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The Effect of Non-Performing Loan on Profitability: Empirical Evidence from Nepalese Commercial Banks

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Abstract

The main objective of this research is to find out the effect of Non-Performing Loan (NPL) of Nepalese conventional banks. The population of this study is major commercial banks in Nepal and the data obtained for this study was from the period 2015–2019. This research used secondary data and it is collected from each bank's annual report and GDP and Inflation taken from the World Bank database. The method used for data analysis in this study is multiple regression analysis. The study used NPL as a dependent variable and Return on Asset (ROA), Capital Adequacy Ratio (CAR), Bank Size, GDP growth, and Inflation as independent/explanatory variables. The result of this research shows that ROA, Bank Size, GDP, and Inflation have a significant effect on NPL but CAR does not have a significant effect on the NPL of banks. In other words, the GDP effect on NPL in this study shows a positive and significant effect while most studies show a negative effect. It demonstrates that when GDP growth increases, there is a significant increase in the growth of Nepalese banks even though there were no significant changes in income growth. Therefore, GDP growth has a positive and significant effect on the NPL of commercial banks. Thus, the bankers and policymakers need to consider GDP growth carefully while taking NPL-related decisions.

Keywords: Commercial Banks, GDP, Nepal, Non-Performing Loan, Return on Asset

JEL Classifications Code: G20, G21, G21

1. Introduction

The banking system plays an important role in the modern economic world. Banks play an important role in capital formation, which is essential for the economic development of a country. They mobilize the small savings of the people scattered over a wide area through their network of branches all over the country and make it available for productive purposes. Thus, the banks play an important role in the creation of new

capital (or capital formation) in a country and thus help the growth process. A series of corporate failures and financial crises have raised attention to organizational governance issues, especially for financial institutions. The purpose of corporate governance in the banking sector without any doubt build and strengthen accountability, credibility, trust, transparency, and integrity. The corporate governance of banks is an essential element of a country's governance architecture. It can have systemic financial stability implications and shape the pattern of credit distribution and the overall supply of financial services. Hence the necessity and importance of enforcing effective corporate governance in the banking sector (Khanifah et al., 2020). Financial institutions are very important in the economic growth of a nation as it helps in the easy flow of credit which leads to the investment opportunities in productive sectors. Therefore, the soundness of banking institutions is an essential consideration for financial system stability. The efficient and effective performance of the banking industry over time guarantees the financial stability of any nation (Gnawali, 2018). Despite the operating costs of holding a large portfolio of loans, bank profitability should increase with a higher ratio of loans to assets as long as interest rates on loans are liberalized and the bank applies markup pricing.

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Among the different types of risk which are faced by banks, credit risk seems to have more impact on a bank's profitability because a bank's revenue is generated from loans from which interest is derived (Laryea et al., 2016).

The banking industry is undergoing a radical shift, one driven by new competition from changing business models, mounting regulation and compliance pressures, and disruptive technologies. Banks still have to generate profit for their shareholders and perform their banking role in the market. Basically, non-performing loan (NPL) reflects the performance standard of the banks. Banks are required by law to report their ratio of non-performing loans to total loans as a measure of the bank's level of credit risk and quality of outstanding loans. A high ratio means that the bank is at a greater risk of loss if it does not recover the owed loan amounts, whereas a small ratio means that the outstanding loans present a low risk to the bank. The NPL growth involves the necessity of provisions because it decreases the overall profits. If there is a high proportion of bank credit there will be a higher probability that the banks can suffer from the financial crisis and vice versa.

Previous research has shown the reason for banks' failure is increasing NPLs caused by harsh economic situations, incompetent loan administration, and deficient understanding of loan conditions, among many others. A non-performing loan (NPL) is a bank loan that is subject to late repayment or is unlikely to be repaid by the borrower in full. Non-performing loans represent a major challenge for the banking sector, as it reduces the profitability of banks, and is often presented as preventing banks from lending more to businesses and consumers, which in turn slows down economic growth.

Nepalese banking also has been facing a large number of Non-Performing loan (NPL) especially state-owned and private banks. Nepalese financial system is dominated by the banking sector, particularly commercial banks, which represent about 80% of the total financial system. Therefore, understanding the soundness of commercial banking industries is important to ensure financial stability in Nepal. The Nepalese financial system has shown tremendous growth after the initiation of financial liberalization in 1980. Since then, the number of commercial banks in Nepal has increased from 2 to 30 to date. There has been an increasing trend of non-performing loans after 2010 in Nepal. Continuation of this trend at the current pace could undoubtedly bring about liquidity crisis and financial instability in the near future. Therefore, it is very important to evaluate the determinants of non-performing loans in the Nepalese banking industry to ensure long-term financial and economic stability.

NPL can be an indicator of the beginning of a banking crisis as it adversely affects the economic strength of the nation by reducing credit growth. A low level of NPL indicates a sound financial system, whereas a high NPL can

indicate a vulnerable financial system. A high level of NPL initially affects the individual commercial banks and in the long run, it ultimately ruins the financial system and the economy of the entire nation. An increasing trend of NPL in the banking system seriously hampers their efficiency as it introduces the chance of a banking crisis. More specifically, the non-performing loans block interest revenues, deduct investment opportunities as well as create liquidity crises in a financial system, which can bring bankruptcy problems and also worsen economic activities. Therefore, identifying the factors that affect NPL is necessary to reduce its level for a stable financial system and economy.

Maudos and Guevara (2004) showed that the fall of margins in the European banking system is compatible with a relaxation of the competitive conditions (increase in market power and concentration), as this effect has been counteracted by a reduction of interest rate risk, credit risk, and operating costs. highly capitalized banks experience a high level of credit exposure. The credit quality of banks is also positively affected by the relevance of the information published by public and private bureaus. Specifically, better control of corruption, a sound regulatory quality, better enforcement of rule of law, and a free voice and accountability play an important role in reducing NPL (Boudriga et al., 2010). Breuer (2006) found that problem bank loans are the outcome of decisions made by banks in the dual role they serve as financial intermediaries. This dual role necessarily introduces conflicts of interest that can lead to bank mismanagement and consequently problem bank loans. Because bank activities take place within the tangible and intangible structure of institutions, institutions (legal, political, sociological, economic, and banking institutions) may affect the quality of bank loans. A variety of institutions impact the share of bank assets that are non-performing.

Nepal is also facing a banking crisis and some of the banks and financial institutions have already failed during the last few years and are in the process of liquidation. Studies show that the failure of banks in Nepal was also the result of the high non-performing assets, lending without differentiating markets, products, and borrowers' creditworthiness, and excessive loan exposure to real estate (Salas & Saurina, 2002). The amount of non-performing loans is one of the indicators of the performance of the economy. If the non-performing loan is more, there will be poor financial health and a crisis may result in the economy. In the past before 2001, Nepal bank limited and RBBL nearly collapsed due to high non-performing loans of over fifty percent of their total assets. Because of which NRB with the support of IMF and World Bank adopted a reform program. This research tries to explore the trend of the NPL correlation with bank-specific and macroeconomic factors with the NPL. This study addresses bank-specific and macroeconomic variables that influence to NPL of Nepalese banking.

2. Literature Review

2.1. Theoretical Background

Non-performing loan (NPL) is a major problem in the banking industry. Bhattarai (2017) revealed that the NPL, CAR, LIQ have significant and negatively associated with ROE. Similarly, size has a significant and positive association with ROE. The INF has a positive but insignificant result with ROE. The study concluded that among study variables NPL, CAR, LIQ, and SIZE have a major role to determine profitability. The INF does not significantly affect profitability. However, the effect of nonperforming loans on profitability very strong. The bankers have sincerely taken for the over 90-day dues. It has a rational effect on the national economy also.

According to basic economics, if demand exceeds supply, prices will rise, thus decreasing demand or increasing supply until demand and supply are in equilibrium; thus, if prices do their job, rationing will not exist. However, credit rationing does exist. Stiglitz and Weiss (1981) demonstrated that even in equilibrium, credit rationing will exist in a loan market. Credit rationing is defined as occurring either (a) among loan applicants who appear identical, and some do and do not receive loans, even though the rejected applicants would pay higher interest rates; or (b) there are groups who, with a given credit supply, cannot obtain loans at any rate, even though with larger credit supply they would. A model is developed to provide the first theoretical justification for true credit rationing. The amount of the loan and the amount of collateral demanded affect the behavior and distribution of borrowers. Consequently, faced with increased credit demand, it may not be profitable to raise interest rates or collateral; instead, banks deny loans to borrowers who are observationally indistinguishable from those receiving loans.

It is not argued that credit rationing always occurs, but that it occurs under plausible assumptions about lender and borrower behavior. In the model, interest rates serve as screening devices for evaluating risk. Interest rates change the behavior (serve as incentive mechanism) for the borrower, increasing the relative attractiveness of riskier projects; banks ration credit, rather than increase rates when there is excess demand. Banks are shown not to increase collateral as a means of allocating credit; although collateral may have incentivizing effects, it may have adverse selection effects (Bhul et al., 2016).

2.2. Non-Performing Loan

The main goal of every banking institution is to operate profitably to maintain stability and sustainable growth. However, the existence of high levels of non-performing loans (NPLs) in the banking industry negatively affects the

level of private investment, impair a bank's ability to settle its liabilities when they fall due and constrain the scope of bank credit to borrowers. External and internal economic environments are viewed as critical drivers for nonperforming loans (Warue, 2013). A non-performing loan, also known as an NPL, is a loan where the borrower has stopped paying the installments on the principal (original amount) and interest – it is effectively in default or very close. Most loans become non-performing if payments are more than 90 days overdue – this will depend on the terms of the contract. As soon as a loan is non-performing, the likelihood of it being repaid in full is considered to be significantly lower.

Non-performing loans can cause serious problems for lenders. They are no longer producing income and represent money that is probably lost, thus posing cash problems for banks. Financial institutions usually set money aside to cover potential losses on loans (loan loss provisions). They write off their bad debt in their profit and loss account. Commercial banks lend money to for-profit companies and other organizations every day. Business lending makes up a large portion of a commercial bank's operations. Banks operate by borrowing funds-usually by accepting deposits or by borrowing in the money markets. Banks borrow from individuals, businesses, financial institutions, and governments with surplus funds (savings). They then use those deposits and borrowed funds (liabilities of the bank) to make loans or to purchase securities (assets of the bank). Banks make these loans to businesses, other financial institutions, individuals, and governments (that need the funds for investments or other purposes).

Interest rates provide the price signals for borrowers, lenders, and banks. Through the process of taking deposits, making loans, and responding to interest rate signals, the banking system helps channel funds from savers to borrowers in an efficient manner. According to the Central bank of Nepal, a loan is categorized as a pass loan, sub-standard loan, doubtful loan, and poor loan. Pass loan, sub-standard loan, doubtful loan, and loan loss are also included under non-performing loans.

Non-performing loans can be calculated by using this formula.

$$\text{Non-performing loan} = \frac{\text{Non – performing loan}}{\text{Total Loan}}$$

2.3. Determinants of Non-Performing Loan

Generally, non-performing loans are considered bad debts because the chances of recovering the defaulted loan repayments are minimal. However, having more non-performing loans in the company's balance hurts the bank's cash flows, as well as its stock price. Therefore, banks that have non-performing loans in their books may take action

to enforce the recovery of the loans they are owed. Holding a high number of NPLs relative to the total assets of a company poses a huge risk to the bank. Potential investors are interested in investing in companies with healthy books of accounts.

When the percentage of non-performing loans increases, the lender's stock price will also go down. The NPLs a bank holds in its books, the less attractive it is for potential investors because its future profitability will suffer if the lender will not earn an income from its credit business. Also, the lender will be required to set aside a portion of its profits as bad debts provisions in case it is required to write off the debts. Bofondi and Ropele (2011) analyzed the quality of loans to households and firms separately because macroeconomic variables may affect these two classes of borrowers differently. According to our estimated models: i) the quality of lending to households and firms can be explained by a small number of macroeconomic variables mainly relating to the general state of the economy, the cost of borrowing, and the burden of debt; ii) changes in macroeconomic conditions generally affect loan quality with a lag, and iii) the out-of-sample prediction accuracy of the models is quite satisfactory and proved to be robust to the recent financial crisis.

Beck et al. (2013) examined macroeconomic determinants of nonperforming loans (NPLs) across 75 countries during the past decade. According to their dynamic panel estimates, the following variables are found to significantly affect NPL ratios: real GDP growth, share prices, the exchange rate, and the lending interest rate. In the case of exchange rates, the direction of the effect depends on the extent of foreign exchange lending to unhedged borrowers which is particularly high in countries with pegged or managed exchange rates. In the case of share prices, the impact is found to be larger in countries that have a large stock market relative to GDP. Similarly, Tran and Nguyen (2020) suggested that financial development, in terms of stock market capitalization, improves banks' Z-scores and reduces their level of non-performing loans, suggesting that financial development on average reduces bank risk. The impact of the business cycle is insignificant towards bank risk, thus rejecting both counter- and pro-cyclical hypotheses, except for the case of risk indicator of loan loss provisions. Examining the joint effect of the business cycle and financial development on bank risk, they found that the phase of business cycles generally does not moderate the link between financial development and bank risk.

2.3.1. Macroeconomics Determinants

GDP growth

GDP is an accurate indicator of the size of an economy and the GDP growth rate is probably the single best

indicator of economic growth. Louzis et al. (2012) examined the determinants of non-performing loans (NPLs) in the Greek banking sector separately for each category of loan. NPLs can be explained by macroeconomic variables and management quality. Differences in the quantitative impact of macroeconomic factors among loan categories are evident. Messai and Jouini (2013) tried to detect the determinants of non-performing loans for a sample of 85 banks in three countries (Italy, Greece, and Spain) for the period of 2004–2008. These countries have faced financial problems after the subprime crisis in 2008. The variables used are macroeconomic variables and specific variables to the bank. The macroeconomic variables are included the rate of growth of GDP, unemployment rate and real interest rate with respect to specific variables opted for the return on assets, the change in loans, and the loan loss reserves to total loans ratio (LLR/TL). After the application of the method of panel data, they found the problem loans vary negatively with the growth rate of GDP, the profitability of banks' assets and positively with the unemployment rate, the loan loss reserves to total loans and the real interest rate.

Inflation

In economic development, low inflation indicates a positive sign for economic growth. Low inflation contributes towards economic stability – which encourages saving, investment, economic growth, and helps maintain international competitiveness. A high rate of inflation reduces the borrower's ability to service debt by reducing their real income, thereby increasing NPL (Rinaldi & Arellano, 2006). Moreover, Ghosh (2015) demonstrated the effect of NPLs on commercial banks and savings institutions in the USA and found that inflation has a significant and positive effect on NPLs. This study expects inflation to have a positive and significant effect on NPLs.

$$\text{Inflation} = \frac{\text{CCP Index} - \text{HCP Index}}{\text{CCP Index}} \times 100$$

2.3.2. Bank-Specific Determinants

In a study of 500 commercial banks from more than 50 countries between 2005 and 2007. Shehzad et al. (2010) found that concentrated ownership (proxied by different levels of shareholding) significantly reduces a bank's non-performing loans ratio, conditional on supervisory control and shareholders protection rights. Furthermore, ownership concentration affects the capital adequacy ratio positively conditional on shareholder protection. At low levels of shareholder protection rights and supervisory control, ownership concentration reduces bank riskiness.

Cornett et al. (2010) examined how government ownership and government involvement in a country's banking system affect bank performance from 1989 through 2004. Their study uncovered an interesting pattern of changing performance differences between state-owned and privately-owned banks around the Asian financial crisis. They found that state-owned banks operated less profitably, held less core capital, and had greater credit risk than privately-owned banks before 2001, and the performance differences are more significant in those countries with greater government involvement and political corruption in the banking system. Hu et al. (2004) showed that the rate of NPLs decreased as the ratio of government shareholding in a bank rose while the rate thereafter increased. Bank size was negatively related to the rate of NPLs. Rates of NPLs are shown to have steadily increased from 1996 to 1999. Banks established after deregulation, on average, had a lower rate of NPLs than those established before deregulation.

Bank Size

Banks-specific determinants have a major impact on the NPL of commercial banks. If the size of the bank is bigger it reflects the strength of banks. Salas and Saurina (2002) noticed a negative relation between bank size and NPL; they describe the relationship by noting that greater bank size allows for higher diversification, leading ultimately to lower risk proxy through the non-performing loan. This study expects bank size to have a negative relation with NPL.

$$\text{Bank Size (BS)} = \log \left(\frac{\text{Assets of Bank } i}{\text{Total Assets of Bank } t} \right)$$

Capital Adequacy Ratio (CAR)

Capital Adequacy Ratio (CAR) is the ratio of a bank's capital in relation to its risk-weighted assets and current liabilities. It is decided by central banks and bank regulators to prevent commercial banks from taking excess leverage and becoming insolvent in the process. It is mandatory that each bank preserve the standard CAR ratio (Basel Accord). A bank with a high capital adequacy ratio is considered safe and likely to meet its financial obligations. When the ratio is low, a bank is at a higher risk of failure, and so may be required by the regulatory authorities to add more capital (Berger & Yong, 1997). Louzis et al. (2012) and Cheng et al. (2016) found that CAR has an insignificant impact on NPL. This research expects CAR to have insignificant relation with NPL. Thus, in this study Capital Adequacy Ratio (CAR) has a negative effect on NPL. The capital adequacy ratio is calculated as

$$\text{CAR} = \frac{\text{Total Risk weighted Assets}}{\text{Total Capital Fund}}$$

Return on Assets (ROA)

To determine the profitability of banks, simply looking at the earnings per share isn't quite enough. It's also important to know how efficiently a bank is using its assets and equity to generate profits. For this reason, the key profitability ratio to look at is the return on assets (ROA). Sound financial performance and a stable financial system are indicated by higher ROA for each bank. Profitable banks are less constrained because of less pressure to generate more revenue to invest in risky loans. Therefore, this study expects ROA and NPL to have a negative relationship. Makri et al. (2014) revealed strong correlations between NPL and various macroeconomic (public debt, unemployment, annual percentage growth rate of gross domestic product) and bank-specific (capital adequacy ratio, rate of nonperforming loans of the previous year and return on equity) factors. Return of assets is calculated as,

$$\text{Return on Assets (ROA)} = \frac{\text{Net Income}}{\text{Total Assets}}$$

3. Research Method

3.1. Data Type and Source

This research used secondary data. The source of data was the annual reports of commercial banks taken from the banks' website and financial reports: Balance sheet, Income statement, and Key financial indicators. This research covers data from the period 2015–2019. The number of bank observations in this study is 74. The analysis technique used to analyze the data in this study is the classic assumption test, that is, the multiple regression analysis.

3.2. Empirical Model

The primary use of the estimated regression equation is to predict the value of the dependent variable when values for the independent variables are given. To determine the influence of bank-specific factors such as bank size, CAR, and ROA and macro-economic factors such as GDP and inflation on the NPL, we use multiple regression analysis. The estimated regression equation is as follows:

$$\text{NPL}_{i,t} = \beta_0 + \beta_1 \text{Bank Size} + \beta_2 \text{CAR} + \beta_3 \text{ROA} + \beta_4 \text{GDP} + \beta_5 \text{Inf}$$

4. Results

Descriptive statistics of commercial banks are shown in Table 1.

The population of this study is major commercial banks in Nepal and the data obtained for this study was from the period 2015–2019. This research used secondary data and it is collected from each bank's annual report and GDP and Inflation taken from the World Bank database. Based on Table 1 the minimum NPL is 0.15 and the maximum is 8.85 which shows that Nepalese commercial banks NPL is more than 5% which is risky for the banks. The minimum bank size is 10.34 and the maximum is 19.04 which indicates there is no much difference between bank sizes in the Nepalese banking industry. However, banks with bigger sizes can manage their NPLs well. The minimum CAR is 10.75 and the maximum is 22.99. This shows that some banks have high CAR which affects NPL and banks' profitability. GDP growth is a common factor that affects all banks. The higher the GDP, the lower the NPL. Table 1 shows that the average GDP is 5.30 which indicates that GDP growth is not that volatile and remains at a standard level. The inflation relation shows that the higher the inflation, the higher the NPL. The minimum inflation is 3.72 and the maximum inflation is 8.80 which seems higher, and it indicates that within 5 years inflation increased to 8.80. Thus, inflation should be one of the variables that can affect the NPL of Nepalese commercial banks. Besides, ROA shows that there is not much deviation between the minimum and maximum, though for ROA, more the ROA less the NPL.

In Table 2, R is 0.53, which shows that the correlation between variables is above 50% and it clarifies that both explanatory and dependent variables have a good

correlation. Moreover, the value of R^2 is 0.287 which means that 28.70% variance in the dependent variable is explained by the independent variables. Adjusted R^2 is 0.226 and it shows that 22.6% of sample variation exists on NPL. It confirmed that the banks' independent variables affect Nepalese commercial banks. The Durbin Watson (DW) statistic is a test for autocorrelation in the residuals from a statistical regression analysis. A value of 0–2.0 means that there is no autocorrelation detected in the sample. The result showed that the value of Durbin Watson is 1.670 which indicates that there is no autocorrelation between variables.

According to Table 3, the regression result shows that there are bank-specific and macro-specific variables. Bank-specific variables include Bank Size, CAR, and ROA, and macro-specific variables include GDP and Inflation. Abidin et al. (2021) showed that the non-inclusion of non-performing loans (NPLs) leads to higher bank inefficiency indicators, which are significantly different from those obtained when NPLs are included. Further, they found that economic growth, capital risk, foreign and national banks, and account liquidity risk explain, in part, the efficiency of banks. The findings of this study demonstrated that bank size and CAR are negative but bank size is significant and CAR is not significant. Cheng et al. (2016) stated that every bank can expand assets and reduce debt ratio to effectively reduce the probability of NPL ratio occurrence. During the first financial reform implementation, banks not only restrict loans to increase lending quality but also use their own capital or retained earnings to write off loans to reduce the NPL ratio. They also found that when the government promotes policies to lower the NPL ratio, directors and supervisors perform their supervision responsibilities more diligently.

Table 1: Descriptive Analysis

Variable	<i>N</i>	Min.	Max.	Mean	Std. Dev
NPL	78	0.15	8.85	1.47	1.15
Bank Size	78	10.31	19.04	12.36	2.59
CAR	78	10.75	22.99	13.35	2.60
GDP	78	0.59	8.32	5.30	2.59
Inflation	78	3.72	8.80	6.39	2.06
ROA	78	0.32	3.57	1.77	0.56

Table 2: Model Summary

Model	<i>R</i>	R^2	Adj. R^2	Std. Error	Durbin Watson
1	0.535	0.287	0.226	1.014	1.670

Table 3: Coefficients

Var	Un-Std Coeff		Std-Coeff	t	Sig
	Beta	Std. Error	Beta		
Con	0.447	1.420	0	0.336	0.738
Bsize	-0.154	0.049	-0.347	-3.123	0.003
CAR	-0.010	0.054	-0.022	-0.180	0.858
GDP	0.149	0.077	0.336	1.949	0.055
Inf	0.337	0.102	0.601	3.308	0.001
ROA	0.729	0.275	0.354	2.649	0.010

(Significance 0.001 ***, Significance 0.05 ** and Significance 0.01*).

Ghosh (2015) found higher capitalization, liquidity risks, poor credit quality, greater cost inefficiency, and banking industry size significantly increase NPLs, while higher bank profitability lowers NPLs. Moreover, higher state real GDP and real personal income growth rates, and changes in state housing price index reduce NPLs, while inflation, state unemployment rates, and US public debt significantly increase NPLs. These findings implied that regular stress tests on banks' loan quality that typically underpin scenarios for a rise in NPLs, should take into account the impact of 'micro' or state-level economic conditions on NPLs, in addition to banks' capital and credit quality, and effective cost management in assessing banks financial health. Messai and Jouini (2013) found the problem loans vary negatively with the growth rate of GDP and profitability of banks' assets, and positively with the unemployment rate, the loan loss reserves to total loans, and the real interest rate. In Nepal, GDP depends on agriculture and remittance which is unstable and poor. Although GDP growth increases, citizen paying back capacity is still low due to unstable GDP sector. Thus, GDP growth is higher though it gives significant with NPL.

5. Conclusion

The study used NPL as a dependent variable and Return on Asset (ROA), Capital Adequacy Ratio (CAR), Bank Size, GDP growth, and Inflation as independent/explanatory variables. Bank-specific variable such as bank size has a negative and significant effect on NPL while ROA has a positive and significant effect on NPL. Macro-economic variable such as inflation has a positive and significant effect on NPL. It means that in the Nepalese banking sector, variables such as "Banks Size, Inflation, and ROA" highly influence the financial markets in Nepal and also have an impact on NPL in the Nepalese banking sector. GDP growth has a positive and significant effect on the NPL of commercial banks. Thus, the bankers and policymakers need

to consider GDP growth carefully while taking NPL-related decisions. The result of this research shows that ROA, Bank Size, GDP, and Inflation have a significant effect on NPL but CAR does not have a significant effect on the NPL of banks. In other words, the GDP effect on NPL in this study shows a positive and significant effect. It demonstrates that when GDP growth increases, there is a significant increase in the growth of Nepalese banks even though there were no significant changes in income growth.

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