The Impact of Bank-Specific and Macroeconomic Variables on Commercial Banks Profitability in Nepal

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Abstract

This study aims to evaluate the impact of bank-specific and macroeconomic variables on commercial banks' profitability in Nepal. The study uses panel data of twenty-fourcommercial banks from 2011/12 to 2019/20. The study finds that bank-specific variables such as capital adequacy ratio, non-performing loan, and Cost of funds negatively affect banks' profitability(ROA and ROE). In contrast, interest rate spread, total investment to total asset, and net interest income to total asset have a positive effect. Regarding macroeconomic variables,gross domestic product (GDP)positively impacts banks' performance, while inflation (INF) has a negative impact. The study concludes that the macroeconomic variable INF is the primary determinant of banks' profitability because it also adversely influences GDP.

Keywords: ROA, ROE, bank-specific variables, macroeconomic variables, commercial banks

Introduction

Banks play a significant role in a country's economic development by converting depositsinto productive investments. The banking sector provides financial intervention and economic stimulation that play a central role in the economic prosperity of a country. Economic activities are directly or indirectly channeled through commercial banks. Profitability is essential for sustainable growth and development for financial institutions. Banks' profitability depends upon several internal (bank-specific) and external (macroeconomic) factors.

Most studies divide the determinants of the performance of commercial banks into two categories, namely endogenous (internal) and exogenous (external) (Khrawish, 2011). Internal factors include: loans, deposits, foreign ownership, overhead costs, off-balance sheetactivities, and capital adequacy, and external factors include: GDP growth, per capita GDP, real interest rate, regulations, and financial structure(Al-Harbi,2019). This study examines the impact of bank-specific and macroeconomic variables on commercial banks' profitability in Nepal.

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Literature Review

The factors related to the bank's profitability are composed of bank-specific characteristics (internal variables or micro factors) and macroeconomic determinants (external variables). Bank-specific variables contain bank size, capital ratio, capital adequacy, liquidity, loans, and deposits. In contrast, the external determinants include economic growth, inflation, and financial crisis that are not associated with bank management but affect the economic and legal environment. Numerous empirical studies have examined the determinants of bank profitability.Kosmidou et al. (2005) studied the effect ofbank-specific characteristics, macroeconomic conditions, and financial market structure on U.K.-owned commercial banks' profits from 1995-2002. The results show that the capital structure strength of the banks has a positive and dominant influence on their profitability, the other significant factors being efficiency in expense management and bank size.Athanasoglou et al.(2008) report that the profitability of Greek banks is shaped by bank-specific factors that are affected by bank-level management and macroeconomic control variables that are not the direct result of a bank's managerial decisions. However, industry structure seems to affect profitability little. Sayilgan and Yildirim (2009) studied the Turkish banking sector from 2002 to 2007 using the multi-variable single-equation regression method. They found that the macro-independent variable inflation rate declines, and the profitability (ROA and ROE) seems to increase consistently to increase the industrial production index and improve the budget balance. Profitability has been positively affected by a micro-independent variable (capital adequacy) and negatively by growing off-balance sheet assets.

Anbar and Alper (2011) examine ten commercial banks in Turkey from 2002 to 2010, consisting of 90 observations, and found that asset size and non-interest income have positive and significant impacts on banks' profitability (ROA and ROE). However, the size of the credit portfolio and loans under follow-up has a negative and significant impact on banks' profitability. Regarding macroeconomic determinants, only the real interest rate positively affects the performance of banks. Khrawish (2011) reportsa positive correlation between ROA and bank size, total liabilities/total assets, total equity/total assets, net interest margin, and exchange rate but a negative correlation between ROA and annual growth rate on gross domestic product and the inflation rate of Jordanian commercial banks. Pradhan (2016) examinestwenty-two Nepalese commercial banks from 2005/06 to 2011/12 and finds that macroeconomic variables such as GDP and inflation are insignificant.Hence, there is no evidence that external forces affect bank performance. However, bank-specific factors significantlyaffect bank performance. Asaravic and Calim (2013) examine commercial banks in Turkey from 1998 to 2011 and found that bank-specific determinants (total credits/total assets, total deposits/total assets, total liquid assets/total assets, total wages, and commission incomes/total assets, total wages and commission expenses/total assets, total assets and total equity/total assets) have a higher impact on profitability than macroeconomic determinants (gross domestic product, inflation rate, exchange rate, and real interest rate).Lunga (2014)examines twelve banks in Malawi from 2009 to 2012 and concludes that bank size, liquidity, and management

significantly impact ROA, but capital adequacy has an insignificant impact. Likewise, bank size, capital adequacy, and management efficiency significantly impact earning yield, but liquidity has an insignificant impact.

Yakubu (2016) observes five commercial banks in Ghana from 2010 to 2015 using the ordinary least square method. The authorreports that bank-specific factors (bank size, liquidity, and expense management) significantly affect banks' profitability. However, macroeconomic factors (GDP, inflation, and real interest rate) have an insignificant impact on banks' profitability. Liza (2017) finds that internal factors (capital adequacy, assets quality, deposits, non-performing loan, investments, income, and expenditure) have a positive influence on private commercial banks' profitability (measured by ROA and ROE). Islam and Rana (2017) examine the determinants (non-performing loan, Cost to income, loan deposit, Cost of fund, and operating expenses) of banks' profitability (ROA and ROE) and report that NPL and operating expenses have a significant adverse effect on ROA and ROE. However, the Cost of the fund has a positive and insignificant effect on ROA and ROE. Ashraf et al.(2017) report that bank-specific and macroeconomic determinants strongly influence a bank's profitability. Bank-specific factorshave a positive impact, whereas macroeconomic determinants hurt Asian banks' profitability. Bhattrai (2018) examines seventeen Nepalese commercial banks from 2011 to 2016 and reports that banks' profitability (ROA) is mainly influenced by Cost per loan assets.Macroeconomic variables such as GDP, exchange rate, and inflation do not significantly impact banks' performance. Antelope et al. (2018) examine the relationship between bank-specific macroeconomic factors and bank performance and state that size, cost management, and liquidity strongly affect banks' profitability.

Similarly, macroeconomic factors substantially impact banks' profitability before and after the financial crisis. Batten andVo (2019) find that capital adequacy, risk, productivity, and expense influence banks' performance, whereas size negatively affects profitability. Ullah et al. (2020) examine the impact of bank-specific internal factors such as NPL ratio, liquidity ratio, solvency ratio, leverage ratio, and size on the profitability (ROA) of state-owned commercial banks in Bangladesh. NPL andliquidity ratio have a significantly negative impact on ROA,size has a positive impact, whereassolvency and leverage ratio has a statistically insignificant effect. Al-Homaidi et al. (2020) explore the impact of internal and external determinants on 37 commercial banks' profitability from 2008 to 2017. The results show that size, asset quality, liquidity, asset management, and net interest marginare important internal determinants of ROA. Capital adequacy, operation efficiency, gross domestic product, and inflation rate negatively impact ROA and ROE. However, liquidity, deposits, net interest margin, and non-interest income have an insignificant impact on ROE.

Neupane (2020) concludes that external factors significantly influence the profitability of Nepalese commercial banks measured by return on assets.Among external factors, industry-specific factors have a high degree of impact on return on assets, whereas macroeconomic variables have a weakbut significant effect on profitability. Profitability measured by net interest margin is significantly influenced by capital adequacy, the

absolute number of branches, and the annual inflation rate. Jeris (2021) reveals that size and capital ratio are significant bank-specific determinants of bank profitability in Bangladesh, whereas the effect of loan ratio is statistically insignificant.The costs-to-income ratio and loan loss provisions are statistically insignificant on banks' performance. Macroeconomic variable GDP growth has a significant effect on profitability, whereas the effect of inflation is statistically insignificant in some cases.

Profitability measures and determinants

Profitability measures

From the earlier studies, we count two commonly used measures of profitability. The first is the return on assets (ROA), calculated as net profit after tax divided by total assets. The second is the return on equity (ROE), calculated as net profit after tax divided by total shareholder's equity.

Independent variables

Among potential determinants of Nepalese commercial banks' profitability, we considered only seven bank-specific variables and two macroeconomic variables.

Bank-specific variables

Micro-independent variable capital adequacy has positively affected profitability (Sayilgan & Yildirim, 2009). Pradhan (2016) explains that bank-specific factors significantly impact the bank's performance (ROA, ROE, and NIM). Yakubu (2016) highlights that bank-specific factors (bank size, liquidity, and expense management) significantly affect banks' profitability. Islam and Rana (2017) examine the determinants (NPL, CIR, LDR, Cost of fund, and Operating expenses) of banks' profitability (ROA and ROE) and find that NPL and operating expenses have a significant adverse effect on ROA and ROE. However, the Cost of funds has positive and insignificant effects on ROA and ROE. Ullah et al. (2020) find that ROA and NPL ratios & Liquidity ratios have significant and hostile relations. ROA and bank size have a significant positive relationship, but solvency and leverage ratio have statistically insignificant relationships with ROA. Jeris (2021) reveals that size and capital ratio are significant bank-specific determinants of bank profitability. Al-Homaidi et al. (2020) report thatcapital adequacy negatively impacts ROA and ROE.

From earlier studies, we count seven measures used as bank-specific variables: Capital Adequacy Ratio(CAR), Non-performing Loan(NPL), Credit to deposit(CD), Interest rate spread(IRS), Cost of fund (COF), Total Investment to Total Assets(TITA) and Net Interest Income to Total Assets(NIITA).

Macro-economic variables

GDP is the monetary value of all goods and services within a country during a specific time used to track the health of a country's economy. Obama (2013) points out that bank deposits and loans depend upon a country's favorable and unfavorable GDP conditions. When inflation rises, the Cost of living rises, especially when interest rates are lower than inflation.

Examining equity banks in Kenya using the OLS method, Kiganda (2014) shows that macroeconomic factors (real GDP, inflation, and exchange rate) have an insignificant effect on bank profitability. Sufian (2009) finds that inflation negatively affects banks' profitability, and Akbas (2012) reports that inflation hurts ROA for Turkish banks. Sheefeni (2015) examines the macroeconomic determinants for commercial banks' profitability in Namibia from 2001 to 2014 and finds that GDP, inflation rate, and interest rate do not significantly affect profitability.

Andries et al. (2016) examine Central and Eastern Europe banking systems during 2004-2013 and report a significant negative relationship between inflation and profitability ratios. Horobet et al. (2021) find that unemployment rate, inflation, budget balance, non-governmental Credit, non-performing loan rates, concentration rate, and capitalization rate negatively impact banking profitability in the CEE banking sectors.

From the earlier studies, we count two commonly used measures of macroeconomic variables: Gross domestic product (GDP) and Inflation (INF).
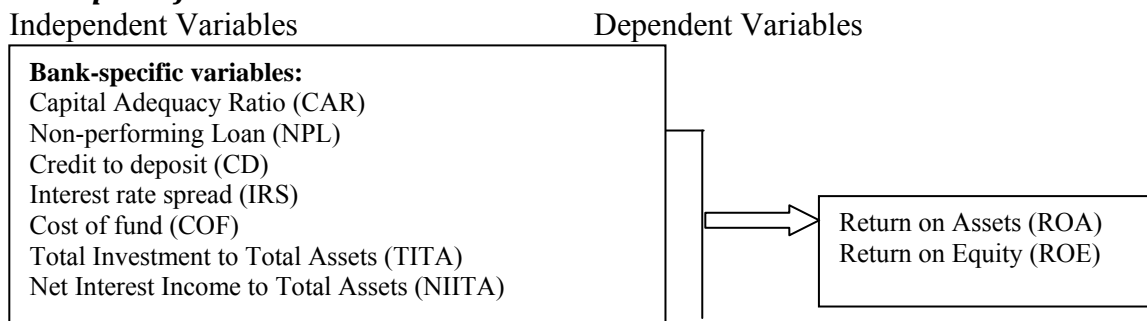
Table 1 describes all variables related to this study.

Table 1: Variable description

Variables	Description
Dependent:	
ROA	Return on assets is the ratio of net profit after tax to total assets
ROE	Return on equity is the ratio of net profit after tax to shareholder's equity
Independent:	The capital adequacy ratio is the ratio of the capital fund to risk-weighted assets.
1.Bank-specific:	A non-performing loan is the ratio of non-performing Credit to Total Credit.
CAR	Credit deposit is the ratio of total credit disbursement to total deposit
NPL	Interest rate spread is the difference in interest between deposit and lending
CD	The Cost of the fund is the ratio of interest expenses/total deposit and borrowing
IRS	Total investment to total assets is the ratio of total investment to total assets
COF	Net interest income to total assets is the ratio of net interest income to total assets
TITA	
NIKITA	The annual growth rate of the gross domestic product of Nepal. GDP is the market value of all officially recognized final goods and services within a country at a given time.
2. Macroeconomic:	The annual inflation rate of Nepal is measured in general prices of goods and services in an economy over a while.
GDP	
INF	

Source: Author (self)

Conceptual framework

Independent Variables   Dependent Variables

Bank-specific variables:
Capital Adequacy Ratio (CAR)
Non-performing Loan (NPL)
Credit to deposit (CD)
Interest rate spread (IRS)
Cost of fund (COF)
Total Investment to Total Assets (TITA)
Net Interest Income to Total Assets (NIITA)

Return on Assets (ROA)
Return on Equity (ROE)

Macro-economic variables:
Gross Domestic Product (GDP)
Inflection (INF)

Methodology

This study aims to analyze the impact of bank-specific and macroeconomic variables on the profitability of Nepalese commercial banks. Twenty-seven commercial banks are in operation in Nepal till July 2021. Out of twenty-seven commercial banks, three are public banks whose majority of shares are owned by the Nepalese government, seven joint venture banks collaborating with foreign investment partners, and seventeen domestic banks that Nepalese investors wholly own. This study excludes three public banksbecause the government heavily influences the management, and these banks cannot freely decide, thus examining the remaining 24 commercial banks. Sample banks are provided in Appendix 1.

This study is based on quantitative secondary data disclosed by annual reports of 24 sample banks in their respective websites for mid-July 2011/12 to mid-July 2019/20, leading to 216 observations.The sample period ends in July 2019/20 to remove an unwanted effect of the COVID-19 pandemic on the performance of banks.
Macroeconomic variables such as GDP and inflation are collected from theWorld Bank andStatista websites. A descriptive research design has been used. This study adopts descriptive statistics and panel regression analysis to evaluate the effect of bank-specific and macroeconomic variables on banks' profitability.
The following models are usedto analyzethe determinants of profitability of Nepalese commercial banks empirically.

$$ROA_{it} = \beta_0 + \beta_1 CAR_{it} + \beta_2 NPL_{it} + \beta_3 CD_{it} + \beta_4 IRS_{it} + \beta_5 COF_{it} + \beta_6 TITA_{it} + \beta_7 NIITA_{it} + \beta_8 GDP_{it} + \beta_9 INF_{it} + \varepsilon_{it}$$

$$(1)$$

$$ROE_{it} = \beta_0 + \beta_1 CAR_{it} + \beta_2 NPL_{it} + \beta_3 CD_{it} + \beta_4 IRS_{it} + \beta_5 COF_{it} + \beta_6 TITA_{it} + \beta_7 NIITA_{it} + \beta_8 GDP_{it} + \beta_9 INF_{it} + \varepsilon_{it}$$

$$(2)$$

Results and findings

Univariate analysis

Table2 showsdescriptive statistics for all the bank-specific and macroeconomic variables of twenty-four commercial banks over nine years for mid-July 2011/12 to 2019/20, consisting of 216 observations. Over the study period, the mean value of ROA on overall sample banks is 1.50%, and S.D. is 0.74. There is a tiny variation of values, so the average distance of the values from the mean value is minimal. However, in ROE, there is a significant variation in the values (Mean= 14.17%, S.D. = 8.15), because of which the standard deviation is quite extensive. Values in CAR are symmetrically distributed, because of which the mean value of 13.11% is almost in the middle position. The variations of the values from the mean value on both sides are pretty similar, so the

standard deviation is 2.20. However, the mean value of NPL 1.70% is surprisingly minimal, which is very close to the minimum value of the sample values. In the sample, only a few values are towards the right end of the extreme value, because of which the standard deviation is 2.17%, which is relatively controlled. However, CD values are widely scattered. Even though the mean value of 81.45% is almost at the center of maximum and minimum values, the widely spread-out data has a higher standard deviation of 8.90. IRS has been evenly spread out because of the mean value of 4.15% and the standard deviation of 0.67. In our study, the difference between COF's maximum and minimum values is minimal. The mean value of 5.35% is almost at the center position. The standard deviation of 1.75% is slightly significant because most values lie on extreme sides. In the case of TITA, there are a majority of values on the left side of the minimum value, so the mean value of 13.46% is pulled towards the minimum value, and the standard deviation of 5.82 is slightly oversized. The independent factors of NIITA have more values towards the left side of the interval of maximum and minimum values, so the mean of 3.24% is close to the minimum value. There are only a few values on the right end, so the standard deviation of 0.98 is insignificant. In the macroeconomic factor GDP, there are more values on the extreme side of the interval, which means 4.31% is lying in the middle position, but the standard deviation of 3.49 is slightly high. Likewise, most INF values are on the extreme sides of the interval. There are comparatively few values close to the mean value of 7.08%, so the standard deviation of 2.21 is slightly higher than expected.

Table 2: Descriptive Statistics

Variable	N	Mean	Std. Dev.	Min	Max
ROA	216	1.50	0.74	-3.43	4.01
ROE	216	14.17	8.15	-56.48	33.16
CAR	216	13.11	2.20	8.41	22.99
NPL	216	1.70	2.17	0.00	24.29
CD	216	81.45	8.90	48.92	103.38
IRS	216	4.15	0.67	2.49	7.09
COF	216	5.35	1.75	1.01	9.05
TITA	216	13.46	5.82	2.91	42.14
NIITA	216	3.24	0.98	1.72	9.09
GDP	216	4.30	3.49	-2.89	8.98
INF	216	7.08	2.21	4.15	9.93

Source: Annual reports of banks

The pairwise correlation analysis in Table 3 shows that NPL, CD,COF, and INF negatively correlate with ROA. It indicates that when NPL, CD, COF, and INFdecrease, ROA increases and vice versa. However, IRS, TITA, NIITA, and GDP have a positive relationship with ROA, indicating that when IRS, TITA, NIITA, and GDP increase, ROA also increases and vice versa. Likewise, CAR, NPL, CD, and COFnegatively correlate with ROE. It indicates that when CAR, NPL, CD, and COF decrease, ROE increases and vice versa. However, IRS, TITA, NIITA, GDP, andINF positively correlate with ROE. It indicates that when IRS, TITA, NIITA, GDP, and INF increase, the value of ROE increases and vice versa.A macroeconomic variable, GDP, has a positive correlation with

all variables except TITA but INF has a negative correlation with all variablesexcept ROE, NPL, IRS, and TITA.

Table 3: Pairwise correlations

Variables	ROA	ROE	CAR	NPL	CD	IRS	COF	TITA	NIKITA	GDP
ROE	0.85*									
CAR	-0.03	-0.15*								
NPL	-0.45*	-0.48*	-0.30*							
CD	-0.26*	-0.30*	0.19*	-0.07						
IRS	0.34*	0.26*	-0.17*	0.11	-0.23*					
COF	-0.30*	-0.37*	0.05	0.06	0.49*	-0.26*				
TITA	0.18*	0.26*	-0.17*	0.03	-0.59*	0.00	-0.38*			
NIITA	0.44*	0.23*	-0.03	0.05	-0.27*	0.37*	0.00	0.01		
GDP	0.12*	0.04	0.10	0.00	0.06	0.02	0.10	-0.08	0.10	
INF	-0.10	0.10	-0.34*	0.14*	-0.38*	0.10	-0.32*	0.29*	-0.02	-0.45*

Notes: * denotes statistical significance at the 10% level.

Next, the study uses OLS panel regression toevaluate the effect of bank-specific and macroeconomic variables on banks' profitability.

Table 4:OLS regressions

Variables	Model 1 ROA	Model 2 ROE
CAR	-0.059***	-0.968***
	(0.000)	(0.000)
NPL	-0.172***	-2.150***
	(0.000)	(0.000)
CD	-0.002	-0.021
	(0.680)	(0.717)
IRS	0.197***	1.799***
	(0.001)	(0.009)
COF	-0.093***	-1.054***
	(0.000)	(0.000)
TITA	0.015**	0.188**
	(0.038)	(0.018)
NIITA	0.283***	1.478***
	(0.000)	(0.010)
GDP	0.007	0.167**
	(0.317)	(0.026)
INF	-0.067***	-0.022
	(0.000)	(0.906)
Constant	1.750***	22.503***
	(0.007)	(0.006)
Observations	216	216
R-squared	0.575	0.517
P-value	0.000	0.000

Notes: ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

The adjusted R-squared statistics of Model 1 is 57.5%. The result indicates that the changes in the independent variables explain 57.5% of the dependent variable ROA. The remaining 42.5% of changes in ROA are explained by other determinants not incorporated in the model. Among the bank-specific variables, IRS, TITA, and NIITA show a significantly positive relationship with ROA. IRS and NIITA are statistically significant at

the 1% level, and TITA at the 5% level. The findings indicate that a 1% increase in IRS, TITA, and NIITA increases the growth in ROA by 0.197%,0.015%, and 0.283%, respectively. However, CAR, NPL, and COF have a negative relationship and are statistically significant at the 1% level. The findings indicate that a 1% increase in CAR, NPL, and COF decreases ROA by 0.059%, 0.172%, and 0.093%, respectively. Regarding macroeconomic variables, GDP has a positive relationship with ROA but is statistically insignificant. INF has a negative relationship and is statistically significant at the 1% level. The result indicates that a 1% increase in INF decreases ROA by 0.067%.

The adjusted R-squared statistics of Model 2 is 51.7%. The result indicates that the changes in the independent variables explain 51.7% of the dependent variable ROE. The remaining 48.3% of changes in ROE are explained by other determinants not incorporated in the model. Among the bank-specific variables, IRS, TITA, and NIITA have a positive relationship with ROE. IRS and NIITA are statistically significant at the 1% level, whereas TITA is statistically significant at the 5% level. The results indicate that a 1% increase in IRS, TITA, and NIITA increases the growth in ROE by 1.799%,0.188%, and 1.478%, respectively. CAR, NPL, and COF have a negative correlation and are statistically significant at the 1% level. The results indicate that a 1% increase in CAR, NPL, and COF decreases ROE by 0.968%, 2.15%, and 1.054%, respectively. Among the macroeconomic variables, GDP positively correlates with ROE at the 5% significance level. The resultindicates that a 1% increase in GDP increases ROE by 0.167%. INF, on the other hand,is statistically insignificant.

Among the bank-specific variables, IRS, TITA, and NIITA have a positive relationship with ROA and ROE. However, CAR, NPL, and COF negatively affect ROA and ROE. The findings of CAR and NPL having a significant negative relationship with ROA and ROE are consistent with the previous findings of Al-Homaidi et al. (2020) and Ullah et al. (2020). Islam and Rana (2017) observe that NPL negatively affects ROA and ROE. On the contrary, Sayilgan and Yildirim (2009) reveal apositively affected of micro-independent variable capital adequacy. Islam and Rana(2017) explain that the Cost of the fund has a positive and insignificant effect on ROA and ROE.

As in previous studies, the results concerning GDP are mixed. GDP positively affects ROA but is not statistically significant, consistent with Athanasoglou et al. (2008) and Pradhan (2016). On the contrary, Khrawish (2011) and Ashraf et al. (2017) reveal a negative relationship between GDP on ROA. In this study, GDP has a positive and statistically significant effect on ROE, consistent with Anbar and Alper (2011), Adelopo et al. (2018), and Jeris (2021). On the contrary, Khrawish (2011), Ashraf et al. (2017), Athanasoglou et al. (2008), and Pradhan (2016) reveal an adverse effect of GDP on ROE.

As in previous studies, the results concerning INF are mixed. INF has a negative and statistically significant impact on ROA, consistent with Sufian (2009), Sayilgan and Yildirim (2009), Khrawish (2011), Akbas (2012), Andries et al. (2016), Ashraf et al. (2017), and Horobet et al. (2021). On the contrary, Athanasoglou et al. (2008), Pradhan (2016), and Jeris (2021) reveal a statistically insignificant impact of INF on ROA. INF has

a negative and statistically insignificant effect on ROE, consistent with Sufian (2009), Sayilgan and Yildirim (2009), Khrawish (2011), Akbas (2012), Andries et al. (2016), Ashraf et al. (2017), Jeris (2021) and Horobet et al. (2021). Kelly (2008) found that the introduction of inflation targeting caused the general public and professionals to anchor their expectations rather than basing them on current RPI inflation.

5. Conclusion

Profitability is a significant component in measuring the performance of banks. This study examines the impact of bank-specific and macroeconomic factors on commercial banks' profitability in Nepal using panel data of 24 commercial banks for mid-July 2011/12 to 2019/20. This study finds that bank-specific factors such as CAR, NPL, and COFhave a negative and statistically significant impact on the profitability of banks measured by ROA and ROE. Likewise, the CD has a negative and statistically insignificant impact on ROA and ROE.However, IRS, TITA, and NIITA have a positive and statistically significant impact on ROA and ROE. The macroeconomic factor GDP positively impacts ROA and ROE but is statistically significant only with ROE. However, inflation hurts profitability (ROA and ROE) but statistical significance only on ROA.Pairwise correlation shows that the Macroeconomic variable INF has a high degree of negative correlation with GDP. When INF increases, it adversely affects GDP and vice versa.The study concludes that INF is the primary determinant of banks' profitability.

The paper excludes data during the period of COVID-19. Future researchers can use financial data pre-, during, and post-COVID-19 period and examine how the COVID-19 pandemic can affect commercial banks' profitability.

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Author 1: Conceptualization, Data collection, Modeling, Writing

Author 2: Conceptualization, Writing, Revision, Supervision

Appendices

Appendix 1: List of sample banks

S.N.	Name of Commercial Banks	S.N.	Name of Commercial Banks
1	Bank of Kathmandu Ltd	13	NMB Bank Ltd
2	Civil Bank Ltd	14	Nepal SBI Bank Ltd
3	Citizen Banks International Ltd	15	Nepal Investment Bank Ltd
4	Century Commercial Bank Ltd	16	Nepal Bangladesh Bank Ltd
5	Everest Bank Ltd	17	NIC ASIA Bank Ltd
6	Global IME Bank Ltd	18	NCC Bank Ltd
7	Himalayan Bank Ltd	19	Prabhu Bank Ltd
8	Kumari Bank Ltd	20	Prime Commercial Bank Ltd
9	Laxmi Bank Ltd	21	Siddhartha Bank Ltd
10	Machhapuchhre Bank Ltd	22	Sunrise Bank Ltd
11	Mega Bank Nepal Ltd	23	Standard Chartered Bank Ltd
12	Nabil Bank Ltd	24	Sanima Bank Ltd

Source: Author (self)