Investigating the Role of Mergers and Acquisitions in Shaping the Financial Performance of Nepalese Commercial Banks

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Abstract

This research paper examined the impact of mergers and acquisitions on the financial performance of Nepalese commercial banks. The study embraced the secondary data of 6 commercial banks and overall, the 60 observations were comprised in this study. The study employed descriptive research design and casual comparative research design. This study employed descriptive statistics, correlation, and regression for the analysis of data. The findings revealed that the EPS and CRR were positively and significantly associated with return on equity (ROE) which indicates that an increase in earnings per share and cash reserve ratio leads to an increase in profitability. In contrast, NPLR, CAR, and CDR found a negative relationship with ROE, which indicates that an increase in the non-performing loan ratio, capital adequacy ratio, and credit-to-deposit ratio leads to a decrease in profitability. Similarly, BS holds a weak positive relationship with ROE.

Keywords: Acquisition, financial performance, merger, Nepalese banks

JEL Classification Codes: G34, L25, O16

تقصّي دور الاندماج والاستحواذ في تشكيل الأداء المالي للبنوك التجارية النيبالية

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الملخص:

هدفت هذه الدراسة إلى فحص أثر عمليات الاندماج والاستحواذ على الأداء المالي للبنوك التجارية النيبالية. اعتمدت الدراسة على البيانات الثانوية لستة بنوك تجارية، شملت في مجملها 60 مشاهدة. كما وظّفت الدراسة المنهج الوصفي ومنهج المقارنة السببية، ولتحليل البيانات، استُخدمت الإحصاءات الوصفية، واختبار الارتباط، وتحليل الانحدار.

أظهرت النتائج وجود علاقة إيجابية ذات دلالة إحصائية بين كل من ربحية السهم (EPS) ونسبة الاحتياطي النقدي (CRR) وبين العائد على حقوق المساهمين (ROE)؛ مما يشير إلى أن زيادة ربحية السهم ونسبة الاحتياطي النقدي تؤدي إلى تعزيز الربحية. وفي المقابل، كشفت النتائج عن وجود علاقة سلبية بين نسبة القروض غير المنتظمة (NPLR)، ونسبة كفاية رأس المال (CAR)، ونسبة التسليف إلى الودائع (CDR) وبين العائد على حقوق المساهمين (ROE)؛ مما يشير إلى أن الارتفاع في هذه النسب يؤدي إلى انخفاض الربحية.

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الكلمات المفتاحية: الاستحواذ، الأداء المالي، الاندماج، البنوك النيبالية.

تصنيف **Jel: G34, L25, O16**

Introduction

Mergers and acquisitions in Nepalese financial institutions have gradually developed in recent years, significantly contributing to the expansion of their capital base and competitive advantage in financial markets. Importantly, the post-merger and acquisition collective synergy ensures stakeholder expectations, particularly customer needs. Similarly, the introduction of a merger policy protects financial institutions from critical financial situations. In addition, Nepal Rastra Bank (NRB), Nepal's central bank, has approved a policy of financial consolidation through mergers and acquisitions to enhance the position of financial institutions (Baniya & Adhikari, 2017; Sharma, 2018). Several motives prevailed for mergers in the banking sector to improve economies of scale by maintaining efficiency, eliminating costs, and stimulating to keep and extend client reach with the extension of market miles (Sarika & Vasantha, 2018; Muchtar & Amalia, 2024).

Moreover, merger and acquisition is a comprehensive technique undertaken by banking and financial organizations as a strategy of expansion to enhance overall performance and absorb strengths in the industry (Hussain & Mubeen, 2018). Interestingly, the most recent strategic shift in banking and financial institutions has been mergers and acquisitions. The NRB approved the merger and acquisition law in 2011 and encouraged banks and financial institutions (BFIs) to increase their paid-up capital through monetary policy in 2015/16. Consequently, the number of banking and financial institutions has decreased dramatically in Nepal. Furthermore, merger and acquisition (M&A) stands out as a well-recognized and effective approach accepted by firms to navigate the dynamic global economic climate (DePamphilis, 2010). Therefore, mergers and acquisitions are a crucial and influential technique for organizations seeking growth and efficiency since they encourage synergies, lower costs, acquire assets, and expand into new markets (Martynova & Rennenborg, 2006; Marques-Ibanez & Altunbas, 2004).

Moreover, over the last three decades, corporations in industrialized countries have relied significantly on mergers and acquisitions as a strategic strategy to improve performance and restructure organizations. Similarly, the relevance of mergers and acquisitions in the financial sector is especially significant, given their important role in a country's economic development (Awan & Azhar, 2014). Next, an examination of the global banking sector reveals its active involvement in reducing constraints, restructuring, and consolidating through merger and acquisition processes. This tendency is also obvious in the European banking sector, where a rising number of institutions are merging to create more resilient conditions (Berger & De Young, 2001). Interestingly, the wave of mergers and acquisitions that began in Europe later stretched to the United States, and then had a global impact (Focarelli et al., 2002).

In particular, banks utilize mergers and acquisitions to join fast-growing, high-performing markets and to gain deposits (Cyree, 2010). Additionally, mergers and acquisitions are a complex and sometimes contradictory phenomenon. Some research has revealed that such activities have a good impact on the economic development of companies (Kinateder et al., 2017; Blomson, 2016; Betzer et al., 2014)

while other research implies mergers and acquisitions have had a negative influence (Ayadi et al., 2016; Borodin et al., 2020; Tang, 2015). Additionally, though mergers and acquisitions helped enhance productivity, they did not translate the findings to profitability because most of the mergers were either employed to expand new markets or increase efficiency under intense competition (Bernard et al., 2010). Other evidence shows that mergers and acquisitions fail to deliver on their promise of better profits such as the premium paid for a target firm and the sort of financing used (Epstein, 2005).

Next, numerous studies have underlined that the major purpose of merger and acquisition activities is to enhance shareholder value, with corporations aspiring to achieve leadership positions within their respective strategic business unit's product-market area (Sudarsanam, 2003). Thus, mergers and acquisitions have become a critical component of corporate business plans, especially for organizations looking to increase their market share and total size (Fairfield et al., 2002). Mergers are motivated by the notion that creating larger entities will result in better efficiency in resource, human, and capital deployment, hence maximizing output gains. Despite these expected benefits, the real-world effects of mergers on the global banking industry have shown several concerns. Furthermore, the post-merger scenario may not always produce the anticipated benefits. One notable result is a decrease in loan availability for consumers, which can be ascribed to a drop in banking competitiveness and an unreasonable increase in interest rates. Furthermore, there are still uncertainties concerning the true level of economies of scale. The global experience shows that projected gains from mergers may not materialize as expected, raising questions about the overall efficacy of this strategy in the banking industry. As previous study findings revealed mixed results regarding the impact of mergers and acquisitions on financial performance; further research is needed in the context of Nepal. The purpose of this article is to investigate the influence of mergers and acquisitions on the financial performance of Nepalese commercial banks.

Literature Review

Synergy Theory

The synergy theory posits that the combined value of an institution resulting from a merger surpasses the total worth of the merging entities before the consolidation. This rise in value is due to the synergies that can be achieved by integrating financial and operational resources after the merger. Following the merger, the acquiring corporation may be able to cut merchandise costs due to synergies such as economies of size and scope, lower distribution and advertising expenses, and the divestiture of redundant assets. According to the synergy hypothesis, the advantages of mergers might take the form of operational synergy, economies of scale, and economies of scope (Candra et al., 2021).

Efficiency Theory

Leepsa and Mishra (2016) suggested that, according to the efficiency hypothesis, mergers provide a route to achieving efficiencies. These efficiencies may emerge as specialized skills or competent management of the target company, the elimination of unused resources, the promotion of complementary products between the merging companies, a reduction in transaction costs, and the reallocation of current

expenditures. The efficiency hypothesis, also known as differential efficiency theory, holds that mergers are driven by the merging companies' respective strengths, limitations, and efficiency levels. By merging, a highly efficient corporation can transfer its efficiency to a less efficient counterpart, resulting in social and individual gains. This theory, also known as the management synergy hypothesis, emphasizes the use of excess managerial efficiency in areas where it is deficient, resulting not only in enhanced performance but also in the conservation of economic resources.

Earnings per Share (EPS)

Earnings per Share (EPS) is a financial metric that shows the fraction of a company's earnings allocated to each outstanding share of ordinary stock (Rose, 1999). EPS, which is frequently used by investors to analyze a company's financial health and performance, also reflects market share strength. Additionally, earnings per share (EPS) is a critical financial term that represents the profit attributable to each share of ordinary stock (Frecka, 2015). It is computed by dividing an entity's net profit by the number of outstanding shares (Bhimani & Langfield, 2007). The empirical findings of previous studies revealed a significant association between earnings per share and return on equity (Dewi et al., 2019; Sanny, 2021). Based on the findings of empirical previous studies, the following hypothesis has developed:

H_1: Earning per share significantly affects return on equity before and after the merger

Non-performing Loan Ratio (NPLR)

The non-performing loan ratio is an important indicator of a bank's financial performance since it measures the proportion of the loan portfolio that is at risk of default due to overdue or defaulted loans. A greater NPLR predicts more loan defaults, indicating a larger likelihood of financial trouble. Additionally, non-performing loans are a serious concern in the banking business, defined principally by two important elements: payments overdue by ninety days or more, and underlying weakness in the loan or borrower (Barisitz, 2013). The empirical findings of previous studies revealed that there is a negative correlation between non-performing loan ratio and return on equity (Alshatti, 2015; Shrestha et al., 2017; Elshaday et al., 2018; Gurung, 2021; Karim et al., 2021; Parajuli, 2023; Rustamov, 2024). Based on the findings of empirical previous studies, the following hypothesis has developed:

H_2: Non-performing loan ratio significantly affects return on equity before and after merger

Capital Adequacy Ratio (CAR)

The Capital Adequacy Ratio (CAR) measures a bank's ability to withstand possible losses from its operations. It is represented as the ratio of a bank's capital to its risk-weighted assets (RWA). A higher CAR suggests more capital available to absorb future losses, implying less risk and stronger financial stability. Furthermore, the capital adequacy ratio is a critical measure of a bank's financial stability. It represents the ratio of core capital to risk-weighted assets and off-balance liabilities (Bialas & Solek, 2010). It functions as a buffer to absorb future losses and is an important indicator of a bank's ability to handle financial risk (Abba et al., 2013; Fatima, 2014). The empirical findings of previous studies revealed that there is a positive correlation between the capital adequacy ratio and profitability of the banks (Glaszious & Chamler,

2018; Teshome et al., 2018; Gurung, 2021; Karim et al., 2021; Parajuli, 2023). Based on the findings of empirical previous studies, the following hypothesis has developed:

H_3: Capital adequacy ratio significantly affects return on equity before and after merger

Credit to Deposit Ratio (CDR)

The Credit to Deposit Ratio (CDR) is a widely used indication of a bank's lending ability and liquidity. It is determined as the ratio of a bank's total loans to its total deposits, with a larger CDR signifying more lending than deposits. Similarly, The credit-deposit (CD) ratio is an important indicator of a bank's success. It measures the proportion of deposits used for lending (Kieu et al., 2020). It represents a bank's ability to convert deposits into loans and create income (Biswal & Gopalakrishna, 2014). A high CD ratio indicates efficient credit deployment, while a low percentage may imply underutilization of deposits (Narayana, 2003). The empirical findings of previous studies revealed that there is a negative correlation between credit to deposit ratio and return on equity (Budhathoki et al., 2020; Karim et al., 2021; Sihotang et al., 2023; Parajuli, 2023). Based on the findings of empirical previous studies, the following hypothesis has developed:

H_4: Credit to deposit ratio significantly affects return on equity before and after merger

Cash Reserve Ratio (CRR)

The Cash Reserve Ratio (CRR) is a regulatory measure enforced by central banks that requires commercial banks to have a minimum cash reserve against their deposits. The CRR plays an important role in controlling the money supply and guaranteeing banking system stability. The calculation for CRR is an important part of this regulation requirement. Furthermore, the cash reserve ratio is a monetary policy tool that influences bank lending and credit availability. Historically, observed CRR values were assumed to reflect banks' reserve preferences (Phaup, 1971). The cash reserve ratio affects returns. (Teja et al., 2013). The empirical findings of previous studies revealed that there is a significant impact of cash reserve ratio on return on equity (Abidi & Lodhi, 2015; Mia et al., 2023; Tamunosiki & Blessing, 2017).

H_5: Cash reserve ratio significantly affects return on equity before and after merger

Bank Size (BS)

Bank size, represented as the natural logarithm of a bank's total assets, is widely used in the financial sector to indicate possible economies or dis-economies of scale. A greater bank size is expected to improve financial performance due to economies of scale and diversification options. Moreover, bank size is a complex issue with multiple assessment methods and ramifications. Large banks are frequently linked with systematic importance and the capacity to offer complete services (Schneider et al., 2017). In many nations, large banks have a significant advantage over smaller banks (Bikker et al., 2006). The empirical findings of previous studies revealed that there is a positive correlation between bank size and profitability of the banks (Lim et al., 2018; Singh and Gupta, 2011; Teshome et al., 2018; Budhathoki et al., 2020).

H_6: Bank size significantly affects return on equity before and after merger

Return on Equity (ROE)

Return on Equity (ROE) measures the proportion of net income concerning shareholders' equity, and it serves as an important

barometer of total corporate financial success (Blyth et al., 1986). ROE is widely acknowledged as an important factor in assessing a company's profitability and efficiency in creating returns for its owners (Akbar et al., 2021). The calculation for ROE is to divide the company's net income by its shareholders' equity.

Methods

The purpose of the study was to assess the impact of mergers and acquisitions on the financial performance of Nepalese commercial banks. This study employed descriptive research design and causal-comparative research design. The descriptive research design has been adopted for fact-finding and adequate information gathering about the fundamental issues associated with mergers and acquisitions and their impact on the financial performance of commercial banks in Nepal. It explains the actual condition, as well as facts. The study has also used casual comparative research design to establish cause and effects relationship between the variables of merger and acquisition and their impacts on the financial performance of Nepalese commercial banks. More specifically, the study examines the relationship between Nepalese commercial banks' earnings per share, non-performing loan ratio, capital adequacy ratio, credit-to-deposit ratio, cash reserve ratio, bank size, and return on equity over a 5-year before the merger and 5-year after the merger. Results were drawn using descriptive statistics, regression analysis, and correlation analysis. There are altogether 20 commercial banks operating in Nepal at present. Among them, 15 commercial banks have undergone mergers and acquisitions. These 15 merged commercial banks are taken as the population for the study. This study included only a sample of six merged commercial banks of Nepal from 5 years before and 5-year after the merger and acquisition, leading to a total of 60 observations representing Investment Bank Limited (NIBL), Global IME Bank Limited (GIME), Laxmi Bank Limited (LBL), NIC Asia, NMB Bank Limited (NMB), and Siddhartha Bank Limited (SBL) using a judgmental sampling method. The study used secondary data for the analysis. Descriptive statistics, correlation, and regression analysis were employed for the analysis of data.

Table n◦ 1:

Commercial banks selected for the study along with study period

S.N.	Name of Commercial Banks	Study Period	Observation
1.	Nepal Investment Bank Ltd. (NIBL)	2012-16/ 2018-22	10
2.	Global IME Bank Ltd. (GIME)	2012-16/ 2018-22	10
3.	Laxmi Bank Limited (LBL)	2011-15/ 2017-21	10
4.	NIC Asia (NIC)	2008-12/ 2014-18	10
5.	NMB Bank Ltd. (NMB)	2010-14/ 2016-20	10
6.	Siddhartha Bank Ltd. (SBL)	2011-15/ 2017-21	10
	Total Observations		**60**

(Source: Sharesansar.com)

Table 1 depicts the list of sample commercial banks used for the analysis of the impact of mergers and acquisitions on financial performance. The study period covered in the study was 10 years for each bank. Similarly, the study period of NIBL Bank before the merger was from 2012 to 2016, and after the merger period was from 2018 to 2022. Further LBL bank was observed from 2011 to 2015 before the merger and from 2017 to 2021 after the merger. Similarly, NMB bank's data covered the duration from 2010 to 2014 before the merger and from 2016 to 2020 after the merger.

Table n◦ 2:

Sources of variables

Variables	**Study**
Earnings per share	Salim and Bailal (2016), Budhathoki et al (2020)
Non-performing loan ratio (NPL)	De Waal and Fadiran (2013), Wijesiri et al. (2016), Shang and Huang (2018), and Balogun et al. (2019),
Capital adequacy ratio (CAR)	DeYoung and Roland (2001), Naceur et al. (2005), Al-Tamimi and Al-Mazrooei (2016), Shah and Zaman (2019)
Credit to deposit ratio (CDR)	Adeusi et al. (2016), Chijoriga and Ngowi (2019), Li et al. (2019) and Tarawneh and Al-Amarneh (2019).
Bank size (BS)	Boahene et al. (2012), Bhattarai (2016) and Kutum (2015), Murithi and Waweru (2017)
Return on Equity (ROE)	Rappaport (1986), Monteiro (2006), Akbar et al. (2020), Lamichhane et al (2020) and Patel et al. (2021)

Table 2 depicts the sources of variables adopted from different previous studies. The study variables in the study remained earning per share, non-performing loan ratio, capital adequacy ratio, credit to deposit ratio, and bank size as predictor variables and return on equity as response variables.

Results

Descriptive Statistics of Study Variables

This section provides an overview of descriptive statistics for specific variables. Descriptive analysis examines the movement of data in terms of central tendency by finding the study variables' minimum, maximum, mean, and standard deviation. Table 3 displays the descriptive analysis results for the dependent variables (ROE) and independent variables (EPS, NPLR, CAR, CDR, CRR, BS) employed in this study. Presentation of the variables' minimum, maximum, mean, and standard deviation before and after the merger, as well as their impact on the financial performance of Nepalese commercial banks.

Table n° 3:

Descriptive analysis of study variables

Descriptive Statistics before the Merger						Descriptive Statistics after the Merger					
Variables	**N**	**Minimum**	**Maximum**	**Mean**	**S.D.**	**Variables**	**N**	**Minimum**	**Maximum**	**Mean**	**S.D.**
ROE	30	2.51	31.70	17.84	6.34	ROE	30	8.92	21.96	13.65	3.05
EPS	30	2.61	46.20	24.68	9.97	EPS	30	11.18	35.98	21.97	6.05
NPLR	30	0.27	3.32	1.46	0.78	NPLR	30	0.06	2.91	1.36	0.72
CAR	30	10.75	18.44	12.28	1.77	CAR	30	10.98	15.96	13.15	1.23
CDR	30	70.02	89.32	79.71	4.75	CDR	30	71.97	95.30	86.86	6.63
CRR	30	5.09	37.61	17.60	10.15	CRR	30	3.10	29.89	12.98	9.50
BS	30	9.49	24.65	12.81	5.25	BS	30	10.85	26.16	14.17	5.27

Note: Data sources are Annual Reports of selected commercial banks and results were drawn using SPSS-22 Version.

Table 3 reveals the descriptive statistics of study variables before and after the merger. The average value of ROE before the merger was 17.84, and after the merger, it decreased to 13.65. Before the merger, the standard deviation of ROE is 6.34 and after the merger, the standard deviation of ROE is 3.05. The average value and standard deviation for EPS before merging remained at 24.68 and 9.97 respectively which decreased after the merger depicting a 21.97 average value and 6.05 standard deviation. The average value NPLR and standard deviation before the merger stood at 1.46 and 0.78 which decreased to 1.36 and 0.72 after the merger. Moreover, the average value of CAR and standard deviation remained at 12.28 and 1.77, and after the merger 13.15 and 1.23. Next, the average value and standard deviation of CDR before the merger stood at 79.71 and 4.75 which increased to 86.86 and 6.63 after the merger. Further, the average value and standard deviation of CRR before the merger stood at 17.60 and 10.15 which declined to 12.98 and 9.50 after the merger. Finally, the average value and standard deviation of BS stood at 12.81 before the merger and 5.25 which increased to 14.17 and 5.27 after the merger.

Table n◦ 4:

Pearson's correlation coefficients matrix of study variables

Variables	ROE	EPS	NPLR	CAR	CDR	CRR	BS
ROE	1.000						
EPS	.843**	1.000					
	(0.000)						
NPLR	-0.066	0.055	1.000				
	(0.616)	(0.674)					
CAR	-.436**	-.346**	-0.081	1.000			
	(0.001)	(0.007)	(0.540)				
CDR	-.283*	-.348**	-.414**	0.222	1.000		
	(0.028)	(0.006)	(0.001)	(0.088)			
CRR	0.202	0.088	0.092	-.279*	-.255*	1.000	
	(0.122)	(0.505)	(0.487)	(0.031)	(0.049)		
BS	0.037	0.161	0.057	-0.18	0.145	-.349**	1.000
	(0.782)	(0.219)	(0.665)	(0.169)	(0.268)	(0.006)	

Note: Data sources are Annual Reports of selected commercial banks
(Note: ROE = Return on equity, EPS = Earnings per share, NPLR = Non-performing loan ratio, CAR = Capital adequacy ratio, CDR = Credit to deposit ratio, CRR = Cash reserve ratio, and BS = Bank size)

Table 4 shows the relationship between the response variable return on equity and predictor variables EPS, NPLR, CAR, CDR, CRR, and BS. Here the EPS has a strong positive relationship with ROE ($r = 0.743$, $p < 0.05$). It shows that increasing EPS leads to an increase in ROE. NPLR found a negative association with ROE ($r = -0.066$, $p > 0.05$) depicting the inverse relationship. Similarly, CAR has a negative link with ROE ($r = -0.436$, $p < 0.05$) reflecting an inverse correlation. Further, CDR also depicted a negative correlation with return on equity ($r = -0.283$, $p < 0.05$). This inverse association found between the predictor variables and response variables indicates that a rise in NPLR, CAR, and CDR leads to a decline in the ROE of commercial banks. Next, CRR has a positive relationship with ROE ($r = 0.202$, $p > 0.05$) depicting that a rise in the CRR leads to an increase in the ROE in a positive direction. Finally, BS has a positive association with ROE ($r = 0.037$, $p > 0.05$) reflecting that an increase in the bank size leads to an increase in the ROE of the banks.

Table n° 5:

Regression model summary of study variables

Model Summary before the merger

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.929[a]	0.863	0.827	2.6378	1.894

a Predictors: (Constant), BS, CDR, EPS, CRR, NPLR, CAR

b Dependent Variable: ROE

Model Summary[b] after the merger

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.826[a]	0.683	0.60	1.93035	1.317

a Predictors: (Constant), BS, EPS, CAR, NPLR, CRR, CDR

b Dependent Variable: ROE

Note: Data sources are Annual Reports of selected commercial banks

Table 5 presents the regression model summary of study variables before and after the merger where the dependent variable is ROE. The value of R-square before the merger is 0.863 which demonstrates that 86.3 percent of independent variables can explain the variations in the dependent variable (ROE) and the remaining 13.7 percent variation can be explained by the other variables that are not included in this study. In contrast, the value of R-square after the merger is 0.683 which reveals that only 68.3 percent of independent variables can explain the variations in the dependent variable (ROE) after the merger, and the remaining 31.8 percent variation can be explained by the other variables. The adjusted R-square before the merger is 0.827, and after the merger is 0.60 which shows that on an adjusted basis, before the merger, the independent variables are collectively 82.7 percent related to the dependent variable (ROE), and after the merger, the independent variables are collectively 60 percent related to the dependent variable (ROE).

Table n° 6:

Regression coefficients before merger

Variables	Beta	t	Sig.	VIF
(Constant)	-2.811	-0.262	0.796	
EPS	0.598	10.72	0.000	1.29
NPLR	-0.122	-0.164	0.871	1.411
CAR	-0.328	-0.974	0.34	1.474
CDR	0.154	1.331	0.196	1.251
CRR	0.04	0.700	0.491	1.394
BS	-0.223	-1.929	0.066	1.531

a Dependent Variable: ROE

Regression coefficients after the merger

Variables	Beta	t	Sig.	VIF
(Constant)	1.004	0.106	0.916	
EPS	0.396	5.217	0.000	1.645
NPLR	-0.561	-0.868	0.395	1.706
CAR	-0.373	-1.164	0.256	1.204
CDR	0.097	1.228	0.232	2.144
CRR	0.036	0.767	0.451	1.526
BS	0.049	0.62	0.542	1.357

a Dependent Variable: ROE

Note: Data sources are Annual Reports of selected commercial banks

Table 6 shows the regression coefficient of banks before and after the merger. The beta coefficient for earnings per share before and post-merger found a positive and significant relationship with return on equity but the impact of earnings per share declined after the merger. It reveals that before the merger, a one percent increase in earnings per share increased the return on equity by 0.598 percent in a positive direction and after the merger, it stood at 0.396. Similarly, the beta coefficient for NPLR before the merger found a negative effect on return on equity indicating one percent change in NPLR brings the change in ROE by -0.122 percent in a negative way. The beta coefficient for NPLR after the merger showed a negative effect on ROE reflecting that a one percent change in NPLR brings the change in ROE by -0.561 percent. The beta coefficient for CAR before and after the merger found a negative impact on the return of equity revealing that a one percent change in CAR before the merger brings the change in ROE by -0.328 percent and brings the change in ROE by -0.373 after the merger. The beta coefficient for CDR found a positive effect on ROE before and after the merger. It shows that once percent change in CDR brings the change in ROE by 0.154 percent before the merger and 0.097 change in ROE after the merger. The beta coefficient for CRR before and after the merger found a positive impact on return on equity. It shows that a one percent change in CRR brings the changes in ROE by 0.04 percent before the merger and 0.036 percent after the merger. Finally, the beta coefficient for bank size was found negative before the merger depicting that a rise in bank size evidenced the decline in ROE but the beta coefficient for BS after the merger found a positive impact on ROE depicting that a one

percent change in bank size brings the changes in ROE by 0.049 percent in positive direction.

Discussion

The purpose of the study was to assess the impact of mergers and acquisitions on the financial performance of Nepalese commercial banks. The research variables consisted of earnings per share, non-performing loan ratio, capital adequacy ratio, credit-to-deposit ratio, cash reserve ratio, and bank size as predictor variables and return on equity as response variables. The findings of the study before and even after the merger revealed that earnings per share found a positive and significant effect on return on equity. This finding is in line with previous findings of Dewi et al., 2019; Sanny, 2021). This shows that a rise in the earnings per share increases the volume of return on equity. Next, the non-performing loan found a negative association and effect with return on equity before and after the merger of the sample banks. This finding is in direction with findings of previous studies (Alshatti, 2015; Shrestha et al., 2017; Elshaday et al., 2018; Gurung, 2021; Karim et al., 2021; Parajuli, 2023; Rustamov, 2024). This evidence showed the rise in the volume of non-performing loans of banks decreases the volume of return on equity. Further, the capital adequacy ratio was found a negative effect on the return on equity before and post-merger of the banks. This finding is in line with the findings of previous studies (Glaszious & Chamler, 2018; Teshome et al., 2018; Gurung, 2021; Karim et al., 2021; Parajuli, 2023). This evidence revealed that a rise in the capital adequacy ratio declines the return on equity in the case of before and post-merger situations. Moreover, the credit-to-deposit ratio was found a positive effect on return on equity. This finding is consistent with the findings of previous studies (Budhathoki et al., 2020; Karim et al., 2021; Sihotang et al., 2023; Parajuli, 2023). This evidence reveals that a rise in credit to deposit ratio increases the volume of return on equity before and after the merger of the banks. Further, the cash reserve ratio found a positive effect on return on equity. This finding is in line with the findings of the previous study (Abidi & Lodhi, 2015; Mia et al., 2023; Tamunosiki & Blessing, 2017). This evidence showed that a rise in the cash reserve ratio increases the return on equity. Finally, the bank size found a positive effect on return on equity before and after the merger. This finding is in the same direction as (Lim et al., 2018; Singh and Gupta, 2011; Teshome et al., 2018; Budhathoki et al., 2020). It depicts that a rise in the bank size increases the return on equity. The findings of the overall study concentrating on the impact of merger and acquisition on the return of equity revealed distinct evidence in the Nepalese context.

Conclusions

The purpose of the study was to investigate the impact of mergers and acquisitions on the financial performance of commercial banks in the Nepalese context. The study encompassed the research variables: earning per share, non-performing loan ratio, capital adequacy ratio, credit-to-deposit ratio, cash reserve ratio as predictor variables, and return on equity was the response variable of the study. The analysis of the study revealed a positive and significant association between earnings per share and return on equity before and after the merger. However, the proportion of effect before the merger remained greater than

after the merger for the sample banks. Theoretical evidence suggests that increasing net income leads to higher earnings per share and return on equity. It concludes that when merging financial organizations, the impact on earnings per share must be prioritized over profitability enhancement. Further, non-performing loans have a negative impact on return on equity. It concludes that a high number of non-performing loans reflects low credit quality and increases credit risk, which reduces bank profitability. Thus, banking institutions must implement an appropriate approach to reduce the volume of non-performing loans. Moreover, The capital adequacy ratio revealed a negative relationship between return on equity before and after the merger. However, the capital adequacy ratio ensures that the bank has enough capital to withstand losses and meet other criteria. However, classical theory acknowledges and observes that higher capital adequacy ratios result in poorer returns on equity. Next, the credit-to-deposit ratio found a positive effect on return equity before and after the merger. It concludes that, theoretically, the credit-to-deposit ratio and return on equity have a positive relationship because lending is one of the primary ways banks generate revenue. A bank's ability to lend should be balanced with its ability to deposit. Similarly, the findings demonstrated that the cash reserve ratio had a beneficial influence on return on equity both before and after the merger. Theoretical grounds revealed that larger cash reserve ratios reduce banks' lending capability, reducing profitability and resulting in a worse return on equity. Furthermore, a reduced cash reserve ratio leads to increased lending capacity, which increases profitability and returns on equity. However, the relationship is not linear and can be influenced by other variables as well. Finally, bank size had a beneficial effect on return on equity both before and after the merger. It concludes that larger banks can benefit from economies of scale, which reduces costs and improves profitability by increasing return on equity. Thus, it is argued that banks must analyze the influencing variables of profitability even after they merge.

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