

# **FACTOR AFFECTING OF BANK LENDING IN COMMERCIAL BANKS OF NEPAL**

A Dissertation submitted to the Office of the Dean, Faculty of Management in partial  
fulfillment of the requirements for the Master's Degree

by:

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## CERTIFICATION OF AUTHORSHIP

I hereby corroborate that I have researched and submitted the final draft of dissertation entitled “**Factor Affecting of Bank Lending in Commercial Banks of Nepal**”. The work of this dissertation has not been submitted previously for the purpose of conferral of any degrees nor it has been proposed and presented as part of requirements for any other academic purposes.

The assistance and cooperation that I have received during this research work has been acknowledged. In addition, I declare that all information sources and literature used are cited in the reference section of the dissertation.

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## REPORT OF RESEARCH COMMITTEE

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## APPROVAL SHEET

We, the undersigned, have examined the dissertation entitled “**Factor Affecting of Bank Lending in Commercial Banks of Nepal**” presented by Sushmita Poudel a candidate for the degree of master of Business Studies (MBS Semester) and conducted the Viva voce examination of the candidate. We hereby certify that the dissertation is worthy of acceptance.

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Sushmita Poudel

Date: .....

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## ABBREVIATIONS

ADBL	:	Agricultural Development Bank Limited
ATM	:	Automated Teller Machine
CAR	:	Capital Adequacy Ratio
CB	:	Commercial Banks
INF	:	Inflation Rate
IT	:	Information Technology
LA	:	Loan and Advance
LIQ	:	Liquidity Ratio
LIR	:	Lending Interest Rate
LLA	:	Natural Logarithm of Loan and Advance
LSIZE	:	Natural Logarithm of Bank Size or Total Assets
NBL	:	Nepal Bank Limited
NRB	:	Nepal Rastra Bank
RBBL	:	Rastriya Banijya Bank Limited
SD	:	Standard Deviation
SIZE	:	Total Assets
TU	:	Tribhuvan University

## ABSTRACT

This study examines the factor affecting of bank lending in commercial banks of Nepal. This study used secondary data covering ten year periods from 2012/13 to 2021/22. This study used descriptive analysis, correlation analysis and multiple regression analysis by using SPSS version 26. This study shows that Nepalese government own banks have good lending position. Bank lending always depends upon different factors such as cash reserve ratio, capital adequacy ratio, lending interest rate, bank size or total assets and inflation rate which are the major factors of commercial banks. The correlation analysis reveals that liquidity ratio and lending interest rate have significant negative relation with loan and advance (LLA) of government banks. At the same time, capital adequacy ratio and banks size have significant positive relation with lending or loan and advance (LLA). In addition, inflation rate has significant negative relationship with bank lending. At the meantime, the multiple regression reveals that liquidity ratio and inflation rate have insignificant negative impact on lending of government own commercial banks in Nepal. However, capital adequacy ratio and bank size have significant positive effect of bank lending. Moreover, lending interest rate has insignificant positive impact on banking lending. So, it can be concluded that capital adequacy ratio and bank size has significant and major factors of lending in Nepalese commercial banks.

*Keywords: Loan and advance, liquidity ratio, capital adequacy ratio, bank size and inflation rate.*

# CHAPTER I

## INTRODUCTION

### 1.1 Background of the Study

The lending services that commercial banks provide have a significant impact on their customers' short-, medium-, and long-term financial objectives. Banks lend money to individuals, businesses, and governmental entities in accordance with regulations that have been put in place. The loan and advance are used by the consumer for various business needs. It generally encourages the country's economic expansion (Olokoyo, 2011). Banks have taken on an intermediary role in the money transmission process. It is impossible to overestimate the role that surplus to deficit spending units have in driving growth in emerging economies (Alhassan et al., 2013). Because bank lending is the primary source of income and involves a high degree of risk, banks should use caution while evaluating the various factors that affect their lending policies.

Bank financing has produced long-term revenue streams and liquidity (Timsina, 2017). Bank lending policies have allowed for a greater knowledge of the sustainable environment and the economic growth of emerging nations (Alkhazaleh, 2017). Private homes, businesses, and the government have all benefited greatly from the capital that commercial banks have contributed. Without adequate funds, investment activity, business expansion, and industrial development would not be possible. In the worst case scenario, an insufficiently cash-rich economy would collapse. Since lending accounts for the bulk of commercial banks' revenue, it appears that lending is their primary business activity (Isa et al., 2019).

The interest on the loans that comprise the bulk of an institution's assets is often its primary source of income. Loans, which contain a large degree of risk, have a substantial influence on the bank's profitability, liquidity, and solvency. The credit quality of a bank indicates its strength and stability as well as the degree of risk that its depositors and creditors have assumed. The main factor contributing to bank failures and liquidity problems worldwide is ineffective loan portfolio management. While an excessive increase in lending might spur investment and economic activity, it could also jeopardize

the integrity of the financial system by increasing prudential risks at the local and macro levels (Timsina, 2017).

Deposits subject to monetary restrictions decrease, and banks reduce their lending. A simultaneous decline in liquidity reveals that banks are attempting to safeguard their loan portfolio by hoarding cash, securities, and their net interbank position when comparing the effects of monetary tightening on different types of banks. Deposits will be most affected in terms of small banks with a high deposit-to-lending ratio and well-capitalized institutions with a stronger potential to raise various sorts of outside funding, as these banks have the least incentive to protect themselves against this type of liability (Kashyap & Stein, 2000).

Olokoyo (2011) argued that commercial banks are essential for distributing funds and promoting savings. They have to fulfill these obligations, which make them a crucial component of economic development. In performing this role, banks have to admit that they have the ability, the reach, and the chances to raise money and put it into successful endeavors. Olokoyo (2011) stated that as long as their big customer remembers the three pillars of profitability, liquidity, and solvency that guide their business practices, commercial banks are happy to lend money and give advances. However, a multitude of factors influence commercial banks' lending selections; they include the current interest rate, the quantity of deposits, the amount of foreign and domestic investment, the bank liquidity ratio, reputation, and public recognition, to mention a few.

Deposit volume, interest rate, GDP (gross domestic product), and cash reserve requirement are the main factors that Mitiku (2014), Bhattarai (2020), and Timsina (2017) found to be driving the lending behavior of commercial banks in Nepal. Even though the study's conclusions conflicted with the previously listed variables, the examination of the factors impacting commercial banks' loans is crucial because Nepal's commercial banks must be aware of these traits in order to regulate how their loans and advances are disbursed. A researcher with an interest in this field of study intends to investigate the uneven loan criteria that Nepalese commercial banks have. Loan distribution is greatly influenced by banks, which is crucial for the financial sector in developing countries like Nepal. The capacity to retain control over the loan distribution issue is provided by this study to banks and regulators, which is essential for the security

of their operations as well as the overall health of the American economy. Thus, the objective of this research was to investigate and evaluate the factors affecting the loan-making practices of Nepal's commercial banks.

## **1.2 Problem Statement**

International empirical study shows that the expansion of every economy depends on commercial banks. They carry out this function since their main function is to collect surplus funds from individuals, families, companies, and the government and distribute them to those in need in the form of advances and loans. Commercial banks also offer other services including money transfers, project appraisal, risk management, and liquidity services (Kaaya & Pastory, 2013).

The lending function of commercial banks is impacted by a number of internal and external factors. The sources of external influences impacting banks' lending behavior are general macroeconomic events, various regulatory bodies in the financial sector of the economy, and the regulatory actions of national (central) banks (Richard & Okoye, 2014). Examining these important factors that impact commercial banks' lending practices is an essential duty for numerous stakeholders. Several studies have been conducted in different countries throughout the world to investigate the factors affecting the lending practices of commercial banks.

Since the majority of a commercial bank's operations revolve around lending, its loan portfolios often represent both their greatest asset and main revenue stream. As a result, the bulk of the gross profit in the banking sector and the majority of commercial banks' revenues come from interest income on loans (Onyango, 2018). It also presents one of the most threats to the stability and safety of financial institutions, though. Historically, regardless of the cause lax credit standards, insufficient portfolio risk management, or economic downturn problems with the loan portfolio have been the primary cause of losses and bank collapses for commercial banks (Alkhazaleh, 2017). Malede (2014) found a significant relationship between GDP, size, credit risk, and liquidity ratio and the lending practices of commercial banks. However, throughout the research period, no factor deposit, investment, cash necessary reserve, or interest rate had an effect on lending by Ethiopian commercial banks.

Before extending credit, banks typically take into account a number of variables, including the makeup of the target borrower base, the status of the economy as a whole, and the amount of loans and advances to be made (Olokoyo, 2011). Some of the factors that affect how commercial banks lend money are lending/interest rates, volume of deposits, asset quality, reserve ratios, volume of deposits, investment portfolios, prevailing interest (lending) rates, cash reserve requirement ratios, annual average local currency to dollar exchange rates, liquidity ratios, portfolio theory, and capital adequacy (Olumuyiwa et al., 2012); Onyango, 2018). Low interest rates stimulate borrowing, which in turn causes commercial banks to lend more money, and vice versa. Olokoyo (2011) asserted that banks ought to make a concerted effort to manage deposits in a way that optimizes multiplier effects and advances their financial objectives. This suggests that increasing deposit growth is not required for the overall viability of commercial banks. Previous scholars have conducted a number of studies to identify the variables influencing commercial banks' lending decisions across the globe (Onyango, 2018). Similar results highlight the need for additional studies in this field, including the inclusion of variables that influence loan behavior in other contexts, such as Nepal.

Sarath and Pham (2015) showed that interest rate spread, bank capitalization, and deposit volume all had a beneficial influence on lending behavior. The negative real GDP growth rate has a significant impact on the situations involving Vietnamese commercial banks. Timsina (2016) investigated the lending patterns of Nepalese commercial banks from 1996 to 2015 using secondary panel data from 24 commercial banks. Evaluating how successfully Nepalese commercial banks make loan amount decisions was the aim of the study. The study found that capital, liquidity, and assets all had a beneficial effect on bank lending. Bhattarai (2016) concluded that there was a statistically significant positive correlation between bank size and loans and advances based on the regression result.

Alkhazaleh (2017) stated that the money supply, GDP growth, inflation, bank size, and return on assets all have a positive and significant impact on lending. Lending is negatively impacted by two factors: credit risk and liquidity. Adzis, Sheng, and Bakar (2018) examined the positive and noteworthy impacts of bank-specific characteristics on lending, such as deposit volume and size. Lending is negatively impacted by

liquidity. Furthermore, no explicable roles for macroeconomic factors were observed in the study.

Goet (2021) showed a robust and positive relationship between LNLA and LNTD. LNLA and IR have a significant inverse association. This study also found that LNTD and IR had significant effects on LNLA, but CRR and ISR had no detectable effect on LNLA. A review of earlier studies shows that a significant amount of study has been done on the variables influencing bank lending practices. Still, there aren't adequate research findings for Nepal. An attempt has been made to bridge this research gap. Therefore, the purpose of this study is to identify the variables that affect Nepalese commercial banks' lending practices.

- What is the position of loan and advance of the commercial banks in Nepal?
- What is the relationship between determinants (liquidity ratio, capital adequacy ratio, lending interest rate, bank size and inflation rate) and loan and advance of commercial banks in Nepal?
- What is the impact of liquidity ratio, capital adequacy ratio, lending interest rate, bank size and inflation rate on lending of commercial banks in Nepal?

### **1.3 Objectives of the Study**

The main objective of the study is to analyze the factors influencing bank lending by Nepalese commercial banks. The other specific objectives are;

- To analyze the position of loan and advance of the commercial banks in Nepal.
- To examine the relationship between determinants (liquidity ratio, capital adequacy ratio, lending interest rate, bank size and inflation rate) and loan and advance of commercial banks in Nepal.
- To evaluate the impact of liquidity ratio, capital adequacy ratio, lending interest rate, bank size and inflation rate on lending of commercial banks in Nepal.

### **1.4 Research Hypothesis**

Consequently, the following hypothesis is tested in the study, which is established with the use of empirical research on certain banks:

H<sub>1</sub>: Liquidity ratio has negative and significant effect on the bank lending in Nepal.



H<sub>2</sub>: Capital adequacy ratio has a positive and significant effect on the bank lending in Nepal.

H<sub>3</sub>: Lending interest rate has negative and significant effect on the bank lending in Nepal.

H<sub>4</sub>: Bank size has positive and significant effect on the bank lending in Nepal.

H<sub>5</sub>: Inflation rate has negative and significant effect on the bank lending in Nepal.

### **1.5 Rationale of the Study**

The aim of this study was to support the factors impacting commercial banks' lending practices in Nepal with empirical data. The study's findings, in the researcher's opinion, ought to be significant to a range of stakeholders. Depending on the particular circumstances and makeup of each component, commercial banks will have the ability to take the required action both before and after the variables materialize. For this reason, the study's conclusions are extremely important. These are the primary and most recent factors affecting loan choices. Similarly, with a deeper understanding of the factors that influence commercial bank lending, government agencies will be better equipped to manage the policy-modification process and adjust various rules and regulations (such as those pertaining to the requirement for cash reserves, capital requirements, and occasionally interest rates and exchange rate determination). Additionally, the study broadens the body of information already known about the topic. Scholars and researchers utilize the study's findings as a springboard for more research on related topics.

### **1.6 Limitations of the Study**

This study has the some limitations which are as follows;

- Among the 21 commercial banks operating in Nepal (till July, 2023), only three governments own commercial banks of Nepal, namely Agricultural Development Bank Limited, Rastriya Banijya Bank Limited and Nepal Bank Limited are analyzed in this study
- The study covers the past ten years' data from F/Y 2012/13 to F/Y 2021/22.
- The study analysis only factor affecting bank lending and ignores the other financial aspects.

- The study is based on secondary data such as financial annual report of government banks, journals, articles and newspapers etc.

## **CHAPTER II**

### **LITERATURE REVIEW**

The theoretical aspect of the issue of what influences bank lending is covered in this chapter. It offers the groundwork for developing a thorough theoretical framework and understanding the situation pertinent to the research question, allowing an analysis of the pertinent data for reporting needs. A review of books, journals, articles, annual reports, and a few relevant research papers has been done in preparation for this NRB directive. The theoretical perspective and the empirical review are the two primary divisions into which this chapter has been divided.

#### **2.1 Theoretical Review**

##### **2.1.1 Theories of Bank Lending**

Although each bank may use a different strategy, a study of the broad lending concepts discussed in this part can help offer better understanding on how banks really carry out loans. The following are the theories of lending:

###### **2.1.1.1 Theory of Multiple-Lending**

Research indicates that banks ought to be less likely to engage in share lending, or loan syndication, following a process consolidation and in the presence of robust equity markets. Banks no longer require as much monitors and diversity through share lending, as outside equity and mergers and acquisitions boost their lending capacities (Ongena & Smith, 2000; Karceski et al., 2004). Given the industry's recent 2005 consolidation effort, this theory has significant implications for Nigerian banks.

###### **2.1.1.2 Hold-up and Soft-Budget-Constraint Theories**

Banks' decisions to lend to multiple banks are based on two inefficiencies that affect exclusive bank-firm relationships: the hold-up and the soft-budget-constraint issues.<sup>1</sup> According to the hold-up literature, lending money together keeps informational rents from being withdrawn. This increases the motivation for companies to choose prudently among their investments, hence increasing bank profits (Von Thadden, 2004; Padilla & Pagano, 1997). Considering the issue of soft budget constraints, lending across several banks helps banks avoid issuing further unproductive credit, which lowers the number of

strategic defaults by businesses. According to these two theories, banks can strengthen their incentives to support entrepreneurs by offering multiple-bank loans. However, none of them discuss how banks' incentives to monitor are impacted by multiple-bank lending, which makes it difficult to reconcile the seeming contradiction between the significance of bank monitoring and the pervasive usage of multiple-bank lending.

#### **2.1.1.3 Money Creation Theory**

According to this perspective, a loan extension generates credit money, and a central bank must back such a loan. Not the lending or relending of monies from the central bank, but the promise made in the loan is what gives rise to money. Interest-bearing loans result in the creation of reserves equal to the interest as well as the clearing of the loan's credit upon repayment. Actually, businesses receive time credit from commercial banks in exchange for their commitment to provide a loan. When the line is tapped (and a loan is extended), this promise is not considered money for regulatory purposes, and banks are not required to retain reserves against it. The next stage is to create a valid credit amount, and reserves must be located to support it. Credit funds are prioritized above reserves in this case. Stated differently, lending increases reserves rather than decreasing them as a result of loans, as the prevailing paradigm suggests (Haslag & Eric, 1998).

#### **2.1.1.4 The Signalling Arguments**

According to the signaling theory, successful businesses should offer more collateral to banks as a way of telling them that they are less risky borrowers, which would result in lower interest rates. Conversely, the reverse signaling theory contends that banks should only impose covenants and/or collateral on comparatively high-risk companies that also pay higher interest rates (Ewert et al., 2000).

#### **2.1.1.5 Credit Market Theory**

The terms of credits are assumed to clear the market in a neoclassical credit market model. If collateral and other restrictions (covenants) don't change, the interest rate is the only tool used for pricing. An growth in credit demand and a specific customer supply both cause the interest rate to rise, and vice versa. It follows that the interest premium is expected to rise in line with the borrower's failure risks (Ewert et al., 2000).

### **2.1.1.6 Loan Pricing Theory**

Setting high interest rates in an attempt to increase interest revenue is not always feasible for banks. Due to the extreme difficulty of anticipating the type of borrower at the outset of the banking relationship, banks must take adverse selection and moral hazard into account (Stiglitz & Weiss, 1981). Due to the fact that high-risk borrowers are willing to pay these high rates, banks that set interest rates too high run the risk of creating adverse selection issues. Due to their inclination towards undertaking extremely risky business projects or investments, these borrowers may exhibit borrower moral hazard behavior following loan disbursement. Stiglitz and Weiss (1981) suggest that we might not always be aware that the interest rate that banks set represents the risk that borrowers face.

## **2.1.2 Determinants of Lending of Banks**

### **2.1.2.1 Lending Interest Rate**

Both a monetary contraction and an increase in interest rates immediately decrease expenditure; they also do so indirectly by reducing the availability of bank loans (Bernanke & Blinder, 1988). Kashyap and Stein (2000) argued that banks with less liquid balance sheets would see a greater reduction in loan supply if the contractionary monetary policy were to occur. Banks with higher liquidity levels have the ability to safeguard their loan portfolios by depleting their reserve of cash and securities. Sengonol and Thorbecke (2005) conducted a study in Turkey to support their claim that the country's bank credit supply was decreased as a result of contractionary policy. Kashyap and Stein (2000), a two-step method, was utilized by both et al. (2000) in the United States and Sengonol and Thorbecke (2005) in Turkey to examine the impact of monetary policy on loan supply. Keeton (1993) discovered that changes in deposits have a direct impact on bank lending, but that monetary policy also has an indirect impact via altering the cost of certificates of deposit and the return on securities. Consequently, banks become hesitant to lend money to businesses if the central bank lowers the rate, and vice versa (McKinnon, 2009).

Moreover, lending is impacted by changes in interest rates. When the rate is lowered by the central bank, banks are less willing to lend money to businesses. McKinnon (2009) stated that the interbank market was immobilized and the US interest rate had dropped to zero by the end of 2008. Due to almost zero interest rates, this caused American banks to accumulate enormous amounts of surplus reserves and did not encourage new lending to

individuals or non-bank businesses. Although it is not lucrative for banks to lend money during periods of declining interest rates, businesses and individuals still made a greater effort to get credit.

Furthermore, the Central Bank's prime rate serves as a transmission channel for monetary policy, influencing interest rates in the financial market. Because bank lending rates don't fluctuate in lockstep with the markets, they are typically perceived as being inflexible. The inflexibility of bank lending rates has been explained by a variety of theories. Due to issues with asymmetric information, lenders have had to restrict lending to borrowers, which has resulted in rigidity in the loan market. Undoubtedly, financial markets are not flawless; due to factors such as moral hazard and adverse selection, banks are inclined to impose credit rationing rather than modify lending rates in the event that the central bank has raised interest rates. It's also feasible that restrictive monetary policy won't have much of an effect on bank lending if big banks have a sizable portion of the market. Berger and Udell (1992) were unable to locate any conclusive evidence to support the idea that the lending rate's rigidity was caused by credit rationing. Consequently, banks become hesitant to lend money to businesses if the central bank lowers the rate, and vice versa (McKinnon, 2009).

### **2.1.2.2 Profitability**

Alper and Anbar (2011) stated that a number of measures are used to assess the profitability of commercial banks, the three most important ones being Return on Asset (ROA), Return on Equity (ROE), and Net Interest Margin (NIM), as will be discussed below. Return on Assets (ROA): In light of the Golin (2001) study, ROA has emerged as the crucial ratio in contemporary literature used to assess bank profitability. It demonstrates the capacity of a bank's management to make money from the bank's assets and provides a notion of how effectively management is leveraging the bank's assets to produce earnings. It may be calculated easily by dividing net profit after taxes by total assets. It shows the return on each Birr of investing assets.

Rivard and Thomas (1997) explained that ROA is a stronger indicator of a company's capacity to generate returns on its asset portfolio than equity multipliers, making it the most suitable metric for gauging bank profitability. The rate of return to shareholders, or percentage return, on each Birr of equity invested in the bank is known as return on

equity, or ROE. It gauges how well a company makes money off of each unit of shareholders' equity, sometimes referred to as net assets or assets less liabilities. Net Interest Margin (NIM): This is another often observed indicator of bank profitability. Ongore and Kussa (2013) defined as a measurement of the discrepancy between the interest income that banks create and the interest that they pay to their lenders, such as depositors, in relation to the total amount of their interest-earning assets. Profits will be high if a bank manager has managed assets and liabilities well enough to generate significant income from the bank's assets and incur little expense from its liabilities. It is typically stated as a percentage of the total amount of loans and advances divided by the amount of money the financial institution makes on loans over a given time period less the interest paid on borrowed funds.

### **2.1.2.3 Liquidity Ratio**

An asset is considered to be in a state of liquidity when it is easily convertible into cash. Even though a bank has sufficient assets to cover its liabilities, it may still lack liquidity. A mismatch between its assets and liabilities could be the cause of this.

Djiopap and Ngomsi (2012) stated that most commercial banks' primary line of business is lending. Usually, the biggest asset and main source of income is the loan portfolio. It poses one of the biggest risks to the safety and soundness of banks as a result. Since loans are illiquid assets, a bank's asset portfolio will contain more illiquid assets as the quantity of loans increases. Tomak (2013) stated that loan demand which forms the basis for loan growth actually has a big influence on how much liquidity banks have. When loan demand is low, the bank usually holds more liquid assets (i.e., short-term assets) and less liquid assets (i.e., long-term loans, which are usually more profitable). Thus, loans and advances have a negative impact on banks' liquidity.

### **2.1.2.4 Capital Adequacy Ratio**

The amounts of capital that banks must maintain in order to be able to resist the risks associated with lending, the market, and operations are known as capital adequacy. It serves to safeguard the bank's borrowers and absorb any potential losses resulting from their regular business operations. This is significant since capital is the total amount of the bank's own funds that are always available to support the operations of the bank and function as a safety net in stressful circumstances. Because deposits are more brittle and

vulnerable to bank runs, banks cannot only rely on deposits, which mean that their capital generates liquidity for the bank. The capital adequacy ratio (CAR), which shows the bank's internal resilience to losses in the event of disaster, is used to assess capital adequacy.

Risk aversion is one of the risk characteristics that the equity ratio indicates. Bank capitalization has a variety of effects on a bank's desire and capacity to provide long-term loans. Banks ought to be better able to offer riskier, longer-term loans if they have a bigger capital buffer against credit risks. As a result, raising bank equity increases the bank's ability to extend credit. Furthermore, banks with higher capitalization can draw in more creditworthy customers who can be approved for long-term loans. On the other hand, banks with large amounts of capital may be risk-averse and conservatively managed, and so hesitant to provide high-risk long-term loans. Bouvatier and Lepetit (2007) and Djiopap and Ngomsi (2012) found that banks with little capital are unable to increase loans.

#### **2.1.2.5 Volume of Deposit**

Banks take money from savers in the form of deposits and give it to borrowers in the form of loans so they may act as financial intermediaries. As a result, banks take deposits from consumers and utilize the money to lend to other consumers or invest in other assets that will generate a profit greater than what the bank gives the depositor (McCarthy, 2010).

Olokoyo (2011) found the volume of deposits held by commercial banks in Nigeria has the greatest influence and impact on their lending practices. Consequently, alterations in this volume will result in corresponding changes in the banks' loans and advances. As a result, banks should work very hard to manage deposits effectively in order to meet their profitability goals and preserve the greatest possible multiplier effects. The majority of businesses, particularly those in developing nations, rely heavily on bank loans as a source of funding, and banks' capacity to provide loans is largely reliant on their capacity to draw in deposits. This is due to the fact that a growing trend in deposit mobilization suggests that banks will have greater liquidity and money available for lending, which will increase their capacity to generate higher profits.



### **2.1.2.6 Non-performing Loans or Credit Risk**

Loans that are long-term principal and interest-only obligations that are not being repaid in accordance with the terms and conditions of the loan contract are referred to as non-performing loans. Therefore, a lending facility that violates the provisions of the loan agreement by failing to make principal and interest payments on time is considered non-performing. Consequently, the quantity of non-performing loans serves as a gauge for the caliber of bank assets. The ratio of bank nonperforming loans to total gross loans is calculated by dividing the nonperforming loan value by the total loan portfolio value, which includes nonperforming loans prior to the reduction of certain loan-loss provisions. Not simply the amount that is past due, but also the loan's gross value as shown on the balance sheet, should be the amount reported as nonperforming. The ratio of nonperforming loans to total loans is used to calculate the amount of nonperforming loans (Bernanke & Blinder, 1998).

As per IMF guidelines, a loan is considered nonperforming if interest and/or principal payments are 90 days or more past due, if interest payments equal to 90 days or more have been capitalized, refinanced, or postponed by agreement, or if payments are less than 90 days past due. However, there exist valid reasons for nonperformance as well, such as a debtor filing for bankruptcy or having doubts about the ability to make all of the required payments. In a similar vein, nonperforming loans (NRBs) and advances are loans whose credit quality has declined and the loan and advance's ability to fully collect principal and/or interest under their contractual repayment conditions is in doubt. Hence, loans that have been in default under the terms and circumstances of the loan contract for an extended length of time, both in principle and interest, are referred to as non-performing loans (NPLs). Furthermore, given that loans and advances account for a large portion of bank assets, non-performing loans (NPLs) are any credit facility that does not meet the terms of the loan agreement by failing to make principle and interest payments on time. As a result, the quantity of nonperforming loans probably indicates how well-quality bank assets are.

### **2.1.2.7 Market Share**

A company's sales over a given time period divided by the overall sales of the industry are known as its market share. Brooks (2008) explained market share is defined as sales divided by the total number of competitors in the market. Typically, market share is

employed to convey a competitive stance. It is also widely acknowledged that a rise in market share can be associated with success, whereas a fall in market share is typically associated with failure and is a sign of bad activities by enterprises.

The most popular theory explains how increased economies of scale, expertise, and market strength result in improved profitability when market share increases. Economies of Scale offer financial benefits to larger businesses. Nonetheless, the majority of research suggests that economies of scale only affect a tiny portion of the market. Market share is the result of efficiency rather than its cause, according to the efficiency hypothesis. The reason for variations in profitability between companies is increased efficiency. In order to create a causal relationship between size and profitability, efficient businesses get a significant market share and generate high profits. Businesses that sell more valuable products to consumers see increases in market share. Competitively advantaged, better managed businesses expand more quickly than their competitors. Businesses with greater expertise and insight increase their market share by offering better products at lower costs.

The total deposits of a bank expressed as a proportion of all banks' total deposits is how market share is calculated. Either total assets or loan amount can be used to compute this ratio. Nonetheless, as loans and deposits are both regarded as bank production, a decision must be made either the asset or deposit measure of market share. Given that the asset components might incorporate subsidiaries and investments in securities, which are definitely not uniform across businesses, a bank's market share can be determined by the quantity of capital it possesses, the loans it extends, and the deposits it receives from the general public. In summary, it has to do with how fiercely banks compete with one another in the banking sector. A bank's level of market dominance increases with its capital, deposits, and loan volume relative to its rivals (Tomak, 2013).

#### **2.1.2.8 Gross Domestic Product**

Strong economic conditions have a statistically significant impact on banks' willingness to give more private loans to businesses, as shown by GDP. A strong economy increases consumer demand for goods and services, which in turn boosts investment in all areas, increases per capita income, and increases savings. When combined, these elements influence banks to give out more personal loans. Guo and Stepanyan (2011) stated there

is a favorable correlation between domestic and international capital and credit expansion. Higher credit growth is a result of the robust economic expansion.

### **2.1.2.9 Consumer Price Index/Inflation Rate**

An expanding body of theoretical work explains the mechanisms via which even anticipated increases in inflation hinder the financial sector's capacity to deploy resources efficiently. More precisely, new theories highlight the role of informational asymmetries in credit markets and show how rising inflation rates negatively impact credit market frictions, which in turn negatively impacts the performance of the financial sector (banks and equity markets) and, ultimately, long-term real activity (Huybens & Smith 1998). These hypotheses are all characterized by an endogenous informational friction with varying degrees of intensity. Because of this characteristic, a rise in inflation reduces the actual rate of return on assets overall as well as on money. Credit market frictions are made worse by the projected decline in real returns. Credit is rationed as a result of these market frictions, and credit rationing gets worse as inflation increases. As a result, there are negative effects on capital and long-term investment, less loans are made by the banking sector, and resource allocation is less effective. As a result, there is a negative correlation between loan and advance and inflation rate increases.

### **2.1.3 Legal Provision Relating to Lending**

**1. Classifications of Loan and Advances:** With effect from FY 2078/79, banks would categorize loans and advances based on their ageing principal amounts. All loans and advances must fall into one of the following five categories, under NRB directives:

#### **Pass Loan**

Pass loans are those advances and loans whose installments (repayments) are either not due at all or are due within a month. We refer to these loans as performing loans.

#### **Watch List**

The loans and advances that fall under the pass loan category and have the aforementioned characteristics need to be added to a watch list.

- Payments for principal and interest are past due by longer than three months.

- Working capital loan and short term maturity period were temporarily extended, but not renewed on time.
- A loan from another bank or financial institution has been labeled as non-performing. (For the same Debtor)
- Regular loans (such as working capital or short-term loans) given to businesses and corporate entities that have had a consistent net worth decline over the previous two years.
- Projects that benefit from multibank financing but are not converted to consortium financing in accordance with Directive No. 2's Section 33.
- Loans and advances that show inadequate cash flow upon bank scrutiny and are placed on a watch list.

### **Sub-Standard Loan**

Sub-standard loans are defined as loans and advances with installment (repayment) terms longer than three months but shorter than six months.

### **Doubtful Loan**

Doubtful loans are those advances and loans whose installments (repayment) are due in less than a year but more than six months.

### **Bad Loan (Loss)**

If the installment (repayment) on a loan or advance is not due for over a year, the loan or advance must be deemed a poor loan (loss). Advances and loans classified as substandard, dubious, or loss are referred to as non-performing loans. The transfer of loans and advances from the low-risk to the high-risk categories is permissible, according to the bank management. Loans falling into the substandard category, for instance, can be classified as loss, and loans falling into the doubtful category, as loss. Advances and purchases of bulls are sometimes combined under the umbrella phrase "loan and advances."

**2. Additional Arrangement in Respect of Pass Loan:** Loans and loans that are completely backed by government securities, credit cards, gold, silver, fixed deposit receipts, and other assets fall under the "pass" category. Loans secured by other banks'

fixed deposit receipts will also be eligible for inclusion in the pass loan program. However, if government assets, NRB bonds, or fixed deposit receipts are used as collateral, the loan must be categorized using clauses 1 through 7. A working capital loan that is being renewed and has a one-year maturity duration is referred to as a pass loan. Loans and advances of a working capital type that have irregular interest rates should be categorized according to the length of the interest outstanding.

**3. Additional Arrangement in Respect of loss Loan:** Loans with any or all of the following inconsistencies will be labeled as "loss," even if they are not past due.

- There is insufficient security
- The borrower has been declared bankrupt; the borrower has fled or is nowhere to be found.
- The credit has not been used for the intended purpose; purchased or discounted bills are not realized within 90 days of the due date; non-fund based letters of credit and guarantees, etc., are not realized within 90 days of the date of conversion into fund based;
- The loan provided to the borrowers included in the Credit Information Center's (CIC) blacklist.
- The loan is not written off within ninety days of the past due date.
- The loan is provided to the borrowers who are not recovering.
- The auction of the collateral has been delayed for six months and may be subject to legal action.

**4. Additional Arrangements in Respects of Term Loan:**

Regarding term loans, the classification will be based on the past due time of past due installments and will be applied to the total amount owed.

**5. Prohibition to Recover Principal and Interest by Overdrawing the Current Account and Exceeding the Overdraft Limit:**

If the borrower has an extended overdraft capacity, they cannot recover principal and interest by overdrawing their current account or exceeding the overdraft limit. This agreement, however, must not be interpreted as making it impossible to debit the customers' account in order to recover the principle and interest. The overdrawn principal amount may also be included under the

outstanding loan and the loan may be reclassified by one step if the bank has a system in place for recovering principal and interest by debiting the customers' accounts. If recovery is made in this way and results in an overdraft that is not settled within a month, the overdrawn principal amount may also be included under the outstanding loan. Regarding interest recognition, it will follow the guidelines in Directive No. 4 regarding income recognition.

**6. Letter of Credit and Guarantees:** If a loan is converted into a fund-based liability and requires payment along with a letter of credit and guarantees, it will be considered a pass loan and will be paid back within 90 days of the fund-based conversion date. Such a loan will be considered a loss loan after 90 days.

**7. Rescheduling and Restructuring of the Loan:** The bank may reschedule or restructure the loans and advances if it is comfortable with the documented plan of action that the borrower has supplied. Loan paperwork should be supplied with the explicit rationale for any postponement or restructuring.

- In addition to a written plan of action for rescheduling or restructuring the loan, payment of at least 25% of the total accrued interest up to the date of rescheduling or restructuring should have been collected.
- If there is proof of adequate documents and collateral security relating to the loan.
- If the bank is confident in recovery of restructured loans and advances.

**8. Loan Loss Provisioning:** Based on the outstanding loans, advances, and bill purchases classified in accordance with these guidelines, the loan loss provisions will be given as follows:

Table 1

*Loan Loss Provision*

S.N.	Classification of Loan	Loan Loss Provision
1.	Pass	1%
2.	Watch List	5%
3.	Sub-standard	25%
4.	Doubtful	50%
5.	Loss	100%

Source: NRB Directives, 2022

## 2.2 Empirical Review

Malede (2014) investigated determinants of commercial banks' lending: Evidence from Ethiopian commercial banks. The main objective of the study was to validate the key factors influencing commercial bank lending in Ethiopia by utilizing panel data from eight different commercial banks between 2005 and 2011. It examined the correlation between a few factors that influence commercial bank lending, including bank size, credit risk, GDP, investment, deposit, interest rate, liquidity ratio, and cash needed reserve. For analysis, seven years' worth of financial data from eight carefully selected commercial banks were employed. To ascertain the effect of those predictor factors on commercial bank lending, ordinary least square (OLS) analysis was utilized. The findings imply that lending by commercial banks is significantly correlated with their size, credit risk, GDP, and liquidity ratio. On the other hand, during the research period, Ethiopian commercial bank lending is unaffected by deposit, investment, cash necessary reserve, and interest rate.

Bhattarai (2016) analyzed determinants of lending behaviour of Nepalese commercial banks. The purpose of this study was to examine the factors that influence commercial banks' lending practices in the setting of Nepal. Regression modeling has been used to examine the combined data from four commercial banks from 2007 to 2014. Loan advance (LOA) is the study's dependent variable, and the bank size, liquidity, investment portfolio, cash reserve ratio, and deposit to capital ratio are its independent factors. According to the regression analysis, bank size significantly influences loans and advances while the cash reserve ratio, investment portfolio, and liquidity ratio significantly influence banks' loan advances (LOA). According to the study's findings, the following factors significantly influence how commercial banks in Nepal lend money: bank size, liquidity, investment portfolio, and cash reserve ratio.

Poudel (2017) examined commercial bank credit behaviour in Nepal. This study examined the main factors influencing commercial bank lending in Nepal using panel data analysis of 104 observations from eight significant commercial banks that operated there between 2002–2003 and 2014–2015. The analysis confirmed that the following variables bank size, liquidity ratio, deposit to capital ratio, cash reserve ratio, and investment portfolio significantly enhance commercial bank credit in Nepal. Conversely, commercial bank credit is severely harmed by credit risk, which is determined by the

ratio of non-performing loans to total loans. Macroeconomic factors: the interbank interest rate has a negative major impact on Nepal's commercial bank lending, while the rate of inflation has a favorable impact. As a result, it's critical to assess the degree to which the macroeconomic and firm-specific variables influence the bank credit behavior of Nepal's commercial bank. Due to the greater volatility of demand deposits, banks with higher amounts of time deposits have higher loan-to-deposit ratios than do those with higher proportions of demand deposits. Eight banks were selected as a sample from among them by stratifying two that were held by the government or its main holdings, three that were in joint ventures with international banks, and three that were run entirely by the private sector. On the other hand, bank credit is severely negatively impacted by credit risk, which is measured as the percentage of non-performing loans to total loans. In terms of macroeconomic factors, Nepal's commercial bank lending is significantly impacted negatively by the interbank interest rate while positively by the rate of inflation.

Timsina (2017) investigated the determinants of commercial bank lending behavior in Nepal by using time series Ordinary Least Square regression approach for empirical analysis. The dependent variable in the model is the amount of private sector credit (pvct) provided by Nepalese commercial banks; the independent variables are the gross domestic product (gdp), interest rate (Ir), required cash reserve requirements ratio (crr), liquidity ratio (lr), inflation (inf), and exchange rate (exr) for the years 1975 through 2014. The results of the regression study showed that the banks' liquidity ratio and GDP had the most effects on how they lend money. The Granger Causality Test demonstrates that there is a unidirectional causal link between GDP and lending to the private sector. According to the study, GDP is a good indicator of the health of the economy, thus when making lending decisions, commercial banks should consider the macroeconomic conditions of the nation as a whole, as well as the elements that directly impact GDP and their liquidity ratio.

Adzis et al. (2018) investigated bank lending determinants: evidence from Malaysia commercial banks. This research used a sample of 27 banks and examined the macroeconomic and bank-specific factors that influence commercial bank lending in Malaysia between 2005 and 2014. The results, which make use of random effects estimation, show that, in Malaysia, commercial bank lending is positively influenced by



bank size and deposit amount, but lending activities are negatively impacted by liquidity. In terms of macroeconomic factors, the GDP, lending rate, and cash reserve requirement have no discernible effects on the lending activities of commercial banks in Malaysia, according to this study's findings. Furthermore, the results of this study also show that lending operations in Malaysia throughout the study period were not significantly impacted by the macroprudential policy measure that was put into place in 2010 to reduce the high level of household debt.

Bhattarai (2019) analyzed the determinants of lending operations among commercial banks in Nepal. The study aimed to investigate the impact of bank-specific attributes and pinpoint external variables that influence the lending practices of commercial banks in Nepal. To investigate determinants related to lending behavior in Nepal, secondary panel data from the leading ten commercial banks over a six-year period (2012/13-2017/18) was used. The estimation results revealed that the exchange rate, liquidity ratio, and interest rate spread all had a substantial impact on how Nepal's commercial banks lent money. The favorable impact of exchange rates suggests that Nepal's commercial banks are capable of fulfilling both short- and long-term obligations and have adequate understanding of the global market and commerce. Lending volumes among Nepal's commercial banks are positively and significantly impacted by the central economic policy's maintenance of inflation. The results also revealed a negative and large interest rate spread on the total amount of loans given to individuals and institutions. This suggests that banks greatly expand the amount of credit available to consumers when borrowing costs rise.

Diriba (2020) analyzed empirical investigation on determinants of lending behaviour: evidence from commercial banks in Ethiopia. This study investigated the variables influencing lending practices in Ethiopia's commercial banks between 2010 and 2017. Utilizing data from eleven Ethiopian commercial banks, the study made an effort to investigate the macroeconomic and bank-specific variables influencing lending practices. These macroeconomic variables included the GDP, lending, reserve requirement ratios, currency rates, and inflation rates; bank-specific variables comprised ownership, deposit, liquidity, and bank size ratios. The data were analyzed using panel data regression analysis and the fixed effect regression model. The data were given by the World Bank and the National Bank of Ethiopia. The results showed that, among bank-specific

variables, bank ownership and deposit ratio had a favorable and significant impact on the lending practices of the banks that were the subject of the study. However, the efficiency ratio, bank size, and liquidity ratio all have a statistically negligible negative impact on lending behavior. Additionally, the results demonstrate that macroeconomic variables such as the gross domestic product, loan rate, and exchange rate have been found to have a positive but statistically negligible impact on lending behavior. The findings pertaining to macroeconomic issues indicate that the reserve requirement ratio and inflation rate have a marginally negative impact on the lending practices of the banks that are the subject of the inquiry. Ultimately, the research demonstrated that there was a statistically significant difference in the lending practices of CBE and the other banks that were the subject of the study.

Bhattarai (2020) analyzed the determine the commercial banks' lending in Nepal. Secondary data from the balance panel were employed. Version 1.9.4 of the Gretl statistical program was used to analyze the data. While liquidity, investment portfolio, cash reserve ratio, bank size, GDP growth rate, and inflation rate were independent factors, the loan and advance accepted were the dependent variables. The findings indicate that the size of the bank, the cash reserve ratio, and the investment portfolio all significantly and favorably affect loans and advances. However, with loan and advance, the liquidity has a negative and statistically significant impact. The macroeconomic factors like inflation and the growth rate of the GDP are not very useful in determining loan and advance amounts. They came to the conclusion that the main factors influencing loans and advances were bank size, cash reserve ratio, investment portfolio, and liquidity.

Haritone and Mirie (2020) analyzed determinants of lending to small and medium enterprises by commercial banks in Kenya. The purpose of this study was to look at the variables that affect Kenyan commercial banks' lending choices to SMEs. Descriptive research methodology was employed in the study to achieve its objectives. 36 of the 43 commercial banks in Kenya had all of their data completely collected when the research performed a census of the banks. Multiple linear regression analysis was performed on the data using the Statistical Package for Social Studies, version 20. According to the study, bank size and liquidity have a considerable impact on lending to SMEs by Kenyan commercial banks, both favorably and adversely. However, credit risk and interest rates

do not have a significant impact on lending to SMEs by Kenyan commercial banks. The study suggests that in order to enhance the lending of Kenyan commercial banks to small and medium-sized enterprises (SMEs), policies that promote bank development had to be put into place.

Berhe (2020) analyzed determinants of commercial banks' lending behavior: case study for selected commercial banks in Ethiopia. The main objective of the research was to investigate the factors that influence the lending practices of a subset of Ethiopian commercial banks. A cross-sectional explanatory research design was employed in the study. The factors that influence commercial banks' lending practices are discussed in the study. Data from both qualitative and quantitative sources were used. The study made use of secondary data from the National Bank of Ethiopia's annual financial reports from 2011 to 2017 as well as a subset of the commercial banks' audited annual reports. The relationship between the dependent variable (lending behavior) and the independent variables (interest rate, capital adequacy ratio, liquidity ratio, asset quality, and volume of deposits) as well as the independent variables' respective powers of explanation for the dependent variable were examined in the study using correlational and regression analysis. The correlation results indicate a linear association between the lending behavior of the chosen commercial banks and the volumes of deposits, interest/credit rate, liquidity ratio, asset quality (AQ), and capital adequacy ratio (CAR). Additionally, the regression analysis showed that the variables Asset Quality, Credit Rate, and Liquidity Ratio (LR) all significantly affect lending behavior, while the variables Capital Adequacy Ratio and Deposit Volume have negligible effects on the lending practices of the chosen commercial banks.

Goet (2021) assessed effect of determinants of lending behavior on loan and advances in joint venture commercial banks in Nepal. This study examined the effects of macroeconomic and bank-specific variables on loans and advances (LNLA) of joint venture banks operating in Nepal, including total deposit (LNTD), cash reserve ratio (CRR), interest spread rate (ISR), and inflation rate (IR). Four of the seven joint venture banks' panel data (28 observations) have been used to evaluate the influence and relationship between the determinants of lending practices. Seven years' worth of secondary panel data (2013/2014–2019/2020) were utilised. The results of this investigation indicate a strong, positive association between LNLA and LNTD. There is

a substantial inverse relationship between LNLA and IR. According to this study, LNTD and IR significantly affect LNLA, however CRR and ISR have no discernible effect on LNLA.

Affandi et al. (2021) examined bank lending behavior: Evidence from Malaysian dual banking system. This study assessed the internal and external variables influencing bank lending practices in Malaysia's dual banking system. The largest factor influencing bank lending behavior in Malaysia between 2010 and 2018 was the size of the bank proxies measured by the logarithm of total assets, according to the final regression of 24 commercial and 15 Islamic banks using the pooled ordinary least square (POLS) technique. This suggests that larger banks are more varied and have a larger pool of money available for lending. Because banks require deposits in order to issue loans, the amount of deposits they receive has a big impact on bank lending. There will be more bank lending activities the more deposits that are received. Additionally, the data showed a substantial correlation between Malaysia's commercial and Islamic banks' lending practices and deposit volume (DEPO), GDP, and bank size (SIZE).

Akindutire (2021) investigated determinants of deposit money banks' lending behaviour to private sector of the economy in Nigeria (1986-2017). The study evaluated the factors that influence the deposit money bank's lending practices to Nigeria's private sector of the economy using yearly time series data spanning the years 1986 to 2017. The CBN Statistical Bulletin (2017) was the main source of secondary data. The estimate techniques used in this study were autoregressive distributed lag (ARDL), paired Granger causality test, and enhanced Dickey-Fuller test. It was observed that the variables in the series were integrated of difference order  $I(0)$  and  $I(1)$ , and that there was a high link between the lending behaviors of banks and the identified determinants. Furthermore, it was shown that while the factors fluctuate over time, the deposit volume and M2G influence bank lending behavior both now and in the future, but RSR, INF, and LDR impede lending to the private sector. The study also discovered a causal relationship between private sector credit and deposit volume. Thus, the study came to the conclusion that there is a substantial correlation between the private sector's bank lending behavior and its drivers.

Makanile and Pastory (2022) investigated determinants of lending behaviour of commercial banks in Tanzania. This study examined the variables influencing the loan decisions made by six Tanzanian commercial banks between 2015 and 2019 using a quantitative research approach. The data was taken from the annual reports of the six commercial banks. The results showed that there is a considerable correlation between lending and liquidity and capital deficits, but no statistically significant relationship between interest rates and management performance and lending. Therefore, strong restrictions should be developed to ensure that commercial banks grow and have more lending capability. Raising the liquidity ratio must be the banking industry's top objective if it hopes to further strengthen the banks' financial position. Furthermore, since different sectors have distinct risk profiles, commercial banks ought to be more creative in the loans they make. Finally, in order to strengthen the banks' capital conservation buffer which necessitates that banks accumulate additional buffers outside of times of stress management of commercial banks must implement capital growth plans.

Table 2

*Summary of Empirical Review*

S.N.	Date	Article	Writers	Objectives	Methodology	Findings
1	2014	Determinants of commercial banks' lending: Evidence from Ethiopian commercial banks.	Malede, M.	The main objective of the study was to evaluate the main determinants of commercial bank lending in Ethiopia.	This study used multiple regression analysis to analyze the data.	This study found that Bank size, credit risk, GDP and liquidity ratio have significant positive effect on lending. Then, investment portfolio, interest rate, reserve ratio and volume of deposit have insignificant positive impact on lending.
2	2016	Determinants of lending behaviour of Nepalese commercial banks.	Bhattarai, Y. R.	The main objective of the study was to determinants of commercial banks' lending behaviour in the Nepalese context.	This study used correlation and multiple regression analysis to analyze the data.	This study found that bank size has significant positive effect on loans and advances. However, liquidity ratio, investment portfolio and cash reserve ratio have significant negative effect on banks' loan advances (LOA).

3	2017	Commercial bank credit behaviour in Nepal.	Poudel, S. R.	This study examined the major indicators of commercial bank credit in Nepal	This study used descriptive analysis, correlation analysis and multiple regression analysis.	This study showed that bank size, liquidity ratio, deposit to capital ratio, cash reserve ratio and investment portfolio have the significant positive impact on commercial bank credit in Nepal. Contrarily, credit risk has the significant negative impact on commercial bank credit. Finally, rate of inflation has the significant positive impact on credit.
4	2017	Determinants of bank lending in Nepal.	Timsinan, N.	The main objective of this study was to analyze the determinants of commercial bank lending behavior in Nepal.	This study used multiple regression analysis to analyze the data.	This study revealed that GDP and total deposit has significant negative impact on lending. Then, inflation rate, interest rate, cash reserve ratio and liquidity ratio have significant negative impact on bank lending.
5	2018	Bank lending determinants: Evidence from Malaysia commercial banks.	Adzis, A. A., Sheng, L.E. & Bakar, J. A.	This study investigated the bank specific and macroeconomic determinants of commercial bank lending in Malaysia.	This study used multiple regression analysis to analyze the data.	This study found that LOGTA and TD have significant positive impact on lending. At the same time, NPL and LR has insignificant negative impact on lending and LIQ has significant negative impact on lending. Finally, GDP and cash reserve requirement (SRR) has insignificant positive impact on lending.
6	2019	Determinants of commercial banks' lending behavior in Nepal.	Bhattarai, B. P.	This study tried to analyze the impact of bank specific characteristics on banks' lending behavior in Nepal.	This study used descriptive analysis, correlation analysis and multiple regression analysis.	This study found that interest spread rate (ISR), cash reserve ratio have insignificant positive impact on lending. Then, exchange rate (ER) has significant positive impact on lending. Moreover, inflation rate (INF) has significant negative impact on

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7	2020	Empirical investigation on determinants of lending behaviour: Evidence from commercial banks in Ethiopia.	Diriba, G.	This study was carried out to investigating determinants to lending behaviour in commercial banks of Ethiopia	This study used multiple regression analysis to analyze the data.	lending. This study found that deposit ratio, bank ownership and exchange ratio have significant positive effect on lending. Then, Liquidity ratio, efficiency ratio, reserve ratio and inflation rate have insignificant negative impact on lending. Finally, bank size has significant negative impact on lending. iv. Bank lending rate and GDP have insignificant positive effect lending.
8	2020	Bank lending determinants: Evidence from Nepalese commercial banks.	Bhattarai, B. P.	The main purpose of the study to analyze the determinants of the commercial banks' lending.	This study used correlation and multiple regression analysis to analyze the data.	This study revealed LIQ has insignificant negative effect on lending and IP, CRR and SIZE has significant positive effect on lending Finally, GDPR and INF have insignificant negative effect on lending.
9	2020	Determinants of lending to small and medium enterprises by commercial banks in Kenya.	Haritone, S. D., & Mirie, M.	This study evaluated the determining factors that affect lending of SMEs commercial banks in Kenya.	The data collected was analyzed through the multiple linear regression using the Statistical Package for Social Studies version 20.	This study found that bank size has significant positive effect on lending but credit risk has insignificant negative effect on lending. Then, liquidity ratio has significant negative influence on lending whereas, interest rate has insignificant positive effect on lending.
10	2020	Determinants of commercial banks' lending behavior: Case study for selected commercial	Berhe, T. G.	The main objective of the study was to examine the determinants of commercial banks' lending behavior.	The study utilized correlational and regression analysis.	This study showed that LR has significant positive effect on lending. At the mean time, CR and AQ have significant negative impact on lending. Finally, CAR and VD have insignificant negative impact on

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		banks in Ethiopia.			lending.	
11	2021	Effect of determinants of lending behavior on loan and advances in joint venture commercial banks in Nepal.	Goet, J.	The main objective of the study was to analyze the bank specific and macroeconomic variables those effects bank lending.	This study used multiple regression analysis to fulfill the objectives.	This study shows that cash reserve ratio (CRR) has insignificant negative effect on lending. Then, interest rate spread has insignificant positive effect on lending. Moreover, Inflation rate has significant negative impact on lending but total deposit has significant positive impact on lending.
12		Bank lending behavior: Evidence from Malaysian dual banking system.	Affandi, S., Ja'afar, A. I., Ismail, F., & Shukur, N. A.	This study investigated the internal and external factors that influence bank lending behaviors in Malaysian's dual banking system.	This study used multiple regression analysis to analyze the data.	This study revealed that volume of deposit, gross domestic product and bank size have significant positive effect on lending. Further, inflation rate has insignificant negative influence on lending.
13	2021	Determinants of deposit money banks' lending behaviour to private sector of the economy in Nigeria.	Akindutire, T.	The study assessed the factors that determine the deposit money bank's lending behaviour to private sector of the economy in Nigeria.	This study used correlation and multiple regression analysis to analyze the data.	This study found that volume of deposit has insignificant positive effect on credit. Then, lending rate and reserve ratio have insignificant negative effect on credit. Moreover, Money supply to GDP has significant negative effect on credit but inflation has significant negative impact on credit.
14	2022	Determinants of lending behaviour of commercial banks in Tanzania.	Makanile, D., & Pastory, D.	The main objective of the study was to examine the determinants of the lending of six commercial banks in Tanzania from 2015 to 2019.	This study used descriptive analysis, correlation analysis and multiple regression analysis to analyze the data.	This study found that there was significant association of liquidity and CAR with lending whereas interest rate and management efficiency have no statistically significant influence on lending.

Source: Author's Construct



### **2.3 Research Gap**

It alludes to the discrepancy between earlier and current findings. First, there is a research gap in terms of time between this study and earlier ones. Although they have previously researched earlier eras, their study included the years 2021–2022. Subsequently, whereas earlier research likewise employed a limited time frame of no more than five years, this study encompassed ten years. None of the studies included control variables, and they did not support earlier international research suggesting that lending behavior of commercial banks is influenced by a variety of factors or determinants. This study attempted to apply the t-test and the multicollinearity test in addition to using descriptive, correlation, and multiple regression analyses that were not examined for data analysis. Furthermore, as the previous researchers did not include the three government-owned banks Agricultural Development Bank Limited, Rastriya Banijya Bank Limited, and Nepal Bank Limited these institutions have been included in this study. Consequently, the goal of this study is to close the research gap.

## **CHAPTER - III**

### **RESEARCH METHODOLOGY**

The procedures and methods used throughout every part of the investigation are described in the research methodology of this work. This chapter describes research design, nature and sources of data, and instrument of data collection, population and sample, and sampling design, method of analysis and research framework and definition of variables.

#### **3.1 Research Design**

A research design is a comprehensive plan, scheme, or program. Descriptive and explanatory research designs have been used in this study to address problems related to bank lending factors. While explanatory research designs look into the direction and strength of connections between the independent factors and the dependent variable, or bank lending, descriptive research designs analyze the pattern and status of lending and its determinants.

#### **3.2 Population and Sample, and Sampling Design**

Currently, there are 21 commercial banks operating in Nepal (till July, 2023). They constitute the population. Out of them, only three commercial banks are selected namely; Agricultural Development Bank Limited, Rastriya Banijya Bank Limited and Nepal Bank Limited for the study of the factor affecting of bank lending of commercial banks in Nepal on the basis of purposive sampling method. These commercial banks are government own banks and they are top in earning management at the present context. Moreover, these banks have good lending policy in last couple of years.

#### **3.2 Nature and Sources of Data, and Instrument of Data Collection**

The research uses the secondary data to accomplish its objectives. Statistics that have been previously collected or used by a different party and made public through journals, newspapers, magazines, annual reports, and other publications are known as secondary data. The yearly reports of the pertinent financial firms serve as the study's main source of secondary data. A number of other data sources, including newspapers, periodicals,

economic journals, NRB reports, and study plan documents, have been consulted in addition to the annual reports.

### **3.4 Method of Analysis**

It is easy to carry out the calculations and ascertain the outcomes thanks to the arrangement of the data. A variety of ratios, means, standard deviations, correlations, regression analysis, and hypothesis testing are utilized to assess the data and their numerical values. Statistics may be divided into two basic categories: descriptive statistics and inferential statistics. Among these are a number of the instruments used in this investigation.

#### **3.4.1 Descriptive Statistics**

##### **Arithmetic mean**

The arithmetic mean of a set of data is found by dividing the total by the total number of observations. In this case, each element is equally important. Based on the analytical needs, the simple arithmetic mean is used in this inquiry.

##### **Standard deviation**

The average deviation of a collection of data from its arithmetic mean, which may be calculated as the positive square root of the variance, serves as a measure of how unpredictable a random variable is. It is the most significant and practical measure of dispersion as it possesses all the necessary variance properties and the benefit of being computed in the same units as the original data. It is commonly represented by the lowercase Greek letter sigma ( $\sigma$ ).

#### **3.4.2 Inferential Statistics**

##### **Correlation of coefficient (r)**

Correlation is one statistical method for analyzing the relationship between two variables. The number  $r$ , also referred to as the linear correlation coefficient, indicates the strength and direction of a linear link between two variables. The Pearson product moment correlation coefficient is another common name for the linear correlation coefficient, which honors Karl Pearson, the man who first discovered it. Two or more variables are said to be correlated when a change in one variable's value appears to be related to or connected to a change in another variable. In cases when the relationship is

quantitative in nature, correlation analysis is an appropriate statistical tool for finding a relationship and distilling it into a brief formula.

### **Multiple Regressions Analysis**

Regression analysis is a collection of statistical procedures used in statistical modeling to estimate the connections between variables. When the focus is on the relationship between a dependent variable (ROA and ROE) and an independent variable (i.e., liquid assets to total assets ratio, non-performing loan ratio, capital adequacy ratio, bank size, GDP, and inflation of the banks), it includes a variety of modeling and analysis techniques. More precisely, regression analysis clarifies how, when any one of the independent variables is changed while the other independent variables are kept constant, the usual value of the dependent variable also known as the "criterion variable" changes.

### **Model Specification**

The model used in the study makes the assumption that both macro-level and bank-specific factors affect bank lending. As a result, the link and influence of the research variables have been examined using the model that follows.

$$\text{Model: } LA = \beta_0 + \beta_1 LIQ_{it} + \beta_2 CAR_{it} + \beta_3 LIR_{it} + \beta_4 SIZE_{it} + \beta_5 INF_{it} + e_{it}$$

Where:

$LA_{it}$  = Loan and advance of bank  $i^{\text{th}}$  for the time period  $t$

$LIQ_{it}$  = Liquidity ratio of bank  $i^{\text{th}}$  for the time period  $t$

$CAR_{it}$  = Capital adequacy ratio of bank  $i^{\text{th}}$  for the time period  $t$

$LIR_{it}$  = Lending interest rate of bank  $i^{\text{th}}$  for the time period  $t$

$SIZE_{it}$  = Bank size or total assets of bank  $i^{\text{th}}$  for the time period  $t$

$INF_{it}$  = Inflation rate  $i^{\text{th}}$  for the time period  $t$

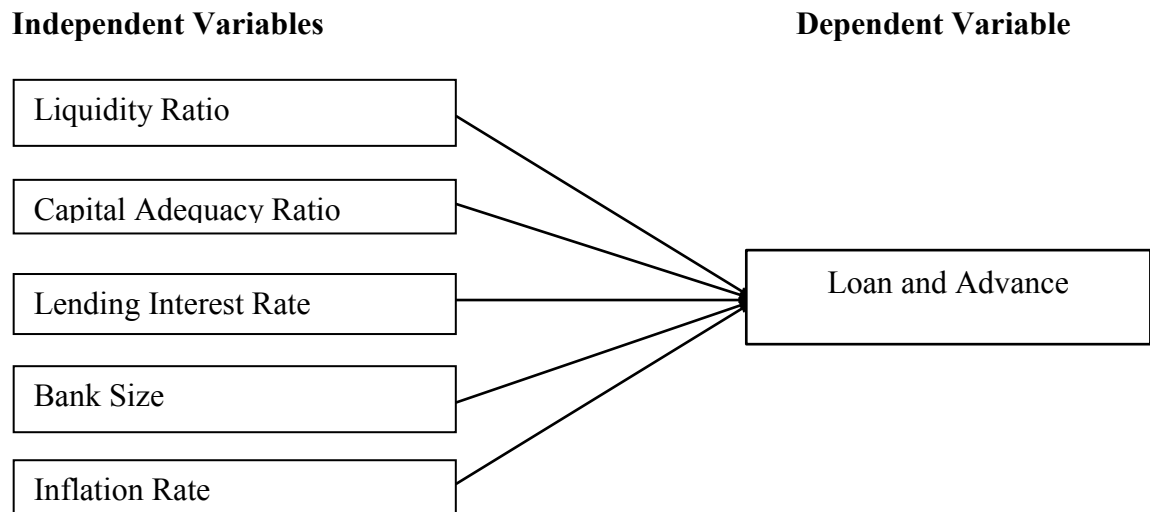
$\beta_0$  = The intercept (constant)

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ , = The slope which represents the degree with which lending changes as the independent variable changes by one unit variable.

$e$  = error component

### **3.5 Research Framework and Definition of Variables**

The researcher develops the following research framework for the study based on reviews of the theoretical and empirical literature.



*Source: Timsina (2017); Adzis et al. (2018); Bhattarai (2019); Haritone and Mirie (2020); Berhe (2020); Mekanile and Pastory (2022).*

*Figure 1* Research Framework of the Study

### **Dependent Variable**

The analysis of the factors influencing commercial banks' bank lending is a crucial component of the study. As a result, the dependent variable is the loan and advance or its proxies.

### **Loans and Advances**

The lending portion of deposits made by commercial banks in the form of various credit schemes is used to explain loans and advances. Furthermore, a loan is the sum of money given by a lender to a borrower for a certain purpose, such as building construction, meeting capital needs, buying machinery, and so on, and for a predetermined amount of time. Generally speaking, banks and other financial entities give loans. It's a commitment that must be fulfilled after the allotted time has passed. The measurement for the dependent variable is the loan and advance natural logarithm. This was taken from the balance sheet's assets section for the relevant banks. The some previous studies that were used loan and advance as proxy for the lending behavior were Bhattarai (2016), Alkhazaleh (2017), Adzis et al. (2018), Bhattarai (2019), and Isa et al. (2019).

### **Independent Variables**

To analyze factor affecting bank lending, as independent variables liquidity ratio (LIQ), lending interest rate (LIR), capital adequacy ratio (CAR), bank size (SIZE) and inflation rate (INF) have been considered as proxies for bank lending.

### **Liquidity (LIQ)**

The proxy for liquidity has been the ratio of liquid assets to total assets. The total liquid asset is the sum of the cash balance, cash balance with NRB, bank balance, and money at call. The source of landing for the liquidity is measured. The bank's lending has expanded along with its liquidity. Thus, the primary determinant of lending behavior is liquidity. The studies has support in this line were Bhattarai (2016); Timsina (2017); Alkhazaleh (2017); Bhattarai (2020). But the study was found the negative relation with lending was Adzis et al. (2018). The present study has expected negative relation with lending.

### **Capital Adequacy Ratio**

A specialized measure called the capital adequacy ratio (CAR) is used by banks to evaluate the adequacy of their capital in relation to their risk exposures. Assessing a bank's capital position in relation to its exposures to credit, operational, and market risk is the aim of the ratio. Since the Basel Capital Accord came into effect in 1988, a lot of assessments have been done on the impact of a bank's capital on its lending; nonetheless, the empirical research from Western countries has not been thorough in this regard. It will be measured using the equity capital to total assets ratio. In this case, it is expected that banks would have enough capital. This implies that they must have a sufficient number of easily convertible assets to cash in order to meet their current and future obligations. Rababah (2015) used pooled regression analysis to find that capital had no appreciable effect on Jordanian commercial banks' lending practices. However, the way commercial banks lend money is greatly and favorably impacted by capital sufficiency.

### **Lending Interest Rate**

One of the most crucial considerations for both the borrower and the lending institution when making a loan choice is loan pricing, or interest rate. It is the interest rate that the bank or lender has decided to charge the borrowing unit. The cost of acquiring money through deposits, owner contributions (equity) and/or financial markets, operational

expenses, profit margin, and risk premium which offsets the higher risk are all primarily included in this rate. The rate at which loans are made will have an impact on the expansion of bank lending. The average yearly lending rate of banks is used to calculate it (Malede, 2014). *Ceteris paribus*, there will be less demand for loans when lending rates rise, and vice versa. It was therefore expected that it would have a negative relationship with advances and loans.

### **Bank Size**

The best assumption for bank size is the natural logarithm of total assets. The size of the bank influences loans and advances favorably. A large bank will have a significant loan and advance volume. The size of a bank is used to gauge its capacity to lend money since larger banks may benefit from economies of scale, which lowers information and production costs and hence indirectly facilitates bank lending. The past studies in the same line were Bhattarai (2020), Adzis et al. (2018) concluded that bank size had significant positive effect on lending.

### **Inflation Rate (INF)**

Inflation is the rate of increase in the average price of a selected basket of goods and services over time in an economy. It may be measured. It is the continuous rise in prices overall to the point when a unit of currency loses value relative to earlier periods. A common way to report inflation is as a percentage, which indicates how much the buying power of a nation's currency has declined. When prices rise, a unit of money loses value because it can buy fewer goods and services. This decline in buying power affects the population's overall cost of living and eventually slows down economic growth. Analysts generally agree that persistent inflation happens when a country's money supply expands faster than its GDP.

## CHAPTER - IV

### RESULTS AND DISCUSSION

This chapter discusses and compares the pertinent facts and information on the factors influencing bank lending in Nepal's commercial banks while keeping the study's goal in mind. First, a study of the commercial banks' liquidity is conducted. Using the statistical tools discussed in the chapter, the impact of various factors on lending and the relationship between bank lending and other important variables are analyzed in the second part of the chapter. The third section contains a hypothetical analysis.

#### 4.1 Results

This section use statistical analytical methods, including multiple regression analysis, correlation analysis, and descriptive statistics, to analyze the factors influencing bank lending.

##### 4.1.1 Descriptive Statistics of Variables

Table 3 displays the descriptive statistics for the variables utilized in the investigation. Together with other independent factors like the cash reserve ratio, capital adequacy ratio, lending interest rate, bank size, and inflation rate, the result demonstrates the minimum and maximum lending measure in terms of loan and advance.

Table 3

*Descriptive Statistics of Variable of Sample Banks*

Variables	N	Minimum	Maximum	Mean	Std. Dev.
LIQ	30	4.33	20.33	11.3260	4.38638
CAR	30	-0.30	19.26	11.1903	5.84191
LIR	30	6.99	13.93	10.5937	1.97114
LSIZE	30	4.85	5.52	5.1748	0.18802
INF	30	3.60	9.93	6.5510	2.31898
LLA	30	4.55	5.36	4.9594	0.21540

Source: Appendix –II

Table 3 shows the descriptive statistics of dependent and independent variables used in the study. The first independent variable, the liquidity ratio, has an average of 11.3260 percent and a standard deviation of 4.38638 during the span of the research period, with



a high of 20.33 percent and a low of positive 4.33 percent. Since shareholder equity serves as a safety net against adversity, the second independent variable, CAR, reveals the level of depositor confidence. Thus, a higher capital ratio is ideal. The range of the CAR was -0.30 to 19.26 percent, respectively. The average CAR is 11.1903 percent, while the variance is small at 5.84191.

At the same time, the lending interest rate (LIR) has a range from 6.99 to 13.93 and mean of 10.5937 with the standard deviation of 1.97114. Likewise, the banks size shows that this varies from a minimum of 4.85 to a maximum of 5.52 with an average of 5.1748 percent and standard deviation of 0.18802. At last, inflation rate (INF) has average of 6.5510 percent with the standard deviation of 2.31898 and the minimum and maximum range from 4.55 to 5.36 percent.

The dependent variable, or natural logarithm loan and advance, has a maximum lending of 5.36 percent and a minimum lending of 4.29 percent over the research period. The average lending is 4.9594 with a standard deviation of 0.21540.

#### **4.1.2 Correlation Analysis**

A correlation matrix is a table that displays correlation coefficients between variables. Each table cell shows the correlation between two matched variables. A correlation matrix is a useful tool for summarizing data. This provides us with a brief summary of the variables that exhibit varying degrees of importance and correlation. The absence of a linear relationship between the two variables is indicated by a correlation value of 0. A perfect positive relationship is represented by a correlation coefficient of +1, and a perfect negative relationship is represented by a correlation coefficient of -1. Table 4 displays the correlation matrix as follows.

Table 4

*Pearson Correlation Coefficients of Study Variables*

	LIQ	CAR	LIR	LSIZE	INF	LLA
LIQ	1					
CAR	-.568**	1				
LIR	-.094	.555**	1			
LSIZE	-.525**	.176	-.570**	1		
INF	.490**	-.424*	.191	-.619**	1	
LLA	-.617**	.370*	-.412*	.964**	-.673**	1

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

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

Source: Appendix-III

Table 4 shows the correlation analysis between both dependent and independent variables using correlation coefficient matrix. The correlation test shows that liquidity ratio (LIQ) has significant negative relation with loan and advance (LLA) in 5 percent level of significance. At the same time, capital adequacy ratio has significant positive relation with lending or loan and advance (LLA). Then, there is significant negative correlation between lending interest rate and loan and advance. Likewise, bank size has significant positive relationship with loan and advance. Finally, inflation rate has significant negative relationship with loan and advance.

#### 4.1.3 Regression Analysis

Coefficient analysis employs two or more independent variables to estimate the values of dependent variables, as opposed to ordinary regression analysis, which uses one independent variable to do so. Knowing how a variable moves in relation to other variables is made easier with the use of multiple regression analysis. The theoretical statement of the model states that the loan and advance would depend on the lending interest rate, capital adequacy ratio, bank size or total assets, liquidity ratio, and inflation rate in order to assess the relationship between components and lending. The following formulation of the theoretical claims mentioned above is possible:

Table 5

*Model Summary*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.985 <sup>a</sup>	.971	.965	.04021

a. Predictors: (Constant), INF, LIR, LIQ, CAR, LSIZE

b. Dependent Variable: LLA

Source: Appendix-IV

R<sup>2</sup> measures the model's overall fitness and indicates that 97.10% of the variation in bank lending can be explained by it. 96.50 percent of the observed variability in loan and advance (lending) can be explained by fluctuations in the independent variables, according to the models' R adjusted value of 0.965. A substantial degree of connection between the variables under examination is suggested by the study's R value of 0.985. This implies that the loan and advance were significantly impacted by the independent factors. The standard error of estimate has a perfect correlation with regression analysis because of its extremely small value.

Table 6

*Analysis of Variance (ANOVA)*

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	1.307	5	.261	161.627	.000 <sup>b</sup>
Residual	.039	24	.002		
Total	1.345	29			

a. Dependent Variable: LLA

b. Predictors: (Constant), INF, LIR, LIQ, CAR, LSIZE

Source: Appendix-IV

The influence of dependent factors may be best explained by the maximum number of possible combinations of predictor variables, according to an ANOVA analysis (F-value). The results show how important the loan and advance indication are. The F-values of 161.627 ( $p = 0.000 < 0.05$ ) for the LLA proxy variables INF, LIR, LIQ, CAR, and LSIZE clearly show that the independent factors and the dependent variable, loan and advance, have a significant association.

Table 7

*Multiple Regression Equation of Loan and Advance on all Predictor Variables*

Variables	Coefficients	t-statistics	p-value	Collinearity Statistics	
				Tolerance	VIF
(Constant)	-.492	-.984	.335		
LIQ	-.001	-.468	.644	.467	2.144
CAR	.007	2.768	.011	.278	3.592
LIR	.001	.117	.907	.216	4.639
LSIZE	1.042	12.692	.000	.234	4.277
INF	-.002	-.478	.637	.502	1.991

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

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

Source: Appendix-IV

Table 7 presents the regression coefficient of independent variables cash reserve ratio, capital adequacy ratio, interest spread rate, bank size or total assets and inflation rate of commercial banks and the intercept value of dependent variable LLA. It shows that tolerance values were above 0.1 and VIF below 10. That's why, there is no multicollinearity in the model. For LIQ, the regression coefficient ( $\beta$ ) is -0.001. The data suggests that a one percent increase in LIQ would result in a -0.001 percent decrease in LLA. Additionally, the p value of LIQ, which is 0.644, indicates that the data is statistically insignificant at the five percent significance level. Thus, LIQ's detrimental impact on Nepal's commercial banks' LLA is negligible. For CAR, the regression coefficient ( $\beta$ ) is 0.007. The data suggests that a one percent increase in the capital adequacy ratio (CAR) would result in a 0.007 percent increase in LLA. Furthermore, the CAR's p value of 0.011 indicates statistical significance at the five percent significance level. Thus, CAR has a noteworthy beneficial impact on LLA.

Likewise, the lending interest rate (LIR) has a coefficient of regression ( $\beta$ ) = 0.001. The data suggests that a one percent rise in LIR would result in a 0.001 percent increase. Additionally, the LIR's p value of 0.907 indicates that the data is statistically insignificant at the five percent significance level. Therefore, LIR has a negligible positive effect on Nepal's commercial banks' LLA. Concurrently, the bank size (LSIZE) has a coefficient of regression ( $\beta$ ) of 1.042. The data suggests that a one percent increase in LSIZE would result in a 1.042 percent rise in LLA. Additionally, the p value of 0.000 for LSIZE demonstrates statistical significance at the five percent significance level. This means bank size has significant positive impact on LLA of sample commercial banks.

Ultimately, for INF, the coefficient of regression ( $\beta$ ) is -0.002. Loans and advances would drop by -0.002 percent if INF grew by 1%, according to this data. The p value of INF, which is 0.637, suggests that this relationship is statistically insignificant at the five percent significance level. Because of this, the INF's detrimental impact on the LLA of Nepal's commercial banks is minor.

## 4.2 Discussion

The main purpose of this research is to assess the lending criteria used by Nepalese private commercial banks. Three variables/factors particular to banks and two macroeconomic factors were considered in order to meet the study's goals. The macroeconomic variables lending interest rate and inflation rate are among the bank-specific variables, along with the liquidity ratio, capital adequacy ratio, bank size, and total assets. The secondary data is used by the research to achieve its objectives. Panel data from three government-owned commercial banks in Nepal that have been in operation for 10 years from 2012–13 to 2021/22 was used for the study's sample. The primary source of data for this study is secondary data, which is found in the corresponding banks' annual reports. In addition to the annual reports, the study has also drawn information from a variety of other sources, including newspapers, magazines, economic journals, NRB reports, and so on.

In this study, the correlation analysis reveals that there is significant negative relationship between liquidity ratio and loan and advance (LLA) in 5 percent level of significance. This finding is similar with the prior study of Bhattarai (2020) concluded that liquidity ratio has negative relationship with loan and advance but opposite to the finding of Berhe (2020) found that liquidity ratio has positive relationship with loan and advance. Then, capital adequacy ratio has significant positive relation with lending or loan and advance (LLA). This is consistent with the findings of Bhattarai (2019) but opposite to the findings of Berhe (2020). At the meantime, there is significant negative correlation between lending interest rate and loan and advance. This is consistent with the findings of Berhe (2020). Likewise, bank size has significant positive relationship with loan and advance. This finding is similar with the findings of Bhattarai (2020); Affandi et al. (2021); Haritone and Mirie (2020). Moreover, there is significant negative relationship with loan and advance. This is consistent with the previous study of Bhattarai (2019); Bhattarai (2020); Goet (2021); Affandi et al. (2021).

The multiple regression analysis shows that liquidity ratio has significant negative impact on LLA in Nepalese commercial banks. This result is line with the prior study of Timsina (2017); Bhattarai (2020); Adzis et al. (2020). However, it is inconsistent with the findings of Berhe (2020) found that liquidity had positive effect on lending. CAR has a positive coefficient of regression. It shows that LLA increased if CAR increased, and that this relationship is statistically significant at the five percent significance level. Thus, CAR has a significant positive effect on LLA which is inconsistent with the previous study of Berhe (2020). At the same time, LIR has insignificant positive impact on LLA of commercial banks in Nepal. This findings is similar with the prior study of Diriba (2020); Haritone and Mirie (2020) but opposite to the finding of Berhe (2020); Adzis et al. (2020); Akindutire (2021). At the same time, bank size has significant positive impact on LLA of sample commercial banks. This is consistent with the findings of Melede (2014); Bhattarai (2020); Haritone and Mirie (2020); Affandi et al. (2021). But it is not consistent with the finding of Diriba (2020). Further, inflation rate has insignificant negative effect on loan and advance in Nepalese commercial banks which is similar with the previous literature of Bhattarai (2019); Bhattarai (2020); Diriba (2020).

## CHAPTER – V

### SUMMARY AND CONCLUSION

#### 5.1 Summary

The following are common factors that impact bank lending: type of bank; capital base; deposit base; deposit density; interest rate; exchange rate; inflation; GDP; investment portfolio; liquidity; monetary and fiscal phenomena; internal bank policies; periodic credit guidelines from the regulatory body; and other non-economic factors. Demand-side and supply-side factors have an impact on bank lending practices. The main focus of this study is supply-side variables. Credit management must be effective if banks are to balance their primary goals of liquidity, profitability, and solvency. Since credit accounts for a significant amount of a bank's assets, it is essential to do research on the variables that affect lending behavior since Nepal's commercial banks must be able to manage these massive assets in terms of advances and loans. The research loan and advance have been impacted by a number of macroeconomic and bank-specific factors, such as the bank's size, lending interest rate, inflation rate, and liquidity ratio.

This study has raised the different research questions which are what is the position of loan and advance of the commercial banks in Nepal, what is the relationship between determinants (liquidity ratio, capital adequacy ratio, lending interest rate, bank size and inflation rate) and loan and advance of commercial banks in Nepal and what is the impact of liquidity ratio, capital adequacy ratio, lending interest rate, bank size and inflation rate on lending of commercial banks in Nepal. However, the main purpose of the study is to evaluate the factor affecting bank lending of commercial banks in Nepal. The other specific objectives are to analyze the position of loan and advance of the commercial banks in Nepal, to examine the relationship between determinants (liquidity ratio, capital adequacy ratio, lending interest rate, bank size and inflation rate) and loan and advance of commercial banks in Nepal and to evaluate the impact of liquidity ratio, capital adequacy ratio, lending interest rate, bank size and inflation rate on lending of commercial banks in Nepal.

Literature review means the literature that is available in concerned subject as to my knowledge, research work and relevant study on this topic, review of journals, articles

and dissertation performed previously. It has been divided theoretical review and empirical review. As regards research methodology, This study employed descriptive and causal research design. Descriptive research design is used for analyzing position of lending whereas causal research design is followed to analyze the impact of different factors on lending of banks. Then, this study based on secondary data which are taken from financial annual reports of respective banks, journals and articles as well as websites. There are 21 commercial banks in Nepal (till July, 2023). They represent the population of the study among them three government commercial banks have been selected as sample for the present study. To evaluate the study, both bank specific factors and macroeconomic factors and its impact on lending or loan and advance, computed ratios for three commercial banks for ten consecutive years .i.e. from 2012/13 to 2021/22 were collected from an audited financials report of commercial banks were collected for the same years. This study used descriptive analysis, correlation and multiple regression analysis by using SPSS version 26.

This study found that Nepalese government own banks have good lending position. Bank lending always depends upon different factors such as cash reserve ratio, capital adequacy ratio, lending interest rate, bank size or total assets and inflation rate which are the major factors of commercial banks. The correlation analysis reveals that liquidity ratio and lending interest rate have significant negative relation with loan and advance (LLA) of government banks. At the same time, capital adequacy ratio and banks size have significant positive relation with lending or loan and advance (LLA). In addition, inflation rate has significant negative relationship with bank lending. At the meantime, the multiple regression reveals that liquidity ratio and inflation rate have insignificant negative impact on lending of government own commercial banks in Nepal. However, capital adequacy ratio and bank size have significant positive effect of bank lending. Moreover, lending interest rate has insignificant positive impact on banking lending. So, it can be concluded that capital adequacy ratio and bank size has significant and major factors of lending in Nepalese commercial banks.

## **5.2 Conclusion**

The first objective of the study is to analyze the position of loan and advance of the commercial banks in Nepal and found that the average loan and advance is high means that the more money the commercial has loaned out and generates more interest income



provided the loans are to borrowers but there is low variation found in loan and advance or lending of the sample banks since the standard deviation is low. So, it can be concluded that there is good loan and advance of government banks in Nepal.

The second objective is to examine the relationship between determinants (liquidity ratio, capital adequacy ratio, lending interest rate, bank size and inflation rate) and loan and advance of commercial banks in Nepal and found that liquidity, lending interest rate and inflation have significant negative relationship with lending. However, capital adequacy and bank size have significant positive association with lending of government banks. So, it can be concluded that all the factors have strong relationship with lending of government banks in Nepal.

The third or last objective is to evaluate the impact of liquidity ratio, capital adequacy ratio, lending interest rate, bank size and inflation rate on lending of commercial banks in Nepal and found that liquidity ratio and inflation rate had insignificant negative effect on lending of government own commercial banks in Nepal whereas capital adequacy ratio and bank size have statistical significant positive effect of bank lending. In addition, lending interest rate has insignificant positive effect on lending or loan or advance. So, it can be tat capital adequacy ratio and bank sizes are the major factors of lending because it has significant impact.

### **5.3 Implications**

Based on the summary and conclusions of the research the following implications were given:

- This study found that cash reserve ratio, capital adequacy ratio and bank size or total assets) have significantly effect on bank lending whereas, liquidity ratio, lending interest rate and inflation rate on lending insignificantly. This finding so signals to regulators and bank management to create policies that work, to guarantee that commercial banks expand, and to grant greater credit to their clients. The management of commercial banks should also make every effort to strike a balance when determining loan prices.
- Based on the study, taking into account the many internal and external factors affecting banks and how these aspects affect the lending of banks. Therefore, it

offers all relevant players in the area the chance to learn more about the factors that influence the lending decisions made by commercial banks in Nepal.

- The conclusions of the investigation are helpful and important for helping commercial banks create operational procedures that will allow them to produce profits over the long term.
- This study can provide some of the most recent information, data, and challenges related to lending. For this reason, bankers, stockholders, and depositors should find this study important.
- Additionally, the study served as a reference for other academics and researchers working in comparable fields as well as an academic experience for the researcher.