ISSN 2350-863
*Volume VII | Issue 2 | December*

# Exploring the Impact of Loan Loss Provision on Profitability: An Analysis of Commercial Banks in Nepal

Rajesh Gurung*, Binod Ghimire *, Pramod Dahal*
* Nepal Commerce Campus, Tribhuvan University, Nepal

**Abstract**

**Background:** The central bank closely examines the loan loss provision maintained by Nepalese commercial banks in order to minimize potential losses resulting from a rise in non-performing loans, which reduces bank capital and squeezes the profitability and sustainability of banks. Establishing the relationship between loan loss provision and profitability is crucial in assessing the financial performance and risk management effectiveness of commercial banks. This analysis enables banks to minimize loan loss provisions, reinforcing profitability and ensuring long-term sustainability through the implementation of appropriate credit policies.

**Objectives:** This research aims to analyses the influence of loan loss provision on the profitability of commercial banks in Nepal. The study also takes into account pertinent variables: non-performing assets, loans and advances to total deposits, and capital adequacy which may affect the relationship.

**Methods:** This study has used both the descriptive and causal-comparative study approaches. The study used a panel data set consisting of 105-year observations, spanning from fiscal year 2017/18 to 2021/22, including 21 presently active commercial banks. The return on assets (ROA) is the dependent variable and loan loss provision (LLP) is an independent variable. The Fixed Effect (FE) panel regression has been chosen as an appropriate model as suggested by the Haussmann test.

**Results:** A panel regression model has found a negative and substantial connection between the provisions for loan losses with the Nepalese commercial banks' profitability.

**Conclusion:** The study concluded that the increased provision for loan losses adversely affects the profitability of commercial banks in Nepal. Therefore, commercial banks should carefully evaluate their loan portfolios, carry out thorough credit risk assessments, and adopt sensible policies to maximize profit and ensure financial stability.

**Keywords:** Capital adequacy ratio, loans and advances to deposit, non-performing assets, and return on assets

**JEL Classification:** G21, G32, G24, G33, E43

**Received:** 28 September 2023
**Reviewed:** 30 November 2023
**Accepted:** 26 December 2023
**Published:** 31 December 2023

**Correspondence:**
Binod Ghimire
bin.ghimire@ncc.edu.np

**Citation**:
Gurung, R., Ghimire, B., & Dahal, P. (2023). Exploring the impact of loan loss provision on profitability: An analysis of commercial banks in Nepal. *The Journal of Business and Management, 8*(2), 61-75. https://doi.org/10.3126/jbm.v7i02.62587

ISSN 2350-863
*Volume VII | Issue 2 | December*

**Introduction**

Commercial banks have an important role in facilitating a country's economic growth. It primarily serves as a financial intermediary and diversifier by mobilizing savings and providing credit facilities to the country's economic development, ultimately enhancing the quality of life enjoyed by the people in society (Heffeman, 1996). Commercial banks that are in a more lucrative position, on the other hand, are better equipped to fulfil their purposes due to their increased resources and stability. Nevertheless, the long-term sustainability of banks and the type of services they provide to the community are greatly influenced by the strength of their asset quality and degree of profitability (Gurung, 2020). There is a long-term causal link between economic expansion and commercial banks (Adams et al., 2009; Dhungana, 2014). The Nepal Rastra Bank, therefore, carefully scrutinizes the loan loss provision kept by Nepalese commercial banks to mitigate possible losses caused by an increase in non-performing loans. This decrease in bank capital and the subsequent impact on the profitability and sustainability of banks are concerns for the central bank. Hence, it is crucial to comprehend the relationship between the loan loss provision and the profitability of commercial banks, as it provides valuable insights from the viewpoint of evaluating the commercial bank's financial performance and risk management effectiveness. Particularly, by enhancing credit risk assessment and establishing suitable credit policies, commercial banks can mitigate the risk, bolster profitability, and ensure long-term sustainability.

According to Walter (1991), the inclusion of loan loss provisions has been acknowledged as an essential component of bank profitability. Beatty and Liao (2009) revealed that the loan-loss provisioning strategy is crucial for assessing the stability of the financial system, and it significantly impacts the profitability and capital positions of banks, which, in turn, affects their ability to provide credit to the economy. Selvarajan and Vadivalagan (2013) concluded that banks have been recognized as increasingly vulnerable to failure due to the large sums of money offered to consumers through loans turning towards default, which may jeopardize the banks' stability and development, and the loan loss provision has been seen as an essential technique that has been used to lessen the risk of consumers failing to pay their bank payments. This is the primary reason why the banks and regulators put the top priority on the management of the provision of loan losses, the provisions made by banks to mitigate possible losses arising from loans when they turn out into default. Hence, the regulatory provision requires the banks to maintain loan loss provisions sufficient to ensure that they have a buffer to absorb losses due to unexpected defaults and to mitigate the negative impact on profitability when loan losses occur.

In Nepal, Nepal Rastra Bank mandates that commercial banks set aside provisions for anticipated credit losses associated with various loan categories, including pass loans, watch list loans, substandard loans, doubtful loans, and bad loans. Compliance with these standards is crucial for maintaining transparency and credibility in financial reporting. Failing to establish appropriate provisions could lead to

ISSN 2350-863
*Volume VII | Issue 2 | December*

regulatory issues and reputational damage. Pradhan and Shrestha (2017) contend that assessing loan loss provisions helps stakeholders make educated judgments regarding the bank's financial stability by revealing important information about a bank's exposure to credit risk.

The association between the loan loss provision and the profitability of commercial banks is of great significance. First and foremost, it is helpful to oversee the risk and ensure adequate capital to the banks, at both the operational and regulatory levels. Better risk management practices could help reduce non-performing assets, lower provision for loan losses, and ultimately enhance the profit situation of commercial banks. This paper attempted to analyse how the loan loss provision affects commercial banks' profitability in Nepal. Particularly, it has assessed the association between return on assets and loan loss provision, while considering non-performing assets, loans and advances to total deposit, and capital adequacy as controlling factors that may influence this relationship. The subsequent segments of the article include an extensive review of existing literature, the research technique used, findings and discussion, and in the end, a conclusion of the study.

**Review of Literature**

A loan loss provision is an expense that a company sets aside as an allowance for unpaid debt, specifically loan repayments that are due but not paid by a borrower. This provision accounts for various factors that may result in loan losses, including bad debt, customer defaults, and loan terms being renegotiated to lower the expected repayment amounts (Corporate Finance Institute, 2020). Generating profit through offering financial services in the community is a fundamental objective of every commercial bank. Shareholders aim to maximize wealth through increased income of the banks and the community has a growing concern about effective resource mobilization as people prefer to deposit their funds in financially stable banks that can withstand economic instability. Since loans constitute a significant portion of a bank's assets, loan defaults are of crucial concern to stakeholders. Therefore, loan loss provisions play a vital role in ensuring the long-term survival of banks by mitigating potential losses (Gnawali, 2018; Gurung et al., 2023; Pant et al., 2022).

The policy regarding loan loss provisions plays a crucial role in evaluating the stability of the financial system as it significantly impacts fluctuations in banks' profitability and capital adequacy. Merton (1974), in credit risk theory, proposed that reducing the detrimental effect of loan losses through increased non-performing assets on bank profitability requires excellent credit risk management and sound credit evaluation procedures. Dahal (2021) and Sood (2012) argued that accounting standard setters have prioritized the quantification and clarity of loan loss provisions, as well as the level of discretion involved in estimating and timing these provisions. The primary focus from a regulatory perspective is whether the loan loss provisions are sufficient to account for anticipated credit losses during the duration of the loan.

ISSN 2350-863
*Volume VII | Issue 2 | December*

Bank and Financial Institutions Act (BAFIA), Nepal Rastra Bank divides loans into two major categories: performing and non-performing loans and allocates reserves appropriately to ensure that it is prepared for any possible losses that result from bad loans. Pass and watch list are the two types of performing loans. Pass loans include all loans that are not delinquent or are overdue for less than one month, with reserves of 1.03 percent required. The watch list includes loans that are one month late but not more than three months late. Non-performing loans are categorized into three distinct types: sub-standard loans, which are delayed by a period of three to six months; doubtful loans, which are overdue by a period of six months to one year; and loss or bad loans, which are overdue by a period of one year or more. Each loan category requires 25 percent, 50 percent, and 100 percent reserves, respectively.

Prior studies have exhibited a close connection between commercial banks' profitability and their provision for loan losses, and thus the banks are highly motivated to use loan loss provisions as a means of achieving their income levels. Several studies (for example, Dahal (2023); Ahamad, Tahir, and Aziz (2019); Alhadab and Alsahawneh (2016) have seen a clear connection between the loan loss provision and the profitability of commercial banks, which is negative in nature.

**Materials and Methods**

The effect of loan loss provision (llp) on return on assets has been studied using correlation and causal comparative research approaches. Control variables that may affect the relationship between profitability and loan loss provision include non-performing assets (npa), loan and advances to total deposit (latd), and capital adequacy (car). The research incorporates a sample of 21 commercial banks presently functioning in Nepal. This research makes use of panel data that spans five years for each sample, from 2017–18 to 2021/22, for an overall aggregate of 105 observations.

The stationarity of the data has been assessed for each variable of interest using the Augmented Dickey-Fuller (ADF) test. This is done to prevent false regression findings and ensure credible statistical conclusions. Correlation analysis has been used to determine the association between the return on assets and each of the independent variables included in the model. The Hausman test is used to choose the suitable model by evaluating the efficiency of the estimators under the assumptions of two methods: Random Effects Method and Fixed Effects Method, during the execution of the panel regression model. The study findings were obtained using the use of EViews 10, a software application for econometric analysis.

ISSN 2350-863
*Volume VII | Issue 2 | December*

**Functional Relationship and Definitions**

Equation 1 exhibits a functional relationship between the variables of interest. The analysis of present studies indicates that profitability is influenced by several factors: llp, npa, latd, and car; where the return on assets (roa) is the dependent variable and provision for loan losses (pll) is the independent variable, and non-performing assets (npa), loan and advances to total deposit (latd), and the capital adequacy ratio (CAR) is used as a controlled variable to assess its possible impact on the connection between profitability and loan loss provision. Thus, it is hypothesized that loan loss provision and return on assets are related parameters for Nepalese commercial banks.

$roa = f\,(llp, npa, latd, car)$ ---------- *(1)*

**(a) Return on Assets (roa)**

The research assesses profitability using a measure of return on assets (ROA). The calculation involves dividing the net income after tax by the total assets deployed by the banks.

$$Return\ on\ assets = \frac{Net\ income\ after\ tax}{Total\ assets}$$

**(b) Loan Loss Provision (llp)**

Loan loss provision is the amount set by the commercial banks to cover the potential losses that may arise from the credit exposure to default risk. The rise in the provision for loan loss indicates a higher percentage of non-performing loans within the bank's asset portfolio, which in turn leads to reduced profitability.

$$Loan\ Loss\ Provision = \frac{Loan\ loss\ provision}{Total\ loans\ and\ advances}$$

**(c) Non-Performing Assets (npa)**

The non-performing assets are the loans or assets held by commercial banks that belong to a high risk of default. The ratio of non-performing assets to total loans and advances is one way to quantify it. Higher NPA relative to total loans and advances suggests a detrimental effect on the bank's profitability (Chawla and Rani, 2022).

$$Non\text{-}Performing\ Assets = \frac{Non\text{-}performing\ assets}{Total\ loans\ and\ advances}$$

**(d) Loan and Advance to Total Deposit (latd)**

Loans and advances are measured in relation to the total deposits of the commercial banks. A higher ratio signifies that deposits are being used more effectively to generate profits through loans and advances.

$$Loan\ and\ advances = \frac{Loans\ and\ advances}{Total\ deposits}$$

**(e) Capital Adequacy (car)**

ISSN 2350-863
*Volume VII | Issue 2 | December*

Capital adequacy is used to measure the financial strength and resilience of a bank in relation to risk exposures. It is a measure of the institution's ability to absorb losses and maintain solvency under adverse circumstances. A strong capital adequacy ratio enhances the bank's reputation and access to the market, potentially leading to lower cost of borrowings, and can perceived to contribute to the overall profitability of banking institutions.

$$Capital\ adequacy = \frac{Total\ capital}{Total\ risk\ weighted\ exposure}$$

**Results and Discussion**

**Descriptive Statistics**

Table 1 displays the summarized statistics of variables of interest obtained from commercial banks in Nepal during the study period. The average profitability measured by Return on Assets (roa) is reported at 1.48, indicating an average return on assets of 1.48 % across the sample. The highest return on assets is observed at 2.77%, while the lowest is 0.70%, indicating a range of performance within the sample. The standard deviation of 0.46 for profitability suggests a relatively low dispersion of values around the mean, indicating a relatively consistent performance across the sample. Regarding the Loan Loss Provision (llp) ratio, the average value stands at 2.12% indicating the percentage of the bank's loan portfolio set aside as a provision for potential loan losses. The standard deviation of 0.96% shows that there exists some variability in the loan loss provision of the banks in association with potential loan losses. The loan loss provision ratio ranging from 0.19% to 4.96% also suggests for larger degree of variability in loan loss provision indicating the banks' different risk management practices and their loan quality. Similarly, the average non-performing assets (npa) ratio of 1.41% indicates a moderate level of asset quality issues in the dataset. However, the standard deviation (i.e., 1.07%) and the maximum and minimum range demonstrate the considerable variation in non-performing asset ratios, suggesting a relatively larger variability in non-performing asset ratios among the companies taken into consideration. This indicates that commercial banks have different credit risk profiles and loan performances.

**Table 1**

*Descriptive Statistics*

| Variables | N | Mean | Maximum | Minimum | Std. Dev. |
|---|---|---|---|---|---|
| roa | 105 | 1.48 | 2.77 | 0.70 | 0.46 |
| llp | 105 | 2.12 | 4.96 | 0.19 | 0.96 |
| npa | 105 | 1.41 | 4.75 | 0.03 | 1.07 |
| latd | 105 | 85.87 | 107.01 | 57.45 | 7.53 |
| car | 105 | 14.38 | 27.09 | 11.14 | 3.02 |

*Source: Based on authors' calculation.*

ISSN 2350-863
*Volume VII | Issue 2 | December*

The loan and advance to total deposit (latd) value indicate that more than 85% of total deposits, on average, transform into loans. Moreover, the value of this ratio ranges from 57.45% to 107.01% which indicates that there is a diversity in loan utilization and deposit collection. More specifically, some of the sample banks have a low loan-to-deposit ratio, which implies that the banks are either more conservative in lending or highly reliant on deposit collection for funding, and vice versa. The standard deviation also suggests that banks under the area of interest have diversity in loan utilization from their funding sources.

The capital adequacy ratio (car) indicates that almost 14% of total risk weighted exposure consists of the bank's ownership capital. However, the values ranging from 11.14% to 27.09% indicate that some of the commercial banks exhibit a strong capital base compared to risk exposure and some exhibit a higher vulnerability to financial risk.

**Data Stationary**

Table 2 reports the results of the ADF unit root test for time series. The p-values for all-time series are significant at a 1 percent significance level indicating that the null hypothesis of time series has got unit root and has been rejected in the favour of alternative hypothesis. Since the time series are stationary at level, it is said to have an integrated of order 1, I (0).

**Table 2**

*The Summary Result Unit Root Test*

| Variables | ADF t-Statistic* | P- Value | Order of Integration |
|---|---|---|---|
| roa | -5.865559 | 0.0000 | I (0) |
| npa | -5.183241 | 0.0000 | I (0) |
| llp | -4.250013 | 0.0010 | I (0) |
| latd | -4.095463 | 0.0017 | I (0) |
| car | -4.932415 | 0.0001 | I (0) |

*Source: Based on authors' calculation.*

**Critical values for 1%, 5%, and 10% are-3.510259, -2.896346, and -2.585396, respectively.*

**Correlation Coefficients**

Table 3 reports the results of the correlation coefficient of the variables to provide insights into the interplay among the variables in the dataset. The values in parentheses indicate the p-values. It reveals that the return on assets (roa) has a negative correlation with independent variables non-performing assets and loan loss provision suggesting that the increased profitability tends to decrease in non-performing assets and loan loss provision. Whereas the profitability has positively correlated with the loan and advances to total deposit (latd) and capital adequacy, meaning that the higher values of profitability are associated with higher values of loans and advances to total deposits and capital adequacy ratio of the banks. Since all the variables taken under the study have shown a significant

ISSN 2350-863
*Volume VII | Issue 2 | December*

relationship with profitability, all the variables are considered independent variables to analyze their impact on profitability.

**Table 3**

*Correlation Coefficients*

| Variables | roa | llp | npa | latd | car |
|---|---|---|---|---|---|
| roa | 1 | | | | |
| llp | -0.022<br>(0.021**) | 1 | | | |
| npa | -0.011<br>(0.044**) | 0.763<br>(0.000*) | 1 | | |
| latd | 0.225<br>(0.021**) | 0.314<br>(0.001*) | 0.310<br>(0.001*) | 1 | |
| car | 0.183<br>(0.032**) | -0.049<br>(0.002*) | -0.149<br>(0.000*) | 0.081<br>(0.043**) | 1 |
| N | 105 | 105 | 105 | 105 | 105 |

*Source: Based on authors' calculation.*

*(**) indicates significant at a 5 percent level.*

*(*) indicates significant at a 1 percent level.*

**Panel Regression Model Selection**

The Hausman Test has been employed to confirm the best model between the fixed effects versus the random effect approach. If the statistic is significant, this test rejects the null hypothesis that the Random Effect Model is suitable and supports the alternative hypothesis that the Fixed Effect Model is more appropriate. As shown in Table 4, the output of the Hausman test depicts that the value of Chi-Square ($\chi^2$) statistics is 6.233 with its corresponding p-value of 0.032, and less than 0.05, indicating that it is significant at a 5 percent level, and concludes that the Fixed Effect Model should be chosen over the Random Effect Model.

**Table 4**

*Hausman Test for Model Selection*

| variable | Fixed Effect | Random Effect | Var (Diff) | p-value |
|---|---|---|---|---|
| llp | -0.146 | -0.058 | 0.002 | 0.039 |
| npa | -0.008 | 0.000 | 0.003 | 0.877 |
| latd | -0.022 | -0.017 | 0.000 | 0.445 |
| car | 0.039 | 0.027 | 0.001 | 0.631 |

ISSN 2350-863
*Volume VII | Issue 2 | December*

| |
|---|
| X2 (4) Statistics = 6.233 |
| χ2 (Prob)=0.032** |

*Source: Based on authors' calculation.*

(**) indicates significant at the 5 percent level.

**Fixed Effects (FE) Model Specification**

The Fixed Effects approach is considered when it accounts for individual-specific effects or time-specific effects in panel data analysis. More specifically, the fixed effect model specification assumed that the unobserved variable (αi) has correlated effects with any of the explanatory variables, Xi; i.e., Corr ($\alpha i, X_i$) ≠0. The equation (2) provides the FE model specification:

$$ROA_{it} = \gamma_0 + \gamma_1 LLP_{it} + \gamma_2 NPA_{it} + \gamma_3 LATD_{it} + \gamma_4 CAR_{it} + \alpha_i + \varepsilon_{it} \quad (2)$$

Where,

$\gamma_0$ = intercept (including individual-specific effects)

When averaging the equation (2) over time, it is presented in form in equation (3):

$$\overline{ROAi} = \gamma_0 + \gamma_1 \overline{LLPi} + \gamma_2 \overline{NPAi} + \gamma_3 \overline{LATDi} + \gamma_4 \overline{CARi} + \alpha_i + \overline{\mathcal{E}i} \quad (3)$$

To remove the effect of unobserved effect $\alpha_i$ before estimation, equation (3) is subtracted from equation (2).

$$(ROA_{it} - \overline{ROAi}) = \gamma_0 + \gamma_1 (LLP_{it} - \overline{LLPi}) + \gamma_2 (NPA_{it} - \overline{NPAi}) + \gamma_3 (LATD_{it} - \overline{LATDi}) + \gamma_4 (CAR_{it} - \overline{CARi}) + (\varepsilon_{it} - \overline{\mathcal{E}i}) \quad (4)$$

Now, simplifying Equation (4), equation (5) presents the transformed equation to estimate the relationship under the fixed effect model as:

$$roa_{it} = \gamma_0 + \gamma_1 llp_{it} + \gamma_2 npa_{it} + \gamma_3 latd_{it} + \gamma_4 car_{it} + \mathcal{E}_{it} \quad (5)$$

Where,

$\gamma_0$ = intercept (after removing the individual-specific effects)

$llp_{it} = LLP_{it} - \overline{LLPi}$

$npa_{it} = NPA_{it} - \overline{NPAi}$

$latd_{it} = LATD_{it} - \overline{LATDi}$

$car_{it} = CAR_{it} - \overline{CARi}$

$\mathcal{E}it = \varepsilon_{it} - \overline{\mathcal{E}i}$

**Analysis of Loan Loss Provision on Banks' Profitability**

Table 5 reports the results of the Fixed Effect Method on the impact of independent variables on profitability (roa), the total number of panel observations of 105. The R-squared value of 0.424

ISSN 2350-863
*Volume VII | Issue 2 | December*

suggests that approximately 42.4% of the variation in profitability can be attributed to the independent variables: loan loss provision (llp), non-performing assets (npa), loans and advances to total deposits (latd), and capital adequacy (car). Thus, it indicates that the independent variables under interest have collectively a moderate level of explanatory power on the profitability of commercial banks. Furthermore, the regression model as a whole demonstrates strong statistical significance, as evidenced by an F-statistic of 2.452 and a corresponding p-value of 0.002.

**Table 5**

*Fixed Effect Model*

| Variable | Coefficient | Std Error | t-Statistics | P-Value |
|---|---|---|---|---|
| Constant | 3.100* | 1.054 | 2.940 | 0.004 |
| llp | -0.146*** | 0.083 | -1.769 | 0.080 |
| npa | -0.008 | 0.086 | -0.096 | 0.924 |
| latd | -0.022** | 0.009 | -2.313 | 0.023 |
| car | 0.040 | 0.032 | 1.252 | 0.214 |
| roa = 3.100 - 0.146(llp) - 0.008(npa) - 0.022(latd) + 0.040(car) + Ɛ | | | | |
| Number of panel observations = 105 | | | R2 = 0.424 or 42.4% | |
| F-Statistics = 2.425<br>F-Statistics (Prob) = 0.002 | | | | |

*Source: Based on authors' calculation.*

(***) indicates significant at the 10 percent level.

(**) indicates significant at the 5 percent level.

(*) indicates significant at a 1 percent level.

The negative coefficient for loan loss provision (llp) suggests that higher levels of provision for loan losses are associated with lower profitability, assuming the other variables remain constant, and the corresponding p-values are 0.080, less than 10 percent level of significance, the relationship is significant. The coefficient for non-performing assets, on the other hand, is negative with 0.008 indicating that for each unit increase in non-performing assets is associated with a decrease of 0.008 units in the expected value of profitability, holding all other independent variables constant. However, its p-values of 0.924 (>0.1), greater than 10 percent level of significance, the relationship is not significant. Similarly, the loans and advances to total deposit (latd) are negatively associated with the profitability and imply that each unit increase in this variable leads to a decrease in 0.022 units in the

ISSN 2350-863
*Volume VII | Issue 2 | December*

expected value of return on assets (roa), keeping other independent variables unchanged, and the relationship is significant at 2.3 percent level. Finally, the coefficient of capital adequacy (car) with 0.040 indicates that higher levels of capital adequacy are associated with higher profitability, assuming the other variables remain constant, but the relationship is not significant.

The results of the panel regression indicated the presence of significant coefficients of loan loss provision with profitability provides insights into the connection between these dependent and independent variables. The findings of the study revealed an inverse relationship between the provision for loan losses and profitability in Nepalese commercial banks. This implies that when commercial banks in Nepal allocate higher levels of provisions for potential loan losses, their profitability tends to decrease. However, this relationship holds true while considering the controlled variables of non-performing assets, loans and advances to total deposits, and capital adequacy as controlled variables in the given model. This kind of result is expected as more the amount the commercial banks set aside to cover loan losses; erodes their profit situation. Many empirical evidence, for example, Alhadab and Alsahawneh (2016); Karki et al. (2023); Mustafa, Ansari, and Younis (2012); and Tahir (2014) have also documented a negative association between the loan loss provision and bank profitability. Similarly, the negative coefficient of non-performing assets (NPA) suggests that the higher provisions for potential loan losses correspond to decreased return on assets of the commercial banks. This outcome is expected since the existence of non-performing assets reflects concerns about the quality of credit, where borrowers fail to fulfill their loan payment obligations due to financial challenges they encounter. Moreover, commercial banks need to allocate much of their income for loan loss provisions, reducing the bank's profitability. In both the domestic and global contexts, this result is in perfect agreement with the others (for example, Ghimire, Rai, and Dahal (2021); Rajan and Zingales (1998); Zhang, Cai, Liu, and Kutan, (2018); Ojha and Acharya (2019); Abdullah and Hayat (2021); and Chaudhary and Kumar (2023)). The results of Pokharel (2020) in the context of Nepal, however, are in contrast with this.

On the other hand, the inverse relationship between loan to deposit ratio (latd) and profitability indicates that Nepalese commercial banks face reduced profitability when confronted with higher levels of this ratio. This might be the reason for the bank's decision to rely more on costly external financing over stable and less costly deposits to support additional loans; because of increased perceived risks of market participants regarding the increased risk profile of the banks causing adverse effect on bank's profitability. This finding is consistent with the research findings of Vasudevan (2018) and documented that the higher the loan to deposit ratio is associated with the lower the ability of the bank concerned, causing the bank to be in a problematic condition. Therefore, commercial banks need to consider both the liquidity and costs of funding while forming the asset portfolio.

ISSN 2350-863
*Volume VII | Issue 2 | December*

Finally, an increase in capital adequacy (car) corresponds to a positive impact on the profitability of commercial banks. A higher capital ratio signifies that a bank has a greater capital buffer to absorb potential losses and enhances the financial stability in the banking sector. It reduces the bank's likelihood of significant losses and supports the bank's ability to generate positive returns on assets. The obtained result is in line with the research findings of Mathuva (2009), nevertheless, the studies, such as Numair et al. (2015) and Haryoso et al. (2020), have documented a negative relationship.

**Conclusion and Suggestions**

The objective of this study was to examine the impact of loan loss provision on the profitability of commercial banks in Nepal. The Hausman test validated the use of the fixed effect technique for assessing the association between a few financial variables and the profitability of commercial banks in Nepal. The model confirmed that the loan loss provision has a significant negative relationship with the return on assets of commercial banks. This simply means that increases in the amount of provision for loan losses may adversely affect the profitability of the banks, ceteris paribus. This finding has significant implications at both operational and policy levels, that necessitate a thorough assessment of the creditworthiness of potential borrowers, continuous monitoring of credit, and the establishment of appropriate loan policies that align with regulatory guidelines, so that it can mitigate the negative impacts of non-performing assets, improving loan loss provisioning, and enhancing the profitability of commercial banks. The scope for future research exists to broaden the in-depth understanding of a similar research topic. The additional tests such as the Chow Test and the Breusch Pagan Lagrange Multiplier (LM) Test can also be considered alongside the Hausman Test. Further studies can be carried out with inter-comparison analysis based on bank size, region, and bank classification to enable a deeper understanding of the relationship under study. Likewise, the analysis can include variables such as return on equity, net interest margin, bank size, age, and growth. Finally, qualitative evidence can be added as a supplementary to gain holistic knowledge on the relationship between the commercial banks' profitability and loan loss provision in the context of Nepal.

To maximize profitability and maintain financial stability, commercial banks should carefully assess their loan portfolios, conduct robust credit risk assessments, and establish prudent loan loss provisioning policies. Additionally, ongoing research and analysis in this area can contribute to the ongoing improvement of banking practices and regulations, ensuring the resilience of the banking industry in the face of economic challenges.

ISSN 2350-863
*Volume VII | Issue 2 | December*

**References**

Abdullah, H. S., & Hayat, M. (2021). Impact of non-performing loans on bank profitability: Evidence from Pakistani banks. *Journal of Financial Economic Policy*, 8 (3), 177-210.

Adams, M., Andersson, J., Andersson, L. F., & Lindmark, M. (2009). Commercial banking, insurance and economic growth in Sweden between 1830 and 1998. Accounting, Business & Financial History, 19(1), 21-38.

Ahamad, F., Tahir, S. H., & Aziz, B. (2019). Impact of loan loss provision on bank profitability in Pakistan. *Research Journal of Social Science & Management*, 3 (12), 34-41.

Alhadab, M., & Alsahawneh, S. (2016). Loan loss provision and the profitability of commercial banks: Evidence from Jordan. *International Journal of Business and Management*, 11 (12), 242-248.

Beatty, A., & Liao, S. (2009). Regulatory capital ratios, loan loss provisioning, and pro cyclicality. *Scott Journal of Accounting and Economics*, 1-41.

Chaudhary, P., & Kumar, A. (2023). Impact of credit risk on the performance of Indian banks. *Journal of Commerce & Accounting Research*, 12(1), 29-38.

Chawla, S., & Rani, S. (2022). Resolution of non-performing assets of commercial banks: The evidence from banker's perspective in the Indian banking sector. *The Indian Journal of Industrial Relations*, 70(4), 1-24. https://doi.org/10.1177/00194662221118318

Corporate Finance Institute. (2020). What are provisions? Retrieved from: https://corporatefinanceinstitute.com/resources/accounting/provisions/

Dahal, P. (2023). Impact of non-performing assets on profitability: A panel regression analysis of commercial banks in Nepal. *Global Journal of Commerce and Management Perspective*, 12:041. DOI: 10.35248/2319-7285.23.12.041.

Dahal, R. K. (2021). Traditional vs. contemporary management accounting techniques in the Nepalese manufacturing companies. *Journal of Management Information and Decision Sciences, 24*(5), 1-14

Dhungana, B. R. (2014). Commercial banks and economic growth: A case of Nepal. *HermeneuticS: A Biannual Refereed International Journal of Business and Social Studies*, 4(2), 1-7.

Gauba, R. (2012). The Indian banking industry: Evolution, transformation & the road ahead. *Pacific Business Review International*, 7(25), 810-819.

ISSN 2350-863
*Volume VII | Issue 2 | December*

Ghimire, B., Rai, B., & Dahal, R. K. (2021). Corporate culture and organizational performance in the banking industry of Nepal. *Management Dynamics, 24*(2), 1–8. https://doi.org/10.3126/md.v24i2.50031

Gnawali, A. (2018). Non-performing asset and its effects on profitability of Nepalese commercial banks. *International Journal of Research in Business Studies and Management, 5*(9), 39-47.

Gurung, R. (2020). Nexus between stock market capitalization and its drivers: An ARDL model analysis. *NCC Journal*, 5 (1), 51-62. https://doi.org/10.3126/nccj.v5i1.56951

Gurung, R., Dahal, R. K., Ghimire, B., & Sharma, J. (2023). Drivers of mutual fund pricing of the Nepalese stock market. *Hong Kong Journal of Social Sciences, 62*(Autumn/Winter), 2023, 152-162. https://doi.org/10.55463/hkjss.issn.1021-3619.62.15

Harvoso, P. K., Linda, N., & Choerudin, A. (2020). Is there a trade-off between capital adequacy and profitability? *Talent Development & Excellence*, 4580-4588.

Heffeman, S. (1996). *Modern banking in theory and practice*. John Wiley and Sons, Chichester.

Karki, D., Bhattarai, G., Dahal, R. K., & Dhami, K. (2023). Should income be diversified? A dynamic panel data analysis s of Nepalese depository financial institutions. *Investment Management and Financial Innovations, 20*(3), 332-343. http://dx.doi.org/10.21511/imfi.20(3).2023.28

Mathuva, D. M. (2009). Capital adequacy, income ratio and performance of commercial banks: The Kenyan scenario. *The International Journal of Applied Economics and Finance*, 3(2), 35-47.

Merton, R. C. (1974). On the pricing of corporate debt: The risk structure of interest rates. *The Journal of Finance, 29*(2), 449–470. https://doi.org/10.2307/2978814

Mustafa, A. R., Ansari, R. H., &Younis, M. U. (2012). Does the loan loss provision affect the banking profitability in case of Pakistan? *Asian Economic and Financial Review*, 2(7), 772-783

Numair, A. S., Irfan, M., Asad, J., & Faraz, H. (2015). Determinants of profitability in banking sector of Pakistan. *Journal of Research in Social Sciences*, 21-34.

Ojha, M., & Acharya, B. (2019). Relationship between non-performing assets and profitability of commercial banks in Nepal. *Journal of Management and Development Studies*, 2(1), 1-14.

Pant, R., Ghimire, B., & Dahal, R. K. (2022). Determinants of mutual fund performance in Nepal. *Nepal Journal of Multidisciplinary Research, 5*(5), 1–16. https://doi.org/10.3126/njmr.v5i5.51798

ISSN 2350-863
*Volume VII | Issue 2 | December*

Pokharel, R. (2020). The relationship between total loan and advance to total deposit ratio and profitability of commercial banks in Nepal. *Journal of Business and Social Sciences Research,* 5(2), 1-11.

Pradhan, R. S., & Shrestha, A. (2017). Determinants of loan loss provisions of commercial banks in Nepal. *European Journal of Accounting, Auditing and Finance Research*, 6(9), 23-37.

Rajan, R. G., & Zingales, L. (1998). Financial dependence and growth. *American Economic Review*, 88(3), 559-586.

Selvarajan, B., & Vadivalagan, G. (2013). A Study on management of non-performing assets in priority sector reference to Indian bank and public sector banks. *Global Journal of Management and Business Research,* 13 (1), 101-114.

Sood, H. A. (2012). Loan loss provisioning and income smoothing in US banks pre and post the financial crisis. *International Review of Financial Analysis*, 25, 64-72.

Tahir, S. (2014). Impact of loan loss provision on bank profitability in Pakistan. *TIJ's Research Journal of Social Science & Management,* 3(12), 242-248.

Vasudevan, A. (2018). Non-performing assets. Money, bank and finance. *International Journal of India,* 53(13), 27-34.

Walter, J. R. (1991). Loan loss reserves. *Economic Review*, 20-30.

Zhang, D., Cai, J., Liu, J., & Kutan, A. M. (2018). Real estate investments and financial stability: Evidence from regional commercial banks in China. *The European Journal of Finance, 24*(16), 1388-1408. DOI: 10.1080/1351847X.2016.1154083.