meaning that post-merger performance has declined. Most of the variables show a significant difference before and after the merger, but there may be improvement or deterioration. Several reasons have been given for mergers, such as economies of size and scope, improved revenue, cost effectiveness, and consolidation of the capital position. According to the study, mergers are only advantageous when big, reliable parties—like commercial banks are involved. While smaller BFIs' financial performance does improve following a merger, these changes are not substantial. The capital and NPL have improved as a result of the merging of two or more BFIs, while the changes are negligible. Return on equity was significantly impacted by the credit deposit ratio, capital adequacy ratio, and non-performing ratio prior to the merger, while only the non-performing loan had a substantial impact after the merger. Non-performing loans have a big influence on return on assets after a merger. The financial standing and strength of the merging companies before the merger have a significant impact on whether the merger

succeeds or fails. The merger proved beneficial for organisations whose financial standing complemented that of their target partners, but it was unsuccessful for those whose debts belonged to their target partners. It has illustrated both the positive and negative aspects of merger success in Nepalese banking. Furthermore, as commercial banks are often bigger than BFIs, mergers involving them are likely to have a good outcome. These bigger organisations have the power to support and stabilise the combining institution financially and create beneficial impacts following the merger. When smaller BFIs combine, it is perceived as counterproductive because the weaker and more troubled parties may suffer significant financial losses as a result of the merger. According to the report, mergers are a significant way to address issues including growing capital bases, strengthening the financial position of BFIs, decreasing the number of BFIs, and more. Choosing the best merger partner and coming to an agreement on the terms and circumstances to carry out the merger are other issues that the BFIs must deal with. The NRB has placed banks on a blacklist for having pursued merger discussions for several months without proceeding since the parties could not agree on the parameters of the merger. Commercial banks facing difficulties in selecting the right merging partners include those that have not yet reached the Rs 8 billion paid-up capital threshold. Finding a merger partner is not a difficult endeavor; the challenge is in making the combination profitable and successful.

5.3 Implications

The study's goal is to quantify how mergers and acquisitions affect banks' profitability. Since mergers and acquisitions (M&A) have a big impact on a bank's financial performance, it is crucial for businesses with inadequate profitability, liquidity, and capital structure to think about doing so in order to enhance those areas. The study's suggestions, based on its findings, are as follows:

- i. It was discovered that bank profitability increased following mergers. If encouraging banks would increase their profitability, then this should be done. A rise in profitability is probably going to help the company's financial performance.
- ii. Capital adequacy has a major impact on the profitability of Nepalese commercial banks, hence bank management is urged to give it the attention it deserves in order to increase profitability.

- iii. Commercial banks can expand their market share and revenue base through mergers and acquisitions, which boosts their profitability. Furthermore, mergers and acquisitions result in a stronger capital adequacy position, enhancing the commercial banks' financial stability.
- iv. There is a chance that the current study, which made full use of secondary data from bank financial reports or through Nepal Rastra Bank, was biased. Therefore, in order to obtain precise results, it is advised that future study adopt alternate approaches or justify and/or correlate secondary data by primary data.
- v. The study also emphasises that BFIs must currently combine in order to maintain financial stability and the capital requirement; as a result, M&A should be carried out voluntarily rather than under compulsion. The merger shouldn't be viewed as the only way to solve the problems the market is facing.
- vi. Nevertheless, this study had a flaw in that the sample size was comparatively small, giving other researchers the chance to employ a larger sample for better findings. However, as there aren't any other published studies on the effects of mergers, this research will operate as a foundation for further in-depth analysis for both academics and policy makers.

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