



# Factors Affecting Profitability of Selected Banks: The Case of Nepal

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## Abstract

Using liquidity metrics like the Temporary Investment Ratio (TIR), Liquid Assets Ratio (LR), Credit Deposit Ratio (CDR), Debt to Asset Ratio (DAR), Debt to Equity Ratio (DER), Non-Performing Asset Ratio (NPA), and Capital Adequacy Ratio (CAR) as well as profitability indicators like ROA and ROE, as well as understanding the relationship between liquidity and profitability indicators, are the primary objectives. In this quantitative study, descriptive and causal-comparative research designs were employed. We used secondary data and purposeful sampling. The data were analyzed using regression and correlation. The study examines how liquidity impacts banks' profitability. TIR, LR, DAR, and NPA have an insignificant and positive influence on return on assets (ROA), while CDR, DER, and CAR have an insignificant and negative impact. ROA is unaffected by TIR, LR, DAR, NPA, CDR, DER, and CAR. This indicates that none of the factors contribute to higher ROA. TIR, LR, DER, and NPA have an insignificant and positive effect on return on assets (ROE), but CDR and CAR have a considerable and negative influence. NPA, DER, LR, and TIR have no effect on ROE. ROE is impacted by CDR and CAR, though. It may be concluded that ROE is not increased by TIR, LR, DER, or NPA. On the other hand, CDR and CAR help to raise ROE.

**Keywords:** profitability, liquidity, commercial banks, ROA, ROE, Nepal

## Introduction

According to Ali and Jameel (2019), liquidity is a gauge of a commercial bank's ability to pay out its commitments to the contractor on schedule. This includes loans, investments, accrued liabilities, withdrawals, and deposits. For commercial banks, increasing interest revenue can be achieved by taking on more deposits and lending them to reputable assets. More liquid assets make it harder for the bank to pay interest (Tan, 2018). About a financial institution's capital base, profitability serves as a barometer for the performance of the business and its ability to produce income above its worth. The profitability metrics evaluate the financial effectiveness and efficiency of commercial organizations. A key element of financial development, profitability of bank affects both the macroeconomic stability as well as the success of banking companies. According to Adebayo et. Al., (2012), a larger firm-level return considerably lowers bank vulnerability.

The internal elements that bank management controls and the external components that are outside of management's control and subject to a vast environment are the two categories of determinants of bank profitability. A bank's capacity to pay off debt and fund increases in current liabilities without suffering intolerable losses is referred to here. According to Nikolaou (2009), a bank is considered illiquid if it is unable to complete its debt payments on schedule. While economic management, the second key component of monetary policy, aims to promote long-term, sustainable economic growth by balancing credit and monetary expansion with an economy's potential for noninflationary production, liquidity, or reserve management has a shorter time horizon.

Managing liquidity is a crucial part of carrying out monetary policy. Liquidity management is used to equal out fluctuations in the financial system's liquidity growth and preserve a certain level of macroeconomic stability (Adebayo et. Al., 2012).

Some contend that a company's ability to make money is the primary factor in determining its long-term viability. The main objective of any commercial endeavor is to make money, yet the elements that influence profitability in emerging nations have received less attention. Hence, the factors determining the profitability of selected Nepalese commercial banks are examined in this study.

## Statement of the Problem

From 27.14 percent in 2013–14 to 9.41 percent in 2017–2018, SBI Bank's bank and cash balance to current assets ratio has been decreasing. Whereas that of Nabil Bank has fluctuated, ranging from 6.18 percent (2013/1) to 8.25 percent (2015/16) (Adhikari, 2019). This implies that compared to SBI Bank, Nabil Bank's cash and bank balances are less liquid.

On the other hand, Nabil Bank makes better and more regular use of cash. The problem statement's primary concern is how the liquidity position affects profitability. It is challenging for Nepali banks to get a balance between liquidity and profitability.

Meeting client expectations and avoiding financial difficulties require maintaining sufficient liquidity; but, investing in high-return assets may cause liquidity to be depleted. To maintain a long-term balance between liquidity and profitability, banks need to properly manage their assets and liabilities (Mishra, 2020).

### Research Questions

- i. What is the relationship between independent metrics such as temporary investment, liquid assets, credit to deposit, debt to assets, debt to equity, non-performing assets, and capital adequacy and dependent variables i. e. ROA and ROE?
- ii. How do temporary investment, liquid assets, credit to deposit, debt to assets, debt to equity, non-performing assets, and capital adequacy affect dependent variables i. e. ROA and ROE?

### The Study's Objective

This study's objective is to examine how liquidity affects the profitability of a few Nepalese commercial banks.

The study's particular goals are:

- i. To examine the association between independent metrics such as temporary investment, liquid assets, credit to deposit, debt to assets, debt to equity, non-performing assets, and capital adequacy and dependent variables i. e. ROA and ROE?
- ii. To analyze how temporary investment, liquid assets, credit to deposit, debt to assets, debt to equity, non-performing assets, and capital adequacy affect dependent variables i. e. ROA and ROE?

### Significance of the Study

The study has been conducted with an emphasis on Nepal SBI Bank, Nabil Bank, and Rastriya Banijya Bank. It's critical to comprehend the profitability and liquidity patterns of these banks for several reasons. The research gap is filled by these studies, which offer a better knowledge of the dynamics of these banks' profitability and liquidity over time.

Commercial banks, first and foremost, are vital to the financial system and promote economic expansion by offering financial intermediation services. How well banks can carry out their duties is directly impacted by their profitability and liquidity. The financial stability, risk tolerance, and capabilities of these particular institutions to support Nepal's economy can all be better understood by looking at patterns in liquidity and profitability. This study contributes significantly to understanding the issues. Its findings may be a valuable resource for policymakers, researchers, investors, and the academic community, facilitating informed decisions and promoting further exploration in the field. By filling the gaps and overcoming the challenges identified, this research can drive improvements in Nepal's banking sector, fostering economic growth and financial stability.

### Gap in Research

This analysis also included data from Nepal's ten fiscal years from 2014 to 2023, which the researcher could not find in earlier studies. Additionally, ROA and ROE have been employed as dependent variables to assess the

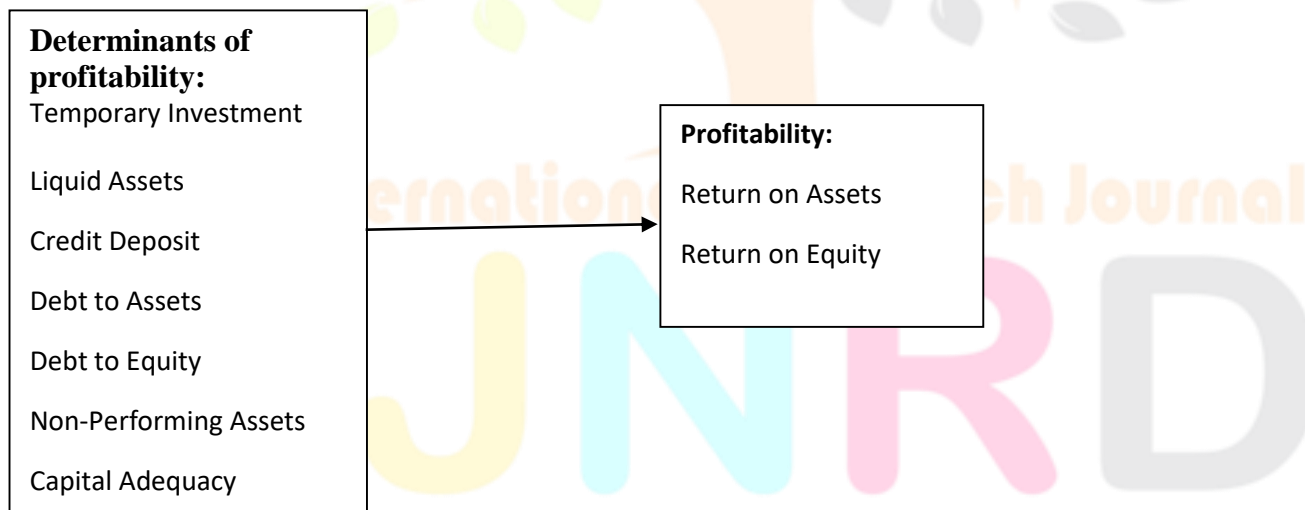
profitability of banks. However, most researchers used only ROE or ROA to measure performance. On the other hand, there is a dearth of study and inconsistency as well among the earlier study projects. The research gap is filled by this work.

### Conceptual Framework

Moreover, ROA is significantly impacted by CDR and IDR (Shrestha, 2013). According to (Ibe, 2023), profitability in Nepal was significantly and favorably impacted by the banks' cash-vault-to-deposit ratio and NRB-to-deposit ratio. Moreover, the ratios of cash and bank balance to deposits, and liquid funds to deposits have been demonstrated to have no appreciable impacts.

The internal operations of commercial banks are primarily concerned with profitability and liquidity management. Shrestha & Binaya (2019) examined it between 2013 and 2017. The results of the study show that the profitability of Nepalese commercial banks is not statistically and significantly impacted by liquidity. ROE and ROA have been utilized as dependent variables for the banks' profitability, while investment-deposit ratio, credit-deposit ratio, and cash-deposit ratio have been used as independent variables to show how the banks manage their liquidity (Mishra & Pradhan, 2020). The conceptual framework of the study is given below:

**Figure 1**



Source:(Mishra & Pradhan, 2020).

### Hypothesis of the Study

H<sub>0</sub>: Independent metrics such as temporary investment, liquid assets, credit to deposit, debt to assets, debt to equity, non-performing assets, and capital adequacy do not affect dependent variables i. e. ROA and ROE.

H<sub>1</sub>: Independent metrics such as temporary investment, liquid assets, credit to deposit, debt to assets, debt to equity, non-performing assets, and capital adequacy affect dependent variables i. e. ROA and ROE.

## **Review of Literature**

Conceptual and empirical reviews are all included in this literature review. The study's independent and dependent variables are derived from a theoretical review.

### **Conceptual Review**

Conceptual reviews have been involved in the following ways:

#### **Nepal SBI Bank Limited**

Since its founding in July 1993, NSBL has grown to become one of Nepal's top banks. Having been in business for more than 217 years, State Bank of India (SBI) is the biggest commercial bank in India in terms of assets, deposits, earnings, branches, clients, and staff.

#### **Nabil Bank**

Founded in 1984, Nabil Bank—formerly known as Nepal Arab Bank Limited—is Nepal's first private commercial bank. Branch banking, cards, treasury, trade, remittance, and investment banking are just a few of the many commercial banking services.

#### **Rastriya Banijya Bank Limited**

For more than 50 years, RBBL has been providing for its clients all throughout the country. The bank was founded on 23 January 1966 under the special statute "Rastriya Banijya Bank Act, 2021" and functioned under the "Commercial Bank Act, 2031" until it was re-registered as a public limited company on 6 Baishak 2063 (19 May 2006). At that time, the bank was all owned by the Government of Nepal. Currently, the Bank does business and is a "A" class financial institution regulated by Nepal Rastra Bank.

### **Liquidity vs profitability**

The appraisal of a corporation is based on two essential aspects of its operations: liquidity and profitability (Shrestha & Caurasiya, 2023). A significant portion of current assets, particularly cash, should be retained to maintain high levels of liquidity. Businesses that pay off their obligations in full and on time might expect to receive some discounts from their suppliers and customers as a result of this increase in liquidity, gaining more confidence from lenders who consider liquidity before making loans, and, most importantly, lowering their risk of going bankrupt.

## Independent variables

The study's independent variables, liquidity ratios, are derived from earlier research. The capital adequacy ratio (CAR), debt-to-asset ratio (DAR), debt-to-equity ratio (DER), temporary investment ratio (TIR), liquidity ratio (LR), non-performing ratio (NPR), and credit-deposit ratio (CDR) are all indicators of liquidity. They are the main focus of the banking sector. Liquidity has an impact on financial performance as profitability i. e. ROA and ROE.

## Dependent Variables

Only two crucial metrics—ROE and ROA—are used in this study to evaluate the banks' profitability. The bank's efficiency in making money off of asset investments is assessed by ROA. The ratio ought to be as high as it can be.

## Empirical Reviews

According to a study by Mishra & Pradhan (2020), profitability ratios such as ROA and ROE and liquidity ratios such as Investment-Deposit Ratio (IDR), Cash-Deposit Ratio (CDR), Credit-Deposit Ratio (CRDR) are significantly correlated. Additionally, the authors showed that ROA is significantly harmed by CDR and IDR.

There is an insignificant but favorable correlation between ROE and ROA and the cash deposit ratio (CDR), according to a study by Khatri (2021). However, the analysis discovers a positive but insignificant correlation with ROA and a negative and insignificant correlation with CDR and ROE.

According to a study by Pradhan & Khadka (2018) on “How debt financing affects Nepalese commercial banks' profitability”, there is an inverse relationship between profitability and the ratios of debt to equity, total debt to total assets, and long-term debt to total assets. The results of the regression show that the ratio of short-term debt to total assets, the size of profitable banks, and the interest coverage ratio all have positively significant beta coefficients. Conversely, the long-term debt to total assets, the total debt to total assets, and the debt to equity ratio with profitability all exhibit negatively significant beta coefficients.

A study by Gautam & Pradhan (2020) found a positive correlation between ROE and ROA and the capital ratios (CR), investment ratios (IR), and current assets ratios (CAR) which show how rising IR and CAR are correlated with increased ROA and ROE. On the other hand, ROE and ROA have an inverse connection with liquid asset ratios. A study by Chhetri (2022) found that ROA is negatively impacted by non-performing loans in a statistically significant way, that ROA is negatively impacted by bank size and the capital adequacy ratio in a non-statistically significant way, and that there is a positive but weak correlation between ROA and CDR.

A study by Nahang & Araghi (2013) found that liquidity, total deposits, and loan payments have a negative and substantial link with each other and that banks' profitability is directly tied to how well they manage costs and credit risk.

A study by Kafle (2023) found that the cash reserve ratio, capital adequacy ratio, loan-to-deposit ratio, and bank size all have a positive influence on banks' profitability, but the non-performing loan ratio has a negative effect.

A study by Gupta & Lal in 2023 looked at how CAMELS components affected the financial performance of Indian commercial banks. Secondary data from four public and four private sector banks for the fiscal years 2017–2022 was gathered based on their market capitalization to fulfill the objectives of the study. To analyze the data, two econometric models are employed. To represent the financial performance of commercial banks, the dependent variables are ROE and ROA, while the independent variables are the six CAMELS key indicators: capital adequacy, asset quality, management efficiency, earning quality, liquidity, and sensitivity to market risk. The results showed that the financial performance of the Indian banking sector as measured by ROA and ROE had a statistically significant impact on sensitivity to market risk, capital adequacy, and liquidity but that managerial efficacy, assets quality, and earning quality had little effect on the profitability of Indian commercial banks.

The set of independent factors and the dependent variable have a high positive connection, claim Shrestha and Chaurasiya (2023). capital adequacy ratio, credit deposit ratio, total deposit to total ratio, total loan to total assets ratio, current reserve ratio (CRR), and credit deposit ratio (CDR) are all indicators of profitability that are part of liquidity management.

## **Research Methodology**

This section covers the population and sample size, data sources, data analysis methods, and research methodology.

### **Design of Research**

Using a descriptive and causal-comparative research design, this study employed a quantitative approach.

### **Sources of Data**

The study used secondary sources of data.

### **Population and Sample Size**

Twenty commercial banks operating in Nepal will be included in the survey. Only three banks will be included in the study's sample. Nepal SBI Bank Limited (NSBI), Nabil Bank, and Rastriya Banijya Bank Limited (RBBL) has been chosen as sample organizations. NSBI were taken as one of the old bank in India and joint venture in Nepal. Nabil bank has been chosen for being the oldest private sector's bank in Nepal. RBBL has been selected due to state-owned organization. Purposeful sampling, a non-probability sampling strategy, has been the method employed.

## Data Analysis

Data analysis has made use of regression and correlation analysis. A five-point Likert scale has been applied using the SPSS approach.

## Results and Discussion

Results include correlation and regression analysis in this study.

Coefficient of Correlation (r)

A Pearson correlation matrix is employed in this study.

**Table 1: Pearson Correlation coefficients**

	ROA	ROE	TIR	LR	LDR	CDR	DAR	DER	NPA	CAR
ROA	1									
ROE	0.013	1								
TIR	0.064	0.196	1							
LR	0.062	0.012	0.318	1						
			**							
CDR	-0.30**	-0.185	-	-	-	1				
R			0.605	0.301	0.102					
			**	**						
DAR	-	-0.154	-	-	-	0.301	1			
R	0.327**		0.178	0.221	0.154	**				
			*	*	*					
DER	-0.218	0.052	-	-	-	0.463	0.648	1		
R			0.250	0.407	0.313	**	**			
			*	**	**					
NPA	-0.016	0.048	-	-	-	0.230	-	-	1	
A			0.078	0.160	0.131	*	0.011	0.026		

CA	0.158	-0.190	-	-	0.077	0.306	-	0.298	-	1
R			0.217	0.070		**	0.076	**	0.14	
										8

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

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

Table 1 shows the correlation matrix that shows the relationships between various liquidity ratios and ROA and ROE. ROA has a negative correlation with CDR (Credit to Deposit Ratio,  $r=-0.30^{**}$ ) and Debt to Asset Ratio,  $r=-0.327^{**}$ ), and a positive correlation with CAR (Capital Adequacy Ratio,  $r=0.158^{**}$ ), which \*\* indicates significant statistical significance ( $p<0.01$ ). ROE: Except a weak positive association with DER (Debt to Equity Ratio,  $r=0.052$ ), there were no significant relationships.

Strong negative association with CDR ( $r=-0.605^{**}$ ) and weak but significant relationships with LR ( $r=0.318$ ) and DER ( $r=-0.250$ ) were seen for TIR (Total Investment Ratio). The liquidity ratio, or LR, has a negative correlation with DAR ( $r=-0.221^{*}$ ) and DER ( $r=-0.407^{**}$ ), and a positive correlation with TIR ( $r=0.318^{**}$ ). Strong negative correlations with ROA ( $r=-0.30^{**}$ ) and TIR ( $r=-0.604^{**}$ ), DAR ( $r=0.301^{**}$ ), and DER ( $r=0.463^{**}$ ) are observed with CDR (Credit to Deposit Ratio).

The debt-to-asset ratio has a negative correlation with ROA ( $r=-0.327^{**}$ ) and LR ( $r=-0.221^{*}$ ), but a positive correlation with DER ( $r=0.648^{**}$ ) and CDR ( $r=0.301^{**}$ ). The debt-to-equity ratio, or DER, has a negative correlation with LR ( $r=-0.407^{**}$ ) and a positive correlation with DAR ( $r=0.648^{**}$ ) and CDR ( $r=0.463^{**}$ ).

Non-performing assets, or NPAs, have no meaningfully strong associations and are insignificant with the majority of factors. The Capital Adequacy Ratio (CAR) exhibits weak or negligible correlations with other indicators, although it has a positive correlation with DER ( $r=0.298^{**}$ ) and CDR ( $r=0.306^{**}$ ). Weak correlations between ROA and ROE and other variables suggest that the factors mentioned may not have a significant impact on them. It appears that TIR, CDR, and DER interact more strongly with several variables. Key dependencies and inverse correlations, such as those between ROA and DAR or TIR and CDR, are highlighted by significant relationships, particularly at the 0.01 level.

### Multicollinearity Test Result

The VIF and tolerance test results were analyzed to see if multicollinearity was present. If the tolerance is less than 0.10 and the VIF is more than 10, the model is considered to have multicollinearity issues (Romadhoni et al., 2023). Multicollinearity is a test used to assess the degree of correlation between the independent variables. A significant degree of multicollinearity in the data collection indicates a collinearity problem (Fariha et al., 2022).

**Table 2: Multicollinearity Diagnostics**

Model	Collinearity Statistics		
	Tolerance	VIF	Conclusion
(Constant)			
TIR	0.593	1.686	No Multicollinearity issue
LR	0.747	1.338	No Multicollinearity issue
CDR	0.470	2.127	No Multicollinearity issue
DAR	0.488	2.049	No Multicollinearity issue
DER	0.378	2.649	No Multicollinearity issue
NPA	0.851	1.175	No Multicollinearity issue
CAR	0.702	1.424	No Multicollinearity issue

Table 2 displays the independent variable's multicollinearity. The tolerance value is greater than 0.10 (0.593, 0.747, 0.470, 0.488, 0.378, 0.851, 0.702, respectively) and the VIF value is less than 10 (1.686, 1.338, 2.127, 2.049, 1.175, 1.424, respectively) for TIR, LR, CDR, DAR, DER, NPA, and CAR. Consequently, the independent variables do not have a multicollinearity problem. Multicollinearity is a problem if the tolerance value is less than 0.10 and the VIF is greater than 10.

### Regression Analysis on ROA

Table 3 shows the results of model one's multiple regressions as follows:  $ROA = \beta_0 + \beta_1 TIR_1 + \beta_2 LR_2 + \beta_3 CDR_3 + \beta_4 DAR_4 + \beta_5 DER_5 + \beta_6 NPA_6 + \beta_7 CAR_7 + \epsilon$ . The associated explanatory variables' intercepts and slope coefficients are provided by the t-statistics in parenthesis. The dependent variable is ROA, whereas the independent variables are TIR, LR), CDR, DAR, DER (Debt Equity Ratio), Non-Performing Assets Ratio, and CAR.

**Table 3: Regression Coefficients of ROA**

Model	Unstandardized		Standardized	t	Sig.
	Coefficients				
	B	Std. Error	Beta		
(Constant)	5.455	1.540		3.542	0.002
TIR	0.007	0.016	0.091	0.431	0.671

LR	0.007	0.033	0.035	0.221	0.827
CDR	-0.022	0.016	-0.339	-1.414	0.171
DAR	0.045	0.225	0.129	0.201	0.842
DER	-0.013	0.017	-0.495	-0.762	0.454
NPA	0.125	0.275	0.081	0.454	0.655
CAR	-0.161	0.130	-0.247	-1.232	0.231
R	0.706				
R Square	0.498				
Adjusted R Square	0.339				
Std. Error	0.42688				
F-Statics	4.31				

The validity and stability of the model pertinent to the investigation are supported by the substantial value of the F-statistic, which is 4.31. The constant term (intercept) is 5.455 percent. It displays the expected ROA value when every predictor variable is zero or stays the same. TIR (Temporary Investment Ratio) is positive by 0.007 with a standard error of 0.016 and a significance level of 0.671. The dependent variable seems to have a somewhat positive effect, as indicated by the standardized coefficient of TIR of 0.091. However, the p-value (0.671) is greater than the threshold (0.05). The LR, DAR, and NPA coefficients are 0.007, 0.045, and 0.125, respectively, with standard values of 0.033, 0.225, and 0.275, and a significance level of 0.827, 0.842, and 0.655. This implies that LR, DAR, and NPA are positively and insignificantly correlated with ROA.

The Standardized Coefficients of the independent variables (LR, DAR, and NPA) are 0.035, 0.129, and 0.081, respectively. Although the p-value suggests that this effect is insignificant, DAR seems to have a slight beneficial impact on ROA and LR in this case. ROA has a negative correlation with CDR, DER, and CAR. Changes in the independent variables (CDR, DER, and CAR) result in a -0.022, -0.013, and -0.161 drop in ROA, respectively. An insignificant association is indicated by the CDR, DER, and CAR p-values in this instance, which are 0.171, 0.454, and 0.231, respectively. The standard error is 0.016, 0.017, and 0.130, and the standardized coefficients of CDR, DER, and CAR are -0.339, -0.495, and -0.247, in turn.

The independent and dependent variables have a multiple correlation coefficient of 0.706. The percentage of the variance in ROA that can be accounted for by the independent variables is indicated by the R<sup>2</sup> score (0.498). In this instance, the model (independent variables) can account for roughly 49.8% of the variance in ROA. The number of predictors in the model is taken into consideration by the Adjusted R<sup>2</sup> (0.339), which correctly modifies the R-squared. When comparing models with varying amounts of predictors, this metric is more

trustworthy. The average deviation of the observed values from the regression line is displayed by the regression's standard error, which is 0.42688.

The validity and stability of the model pertinent to the investigation are supported by the substantial value of the F-statistic, which is 4.31.

### Regression Analysis on ROE

The multiple regression findings for model one are displayed as follows in Table 4:  $ROE = \beta_0 + \beta_1 TIR_1 + \beta_2 LR_2 + \beta_3 CDR_3 + \beta_4 DAR_4 + \beta_5 DER_5 + \beta_6 NPA_6 + \beta_7 CAR_7 + \epsilon$ . The t-statistics in parenthesis provide the intercepts and slope coefficients of the associated explanatory factors.

TIR, LR), Credit Deposit Ratio (CDR), DAR, DER, Non-Performing Assets Ratio (NPA), and Capital Adequacy Ratio (CAR) are all independent factors. ROE is the dependent variable.

**Table 4: Regression Coefficients of ROE**

Model	Unstandardized Coefficients		Standardized Coefficients Beta	T	Sig.
	B	Std. Error			
(Constant)	75.490	14.466		5.218	0.000
TIR	0.148	0.151	0.183	0.984	0.336
LR	0.041	0.309	0.018	0.132	0.896
CDR	-0.324	0.149	-0.461	-2.179	0.040
DAR	-1.596	2.114	-0.428	-0.755	0.458
DER	0.119	0.162	0.422	0.736	0.470
NPA	0.618	2.584	0.038	0.239	0.813
CAR	-2.592	1.225	-0.374	-2.116	0.046
R	0.780				
R Square	0.609				
Adjusted R Square	0.484				
Std. Error of the Estimate	4.00950				
F –Statics	3.98				

The validity and stability of the model pertinent to the investigation are supported by the substantial value of the F-statistic, which is 3.98.

$R^2$  (0.609): This figure shows that the independent variables in the model account for about 60.9% of the variance in the dependent variable (ROE). The number of predictors in the model is taken into consideration by the adjusted  $R^2$  (0.484). It demonstrates that the independent variables account for approximately 48.4% of the variance in ROA, which supports the complexity of the model.

The constant coefficient is 75.490, and the standard error is 14.466. The t-statistic is 5.218, and the p-value (Sig.) is 0.000. The intercept term is statistically significant ( $p < 0.05$ ), according to this. The TIR coefficient is 0.148 with a standard error of 0.151. The p-value of 0.336 is not statistically significant ( $p > 0.05$ ), but the standardized coefficient of 0.183 indicates a somewhat favorable impact on ROE. However, TIR has little effect on ROA. The LR coefficient is 0.041 positive with a standard error of 0.309. A small positive impact is indicated by the standardized coefficient of 0.018. This impact is not statistically significant, according to the p-value of 0.896.

The CDR and CAR coefficients are -0.324 and -2.592 negative, respectively, with standard errors of 0.149 and 1.225. According to the standardized coefficient of CDR and CAR, which is -0.461, -0.374, and the p-value, which is 0.040, 0.046, a statistically significant ( $p < 0.05$ ) increase of one unit in standard deviation in CDR and CAR is associated with a decrease in 0.461, 0.374 standards beta. This coefficient appears to be statistically significant based on the p-value. A p-value of 0.458 and a DAR coefficient of -1.596 show a negative and negligible connection between DAR and ROE. The standardized coefficient of 0.428 and the standard error of DAR of 2.114 show a moderate but negligible impact on ROE.

## Discussion

The P-value for the regression of ROA is 0.002. The  $R^2$  value is 0.498. This shows that the overall variation of the ROA by the total number of independent factors is 49.8%. In this investigation, the remaining 0.502 cannot be explained. ROA is predicted to be significantly well-fitted if the P-value is less than 0.05.

TIR, LR, DAR, and NPA have a negligible and positive influence on ROA, while CDR, DER, and CAR have an insignificant and negative influence. TIR had a 0.007 effect on ROA, meaning that for every unit rise in TIR, ROA also increased by 0.007. Statistical significance was not achieved by this impact (p-value  $> 0.05$ , 0.431). Consequently, the Alternative Hypothesis ( $H_1$ ) is rejected and the Null Hypothesis ( $H_0$ ) is accepted. It is believed that TIR has little effect on ROA. This also applies to DAR, NPA, and LR.

This finding is consistent with the findings of Mishra & Pradhan (2020), Pradhan & Khadka (2018), partially consistent with Chhetri (2022), Nahang & Araghi (2013) Shrestha and Chaurasiya (2023). This finding contradicts with Khatri (2021).

A highly significant P-value of 0.000 has been discovered in the case of ROE. As a result, the findings indicate a positive, moderate, and significant relationship between the dependent and independent variables. The value of R-

squared is 0.609. According to this, there is a 60.9% overall variation in the ROA by all independent variables. The remaining 0.391 in this inquiry cannot be explained. It is anticipated that ROE will be notably well-fitted with the P-value being less than 0.05.

TIR, LR, DER, and NPA have an insignificant and positive effect on ROE, but CDR and CAR have a considerable and negative influence. ROE increased by 0.148 when TIR increased by one unit, indicating that TIR had an insignificant effect on ROA (0.336, p-value greater than 0.05). Consequently, the Alternative Hypothesis (H1) is rejected and the Null Hypothesis (H0) is accepted. It is believed that ROE is unaffected by TIR. The same is true for DER, NPA, and LR.

This finding is similar to Mishra & Pradhan (2020), Khatri (2021), Pradhan & Khadka (2018) Nahang & Araghi (2013) and partially consistent with Chhetri (2022). This finding Contradicts with Khatri (2021).

### **Conclusion**

This study's main objective is to examine the performance in terms of profitability and liquidity of Nepalese commercial banks over ten years, with a particular emphasis on commercial banks. The investigation looks at how banks' profitability is affected by liquidity. Bank profitability is thought to be determined by specific internal bank features. TIR, LR, DAR, and NPA have an insignificant and positive influence on ROA, while CDR, DER, and CAR have an insignificant and negative impact. ROA is unaffected by TIR, LR, DAR, NPA, CDR, DER, and CAR. This indicates that none of the factors contribute to higher ROA.

TIR, LR, DER, and NPA have an insignificant and positive effect on ROE, but CDR and CAR have a significant and negative influence. NPA, DER, LR, and TIR have no effect on ROE. ROE is impacted by CDR and CAR, though. It may be concluded that ROE is not increased by TIR, LR, DER, or NPA. On the other hand, CDR and CAR help to raise ROE.

### **Practical Implication**

Even if they have trouble being consistent, some banks are quite good at producing money. While some are successful in mobilizing deposits and maintaining liquidity, they fail to diversify their investments. Because each bank faces unique challenges, tailored strategies are crucial. Disparities between public, private, and joint venture banks' profitability and liquidity ratios reveal trends that may be specific to particular subsectors of the banking sector.

Given the moderately favorable correlation and influence between earning ability and ROA, the study's practical consequences include a moderate increase in equity in the overall capital fund. As a result, banks ought to strive for the optimal ratio of liquidity to profitability. According to the study's findings, businesses should keep a moderate amount of liquidity in order to generate sufficient returns on their investments without endangering their ability to continue as a going concern.

## Future Research

Further research on the leverage ratio, which indicates the level of financial risk to which a company is exposed, and the vulnerability of earnings for common shareholders should be conducted by other scholars. Research on the stock market or investment ratios as well as the long-term solvency and stability ratios should be conducted in order to determine the company's capacity to fulfill its long-term commitments.

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