

Operational Determinants of Profitability: Evidence from Nepalese Development Banks

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Abstract

This study examines the profitability of Nepalese development banks predicted by operational factors (including liquidity ratio, operating efficiency, capital adequacy ratio, and non-performing assets). Descriptive and causal-comparative research designs were used to predict the effects of the operational factors on profitability measured in return on equity. The quantitative data of the study variables using panel data from nine NEPSE listed development banks covering 10-years period (F/Y 2014/15 to 2023/24) are employed. The result of multiple regression analysis demonstrates substantial negative effect of liquidity ratio and non-performing assets on return on equity, reaffirming the trade-off between liquidity and profitability as well as the crucial role of credit risk management. On the other hand, even while CAR levels are significantly beyond regulatory minimums, ER and CA show no statistically significant effect on profitability. These findings raise questions about the generalizability of banking theories and highlight the necessity of regulatory frameworks that are sensitive to context and recognize the dual goals of development banks—financial sustainability and developmental lending. Furthermore, the study supports efforts to strengthen this crucial area of Nepal's financial architecture by providing empirical information to help development bank management formulate policies and make strategic decisions.

Keywords: Profitability, Liquidity, Efficiency, Capital Adequacy, Management Efficiency, Development Bank

Introduction

The financial system of a country is essential to its economic development and progress (Abate & Mesfin, 2019; Adhikari & Shrestha, 2019). Banks and financial institutions (BIFs) play a crucial role as financial intermediaries in mobilizing domestic resources, promoting investments and savings, and setting the groundwork for future economic growth (Shrestha, 2018a; Shrestha, 2022). (Kosmidou, 2008) argues that the efficiency of the financial system is dependent on the efficient transfer of funds from savers to investors and the distribution of those funds among economically vital businesses. The strength and performance of the banking system greatly contribute to financial stability and economic growth, which is why bank profitability receives a lot of attention in finance literature (Anteneh & Tewolde, 2017).

Profitability is an essential parameter for assessing a bank's efficiency and sustainability, as well as its financial performance. It shows how well a bank can manage risks, make earnings from its operations, and provide value to stakeholders. For the banking system to promote innovation, productivity, and efficiency, profitability is a prerequisite. For the economy as a whole to grow and remain stable, it becomes essential to look into factors that affect profitability (Staikouras & Wood, 2004).

An empirical study shows that various determinants have a considerable impact on bank's profitability with indicated directional effects. Pervan et al. (2019) reported that higher profitability due to economies of scale and market strength. Eljelly (2004) revealed an increment in profitability due to the reduction in the cash conversion cycle and aggressive working capital management. Similarly, Athanasoglou et al. (2008) revealed positive effect of cash adequacy and the negative effect of non-performing loans on profitability measured in ROA. However, Dietrich and Wanzenried (2014) found that management efficiency indicated a positive impact on ROA in high-income countries and no significant effect in low-income economies. In the Nepalese context, Sejuwal et al. (2025) documented that the capital adequacy ratio, non-performing loans, management efficiency, bank size, and growth rate affect the financial performance of banks in Nepal.

Nepalese development banks, which offer specialized financial services to several industries and business firms, have significant contribution in Nepalese economy. These banks serve as key intermediaries in channeling medium and long-term financing to productive sectors such as agriculture, industry, hydropower, and rural development. Despite their significance, these banks deal with a variety of issues that have number of challenges that have a direct impact on their profitability, including managing liquidity risk, optimizing operating costs, ensuring capital sufficiency, and reducing credit risk. Stakeholders need to fully comprehend these factors in order to build policies that enhance industry performance and promote economic growth (Lelissa, 2014). In recent periods, profitability of Nepalese development banks remains unstable despite regulatory reforms and sectoral consolidation efforts and has received little scholarly attention. Thus, this paper aims to uncover the research gap by investigating the profitability of the banks determined by operational determinants.

Literature review

Profitability and Operational Determinants

Profitability refers to the ability of a business, project, or investment to turn a profit in relation to its expenditures, expenses, and capital used over a given time period. It is not just the total amount of profit made; it is a gauge of effectiveness and financial performance. A profitable organization generates more value than it uses (Adhikari & Shrestha, 2006; Shrestha et al., 2062; Shrestha et al., 2008). Profit is the surplus gained by a company after deducting all expenses and provisions from total income, and it serves as a reward for entrepreneurship and resources for future expansion (Lowe et al., 2020; Shrestha, 2003). Profitability, on the other hand, relates to a company's ability to produce a profit continuously over time, which is crucial for satisfying financial obligations such as bank interest payments (Mulhern, 1999; Shrestha, 2018b; Shrestha, 2020; Adhikari & Shrestha, 2017; Shrestha, 2005; 2014; 2010).

Operational factors demonstrate a vital role in determining the profitability of financial institutions as they directly influence various operational competencies like as cost efficiency, revenue generation, asset quality, liquidity management, and risk exposure (Shrestha et al., 2022). An extensive body of literature concerning financial institutions confirms that operational variables significantly predict profitability across banks and countries. Pervan et al. (2019) discovered that larger enterprises had greater return on assets (ROA) due to economies of scale and market strength. Eljelly (2004) studied and provided empirical evidence of the liquidity-profitability tradeoff. It found that a reduction in the cash conversion cycle increased ROA, confirming that aggressive working capital management boosts profitability even in the face of liquidity constraints. Bank-specific factors also exhibit strong effects. Athanasoglou et al. (2008) found that non-performing loans significantly decrease bank profitability across 41 Greek banks, while capital adequacy has a positive impact on return on assets. Dietrich and Wanzenried (2014) found that management efficiency has a positive impact on ROA in high-income countries, but has no significant effect in low-income economies, highlighting the underlying interconnections of profitability drivers. A study of Sejuwal et al. (2025) suggested that NPL and managerial efficiency are important drivers of bank performance, although greater bank sizes may diminish efficiency.

Theories of Profitability

A thorough investigation of the factors influencing profitability should be grounded in a number of complementary theoretical frameworks that clarify the causal relationships between business attributes and financial performance. This study is based on market power theory, efficiency theory, agency cost theory and signaling theory. Market Power Theory states that growing market power leads to monopolistic profits. Higher market concentration causes more market defects, allowing companies to have greater price power (Bain, 1951; Athanasoglou et al., 2008). According to Demsetz's Efficiency Theory, superior management techniques and scale efficiency result in increased market concentration and profits. Efficient companies reduce costs through production efficiency and good management practices, allowing them to increase market share while remaining profitable (Fisseha, 2015). The Agency Cost Theory deals with issues originating from the split of ownership and control within businesses. Jensen and Meckling (1976) divided

agency costs into three categories: shareholder monitoring costs, bonding costs, and residual losses due to conflicts of interest between managers and principals. Signaling Theory suggests that high-performing companies deliver positive information to stakeholders. In banking, higher capital levels indicate a prosperous future expectation, whereas lower debt ratios are viewed as signs of improved performance (Alkhazaleh & Almsafir, 2014).

Empirical Reviews

Bourke (1989), Abreu and Mendes (2002), and Yao et al. (2018) showed positive correlations between liquidity ratios and profitability. But Hakimi and Zaghdoudi (2017) discovered contrary findings. Eljelly (2004) provided empirical evidence of the liquidity-profitability tradeoff and found that a reduction in the cash conversion cycle increased ROA, confirming that aggressive working capital management boosts profitability even in the face of liquidity constraints. Bank-specific factors also exhibit strong effects. Pasiouras and Kosmidou (2007) found that operating costs, a measure of bank efficiency, have a negative impact on profit measurements in European Union countries, underlining the significance of effective cost management. However, in less competitive marketplaces, operating expenses may be passed on to customers, thereby establishing a positive association with profitability (Flamini et al., 2009). Capital adequacy is the ability of a bank's capital resources to absorb any possible losses (Athanasoglou et al., 2008). Regulatory authorities establish minimum capital requirements to ensure that banks are capable of handling adverse financial circumstances (Demirguc-Kunt & Huizinga, 1999). Bank profitability is significantly affected by changes in credit risk, measured by non-performing assets. According to Athanasoglou et al. (2008) and Flamini et al. (2009), more credit risk exposure usually results in lower profitability because of higher loan defaults and related recovery costs. Dietrich and Wanzenried (2014) revealed that management efficiency has a positive impact on ROA in high-income countries, but has no significant effect in low-income economies, highlighting the underlying interconnections of profitability drivers.

Hossain and Ahamed (2021) examined the determinants of bank profitability in Bangladesh using panel data from 23 major banks from 2005 to 2019 using OLS regression analysis and quantified profitability using ROA, ROE, and NIM. The findings revealed that non-interest income, capital ratio, and GDP growth all had a substantial impact on ROA; NIM was affected by non-interest income, market share, bank size, and real exchange rates; and ROE was primarily controlled by market share. Jreisatand and Bawazir (2021) attempted to determine the factors that influence bank profitability in the Middle East and North Africa. The impact of different factors on bank profitability was examined using a random-effect model and secondary data from 10 countries, as well as 927 observations from 2008 to 2016. The results showed that non-interest income (NII) had a substantially positive impact on profitability, suggesting that banks' financial performance and profitability were enhanced by increases in NII, such as commissions and credit card fees. Further, profitability throughout the region was positively impacted by economic growth as indicated by GDP. Nonetheless, a negative correlation was found between profitability and credit risk, specifically non-performing loans, indicating that higher NPL levels had a negative impact on a banks' financial performance.

Recent empirical studies provide a wide range of insights into the factors that influence global bank profitability. Mijoč et al. (2025) revealed that operational efficiency, diversity, and risk greatly influenced profitability in both US and EU banks after the 2008 crisis. Wati and Rosyadi (2025) found that capital adequacy ratios favorably impacted ROA in Indonesian Islamic banks, but non-performing financing had no effect.

Sejuwal et al. (2025) evaluated how the capital adequacy ratio, non-performing loans, management efficiency, bank size, and growth rate affect the financial performance of Nepalese commercial banks, as assessed by return on assets and return on equity. Using data from 12 banks (2016/17-2023/24), regression analysis revealed that NPLs and bank size have a negative impact on ROA, whereas management efficiency has a favorable effect. CAR has no meaningful link to ROA. The study suggested that NPL and managerial efficiency are important drivers of bank performance, although greater bank sizes may diminish efficiency.

Paukmonsgkol (2024) discovered that growing asset size reduced profitability in Thai banks, although capital adequacy, inflation, and GDP increased profits. Belcaid and Al-Faryan (2023) found unfavorable connections between concentration, foreign ownership, and profitability in Moroccan banks, but domestic institutional ownership had a positive impact.

Radovanov et al. (2023) studied West Balkan banks and discovered that most bank-specific and macroeconomic drivers influenced both profitability and liquidity in the same manner. Rai et al. (2023) used machine learning to determine the non-performing assets ratio and business per employee as strong predictors of all profitability parameters in Indian banks.

Although literature provides plenty of information on macroeconomic and bank-specific factors that affect profitability (such as efficiency, capital adequacy, and credit risk), the results appear to be contradictory across contexts. The strength, direction, and even relevance of these associations is dependent on a bank's operational environment and are not universal, according to recent studies (e.g., Dietrich & Wanzenried, 2014; Belcaid & Al-Faryan, 2023; Sejuwal et al., 2025).

The existing literature focuses mostly on the profitability of Nepalese commercial banks; profitability drivers such as capital sufficiency, liquidity management, asset quality, and operational efficiency, leaving a considerable study void in terms of development bank-specific variables. Neupane (2016) documented that internal determinants had low explanatory power than external factors affect on the profitability of commercial banks of Nepal. On the other hand, Pradhan (2016) found that the bank-specific factors that positively affect ROA were the credit-to-deposit ratio and the liquidity ratio, while capital adequacy showed no significant association in Nepal's banking industry. Shrestha (2020) found that assets management efficiency and operational efficiency had a significant effect on the financial performance of Nepalese banks. Similarly, Bohara (2024) identified that bank size, interest cost, and liquidity risk had a significant negative effect on ROA, and the capital adequacy ratio had a positive but statistically weak association with the profitability of Nepalese banks. Therefore, a detailed empirical examination into the determinants (liquidity, operating efficiency, capital adequacy ratio, and non-performing assets) of profitability (ROE) in Nepalese development banks is both timely and required.

Conceptual Framework and Study Hypotheses

The primary objective of this study is to examine the impact of the operational factors on the profitability of Nepalese development banks. The profitability is measured by return on equity, and operational predictors consist of liquidity ratio (LR), operating efficiency ratio (ER), capital adequacy ratio (CAR), and non-performing asset ratio (NPA). Whereby, ER and CAR have positive expected signs and LR and NPA are supposed to be negative predictors of ROA.

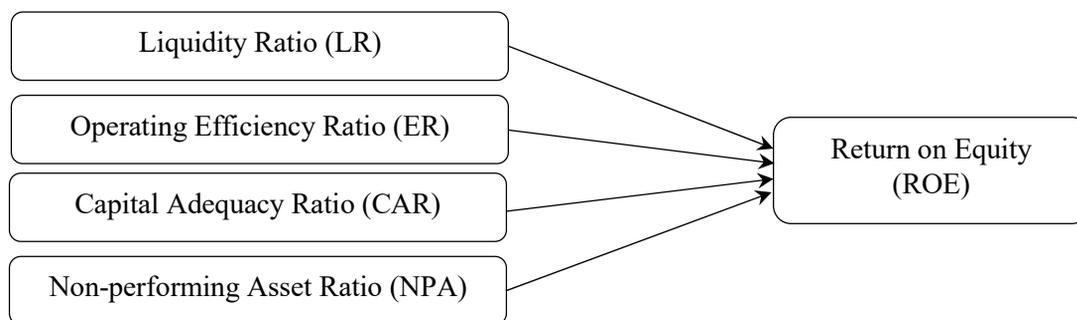


Figure 1. Conceptual framework of the study

Based on the theoretical and empirical review, the following hypotheses and conceptual framework have been developed:

- H₁: Liquidity ratio has a significant effect on return on equity of Nepalese development banks.
- H₂: Operating Efficiency ratio has a significant effect on return on equity of Nepalese development banks.
- H₃: Capital adequacy ratio has a significant effect on return on equity of Nepalese development banks.
- H₄: Non-performing assets have a significant effect on return on equity of Nepalese development banks.

Research Methods

This study follows positivist research philosophy, focuses objective measurement and statistical analysis of observable phenomena. This study employs a deductive method, examining notions based on current theories and empirical findings. The major objective of this study is to investigate the effect of bank-specific variables (liquidity ratio, operating efficiency ratio, capital adequacy ratio, and non-performing assets ratio) on the profitability of Nepalese development banks. Therefore, this study follows a descriptive and causal comparative research design that describes a systematic, logical, and reliable picture of certain characteristics of the investigated population (Syahza, 2021). There are currently 17 development banks in Nepal (NRB Report, Dec, 2025).

This study considers only 9 development banks out of 17 development banks using the judgmental sampling method, considering data sufficiency criteria. The data are based on secondary data, collected from annual reports of the respective sample development banks with 90 observations

during FY 2015/16 through 2023/24. The mean and standard deviation are used to evaluate the level and characteristics of sample development banks. Similarly, correlation analysis is performed to examine the relationship between the independent variables (LR, ER, CAR, and NPA) and the dependent variable (ROE) of development banks. Regression analysis is also used in this study to analyze the impact of liquidity, operating efficiency, capital adequacy, and non-performing assets on the profitability of development banks in Nepal. Table 1 presents the study variables and their operational definitions.

Table 1

Study Variables and Definitions

| Variables | Measures |
|------------------------------|---|
| Return on Equity (ROE) | Net income/Total shareholders' equity |
| Liquidity Ratio (LR) | Total cash and cash equivalents/Total assets |
| Capital Adequacy Ratio (CAR) | (Tire I + Tire II Capital)/Risk-weighted assets |
| Operating Efficiency (ER) | Total operating cost/Total revenue |
| Non-performing Loan (NPL) | Non-performing assets/Total loan and advances |

Table 1 depicts the study variables and their operational definitions. The dependent variable of the study is return on equity (ROE), and the independent variables are liquidity ratio (LR), operating efficiency ratio (ER), capital adequacy ratio (CAR), and non-performing asset ratio (NPA). Liquidity ratio, operating efficiency ratio, capital adequacy ratio, and non-performing assets ratio have been taken as the major bank-specific determinants of profitability of the development banks of Nepal.

The model to be analyzed in the research is as follows:

$$ROE = \alpha + \beta_1 LR + \beta_2 ER + \beta_3 CAR + \beta_4 NPA + \varepsilon$$

Where,

ROA = Return on assets

α = Constant

$\beta_1, \beta_2, \beta_3,$ and β_4 = Coefficient parameters

LR = Liquidity ratio

ER = Operating efficiency ratio

CAR = Capital adequacy ratio

NPA = Non-performing assets ratio

Results and Findings

Table 2 displays the descriptive statistics for the dependent variable, profitability (ROE), and the independent variables (LR, ER, CAR, and NPA), based on a sample of 90 observations (N=90) from 2014/15 to 2023/24 of sample Nepalese development banks. The mean, standard deviation, minimum, and maximum had been considered in the descriptive analysis.

Table 2*Descriptive Statistics*

| | Minimum | Maximum | Mean | Std. Deviation |
|-----|---------|---------|-------|----------------|
| LR | 0.00 | 0.30 | 0.08 | 0.06 |
| ER | 0.08 | 0.45 | 0.21 | 0.07 |
| CAR | 11.19 | 30.94 | 15.45 | 4.09 |
| NPA | 0.00 | 11.43 | 1.95 | 2.03 |
| ROE | 0.02 | 0.34 | 0.13 | 0.06 |

Note: $N=90$

Table 2 shows that the profitability of the banks in terms of ROE is at a normal level. ROE of the sample banks ranges from 0.02 to 0.34 and an average of 0.13 with low variability. Liquidity ratio in average was 0.08 with a range from 0.00 to 0.30, indicating low dispersion. The operating efficiency, with an average of 0.21 and a standard deviation of 0.07, indicated a better operational status of the banks. Similarly, capital adequacy ratios vary more between 11.19 and 30.94, averaging 15.45, which is found above the Basel III requirement. Non-performing assets average 1.95 percent, with a standard deviation of 2.03, indicating significant differences in loan quality across banks.

Table 3 displays the results of Pearson's correlation coefficient, which is used to analyze the relationship between the study variables return on equity, liquidity, operating efficiency, capital adequacy, and non-performing assets.

Table 3*Correlations Analysis*

| | LR | ER | CAR | NPA | ROE |
|-----|---------|--------|--------|--------|-----|
| LR | 1 | | | | |
| ER | .372** | 1 | | | |
| CAR | -0.020 | 0.092 | 1 | | |
| NPA | -0.171 | -0.177 | .302** | 1 | |
| ROE | -.303** | -.239* | -0.129 | -0.194 | 1 |

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

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

The results indicate that there is a significant ($r=-0.303$, $p < 0.01$) negative relationship between liquidity (LR) and return on equity (ROE). The low significant relationship between LR and ROE implies that development banks with higher liquidity ratios tend to have lower profitability. Similarly, there is a significant ($r = -0.239$, $p < 0.05$) negative relationship between operating efficiency (ER) and return on equity (ROE) of the banks. It shows that the higher the operating efficiency cost of the development banks, lower the return. The results also show that there is no statistically significant relationship between CAR and NPA with ROE.

Table 4 reports the results of the regression analysis conducted to analyze the effect of the predictors on the ROE of the banks.

Table 4
Regression Analysis

| | Standardized Coefficients | B | Std. Error | t | Sig. |
|-------------------------|---------------------------|---|----------------------------------|--------|-------|
| (Constant) | 0.200 | | 0.027 | 7.470 | 0.000 |
| LR | -0.283 | | 0.095 | -2.660 | 0.009 |
| ER | -0.176 | | 0.088 | -1.637 | 0.105 |
| CAR | -0.039 | | 0.001 | -0.372 | 0.711 |
| NPA | -0.262 | | 0.003 | -2.474 | 0.015 |
| <i>R-square = 0.184</i> | | | <i>Adjusted R-square = 0.145</i> | | |
| <i>F-Stat. = 4.776</i> | | | <i>F-sig. = 0.002</i> | | |

Table 4 designates that the model is statistically significant ($F=4.776$, $p=0.002$) in predicting expected effects of the predictors on ROE, and explanatory power is modest ($R^2=0.184$; adj. $R^2=0.145$). The results indicate the negative effects of all predictors on ROE. Liquidity ratio has negatively predicted ROE ($\beta = -0.283$, $t = -2.66$, $p = 0.009$), and the effect is highest and statistically significant. In addition, Non-performing assets also have a negative and statistically significant effect ($\beta = -0.262$, $t = -2.47$, $p = 0.015$) on ROE. Two other predictors, Operating efficiency ($\beta = -0.176$, $p = 0.105$) and Capital adequacy ($\beta \approx -0.039$, $p = 0.711$) did not predict ROE significantly. Overall, liquidity ratio, non-performing assets, and efficiency ratio have shown considerable effects on the profitability of the banks. Based on these results, the study hypotheses results are depicted in Table 5.

Table 5
Test of Hypotheses

| Hypotheses | Statements | P-value | Decision |
|----------------|--|---------|----------|
| H ₁ | Liquidity ratio has a significant effect on return on equity of Nepalese development banks. | 0.009 | Accepted |
| H ₂ | Operating Efficiency Ratio has a significant effect on return on equity of Nepalese development banks. | 0.105 | Rejected |
| H ₃ | Capital adequacy ratio has a significant effect on return on equity of Nepalese development banks. | 0.711 | Rejected |
| H ₄ | Non-performing assets have a significant effect on return on equity of Nepalese development banks. | 0.015 | Accepted |

Table 5 reveals that hypotheses H₁ and H₄ are accepted, whereas H₂ and H₃ are rejected. It indicates that liquidity (LR) and non-performing assets (NPA) have a significant negative effect on return on equity (ROE) of the sample development banks of Nepal. Similarly, operating efficiency (ER) and

capital adequacy ratio (CAR) have no statistically significant effect on return on equity of the sample development banks in Nepal.

Discussion

This study investigated the effects of bank-specific variables on the profitability of Nepalese development banks as determined by return on equity (ROE), including liquidity ratio (LR), operating efficiency ratio (ER), capital adequacy ratio (CAR), and non-performing assets ratio (NPA) as independent variables. Only two (liquidity and non-performing assets) out of the four hypothesized factors had a significant impact on profitability, according to the regression analysis. Operating efficiency and capital adequacy had no statistically significant relationship with profitability, while the liquidity ratio and non-performing assets had significant negative effects on ROE. The significant negative association between the liquidity ratio and ROE ($\beta = -0.253$, $p = 0.009$) reflects the liquidity-profitability trade-off argument. Nepalese development banks appear to keep excess liquid assets, as demonstrated by a mean LR of 0.08, which generates low returns when compared to productive lending. While retaining liquidity is critical for meeting short-term obligations and regulatory requirements, the findings indicate that Nepalese development banks' asset allocation may be substantially conservative. This liquidity hoarding is most likely due to increased risk aversion in an environment marked by political instability, insufficient legal frameworks for loan recovery, and a lack of credit information infrastructure. This finding is consistent with the finding of Bourke's (1989), Pasiouras and Kosmidou (2007), Eljelly (2004), Bohora (2024), and inconsistent with the results of Pradhan (2016) and Hakimi and Zaghdoudi (2017).

Similarly, non-performing assets have a significant negative impact on ROE ($\beta = -0.007$, $p = 0.015$), highlighting the need for effective credit risk management. The increase in loan defaults has a significant negative impact on profitability due to provisioning requirements, recovery expenses, and capital immobilization. This conclusion substantially supports Athanasoglou et al. (2008), Flamini et al. (2009), and Sejuwal et al. (2025), who identified credit risk as a primary profitability limitation. This vulnerability is exacerbated in Nepal, where development banks increasingly function like commercial banks while still carrying out development responsibilities. Their exposure to high-risk sectors (agricultural, hydropower, and rural companies), combined with ineffective collateral enforcement procedures, creates a fundamental contradiction between developmental goals and financial viability.

In contrast to Pasiouras and Kosmidou's (2007) findings in EU banks, despite a negative coefficient, operating efficiency had no significant association with ROE ($p = 0.105$). This could be attributed to Nepal's underdeveloped financial market structure, in which banks may offset on operating expenses to customers through higher loan rates or fees, phenomena seen by Flamini et al. (2009) in less competitive situations. The failure to demonstrate a significant CAR-ROE association ($p = 0.711$) is especially notable given that the sample mean CAR (15.45%) is significantly higher than Nepal's regulation minimum (8.5%). This shows that development banks keep capital buffers above regulatory requirements without converting them into profitability advantages. Cash may sit idle rather than being invested in profitable projects due to risk aversion

or a lack of feasible investment possibilities, particularly in key sectors where development banks are supposed to lend. This result contradicts Wati and Rosyadi's (2025) findings for Indonesian Islamic banks, but it is consistent with Sejuwal et al.'s (2025) recent Nepalese commercial bank study, which showed no CAR-ROA association, implying a systemic feature of Nepal's banking landscape.

Conclusion

This study examined the effects of operational factors on profitability among Nepalese development banks by addressing a research gap. The results from regression analysis have demonstrated negative effects of all four operational factors on profitability. Liquidity ratios and non-performing loans have reported a negative and statistically significant effect on profitability. The effect of these variables is considerable. However, operating efficiency and capital adequacy ratios did not predict profitability significantly. The findings show that the key bank-specific factors of profitability in this sector are liquidity management and asset quality, rather than capital strength or operational efficiency. The weak explanatory power of internal factors underscores that increasing development bank profitability necessitates coordinated efforts that address both institutional practices and the more substantial macroeconomic environment in which these essential financial intermediaries operate.

Scope for Future Research

This study only concentrates on Nepalese development banks. So, it limits generalizability of results to other banking institutions and financial sectors. It covers data of the 10-year timeframe. So, it may not capture long-term cyclical patterns. Future studies should extend the timeframe to cover several economic cycles, broaden the sample to cover all sorts of Nepalese financial institutions, and add more variables including governance quality, technological adoption, and competitive intensity.

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