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Impact of Macroeconomic Variables on the Performance of Nepalese Financial Institutions

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Abstract

The macroeconomic variables—interest rate, inflation rate, unemployment rate, and economic growth—can influence the performance of financial institutions. Hence, this study examines the impact of macroeconomic variables on the performance of Nepalese financial institutions. The study employed descriptive, correlation, and causal-comparative research designs. The dataset of 10 commercial banks covering 2013/14 to 2022/23 is used. Descriptive statistics, Pearson's correlation, and multiple regression models are used to investigate the influence of predictor variables on response variables. The study's findings revealed that the gross domestic product (GDP) growth rate has an insignificant negative impact on the performance of Nepalese commercial banks. Similarly, inflation, interest, and unemployment rates negatively and statistically significantly impact banks' performance. To develop a sustainable financial system, policymakers can use these findings to reduce interest, inflation, and unemployment rates.

Keywords: *interest rate, base rate, inflation rate, unemployment rate, profitability*

Introduction

Bank profitability measures a financial institution's success in generating earnings from its operation, encompassing interest income, fees, and other revenue sources while efficiently managing costs and risks. This is typically assessed using key indicators such as net interest margin, return on assets (ROA), and return on equity (ROE). A profitable bank ensures its financial health and sustainability and demonstrates effective resource utilization, prudent risk management, and the ability to attract deposits and engage in profitable lending activities. Various external factors, including economic conditions, interest rates, and regulatory frameworks, play a crucial role in influencing a bank's profitability, making it a vital metric for assessing the overall performance and viability of the institution (Masood & Ashraf, 2012).

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In any economy, the profitability of the banking industry is influenced by a multitude of factors. The majority of research focuses on two groups of factors: external and internal, which collectively influence the performance of commercial banks. The external factors, including interest rates, inflation rates, economic growth, unemployment rates, competition, regulation, and money supply, provide a holistic understanding of the industry's dynamics (Al Homaidi et al., 2018). Studies have shown the complex relationship between interest rates and bank performance. Higher interest rates allow banks to charge higher lending interest rates to borrowers and lower interest rates for depositor, which increases net interest income and profitability. They also encourage banks to shift from traditional loan businesses to fee-based businesses. A higher rate can diminish profitability by reducing bank loan demand, decreasing interest income, increasing deposit supply, increasing interest expenses, and increasing loan default, which increases loan loss provision. The empirical studies of Haddad et al. (2018), Shahin et al. (2022), Bikker and Vervliet (2017), and Mkaro et al. (2023) showed a positive nexus between interest rates and bank performance.

Banks can raise interest income from loans and advances faster than interest expenses from borrowing and deposits by anticipating inflation and adjusting interest rates accordingly. This increases net interest income (NII), which in turn increases the banks' profitability. Nonetheless, there are a lot of possible hazards associated with unexpected inflation. Unexpected inflation causes interest costs to rise faster than interest income, which lowers net interest income and, ultimately, the bank's profitability. The empirical study of Mkaro et al. (2023) showed a negative nexus between inflation rates and bank performance. In contrast, the studies of Fang et al. (2019) and Tan (2016) showed a positive nexus between inflation rates and bank performance.

The relationship between economic growth and bank profitability can take several forms, depending on whether the bank prioritizes traditional lending operations or non-interest revenue-generating ventures. Banking institutions might profit from the economic boom if they are more involved in traditional lending operations. On the other hand, if they concentrate more on non-interest-generating operations, they might neglect these activities, which would lower trading and fee-based income and ultimately lower bank profitability overall (Tan et al., 2017). The empirical studies of Haddad et al. (2022), Mkaro et al. (2023), Rathnayake et al. (2022), and Abdelmoneim and Yasser (2023) showed a positive nexus between economic growth and bank performance. In contrast, the study of Apau and Sibindi (2023) showed a negative nexus between economic growth and bank performance.

The performance of banks is directly impacted by high unemployment. Bank loan defaults occur when borrowers fail to make their scheduled installment payments on time. These non-performing loans enhance provisions for loan losses, have a major impact on net interest income, and increase the cost of borrowing and deposits (Das & Uppal, 2021). The studies of Olokoyo et al. (2021) and Hefferman and Fu (2010) showed a negative nexus between unemployment rates and bank performance.

Previous empirical findings have demonstrated a conflicting outcome regarding the relationship between interest rates, inflation rates, economic growth, unemployment rates and the performance of Nepalese financial institutions. Therefore, the field has yet to reach a consensus. Furthermore, most of the literature mentioned above belongs to the developed world, which is quite different from most Nepalese contexts. Therefore, this study provides additional literature by utilizing a more recent dataset sourced from the Nepal Rastra Bank.

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We structure the remainder of this paper as follows: Section two briefly states the objective of the study. Section three focuses on conducting a literature survey and developing a theoretical framework, while Section four details the research method employed in this study. Section five focuses on the results and discussion, while Section 6 concludes the study.

Objective of the Study

The aim of this study is to examine the impact of inflation rate, interest rate, unemployment rate, and economic growth on performance of Nepalese financial institutions.

Literature Review and Hypothesis

Interest rates and bank performance

Previous studies have demonstrated the complex relationship between interest rates and bank performance. Higher interest rates can be favorable for banks because banks charge higher lending interest rates to borrowers and offer lower interest rates to depositors, which leads to increased net interest income and overall bank profitability (Claessens et al., 2018). Additionally, higher interest rates encourage banks to divert their traditional loan businesses to modern fee-based businesses. In contrast, a higher rate can lead to lower profitability for the following reasons: (1) it can reduce bank loan demand, which decreases interest income (Bario et al., 2017); (2) it can increase deposit supply, which increases interest expenses; and (3) it can increase loan default, which increases loan loss provision (Altunbas et al., 2010).

Haddad et al. (2022) investigated the internal and macroeconomic determinants that affect the profitability of commercial banks in Jordan by using a dataset covering the period from 2009 to 2019. By employing a multiple linear OLS model, the findings revealed that real interest rates positively and significantly affect banks' profitability measures (ROA). Similarly, Shahin et al. (2022) investigated interlink between interest rate and bank performance in Egypt, covering the period 2011–2020. Using the GLS approach, the findings of the study revealed that low interest rates reduced banks' profitability. Remarkably, this study found that this effect would significantly improve when banks held more equity capital. Bikker and Vervliet (2017) examined how the exceptionally low interest rate environment affects the profitability and risk-taking of the US banking industry, covering the period from 2001 to 2015. According to the study's findings (from both dynamic and static modeling approaches), the low interest rate hurt bank performance and squeezed net interest margins. However, less provisioning compensates for the lower profit due to lower interest rates, helping to maintain profit at desired levels and potentially jeopardizing financial stability.

In a similar vein, Lopez et al. (2020) examined the nexus between nominal interest rates and bank performance using a dataset of 5200 banks covering the period from 2010 to 2017. Using panel fixed-effect models, the study's findings revealed that a decrease in interest rates has a negative impact on the banks' net interest income. However, lowering deposit expenses and rising non-interest revenue, including fee-based income, can compensate for this lower interest income. Furthermore, lower interest rates helped to expand lending activities, which may boost commercial banks' interest revenue. In the context of Vietnamese banks, Nguyen et al. (2020) investigated the effects of excess liquidity on net interest margin (NIM) for the years 2006–2010. The results of the study showed that excess liquidity lowers banks' net interest margin (NIM) because it forces banks to lower lending rates in order to

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support expansion. This was determined using the system GMM and fixed-effect models. Bank interest income, on the other hand, increased as a result of tight monetary policy, which raises lending rates more quickly than deposit rates.

Rathnayake et al. (2022) examined the impact of interest rate liberalization on performance in the Chinese context, spanning the period from 1999 to 2019. Using fixed-effect, random-effect, and panel GMM models, this study concluded that a change in interest spread in a positive direction positively impacts bank performance. Banks that heavily rely on traditional loan businesses may experience a greater impact, while banks with diversified assets may experience a lesser impact.

Mkaro et al. (2023) investigated the variables influencing Tanzanian banks' performance by utilizing quarterly data spanning from 2010Q1 to 2020Q2. In order to investigate how predictor variables affected response variables, this study used a system GMM technique. The results demonstrated that interest rates significantly and favorably affect Tanzanian banks' performance. Drawing from the previously mentioned literature review, this study posits the following initial hypothesis:

H_1: The interest rate exerts a substantial influence, either positive or negative, on the profitability of banks.

Inflation rates and bank performance

The inflation rate and interest income positively correlate with the interest rate (Tan & Floros, 2012b). However, Perry (1992) argues that the impact of inflation on a bank's performance, whether positive or negative, hinges on its anticipation or unpredictability. Anticipating inflation and managing interest rates accordingly allows banks to increase interest income from loans and advances faster than interest expenses from borrowing and deposits, thereby boosting net interest income (NII) and ultimately boosting the banks' profitability. On the other hand, if inflation is unanticipated, interest expenses increase more rapidly than interest income, leading to decreases in net interest income and thus decreasing the bank's profitability. Furthermore, an unexpected rise in inflation rates impairs the accuracy of predicting borrowers' net cash flows, thereby diminishing banks' lending activities and overall profitability. Furthermore, unanticipated inflation also deteriorates a firm's assets (Tan & Floros, 2012a; Tan et al., 2017).

Mkaro et al. (2023) investigated the variables influencing Tanzanian banks' performance by utilizing quarterly data spanning from 2010 Q1 to 2020 Q2. In order to investigate how predictor variables affected response variables, this study used a system GMM technique. The results showed that inflation rates have a negative but insignificant impact on Tanzania's banks' performance. Similarly, Fang et al. (2019) investigated the factors that affect bank performance in China, particularly bank efficiency, risk-taking, and bank competition, spanning the period from 2003 to 2017. Using the system GMM, this study found that an inflationary environment would be favorable to profitability measures ROA and NIM. Additionally, this study has shown that higher inflation leads to higher lending interest rates, thus increasing profitability. The capacity to accurately predict interest rates and make the necessary adjustments would enhance China's overall profitability. Tan (2016) examined both the impact and market competition on bank performance in China over the period from 2003 to 2011. Using the GMM system, this study found that inflation has a positive and significant effect on bank profitability in China. This finding demonstrated that both regulatory authorities and managers were able to manage inflation and adjust interest rates accordingly. Higher inflation rates also increase

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banks' operating expenses, including interest expenses; therefore, the ability to manage expenses in an inflationary environment would be responsible for increasing banks profitability.

Drawing from the previously mentioned literature review, this study posits the following second hypothesis:

H_2: The inflation exerts a substantial influence, either positive or negative, on the profitability of banks.

Economic growth and bank performance

The connection between economic growth and bank performance can vary, either being positive or negative, based on the bank's focus on either traditional loan operations or non-interest income-generating activities. If banks are more engaged with traditional loan businesses, they may benefit from the economic boom. However, if they are more focused on non-interest-generating activities, they may overlook these activities, leading to a decrease in fee-based and trading income and a subsequent decrease in overall bank profitability (Tan, & Floros, 2012a; Tan et al., 2017). The empirical evidence on the relationship between economic growth and bank performance also presents conflicting outcomes.

Haddad et al. (2022) investigated how the internal and macroeconomic determinants that affect profitability of commercial banks in Jordan by using dataset covering the period from 2009 to 2019. By employing multiple linear OLS model, the findings revealed that gross domestic product (GDP) positively and significantly affect banks' profitability measure ROA. Similarly, Mkaro et al. (2023) explored factors that affect banks' performance in Tanzania using quarterly data from $2010Q_1$ to $2020Q_2$. This study employed a system GMM approach to examine the effect of predictor variables on response variables. The findings showed that GDP growth has a positive and significant effect on bank performance in Tanzania.

Rathnayake et al. (2022) investigated the effects of interest rate liberalization on performance within the Chinese setting from 1999 to 2019. By employing fixed-effect, random-effect, and panel GMM models, this study determined that the GDP growth rate has a beneficial effect on banks' performance, but this effect is not statistically significant. Similarly, Abdelmoneim and Yasser (2023) examined the effect of bank-related factors and economic growth on profitability, covering the period from 2000 to 2020. The GMM system revealed a positive correlation between the economic growth rate and ROA. Apau and Sibindi (2023) examined the effect of bank-specific factors on profitability in Ghana, covering the period from 2007 to 2021. The finding concluded that economic growth negatively affected bank performance after employing the GMM system. Alam et al. (2021) examined the influence of bank-specific, industry-specific, and macroeconomic variables on profitability, covering the period from 1998 to 2016. Using the fixed-effect and system GMM estimations, this study found that GDP has a positive and significant effect on profitability. Simiyu and Ngile (2015) investigated how macroeconomic variables affected the financial profitability of listed commercial banks on the Nairobi Securities Exchange (NSE) from 2001 to 2012. The study findings indicated that the real GDP growth rate had a positive but insignificant effect on the profitability of commercial banks as measured through return on assets (ROA). Lyimo and Hussein (2022) investigated the impact of macroeconomic variables on banks' ROA performance in Tanzania. The findings of this study revealed that economic growth has a significant relationship with commercial banks' performance. Isayas (2021) investigated

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the key firm-specific and macroeconomic determinants of commercial banks' profitability in Ethiopia. GDP growth (GDPG) has positive effects. The finding further suggests that GDP has a significant and positive impact NIM and PBT of Chinese commercial banks: this results can be explained by the fact that the demand for lending increases during the periods of economic boom, which leads to improvement in bank profitability (Tan, 2016).

Drawing from the previously mentioned literature review, this study posits the following third hypothesis:

H_3: The economic growth exerts a substantial influence, either positive or negative, on the profitability of banks.

Unemployment rates and bank performance

High unemployment directly impacts banks' performance. When borrowers are unable to repay their regular installments on time, it leads to loan defaults for the bank. These non-performing loans significantly affect net interest income, increase provisions for loan losses, and raise borrowing and deposit costs (Das & Uppal, 2021). Moreover, high unemployment rates erode public confidence, leading to a decrease in loan demand and subsequently, low-interest income. From the bank's perspective, a surge in loan defaults due to unemployment can increase their vulnerability, prompting them to adopt a more stringent lending policy. This, in turn, reduces the supply of loans and advances, resulting in lower interest income (Olokoyo et al., 2021). A stark example of this was seen during the COVID-19 pandemic, where both the unemployment rate and bank loan defaults skyrocketed (Xiazi & Sabir, 2022).

Hefferman and Fu (2010) investigated the factors influencing banks' financial performance in China from 1999 to 2006. Using the GMM system, this study concluded that a higher unemployment rate has a negative impact on banks' profitability. It suggests that a higher unemployment rate reduces the demand for goods and services, leads to a rapid increase in loan defaults, increases loan loss provision, and ultimately decreases overall profitability.

Drawing from the previously mentioned literature review, this study posits the following fourth hypothesis:

H_1: The unemployment rate exerts a substantial negative impact on the profitability of banks.

This study constructs a theoretical framework by drawing upon the comprehensive literature survey indicated earlier, as depicted in Figure 1.

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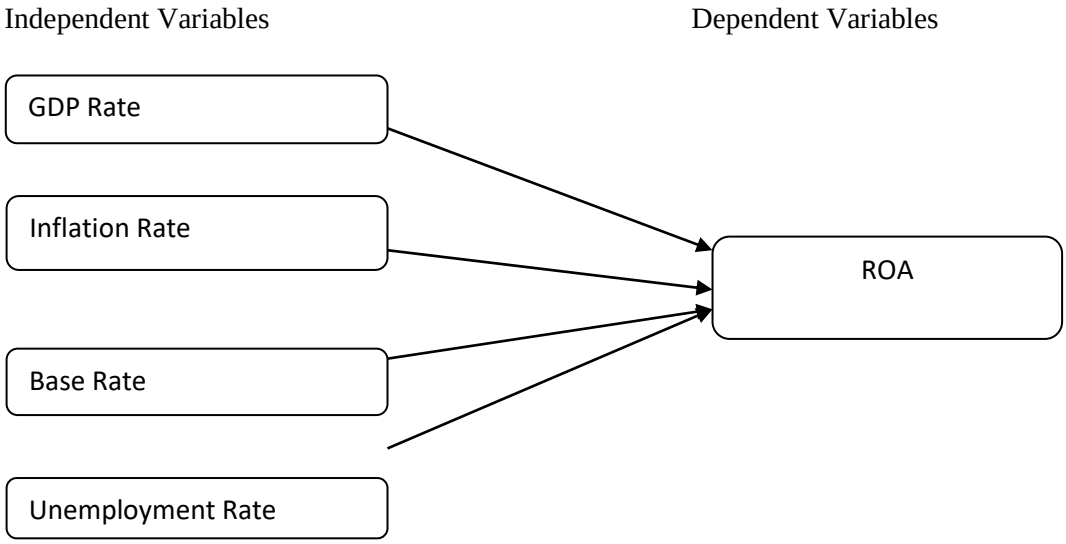

Figure 1: *Conceptual Framework*

Source: Al-Homaidi et al. (2018)

Methods

This study examined the influence of macroeconomic variables on Nepalese financial institutions' performance, employing OLS regression analysis that covered ten years from 2013/14 to 2022/23. This study uses descriptive, correlation, and causal-comparative research designs to examine the impact of predictor variables on response variables. Descriptive research was used to describe the fundamental characteristics of dependent and independent variables. This study used the number of observations, minimum, maximum, mean, and standard deviation to describe the basic features of study variables. The correlation research design was used to check the multicollinearity issues within independent variables. The causal-comparative research design was used to examine the impact of predictor variables on response variables. The sample banks consisting of 10 banks—four joint ventures, four private, and two government banks—were selected purposively from a population of 20 commercial banks operating in Nepal. This study relies on secondary data sourced from the website of the central bank of Nepal, Nepal Rastra Bank.

Financial ratios such as return on assets (ROA) are commonly utilized to assess an organization's financial performance (Issah & Antwi, 2017). This variable was also used as the response variable in this study. The four independent variables— interest rate, inflation rate, unemployment rate, and economic growth— were used in this study. The selected study variables, their measurements, expected outputs, and related previous studies are presented in Table 1.

Table 1: Variables used and their Measurements.

Variables	Measurements	Expected sign	Previous studies
Return on assets (ROA)	Net income/Total assets		Bikker and Vervliet (2017)
Economic growth	GDP growth rates	+	Rathnayaka et al. (2022); Haddal et al. (2022)

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Inflation rate	Annual inflation rates	-	Bikker and Vervliet (2017); Mkaro et al. (2023)
Interest rates	Base interest rates	-	Shahin et al. (2022); Lopez et al. (2020)
Unemployment rates	Annual unemployment rates	-	Gautam and Gautam (2021)

The study examines the influence of macroeconomic variables—economic growth, inflation rates, interest rates, and unemployment rates—on the performance of Nepalese financial institutions. The econometric models used in the study attempt to analyze the relationship between economic growth, inflation rates, interest rates, unemployment rates, and profitability. We use the following regression models to examine the effects of predictor variables on the response variables of Nepalese financial institutions. Therefore, we design the following pooled OLS models to test the hypotheses.

Performance = *f* (economic growth, inflation rates, interest rates, and unemployment rates)

More specifically,

$ROA_{it} = \beta_0 + \beta_1 GDPGR_{it} + \beta_2 IR_{it} + \beta_3 BIR_{it} + \beta_4 UR_{it} + e_{it}$ …… (1)

where, ROA denotes returns on assets; GDPGR represents GDP growth rates; IR denotes inflation rates; BIR represents base interest rates; and UR denotes unemployment rates.

Result and Discussion

Table 2: *Descriptive Analysis*

	N	Minimum	Maximum	Mean	Std. Deviation
ROA	100	0.47	3.92	1.62	0.59
GDP rate	100	-2.37	8.98	4.36	3.31
Inflation rate	100	3.60	9.93	6.32	2.06
Base Rate	100	6.54	10.47	8.76	1.30
Unemployment rate	100	10.64	13.12	11.15	0.87

Source: Authors own calculation.

Table 2 presents summary statistics for five variables over a sample of 100 observations. The return on assets (ROA) ranges from a minimum of 0.47 to a maximum of 3.92, with an average of 1.62 and a standard deviation of 0.59, indicating moderate variability. The GDP growth rate varies from -2.37 to 8.98, averaging 4.36 with a standard deviation of 3.31, suggesting substantial fluctuation. The inflation rate spans from 3.60 to 9.93, with an average of 6.32 and a standard deviation of 2.06, indicating moderate variability. The base rate ranges between 6.54 and 10.47, averaging 8.76 with a standard deviation of 1.30, reflecting less variability. The unemployment rate shows a narrower range from 10.64 to 13.12, with a mean of 11.15 and a standard deviation of 0.87, indicating relatively low variability. These statistics provide insights into each variable's central tendency and dispersion, which are critical for understanding their distributions and potential impact on the study.

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Table 3: *Correlation Analysis*

Variables	ROA	GDP Rate	Inflation Rate	Base Rate	Unemployment Rate
ROA	1				
GDP Rate	.158	1			
Inflation Rate	.030	-.499**	1		
Base Rate	-.007	.463**	-.375**	1	
Unemployment Rate	-.304**	-.563**	-.293**	-.331**	1

Note. ** and * denote that correlation are significant at the 1% and 5% level of significance.

Source: Authors own calculation.

This study able to comprehend the following relationships between the variables based on the Pearson correlations presented in Table 3. The GDP rate and ROA have a very weak relationship (0.158). There is very little relationship between the ROA and the inflation rate. The base rate and ROA have a very weak association (-0.007). Higher unemployment rates appear to be linked to lower ROA, as indicated by the low negative correlation between the unemployment rate and ROA (-0.304). Furthermore, there is a moderate positive correlation (0.463) between the GDP rate and the base rate and a moderate negative correlation (-0.563) between the GDP rate and the unemployment rate, suggesting that higher GDP rates are linked to higher base rates and lower unemployment. The GDP rate and the inflation rate show a moderate negative association (-0.499), the base rate and the inflation rate show a low negative correlation (-0.375), and the unemployment rate and the inflation rate show a low negative correlation (-0.293). Understanding the interactions between these variables is crucial for subsequent research and interpretation, and these correlations aid in that understanding.

Table 4: *Pooled OLS model to examine the contemporaneous effects of interest, inflation, GDP growth, unemployment rates on banks' performance in Nepal.*

Variables	Unstandardized coefficients		Standardized coefficients	t-stat	P-value
	β	Std. Error			
Constant	9.229***	2.289		4.032	.000
GDP growth rate	-.065*	.038	-.367	-1.710	.090
Inflation rate	-.132**	.058	-.461	-2.269	.026
Base Rate	-.114**	.054	-.252	-2.107	.038
Unemployment rate	-.493***	.142	-.730	-3.465	.001

Note. ***, **, and * denote that coefficients are significant at the 1%, 5%, and 10% level of significance.

Source: Authors own calculation.

Table 4 shows the regression analysis results, with ROA as the dependent variable, and the significant impact of various predictor variables—interest rates, inflation rates, economic growth rates, and unemployment rates—on ROA. The constant term is 9.229 with a significant t-value ($\alpha = 4.032$, $p < .000$). The coefficient of GDP rate ($\beta = -.065$, $p > .05$) is not statistically significant at the.05 level, suggesting that economic growth rates do not affect banks' performance in Nepal. The inflation rate has a coefficient of -.132, a t-value of -2.269, and a significance level of.026, indicating a significant

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negative impact on ROA. Similarly, the base rates, with a coefficient of -.114, a t-value of -2.107, and a significance level of.038, also show a significant negative effect on ROA. The unemployment rate has the largest negative impact, with a coefficient of -.493, a t-value of -3.465, and a significance level of.001, indicating a highly significant negative relationship with ROA. These findings demonstrate that GDP rates do not have an impact on ROA. However, inflation rates, base rates, and unemployment rates all have significant negative impacts on ROA.

Discussion

Based on the analysis, this study investigates the impact of macroeconomic variables on the profitability of Nepalese commercial banks. The descriptive statistics highlight the variability in profitability measures and macroeconomic conditions. Return on assets (ROA) ranges from 0.47 to 3.92, with a mean of 1.62 and a standard deviation of 0.59, indicating moderate variability. The macroeconomic variables—GDP rates, inflation rates, base rates, and unemployment rates—exhibit substantial variations, suggesting diverse economic conditions affecting the banks.

The Pearson correlation analysis reveals the relationships between profitability measures and macroeconomic variables. GDP rate shows negligible correlations with ROA (0.158), implying a minimal direct impact. Inflation rate has a negligible correlation with ROA (0.030), suggesting a slight positive effect on equity returns but not on asset returns. The base rate exhibits a negligible impact on ROA (-0.007), indicating that higher base rates might slightly reduce ROA. The unemployment rate has low negative correlations with both ROA (-0.304) indicating that higher unemployment rates are associated with lower profitability. Notably, GDP rate has a moderate negative correlation with unemployment rate (-0.563) and a moderate positive correlation with base rate (0.463), reflecting complex interrelations among these macroeconomic variables.

The regression analysis shows that the inflation rate, base rate, and unemployment rate significantly impact ROA. Specifically, the inflation rate has a negative impact on ROA. This finding is similar to the finding of Mkaro et al. (2023) and contrasts with empirical findings of Fang et al. (2019) and Tan (2016). The most compelling explanation for the present findings is that the unexpected rise in inflation rates impairs the borrowers' net cash flows, which creates a large volume of loan defaults and thus decreases overall profitability. Similarly, interest rates have a negative impact on ROA. This finding is in contrast with the findings of Haddad et al. (2018), Shahin et al. (2022), Bikker and Vervliet (2017), and Mkaro et al. (2023). These findings may explain the fact that higher interest rates can reduce bank loan demand, increase the cost of funds, and increase loan defaults. In a similar vein, unemployment rates have a negative impact on ROA, supporting the proposed hypothesis. This finding is consistent with Olokoyo et al. (2021) and Hefferman and Fu (2010). One interpretation of these findings is that as unemployment rates rise, borrowers are unable to repay their loans on time. Conversely, the GDP rate's impact on ROA is not significant, indicating that GDP growth does not directly affect asset returns in a statistically meaningful way.

Hence, the findings indicate that the profitability of Nepalese commercial banks, measured by ROA is significantly influenced by specific macroeconomic variables. The inflation rate, base rate, and unemployment rate negatively impact ROA, underscoring the adverse effects of rising prices, higher base rates, and unemployment on asset returns. Overall, the base rate emerges as a crucial determinant

affecting ROA, highlighting its importance in the macroeconomic environment influencing bank profitability in Nepal.

Conclusion

This study aims to examine the impact of macroeconomic variables on the performance of Nepalese financial institutions. The descriptive statistics highlight the essential characteristics of ROA, interest rates, inflation rates, GDP growth rates, and unemployment rates. The Pearson correlation analysis is performed to identify multicollinearity problems. However, this study does not find multicollinearity issues within predictor variables. The findings of the correlation matrix reveal that the inflation rate, base rate, and unemployment rate exhibit significant negative correlations with ROA, suggesting that these factors adversely affect the banks' profitability. GDP rate shows negligible negative impact on banks' performance, indicating its limited immediate impact on profitability measures. The regression analysis further substantiates these findings, revealing that inflation, base, and unemployment rates significantly and negatively impact ROA. The negative coefficients for these variables indicate that higher inflation, base rates, and unemployment are detrimental to bank profitability. Despite its economic importance, the GDP rate does not exhibit a significant direct effect on ROA in this analysis. These results underscore the critical role of macroeconomic stability in maintaining the profitability of commercial banks in Nepal. The findings emphasize the need to carefully manage inflation, interest rates, and unemployment to foster a conducive environment for the banking sector's profitability. Overall, the base rate emerges as a particularly crucial factor affecting ROA, highlighting its importance in the macroeconomic landscape and influencing Nepalese commercial banks. The study can be extended by adding other vital variables—liquidity, efficiency, diversification, competition, national savings, rule of law, political stability, regulatory quality, and control of corruption, among others—that may impact banks' performance.

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