

# Assessing the Effect of Credit Risk Management on Sustainable Performance of Commercial Banks in Nepal

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## Abstract

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*The banking industry is a key player in a modern economy as it ensures that the saved funds are invested in productive activities. The sustainability and economic growth of a country over a long period of time is majorly dependent on the efficiency with which banks extend credit to productive sectors. Here, this paper will test how credit risk affects the sustainable performance of Nepalese commercial banks in the period 2015 to 2024. The study analyzes the connection between credit risk management and financial sustainability based on the measure of sustainable performance using Return on Equity (ROE). Some of the indicators used to assess credit risk include Non-Performing Loans (NPL), Capital Adequacy Ratio (CAR), Cash Reserve Ratio (CRR) and Loan*

*Loss Provision (LLP). The regression analysis on panel data of four commercial banks over the course of the study indicates that a high level of NPL and LLP is very detrimental to sustainable performance, which, in turn, demonstrates ineffective risk management. Although there is a positive association between CAR and ROE, the correlation is not significant and appears that capital alone may not play a significant role in improving sustainability. In general, the results highlight the importance of effective credit risk management as the key to financial sustainability and close the correlation with more significant Environmental, Social, and Governance (ESG) initiatives.*

**Keywords:** Return on equity, non-performing loan, loan loss provision, capital adequacy ratio, cash reserve ratio

## Introduction

Banks are highly involved in promoting economic growth by the financial services that they provide. They are financial intermediaries, so they are a springboard to economic growth, and the effectiveness and stability of the banking sector can be used as an indicator of the financial well-being of a nation in general.

This is because the capacity of banks to lend to productive activities has a direct relationship with the rate of economic growth and is also a contributor of long-term sustainability (Funso et al., 2012). Commercial banks in Nepal have had a number of challenges in the past. The most prominent contributor to long lasting banking issues has been lenient credit standards to borrowers and counterparties. The lack of proper portfolio risk management, during which the banks tend to be unable to detect the optimal combination of assets that have adequate risk diversification and lack the proper responsiveness to the changing economic situation, has often led to the defaults and non-performing loans. With the acknowledgement of these problems, recent changes and policy readjustments have been launched to enhance the bank performance and reduce the negative impact of the lending practices (Bhattarai, 2016).

Credit risk is a term that indicates the possibility of a borrower defaulting on repaying his/her duties as per the agreed contract terms (Rahman & Mehnaz, 2024). Credit as the main source of income of commercial banks is at the heart of their businesses and deals with a considerable number of transactions and has a major effect on profitability. Credit is also crucial to the economy at large besides the individual banks. All commercial banks over the years have been faced with a number of issues but those that have been most persistent are highly associated with loose credit requirements, lack of proper control in the portfolio risk and lack of focus on changes in the economy and competition in the market. Proper credit decisions should be made on the basis of thorough evaluation on lending risks and borrowing characters (Varshney and Swaroop, 1994). Credit risk management involves identification of risk, measurement of the risk, monitoring of the risk, and control of the risk of loan defaults. It is thus necessary that banks develop and execute strategies that limit exposure to credit risk and lower the overall performance and competitiveness. Effective credit risk management practices can be achieved by maintaining proper loan approval by means of carrying out effective credit assessments and proper alignment of lending operations with the set strategies, following clear procedures, and proper assignment of duties to do credit assessment, issue loan, and periodic research (Pandey and Joshi, 2023).

Although reforms have been made and awareness on credit risk has increased, most commercial banks in Nepal still have to deal with issues that are caused by the lack of credit assessment, diversification of portfolios and the inability to match their lending process with the economic reality. These inefficiencies not only make the financial system less profitable, but also jeopardize the health of the financial system as a whole. Whereas the previous literature has addressed various facets of credit risk, there is still a gap in the knowledge of how particular CRM indicators can be related

to the performance of the bank in the Nepalese environment (Bhandari and Dhakal, 2024). The paper is restricted to a group of businesses in Nepalese commercial banks and therefore the overall banking industry cannot be broadly applied to the research. Additionally, the analysis is limited to a given period and it might not be able to capture the dynamics of credit risk management in the long term. Further studies may overcome these shortcomings through using a larger sample of banks and the analysis period (Bhandari and Dhakal, 2024a). This research also contrasts with past studies in a number of ways such as period utilized, selection of banks, objective of research, analytical methodologies and factors under study. Though much has been read on credit risk management and its impact on financial performance, there still remains gaps, particularly in Nepal. The majority of studies dwell on the general indicators of credit risk, such as non-performing loans (NPLs) and capital adequacy ratio (CAR). Nonetheless, they fail to capture the complex risk management practices by the commercial banks in Nepal. Very little has been done to identify the particular factors that influence profitability in these banks. Most of the research is based on small samples and a limited period. The international studies can be helpful but still very little can be applied to the situation in Nepal as the countries are not similar in their economic situations, regulations, and institutional capacities. This identify gap shows the necessity of a specific study that should focus on the practices of credit risk management tailored to the specifics of the situation with Nepalese banks. In-depth research, using larger samples, extended periods, and more appropriate methodologies is necessary to provide practical information. The gap attempts to address these gaps will enhance the understanding and build effective strategies to make work in Nepalese commercial banks more financially productive and resilient (Bhandari and Dhakal, 2024b). In this review we will attempt to fill the gaps which are understanding the specific point over a long period of time and those which concentrate on the elements of credit risk and their impacts on productivity (Kalwar and Shrestha, 2024).

This paper will provide an evaluation of the effect of credit risk on sustainable performance of Nepalese commercial banks. It particularly compares the effect of Capital Adequacy Ratio (CAR), Non-Performing Loan ratio (NPL), Cash Reserve Ratio (CRR) and Loan Loss Provision (LLP) on the Return on Equity (ROE), and how ROE correlates with the above significant credit risk factors.

### **Literature Review**

Bhattra (2016) examined how credit risk affects the performance of the Nepal commercial banks, based on unbalanced panel data of 14 commercial banks (77 observations) in the years 2010- 2015. The dependent variable in this study is the

performance of the bank but the independent variables are Non-Performing Loans (NPL), cost/per loan assets, Capital Adequacy Ratio (CAR) and size of the bank. The results indicate that Non-Performing Loan Ratio (NPLR) is negatively, but significantly impacts the bank performance which is a weakness of the credit risk management. On the contrary, cost per loan assets is positive and significant which implies efficiency in loan dissemination and earnings. Capital Adequacy Ratio was found to have a negative but statistically irrelevant impact which implies that its impact is less significant to the performance of banks. Lastly, the size of banks has a positive and significant impact on performance, which implies that bigger banks are more likely to perform better.

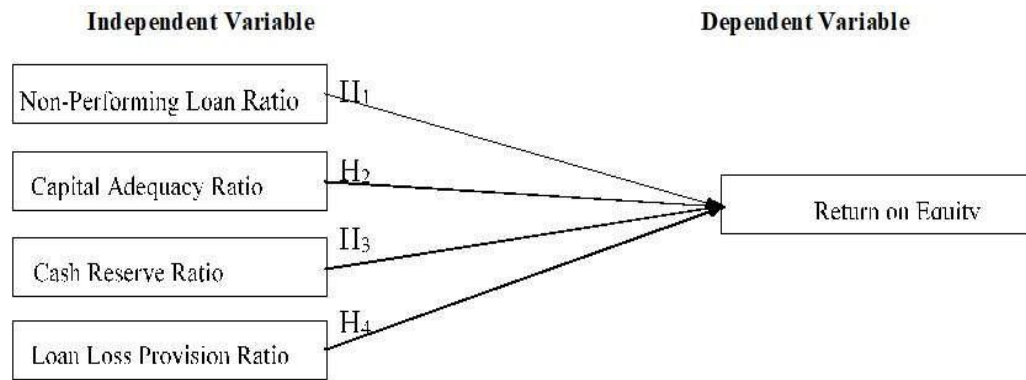
Poudel (2018) identified the role of non-performing loans, bank-specific, and macroeconomic factors in determining the profitability of commercial banks in Nepal. The panel data (refer to 15 commercial banks) used in the study is 2002/03 to 2014/15 and 1-way Fixed Effect Model (FEM). The results showed that Non-Performing Loan (NPL) ratio negatively impacts profitability with a high degree of significance, and thus, the more the higher the level of NPL, the lower the bank profits are. Conversely, the Capital Adequacy Ratio (CAR) has a huge positive nexus, which implies that profitability is improved as capitalization is improved. The total assets also have a major positive effect and indicate a tendency of bigger banks to be more profitable. On the aspect of macroeconomic, GDP growth has a positive and significant impact on profitability, which represents the positive impact of good economic conditions. There is an insignificant negative impact of the inflation rate and an insignificant positive impact of the interbank interest rate indicating that these two factors have little impact on the bank profitability.

Pandey and Joshi (2023) studied how credit risk management is related to the profitability of 28 commercial banks operating in Nepal during the years 2011/15 through a pooled regression analysis and panel data analysis. They both point out that there is a strong correlation between the effective management of credit risk and the profitability of the bank. Concretely, the paper indicates that the Capital Adequacy Ratio (CAR), the bank size (BS) and the coverage ratio (CR) have positive and significant effect on profitability with Non-Performing Loan Ratio (NPLR) and the leverage ratio (LR) having a strong negative impact. Remarkably, the existence of female board members (FBM) turned out to have a negative impact on profitability as indicated by the authors as being unexpected. On the other hand, cash reserve ratio, liquidity ratio and asset quality did not have a great impact on banking performance. Comprehensively, the study highlights that proper management of credit risks is vital in the improvement of the profitability of the Nepalese commercial banks.

Study by Karki and Dahal (2015) focused on the effects of non-performing loans (NPLS) on the performance of banks. Through the analysis of time-series of several commercial banks, they found out that a rise in the NPLs plays an important role in reducing profitability because it causes a decreased interest and an increased provisioning cost. In the research, it was proposed to implement stronger credit appraisal systems and effective recovery mechanisms that would improve financial performance. In addition, it also pointed out that the credit risk is the most challenging to the stability of Nepalese banks. However, Sharma and Timilsina (2020) proposed two new variables, such as Coverage Ratio (CR) and Female Board Members (FBM), to measure how they affect the profitability of banks. CR, the adequacy of provisioning to NPLs, was observed to have a positive strong correlation with profitability. This means that banks that possess superior loan loss coverage are financially healthy and not highly prone to defaults. Nonetheless, the observation that the negative effects of FBM on performance were statistically significant was rather surprising and contrary to the international results that related better governance to increased board diversity. The authors themselves urged the increased research on the topic of gender relations and decision-making authority of Nepalese banks.

### Methods and Materials

The present research is quantitative in nature and is based on a panel data analysis to determine how credit risk management can affect the financial performance of commercial banks in Nepal. The research philosophy used in this study was positivism and was based on a blend of descriptive and explanatory research design. The sample was taken as 20 commercial banks listed on NEPSE out of which four joint venture banks, NABIL, SBI, EBL and NMB were identified as the sample and a total of 40 observations were obtained. Convenience sampling was used to select the sample. The research will use secondary data through annual reports of sampled banks, Nepal Rastra Bank (NRB) publications as well as Banking and Financial Statistics between the year 2015 and 2024. The descriptive and inferential statistical methods were used in the data analysis. The data were summarised using descriptive statistics in percentages, mean scores, and standard deviations and correlation analysis was done to investigate relationships among the study variables. The data was pooled and a pooled data analysis was done on the pooled data to estimate the influence of credit risk on the performance of commercial banks. All the statistical analysis was done through SPSS version 16. Figure (1) illustrates the conceptual framework of the research based on the review of literature on the topic.



### The Econometric Model

A pooled data regression model was applied in this study, following the methodology suggested by Bhattarai (2016). This approach helps address the issue of heterogeneity among the four joint venture banks selected for analysis. In this research, the impact of credit risk on the performance of commercial banks was estimated using the following regression equation:

$$ROE_{it} = \beta_0 + \beta_1 CAR_{it} + \beta_2 NPLR_{it} + \beta_3 CRR_{it} + \beta_4 LLPR_{it} + e_{it}$$

Where:

ROE: Return on Equity of the  $i^{th}$  bank in the year  $t$ .

CAR<sub>it</sub>: Capital Adequacy Ratio of the  $i^{th}$  bank in the year  $t$ .

NPLR<sub>it</sub>: Non-Performing Loan Ratio of the  $i^{th}$  bank in the year  $t$ .

CRR<sub>it</sub>: Cash Reserve Ratio of the  $i^{th}$  bank in the year  $t$ .

LLPR<sub>it</sub>: Loan Loss Provision Ratio of the  $i^{th}$  bank in the year  $t$ .

§<sub>0</sub>: The intercept (constant).

§<sub>1</sub>, §<sub>2</sub>, §<sub>3</sub>, §<sub>4</sub>: The coefficients representing the magnitude of change in bank performance resulting from a one-unit change in each respective independent variable.

e<sub>it</sub>: The error term accounting for unobserved factors affecting bank performance.

## Results and Discussion

### Results of Descriptive Statistics

The summary of descriptive statistics for all variables used in the study is presented in Table 1. The table reports one financial performance indicator, Return on Equity (ROE), along with four credit risk indicators: Capital Adequacy Ratio (CAR), Non-Performing Loan Ratio (NPLR), Cash Reserve Ratio (CRR), and Loan Loss Provision Ratio (LLPR).

**Table 1**  
*Statistics*

	ROE	NPL	CAR	CRR	LLP
N	40	40	40	40	40
Mean	24.843	0.7480	14.4175	6.695	0.6423
Std. Deviation	6.7045	0.42297	3.26408	2.9674	0.42139
Minimum	12.7	0.08	10.23	1.8	0.05
Maximum	42.5	1.85	24.03	14.0	1.88

The banks in the sample had an average ROE of 24.84, which showed that the performance of the banks in terms of making profits out of the shareholders equity was fairly good. Nonetheless, this figure changed significantly among banks and some banks reported as low as 12.7% and others with up to 42.5% as indicated by a standard deviation of 6.70. The NPL ratio, which indicates the quality of the loan portfolio, was 0.748 which implied that overall, banks handled the credit risk quite well. However the fact that the lowest point is 0.08% and the highest is 1.85% indicates that there were banks that were less successful at dealing with loan defaults compared to the rest. In the meantime, the average CAR was 14.42 and that is considerably higher than the regulatory minimums, which means that the majority of banks were well-capitalized. However, the lowest ratios were 10.23 and the highest was 24.03 indicating that there is a wide range and disparity in the strength of capital. Likewise, the CRR, the measure of the liquidity required to be kept by the banks at the central bank, was on average 6.70 although it had a very broad range as well between 1.8 and 14. This implies that there are varying liquidity management practices among the institutions. Finally, the LLP ratio, the ratio of earnings that are saved against potential loan loss, the mean of LLP ratio was 0.642, and the standard deviation was 0.42. The minimum provision rate was 0.05 and maximum was 1.88 percent showing that different banks have varying risk tolerance and provisioning policies.

**Table 2.**

*Correlation matrix*

	ROE	NPL	CAR	CRR	LLP
ROE	1				
NPL	-.747**	1			
CAR	-0.025	0.148	1		
CRR	-0.297	.825**	0.253	1	
LLP	-.704**	.974**	0.261	.858**	1

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

Such a correlation table brings the information about the linearities between Return on Equity (ROE) and the explanatory variables included in the regression model. The findings indicate that ROE has a good and significant negative relationship with Non-Performing Loans (NPL) (-0.747) and Loan loss provisions (LLP) (-0.704). These results suggest that a higher increase in the NPLs and LLP with an increased credit risk and increased provision scaled to possible loan losses is related to a high fall in the profitability of the banks. This is in line with the regression model where NPL and LLP are anticipated to put a downward pressure on ROE. Conversely, the Capital Adequacy Ratio (CAR) has insignificant correlation with ROE (-0.025). This indicates that profitability and CAR are not meaningfully related and could be not highly significant in driving ROE in the regression model. Likewise, Cash Reserve Ratio (CRR) exhibits a moderate negative correlation with ROE that is however not significant (-0.297). CRR has not been found to have any real effect on liquidity and lending power, but its impact on ROE is not sufficiently large to demonstrate a clear correlation in the correlation matrix. Generally, the correlation table demonstrates that the indicators of credit risk (NPL and LLP) are the most concerned predictors that influence ROE in the regression equation, whereas CAR and CRR have unstable and negligible correlations with the dependent variable.

### Analysis of Regression Results

**Table 3.**

*Model Summary*

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
1	.950 <sup>a</sup>	0.903	0.892		2.2043

The R value of 0.950 indicates a very strong positive relationship between the independent variables and ROE. The R<sup>2</sup> value of 0.903 suggests that approximately 90.3% of the variation in ROE is explained by these four predictors, indicating that the model is highly effective. The Adjusted R<sup>2</sup> of 0.892 further confirms the reliability of the model and reflects the explanatory power of the independent variables on the dependent variable.

**Table 4.**

*Analysis of Variance (ANOVA) Results*

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	1583.023	4	395.756	81.453	.000 <sup>b</sup>
Residual	170.055	35	4.859		

Total	1753.078	39
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(F-statistics)= 81.453 at P-value = 0.000 showed that the research model is fit.

Table S.

*Regression Coefficients*

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	T	Sig.
(Constant)	25.515	2.188		11.662	0.000
NPL	-13.754	4.233	-0.868	-3.249	0.003
CAR	0.076	0.128	0.037	0.592	0.558
CRR	2.553	0.233	1.130	10.955	0.000
LLP	-13.343	4.673	-0.839	-2.855	0.007

**Dependent Variable: ROE**

The table shows the results of the regression analysis that will evaluate the impacts of various financial indicators on Return on Equity (ROE). The constant (25.515) indicates that all other variables being zero, ROE was still 25.515 which is significant ( $p = 0.000$ ). The relationship between Non-Performing Loans (NPL) and ROE is negative and the coefficient is -13.754. It implies that with the growth in NPL, ROE also declines ( $p = 0.003$ ), which implies that bad loans are detrimental to the profitability. Likewise, the impact of the Loan Loss Provisions (LLP) on the ROE is also negative (-13.343,  $p = 0.007$ ), which supports the idea that the larger the amount of money that has been set aside as a loan loss, the less the earnings. Conversely, the Capital Adequacy Ratio (CAR) also has a very small positive impact (0.076) albeit not statistically significant ( $p = 0.558$ ) in this model i.e. it does not significantly affect ROE. Otherwise, there is a positive relationship with the Cash Reserve Ratio (CRR) (2.553,  $p = 0.000$ ), implying that increase in reserves can support profitability, perhaps through financial stability.

**Hypothesis testing summary**

Variables	Coefficient	-value	Significance (at 5%)	Relationship with ROE	Decision on Alternative Hypothesis
Non-Performing Loans	-13.754	.003	Significant	Negative	Accept
Loan Loss Provisions	-13.343	.007	Significant	Negative	Accept
Capital Adequacy Ratio	0.076	.558	Not Significant	Positive but weak	Reject
Cash Reserve Ratio	2.553		Significant	Positive	Accept

## Discussion

This paper aimed to investigate the effect of credit risk measures, i.e. Non-Performing Loans (NPL), Loan Loss Provisions (LLP), Capital Adequacy Ratio (CAR), and Cash Reserve Ratio (CRR) on the profitability of Nepal's commercial banks in terms of Return on Equity (ROE). The analysis had certain valuable insights. Banks did not show a very good performance, with an average ROE of 24.84 whereas there was a vast performance across various institutions. The regression estimates indicate that both NPL and LLP negatively impact and affect ROE significantly and positively, and CRR has a significant impact. Interestingly, in this model, CAR did not have any significant impact on profitability. The model has  $R\text{-Sq} = 0.903$  which shows that over 90 percent of the variation in ROE is captured by the selected variables hence the type of variables used are very pertinent in having an insight into what drives the performance of the banks in Nepal. These findings are well within the context of previous results. The correlation between NPL and ROE is negative, which proves what was observed by Bhattarai (2016) and Bhandari and Dhakal (2024): the higher the loan defaults, the lower the profitability. This is intuitive to the point that when loans are not repaid; not only do the banks lose the income they were supposed to receive, but in most cases, they are forced to set aside more money to settle the losses. Equally, our results regarding LLP resonate with Sharma and Timilsina (2020) and Pandey and Joshi (2023), who pointed out that high provisioning level, a required aspect of pay risk, exert negative earnings pressure. Conversely, the weak impact of CAR on profitability is consistent with Adhikari (2017) who indicated that although capital buffers can help to secure long-term stability; they might not lead to immediate payoff. The positive and significant correlation between CRR and ROE might be counterintuitive, yet it confirms the Kalwar and Shrestha (2024) perspective that sufficient liquidity kept up to date can assist the banks in surviving in times of uncertainty and keeping investors and depositors optimistic about them. Although the results are quite convincing, this study is not devoid of limitation. One, the analysis is cross-sectional and based on a particular period the analysis will provide us with a snapshot but not the entire movie. Bank performance is a dynamic entity which is subjected to the changing economic conditions, change in policies, and approaches to management, which are subject to change with time. Second, the concentration on only four financial indicators, though useful, can be inconsistent with other important elements like cost-effectiveness, diversification of the customer base, or macroeconomic indicators like inflation and interest rates. Finally, as the research is conducted in Nepal only on commercial banks, it can be argued that its

generalizability to any other banking setting should be viewed with some reservations.

### Conclusion and Implications

The sustainable performance of the banking sector analysis shows that there are critical insights on the determinants of profitability especially Return on Equity (ROE). The sample of banks in general showed good profitability with an average of 24.84 ROE, though the performance of the different institutions showed great variation in performance. Factors of credit risk in particular Non-Performing Loans (NPL) and the Loan Loss Provisions (LLP) turned out to be the critical factors that had negative effects on profitability. The negative relationships and regression coefficients of NPL and LLP on ROE are significant and negative, which indicates that the capacity of the banks to earn is directly proportional to lower levels of loan defaults and provisions. This highlights the need to have proper management of credit risk to continue making profit in the banking industry. Regulatory capital measures like Capital Adequacy Ratio (CAR) on the other hand did not have a significant direct impact on profitability indicating that whereas capital adequacy is important in long term stability and compliance with regulation, it does not necessarily lead to improvement in shareholder returns in the short term. Surprisingly, the positive and statistically significant impact on ROE was experienced with Cash Reserve Ratio (CRR), meaning that having more liquidity reserves could contribute to the financial stability and performance of banks, and therefore contribute to profitability. All in all, this paper has emphasized the role of credit quality and liquidity reserves management in promoting profitability and that the worth of regulatory capital requirements is more of a safety net than a profit booster.

The implications of these findings are useful to the policymakers and bank managers. To managers, it is obvious that close attention to the quality of loans, as well as the implementation of strategic policies in providing loans, is crucial to maintaining profits. To the regulators, promoting robust liquidity and prompt remedies on risky loans may make the banking environment more robust. The current research may be extended in future by adding panel data to reflect the time change and by studying such qualitative issues as governance practices, adoption of digital banking, or customer risk profile. The added layers may assist in creating a comprehensive picture of what, indeed, makes Nepalese banks profitable and make them even more competitive in the fast-changing financial environment.

### References

- Adhikari, R. (2017d). *Impact of capital adequacy, loan-to-deposit ratio, and liquidity on the profitability of commercial banks in Nepal*. *Journal of Finance and Banking*, 5(2), 45-58.
- Basnet, P., & Joshi, M. (2018). Credit risk management and bank performance: Evidence from Nepalese commercial banks. *Nepalese Journal of Financial Studies*, 10(1), 22-37.
- Bhandari, M., & Dhakal, S. (2024). Assessing the impact of credit risk on the financial performance of commercial banks in Nepal. *Janaprabash Journal of Multidisciplinary Research*, 2, 1-16. <https://doi.org/10.3126/jjmr.v2i1.75166>
- Bhattra, L. (2016). Impact of credit risk on the performance of Nepalese commercial banks: A panel data analysis. *Journal of Banking and Finance Research*, 8(1), 33-49.
- Bhattarai, Y. R. (2016). Effect of Credit Risk on the Performance of Nepalese Commercial Banks. *NRB Economic Review*, 28(I), 41-64. <https://dot.org/10.3126/nrber.v28i1.52552>.
- Kalwar, A. K., & Shrestha, B. (2024). Impact of Credit Risk Management on Profitability of Commercial Banks in Nepal. *Journal of Economics and Management*, 4(1), 71-79. <https://doi.org/10.3126/jem.v4i1.72891>
- Karki, S., & Dahal, S. (2015). The role of non-performing loans in determining the performance of Nepalese commercial banks. *Nepalese Journal of Banking and Finance*, 7(1), 12-28.
- Pandey, R., & Joshi, S. (2023). Credit risk management and profitability of Nepalese commercial banks: A panel data approach. *Journal of Financial Economics and Management*, 15(1), 50-68.
- Poudel, S. (2018). Impact of non-performing loans, bank-specific variables, and macroeconomic factors on profitability of Nepalese commercial banks. *Nepal Economic Journal*, 12(2), 75-93.
- Pandey, C., & Joshi, B. K. (2023). Impact of Credit Risk Management on Profitability of Nepalese Commercial Banks. *The Harvest*, 2(1), 17-32. <https://dot.org/10.3126/harvest.v2i1.54406>
- Rahman, P., & Mehnaz, S. (2024). International Journal for Multidisciplinary Research (IJFMR). *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.5054029>
- Sharma, K., & Timilsina, A. (2020). The impact of coverage ratio and female board members on bank profitability: Evidence from Nepalese commercial banks. *Journal of Financial Studies*, 14(3), 102-118.
- Varshney, P. N., & Swaroop, K. (1994). *Banking theory and practice* (15th ed.). Sultan Chand & Sons.