LENDING PRACTICES OF DEVELOPMENT BANK IN NEPAL

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CERTIFICATION OF AUTHORSHIP

I hereby corroborate that I have researched and submitted the final draft of dissertation entitled **"Lending Practices of Development Bank in 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 this dissertation.

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REPORT OF RESEARCH COMMITTEE

Mr. Bashu Bist has defended research proposal entitled **"Lending Practices of Development Bank in Nepal"**. successfully. The research committee has registered the dissertation for further progress. It is recommended to carry out the work as per suggestions and guidance of supervisor Dr. Pitri Raj Adhikari submit the dissertation for evaluation and viva-voce examination.

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APPROVAL SHEET

We, the undersigned, have examined the dissertation entitled **"Lending Practices of Development Bank in Nepal"** presented by Bashu Bist 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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Bashu Bist

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ABBREVIATIONS

NRB	Nepal Rastra Bank
GDP	Gross Domestic Product
CCR	Cash Reserve Ratio
F/Y	Fiscal Year
CIC	Credit Information Center
OLS	Ordinary Least Squares
CAR	Capital Adequacy Ratio
M2G	Money Supply to GDP
CV	Coefficient of Variation
SPSS	Statistical Package for Social Studies
SD	Standard Deviation
CV	Coefficient of Variation
SPSS	Statistical Package for Social Studies
SD	Standard Deviation

ABSTRACT

This thesis investigates the lending behavior of development banks in Nepal, focusing on Garima Bikas Bank, Muktinath Bikas Bank, and Shine Resunga Development Bank from fiscal year 2070 to 2080. The study aims to identify and analyze the key factors influencing lending activities, including deposits, investments, borrowings, and net incomes. Employing both descriptive and inferential statistics, the research utilizes data from annual financial reports and secondary sources to explore patterns and correlations among the variables.

The findings indicate that deposits have a significant positive impact on lending, suggesting that higher deposit volumes enhance the banks' capacity to extend credit. Investments, on the other hand, show a slight negative effect on lending, highlighting the potential trade-off between resource allocation for investments and loan disbursements. Net income positively correlates with lending activities, underscoring the role of profitability in expanding credit services. Borrowings, however, exhibit an insignificant influence on lending, except during specific periods such as the COVID-19 pandemic.

Keywords: *Independent Variable: Deposit, Investment , Borrowing, Net Profit Net Loss*
Dependent Variable: Landing Behavior (Loans)

CHAPTER I

INTRODUCTION

1.1 Background of the Study

Development banks' lending services significantly influence their clients' financial goals over short, medium, and long-term horizons. These banks provide loans to individuals, businesses, and governments, adhering to established regulations. Customers use these loans for diverse business purposes, which generally promotes national economic growth (Olokoyo, 2011). Banks serve as intermediaries in the financial transmission process, and the importance of transferring funds from surplus to deficit spending units in fostering growth in emerging economies cannot be overstated (Alhassan et al., 2013). Given that lending is banks' primary income source and carries substantial risk, they must carefully assess various factors influencing their lending policies.

Bank financing has generated long-term revenue streams and liquidity (Timsina, 2017). Policies on bank lending have enhanced understanding of sustainable environments and economic growth in emerging countries (Alkhazaleh, 2017). The capital provided by development banks has significantly benefited private homes, businesses, and the government. Adequate funding is essential for investment activity, business expansion, and industrial development, as without it, these activities would be unfeasible, potentially leading to economic collapse. Given that lending constitutes the majority of development banks' income, it is evident that lending is their principal business activity (Isa et al., 2019).

Interest from loans, which make up the majority of an institution's assets, is typically its main income source. These loans, which carry significant risk, greatly impact a bank's profitability, liquidity, and solvency. A bank's credit quality reflects its strength, stability, and the level of risk borne by its depositors and creditors. Poor loan portfolio management is a key factor in bank failures and liquidity issues worldwide. While a sharp increase in lending can stimulate investment and economic activity, it can also compromise the financial system's integrity by heightening prudential risks both locally and on a larger scale (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 development banks play a vital role in distributing funds and promoting savings, making them essential for economic development. In fulfilling these duties, banks must acknowledge their capacity, reach, and opportunities to raise funds and invest them successfully. However, numerous factors influence the lending decisions of development banks. These include the prevailing interest rate, deposit levels, the volume of foreign and domestic investment, the bank's liquidity ratio, reputation, and public recognition, among others.

Mitiku (2014), Bhattarai (2020), and Timsina (2017) identified deposit volume, interest rates, GDP, and cash reserve requirements as the primary factors influencing the lending behavior of development banks in Nepal. Despite some conflicting conclusions in the study, analyzing these factors is crucial for Nepal's development banks to effectively manage their loan disbursement. A researcher in this field aims to explore the inconsistent loan criteria among Nepalese development banks. Since loan distribution significantly impacts the financial sector in developing countries like Nepal, understanding these dynamics is vital. This study provides banks and regulators with insights to maintain control over loan distribution, ensuring operational security and economic stability. Thus, the objective of this research is to investigate the loan-making practices of Nepal's development banks.

1.2 Problem Statement

Development banks play a pivotal role in fostering economic growth and development across various sectors. Primarily, they provide long-term financing for infrastructure projects, industrial ventures, and other large-scale initiatives that require substantial capital investment. By supporting the establishment and expansion of industries, these banks contribute to industrial growth and offer financial assistance, technical expertise, and advisory services to both new and existing enterprises.

Additionally, development banks focus on supporting small and medium enterprises (SMEs), providing tailored financial products and services that foster entrepreneurship, innovation, and job creation. Their role in facilitating economic development is evident as they invest in diverse sectors, such as agriculture, manufacturing, and services, thereby promoting regional development and reducing urban-rural disparities (Kaaya & Pastory, 2013).

The lending practices of development banks are influenced by a range of internal and external factors. External influences include general macroeconomic events, various regulatory bodies within the financial sector, and actions taken by national (central) banks (Richard & Okoye, 2014). Analyzing these lending practices is crucial for many stakeholders. Numerous studies globally have investigated the factors affecting the lending behavior of development banks.

Since the majority of a development 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 development 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 develpment banks (Alkhazaleh, 2017). Malede (2014) found a significant relationship between deposits, size, credit risk, and liquidity ratio and the lending practices of development 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 usually consider various factors, including the composition of the target borrower base, the overall economic condition, and the volume of loans and advances to be issued (Olokoyo, 2011). Factors influencing the lending practices of development banks include lending/interest rates, deposit volumes, asset quality, reserve ratios, investment portfolios, annual average local currency to dollar exchange rates, liquidity ratios, portfolio theory, and capital adequacy (Olumuyiwa et al., 2012; Onyango, 2018). Low interest rates encourage borrowing, prompting commercial banks to lend more money, and vice versa.

Olokoyo (2011) suggested that banks should strategically manage deposits to optimize multiplier effects and achieve their financial goals, indicating that increased deposit growth is not necessarily required for the overall sustainability of development banks. Previous studies have identified factors influencing commercial banks' lending decisions worldwide (Onyango, 2018), emphasizing the need for further research in this area, including the addition of variables affecting loan behavior in different contexts, such as Nepal.

Alkhazaleh (2017) indicated that money supply, GDP growth, inflation, bank size, and return on assets all positively and significantly influence lending. Conversely, lending is negatively affected by credit risk and liquidity. Adzis, Sheng, and Bakar (2018) also found that bank-specific characteristics like deposit volume and size positively and significantly impact lending, while liquidity has a negative effect. Additionally, their study did not find significant roles for macroeconomic factors. However, there is a lack of sufficient research on this topic in Nepal. This study aims to address this gap by identifying the variables that affect lending practices of Nepalese development banks.

i. What is the position of loan of the development banks in Nepal?
ii. To determine how factors such as deposits, investments, borrowings, and net profits/net income are related to the lending behavior of development banks in Nepal.
iii. To address the impact of deposits, investment, borrowings, net profits/ net income on lending of development 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;

i. To assess the position of loan of the development banks in Nepal.
ii. To examine the relationship between determinants (deposits, investment, borrowings, net profits/ net income) and loan and advance of development banks in Nepal.
iii. To evaluate the impact of deposits, investment, borrowings, net profits/ net income on lending of development 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_1: Deposits has negative and significant effect on the bank lending in Nepal.
H_2: Investment has a positive and significant effect on the bank lending in Nepal.
H_3: Borrowings has negative and significant effect on the bank lending in Nepal.
H_4: Net profits/ net Income positive and significant effect on the bank lending in Nepal.

1.5 Rationale of the Study

The aim of this study was to provide empirical data to support the lending practices of development banks in Nepal. The researcher believes that the findings should be valuable to a range of stakeholders. Based on the specific circumstances and composition of each component, development banks can take necessary actions both before and after the variables emerge. Therefore, the study's conclusions are crucial as they identify the primary and most recent factors affecting loan decisions. Furthermore, by understanding these factors, government agencies can better manage policy modifications and adjust various regulations, such as cash reserve requirements, capital requirements, and sometimes interest rates and exchange rate policies. Additionally, the study contributes to the existing body of knowledge, serving as a foundation for scholars and researchers to conduct further research on related topics.

1.6 Limitations of the Study

This study has the some limitations which are as follows;

- Among the 17 commercial banks operating in Nepal (till May, 2024), only three governments own development banks of Nepal, namely Garima Bikas Bank, Muktinath Biskas Bank, Shine Resunga Development Bank are analyzed in this study
- The study covers the past ten years' data from F/Y 2012/13 to F/Y 2022/23.
- The study analysis only lending practice of development banks 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

This chapter delves into the theoretical aspect of the factors influencing bank lending. It lays the foundation for constructing a comprehensive theoretical framework and comprehending the context relevant to the research question, enabling the analysis of relevant data for reporting purposes. In preparation for this NRB directive, a thorough review of books, journals, articles, annual reports, and some relevant research papers has been conducted. The chapter is divided into two main sections: theoretical perspective and empirical review.

2.1 Theoretical Review

2.1.1 Theories of Bank Lending

While individual banks may employ varying strategies, an examination of the overarching lending principles outlined in this section can facilitate a deeper understanding of how banks actually execute loans. The subsequent section outlines the theories of lending.

Theory of Multiple-Lending

Research suggests that banks are less inclined to participate in share lending or loan syndication after undergoing process consolidation and in the presence of strong equity markets. With outside equity and mergers and acquisitions enhancing their lending capabilities, banks no longer require extensive monitoring and diversification through share lending (Ongena & Smith, 2000; Karceski et al., 2004). This theory holds significant implications for Nigerian banks, particularly in light of the industry's recent consolidation efforts in 2005.

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.1. 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.

Money Creation Theory

From this perspective, extending a loan creates credit money, and the central bank is obligated to back such a loan. It's not the lending or re-lending of funds from the central bank that generates money, but rather the commitment made in the loan agreement. Interest-bearing loans lead to the creation of reserves equivalent to the interest, and the loan's credit is cleared upon repayment. Essentially, businesses receive a promise of credit from commercial banks in exchange for their commitment to repay a loan. This promise is not classified as money for regulatory purposes when the loan is initiated, and banks aren't required to hold reserves against it. The subsequent step involves creating a valid credit amount, for which reserves must be obtained to support it. In this scenario, credit funds take precedence over reserves. In other words, lending actually increases reserves rather than reducing them, contrary to the prevailing paradigm (Haslag & Eric, 1998).

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).

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).

Loan Pricing Theory

Banks often face challenges when attempting to set high interest rates to boost interest revenue. Anticipating the type of borrower at the outset of a banking relationship is exceedingly difficult, requiring banks to consider adverse selection and moral hazard (Stiglitz & Weiss, 1981). Setting interest rates too high can lead to adverse selection issues, as high-risk borrowers may be the only ones willing to accept these rates. Moreover, such borrowers may engage in moral hazard behavior after receiving the loan, favoring risky business ventures or investments. Stiglitz and Weiss (1981) propose that the interest rates set by banks may not always accurately reflect the risk faced by borrowers.

2.1.2 Determinants of Lending of Banks

Lending Interest Rate

Both a reduction in the money supply and a rise in interest rates lead to an immediate decrease in spending. This effect is also observed indirectly through a decrease in the availability of bank loans (Bernanke & Blinder, 1988). Kashyap and Stein (2000) suggested that banks with less liquid assets would experience a more significant decline in their loan offerings under a contractionary monetary policy. Conversely, banks with higher liquidity levels can protect their loan portfolios by tapping into their reserves of cash and securities. Sengonol and Thorbecke (2005) conducted a study in Turkey supporting the notion that the country's bank credit supply diminished due to contractionary policies. Both in the United States, as illustrated by et al. (2000), and in Turkey, as shown by Sengonol and Thorbecke (2005), a two-step methodology based on Kashyap and Stein (2000) was employed to analyze the impact of monetary policy on loan availability. Keeton (1993) found that changes in deposits directly influence bank lending, but monetary policy also indirectly affects it by altering the costs associated with certificates of deposit and the returns on securities. Consequently, banks may become reluctant to extend loans to businesses when the central bank reduces interest rates, 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.

Moreover, the Central Bank's benchmark rate acts as a conduit for monetary policy, impacting interest rates within the financial realm. Unlike market rates, bank lending rates are often perceived as rigid due to their lack of immediate responsiveness to market changes. Various theories have been proposed to explain this rigidity. Challenges related to asymmetric information have compelled lenders to restrict their lending activities, thus contributing to the inflexibility in the loan market. Inevitably, financial markets exhibit imperfections; factors like moral hazard and adverse selection prompt banks to implement credit rationing rather than adjust lending rates when the central bank raises interest rates. Additionally, if major banks dominate the market, a restrictive monetary policy may not significantly affect bank lending. Berger and Udell (1992) failed to uncover conclusive evidence supporting the notion that lending rate rigidity stemmed from credit rationing. Consequently, when the central bank decreases interest rates, banks may become cautious about extending loans to businesses, and conversely, when rates rise, they may become more reluctant (McKinnon, 2009).

Profitability

Alper and Anbar (2011) emphasized the significance of several metrics in evaluating the profitability of commercial banks, with the three primary ones being Return on Asset (ROA), Return on Equity (ROE), and Net Interest Margin (NIM), as elaborated below. Return on Assets (ROA): According to the findings of Golin (2001), ROA stands out as a pivotal indicator in contemporary literature for assessing bank profitability. This metric illustrates the effectiveness of a bank's management in generating earnings from its assets and offers insight into how efficiently management utilizes the bank's assets to generate income. ROA can be easily computed by dividing net profit after taxes by total assets, revealing the return on investment for each unit of assets.

Rivard and Thomas (1997) clarified that ROA surpasses equity multipliers as a more robust measure of a company's ability to generate returns from its asset base, rendering it the most appropriate metric for evaluating bank profitability. Return on

Equity (ROE) represents the rate of return to shareholders, indicating the percentage return on each unit of equity invested in the bank. It assesses how effectively a company generates profits from each unit of shareholders' equity, also known as net assets or assets minus liabilities. Net Interest Margin (NIM) is another frequently monitored indicator of bank profitability. Ongore and Kussa (2013) defined it as a measure of the difference between the interest income banks earn and the interest they pay to their creditors, such as depositors, relative to the total amount of interest-earning assets. Effective management of assets and liabilities by a bank manager results in significant income from assets and minimal expenses from liabilities, leading to higher profits. Typically expressed as a percentage, NIM is calculated by dividing the total interest income from loans and advances by the income generated on loans over a specific period, minus the interest paid on borrowed funds.

Liquidity Ratio

The liquidity of an asset refers to its ease of conversion into cash. Despite having ample assets to cover its obligations, a bank may still face liquidity challenges, often stemming from a mismatch between its assets and liabilities. Djiopap and Ngomsi (2012) highlighted that lending is typically the primary business activity of commercial banks, with the loan portfolio being their largest asset and primary income source. However, this also poses significant risks to the stability and solidity of banks since loans are inherently illiquid assets. As the volume of loans increases, a bank's asset mix tends to contain a higher proportion of illiquid assets. Tomak (2013) suggested that the level of loan demand, which drives loan growth, significantly impacts a bank's liquidity position. During periods of low loan demand, banks tend to hold more liquid assets, such as short-term assets, and fewer illiquid assets, such as long-term loans, despite their higher profitability. Consequently, loans and advances exert a negative influence on banks' liquidity positions.

Capital Adequacy Ratio

Capital adequacy refers to the level of funds that banks are required to maintain to mitigate risks stemming from lending, market fluctuations, and operational activities. This buffer is crucial for protecting the interests of the bank's borrowers and absorbing potential losses that may arise from routine operations. Essentially, it represents the sum of the bank's own resources that remain readily available to support its functions and act as a financial cushion during challenging times. Since

deposits can be unstable and prone to sudden withdrawals, banks cannot solely rely on them for liquidity, thus emphasizing the importance of having sufficient capital reserves. The capital adequacy ratio (CAR) serves as a key metric for evaluating a bank's ability to withstand losses during adverse events.

The equity ratio is an indicator of risk characteristics, particularly risk aversion. The level of capitalization within a bank has various impacts on its inclination and ability to offer long-term loans. With a larger capital reserve to offset credit risks, banks are typically better positioned to extend riskier, longer-duration loans. Consequently, bolstering bank equity enhances its capacity to provide credit. Additionally, banks with higher levels of capitalization tend to attract more creditworthy clients who are eligible for long-term loan approvals. Conversely, banks with substantial capital reserves might exhibit risk aversion and adopt conservative management approaches, potentially leading to reluctance in offering high-risk, long-term loans. Studies by Bouvatier and Lepetit (2007) and Djiopap and Ngomsi (2012) have shown that banks with limited capital face challenges in expanding their loan portfolios.

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).

According to Olokoyo (2011), the amount of deposits held by commercial banks in Nigeria significantly influences their lending activities. Therefore, any changes in deposit volume will lead to corresponding adjustments in the banks' loans and advances. Consequently, it is crucial for banks to effectively manage their deposits to achieve their profitability targets and maximize the multiplier effects. In many developing countries, businesses heavily rely on bank loans for funding, and the ability of banks to offer loans largely depends on their capacity to attract deposits. Increasing trends in deposit mobilization suggest that banks will have more liquidity and funds available for lending, thereby enhancing their potential for generating higher profits.

Non-performing Loans or Credit Risk

Nonperforming loans are those long-term financial obligations, involving both principal and interest, which fail to adhere to the repayment terms outlined in the loan contract. In essence, any lending arrangement that breaches the stipulated terms by not meeting timely principal and interest payments is categorized as nonperforming. Consequently, the volume of nonperforming loans serves as a measure of the quality of a bank's assets. This is typically assessed by calculating the ratio of nonperforming loans to the total gross loans. This ratio is derived by dividing the value of nonperforming loans by the total value of the loan portfolio, including nonperforming loans before any adjustments for certain loan-loss provisions. It's important to note that the determination of nonperforming loans isn't solely based on overdue amounts; rather, it includes the gross value of the loan as indicated on the balance sheet. This metric, as highlighted by Bernanke and Blinder (1998), aids in evaluating the extent of nonperforming loans relative to the overall loan portfolio.

According to IMF guidelines, a loan is classified as nonperforming if its interest and/or principal payments are 90 days or more overdue, if interest payments equal to 90 days or more have been deferred, refinanced, or capitalized by agreement, or if payments are less than 90 days overdue but there are doubts about the debtor's ability to meet all obligations. However, there can be valid reasons for nonperformance, such as the debtor filing for bankruptcy or facing uncertainty about meeting payment obligations. Nonperforming loans (NPLs) are loans and advances whose credit quality has deteriorated, raising doubts about the full collection of principal and/or interest under the agreed repayment terms. Consequently, loans that have defaulted on both principal and interest payments for an extended period are labeled as nonperforming loans (NPLs). Given that loans and advances represent a significant portion of bank assets, nonperforming loans (NPLs) encompass any credit facility failing to meet the terms of the loan agreement by not making timely principal and interest payments. Therefore, the volume of nonperforming loans likely reflects the quality of bank assets.

Market Share

Market share refers to the portion of total industry sales that a company achieves within a specific timeframe. According to Brooks (2008), it is calculated by dividing

a company's sales by the total sales of the industry. Generally, market share serves as an indicator of competitive position. Increasing market share is often seen as a sign of success, while a decline in market share is typically interpreted as a signal of failure or ineffective business practices.

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.

Market share in banking is calculated by comparing a bank's total deposits to the total deposits of all banks. This comparison can be based on either total assets or loan amounts. However, a decision must be made between using the asset or deposit measure for market share calculation, as both loans and deposits are considered bank production. Since the asset components may include subsidiaries and investments in securities, which vary across banks, a bank's market share can be determined by its capital, loan volume, and deposits from the public. Essentially, it reflects the intensity of competition among banks in the banking sector. A bank's market dominance increases with its capital, deposits, and loan volume in relation to its competitors (Tomak, 2013).

Gross Domestic Product

Robust economic conditions, as evidenced by GDP, have a statistically significant influence on banks' inclination to extend more private loans to businesses. A strong economy stimulates consumer demand for goods and services, leading to increased investment across various sectors, higher per capita income, and greater savings. These factors collectively encourage banks to approve more personal loans. Guo and Stepanyan (2011) highlighted a positive correlation between domestic and

international capital and the expansion of credit. Strong economic growth fosters higher credit growth.

Consumer Price Index/Inflation Rate

A growing body of theoretical research elucidates how even anticipated inflation hikes impede the financial sector's efficient resource allocation. Recent theories underscore the impact of information imbalances in credit markets, demonstrating how escalating inflation rates exacerbate credit market hurdles, thereby impairing the performance of financial institutions (like banks and equity markets) and, consequently, long-term economic activity (Huybens & Smith, 1998). These theories feature an inherent informational friction, which intensifies with varying degrees. Consequently, inflation upticks diminish the actual return on assets and money. Projected declines in real returns exacerbate credit market frictions, leading to rationed credit and worsening as inflation rises. Consequently, there's a detrimental impact on capital and long-term investments, decreased lending by banks, and less effective resource allocation. Consequently, a negative correlation emerges between loan issuance and inflation rate hikes.

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 nonperforming. (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 repayment for a loan or advance isn't expected within a year, it's considered a risky loan or loss. Loans and advances labeled as substandard, questionable, or loss fall into the category of non-performing loans. Bank management has the authority to reclassify loans and advances from low-risk to high-risk categories. For example, loans categorized as substandard may be reclassified as loss, and those labeled as doubtful may also be deemed as such. Occasionally, loans and purchases of securities are grouped together under the broader term "loans 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 a borrower possesses an extended overdraft facility, they cannot settle both principal and interest solely by overdrawing their current account or surpassing the overdraft limit. However, this agreement does not imply that debiting the customer's account to recover both principal and interest is prohibited. The overdrawn principal sum can be integrated into the outstanding loan, and the loan may be reclassified by one level if the bank has procedures in place to recover principal and interest through debiting customer accounts. If such recovery results in an unsettled overdraft lasting over a month, the overdrawn principal amount may also be included in the outstanding loan. As for

recognizing interest, it will adhere to the directives outlined in Directive No. 4 regarding income recognition.

6. **Letter of Credit and Guarantees:** A loan that transitions into a fund-based liability, necessitating payment alongside a letter of credit and guarantees, qualifies as a pass loan and must be repaid within 90 days from the date of fund-based conversion. However, beyond this 90-day period, it will be categorized as a loss loan.

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, 2017

2.2 Empirical Review

Malede (2014) conducted a study on the determinants of lending by commercial banks, focusing on Ethiopian commercial banks. The primary aim was to validate the key factors influencing commercial bank lending in Ethiopia using panel data from eight different commercial banks spanning the years 2005 to 2011. The study

explored the relationship between various factors affecting commercial bank lending, including bank size, credit risk, GDP, investment, deposits, interest rates, liquidity ratios, and required cash reserves. Financial data spanning seven years from the selected eight commercial banks were analyzed. Ordinary least squares (OLS) analysis was employed to examine the impact of these predictor variables on commercial bank lending. The results suggest that lending by commercial banks is significantly associated with their size, credit risk, GDP, and liquidity ratio. However, during the study period, factors such as deposits, investment, required cash reserves, and interest rates did not appear to influence lending by Ethiopian commercial banks.

Bhattarai (2016) conducted an analysis of the determinants impacting the lending behavior of Nepalese commercial banks. The study aimed to investigate the factors influencing lending practices within the context of Nepal. Regression modeling was utilized to analyze combined data from four commercial banks spanning the period from 2007 to 2014. The dependent variable of the study was loan advances (LOA), while the independent variables included bank size, liquidity, investment portfolio, cash reserve ratio, and deposit to capital ratio. The regression analysis revealed that bank size significantly affects loan advances, whereas the cash reserve ratio, investment portfolio, and liquidity ratio also have a significant impact on banks' loan advances (LOA). The study's findings underscore that bank size, liquidity, investment portfolio, and cash reserve ratio significantly influence the lending practices of commercial banks in Nepal.

Poudel (2017) conducted a study on the credit behavior of commercial banks in Nepal. This research aimed to identify the primary factors influencing commercial bank lending in Nepal through panel data analysis, utilizing 104 observations from eight prominent commercial banks operating between 2002–2003 and 2014–2015. The analysis revealed that several variables, including bank size, liquidity ratio, deposit to capital ratio, cash reserve ratio, and investment portfolio, significantly contribute to enhancing commercial bank credit in Nepal. Conversely, credit risk, as indicated by the ratio of non-performing loans to total loans, negatively affects commercial bank credit. Macro-economic factors such as the interbank interest rate have a significant negative impact on commercial bank lending in Nepal, whereas the inflation rate has a favorable effect. Consequently, it is crucial to evaluate the influence of macroeconomic and firm-specific variables on the credit behavior of

Nepal's commercial banks. The study also noted that banks with higher proportions of time deposits tend to have higher loan-to-deposit ratios compared to those with higher proportions of demand deposits, owing to the greater volatility of demand deposits. The sample comprised eight banks, selected through stratification: two government-held or majority-owned banks, three joint ventures with international banks, and three entirely private sector-run banks.

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) conducted an investigation into the determinants of bank lending, focusing on Malaysia's commercial banks. This study utilized data from 27 banks and analyzed the macroeconomic and bank-specific factors influencing commercial bank lending in Malaysia over the period from 2005 to 2014. Using random effects estimation, the results indicate that in Malaysia, commercial bank lending is positively affected by bank size and deposit amount, while liquidity exerts a negative impact on lending activities. Interestingly, macroeconomic factors such as GDP, lending rate, and cash reserve requirement do not appear to significantly influence the lending activities of commercial banks in Malaysia, as per the findings of this study. Additionally, the study suggests that the macroprudential policy measure implemented in 2010 to mitigate the high level of household debt did not significantly affect lending operations in Malaysia during the study period.

Bhattarai (2019) conducted an analysis on the factors influencing lending operations within commercial banks in Nepal. The study aimed to explore the effects of bank-

specific characteristics and external variables on the lending practices of commercial banks in Nepal. Utilizing secondary panel data from the top ten commercial banks spanning a six-year period (2012/13-2017/18), the study examined determinants related to lending behavior in Nepal. The findings of the analysis indicated that the exchange rate, liquidity ratio, and interest rate spread significantly influenced the lending practices of Nepal's commercial banks. The positive impact of exchange rates suggests that these banks possess the capacity to meet both short- and long-term obligations and possess a solid understanding of global market dynamics. Additionally, lending volumes among Nepal's commercial banks were found to be positively and significantly affected by the central economic policy's efforts to maintain inflation. Furthermore, the results revealed a negative and considerable interest rate spread on the total amount of loans extended to individuals and institutions, indicating that banks tend to increase the amount of credit available to consumers as borrowing costs rise.

Diriba (2020) conducted an empirical investigation into the determinants of lending behavior, focusing on commercial banks in Ethiopia. This study examined the factors influencing lending practices in Ethiopian commercial banks over the period from 2010 to 2017. Drawing data from eleven Ethiopian commercial banks, the study aimed to explore both macroeconomic and bank-specific variables affecting lending practices. Macro-economic variables encompassed GDP, lending rates, reserve requirement ratios, currency exchange rates, and inflation rates, while bank-specific variables included ownership structure, deposit ratios, liquidity levels, and bank size. Panel data regression analysis and fixed effect regression models were employed for data analysis, sourced from the World Bank and the National Bank of Ethiopia. The findings revealed that, among the bank-specific variables, ownership structure and deposit ratios significantly influenced lending practices. Conversely, factors such as efficiency ratios, bank size, and liquidity ratios exhibited statistically insignificant negative impacts on lending behavior. Moreover, macroeconomic variables such as GDP, loan rates, and exchange rates showed positive but statistically insignificant effects on lending behavior. Regarding macroeconomic factors, the reserve requirement ratio and inflation rate were found to have marginally negative impacts on lending practices. Notably, the research highlighted a statistically significant divergence in lending practices between the Commercial Bank of Ethiopia (CBE) and the other banks examined.

Bhattarai (2020) conducted an analysis to determine the lending behavior of commercial banks in Nepal, utilizing secondary data from balance panel records. The data analysis was performed using version 1.9.4 of the Gretl statistical program. Independent variables included liquidity, investment portfolio, cash reserve ratio, bank size, GDP growth rate, and inflation rate, while the dependent variable was the accepted loan and advance amounts. The study findings revealed that bank size, cash reserve ratio, and investment portfolio significantly and positively influenced loan and advance amounts. Conversely, liquidity exhibited a negative and statistically significant impact on loan and advance acceptance. Interestingly, macroeconomic factors such as inflation and GDP growth rate were found to be less influential in determining loan and advance amounts. The study concluded that the primary factors influencing loans and advances were bank size, cash reserve ratio, investment portfolio, and liquidity.

Haritone and Mirie (2020) evalated an analysis on the factors influencing lending to small and medium enterprises (SMEs) by commercial banks in Kenya. The study aimed to identify the variables affecting lending decisions of Kenyan commercial banks towards SMEs. Employing a descriptive research methodology, the study comprehensively collected data from 36 out of 43 commercial banks in Kenya through a census approach. Subsequently, multiple linear regression analysis was conducted on the collected data using the Statistical Package for Social Studies, version 20. The findings of the study revealed that both bank size and liquidity significantly influence lending to SMEs by Kenyan commercial banks, albeit in varying directions. However, factors such as credit risk and interest rates were found to have an insignificant impact on lending to SMEs by Kenyan commercial banks. The study recommends the implementation of policies aimed at fostering bank development to enhance lending by Kenyan commercial banks to small and medium-sized enterprises.

Berhe (2020) conducted an analysis on the factors influencing the lending behavior of selected commercial banks in Ethiopia. The primary objective of the study was to investigate the determinants of lending practices among these banks. Employing a cross-sectional explanatory research design, the study examined various factors impacting commercial banks' lending practices. Data were sourced from both qualitative and quantitative sources, including secondary data from the National Bank of Ethiopia's annual financial reports from 2011 to 2017, as well as audited annual

reports of the selected commercial banks. The study employed correlational and regression analyses to explore the relationship between the dependent variable, lending behavior, and independent variables such as interest rates, capital adequacy ratio, liquidity ratio, asset quality, and volume of deposits. The correlation results revealed a linear association between lending behavior and the volumes of deposits, interest/credit rates, liquidity ratio, asset quality, and capital adequacy ratio. Furthermore, regression analysis indicated that asset quality, credit rate, and liquidity ratio significantly influenced lending behavior, while capital adequacy ratio and deposit volume had minimal effects on the lending practices of the selected commercial banks.

Affandi et al. (2021) conducted a study examining bank lending behavior within Malaysia's dual banking system. The research focused on analyzing both internal and external factors influencing bank lending practices in Malaysia. Utilizing pooled ordinary least squares (POLS) regression analysis, the study investigated the determinants of bank lending behavior over the period from 2010 to 2018, encompassing 24 commercial banks and 15 Islamic banks. The findings revealed that the primary factor influencing bank lending behavior in Malaysia was the size of the banks, as indicated by the logarithm of total assets. This suggests that larger banks possess greater diversity and have a larger pool of funds available for lending activities. Moreover, the study highlighted the significant impact of deposit volume on bank lending, emphasizing that the level of deposits received greatly influences lending activities, as banks require deposits to issue loans. Additionally, the data demonstrated a substantial correlation between lending practices of Malaysia's commercial and Islamic banks and variables such as deposit volume (DEPO), GDP, and bank size (SIZE).

Akindutire (2021) conducted an investigation into the factors influencing deposit money banks' lending behavior to the private sector of the Nigerian economy spanning the years 1986 to 2017. The study utilized yearly time series data and relied primarily on the CBN Statistical Bulletin (2017) as the source of secondary data. Various estimation techniques including autoregressive distributed lag (ARDL), paired Granger causality test, and enhanced Dickey-Fuller test were employed. The analysis revealed that the variables in the series exhibited integration of difference order l(0) and l(1), indicating a high degree of link between bank lending behaviors and the identified determinants. It was observed that while certain factors fluctuated

over time, deposit volume and M2G exerted a significant influence on bank lending behavior both in the present and future periods, whereas RSR, INF, and LDR acted as hindrances to lending to the private sector. Additionally, the study identified a causal relationship between private sector credit and deposit volume. Consequently, the study concluded that there exists a substantial correlation between the bank lending behavior towards the private sector and its determining factors.

Makanile and Pastory (2022) conducted an investigation into the factors influencing the lending behavior of commercial banks in Tanzania. The study employed a quantitative research approach to analyze the variables impacting loan decisions made by six Tanzanian commercial banks over the period from 2015 to 2019. Data for the analysis were sourced from the annual reports of the six commercial banks. The findings revealed a significant correlation between lending and liquidity and capital deficits. However, no statistically significant relationship was observed between interest rates, management performance, and lending. The study suggests the implementation of stringent measures to foster the growth of commercial banks and enhance their lending capacity. Prioritizing the improvement of liquidity ratios should be a top priority for the banking industry to bolster the financial position of banks. Additionally, considering the diverse risk profiles across different sectors, commercial banks are encouraged to adopt a more innovative approach in their lending practices. Lastly, to fortify the capital conservation buffer and ensure that banks accumulate additional buffers during times of stress, management of commercial banks should implement strategies for capital growth.

Table 2 *Summary of Empirical Review*

SN	Author (s)	Variables	Methodology	Major Findings
1	Bhattarai (2016)	Bank size, Liquidity, Loans and Advances, Investment Portfolio, Cash Reserve Ratio, Deposit to Credit Ratio	Correlation and Multiple Regression Analysis	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).
2	Poudel (2017)	Bank Size, Liquidity Ratio, Deposit to Capital	Correlation and Multiple Regression Analysis	This study revealed that bank size, liquidity ratio, deposit to capital ratio, cash reserve ratio, and investment portfolio significantly positively influence commercial bank credit in

		Ratio, Cash Reserve Ratio Investment Portfolio and Bank Credit		Nepal. Conversely, credit risk has a significant negative impact on commercial bank credit. Additionally, the inflation rate has a significant positive effect on credit.
3	Timsinan (2017)	Deposits, Gross Domestic Product, Interest Rate, Cash Reserve Ratio, Liquidity Ratio, Exchange Rate and Inflation	Correlation and Multiple Regression Analysis	This study found that GDP and total deposits have a significant negative impact on lending. Additionally, the inflation rate, interest rate, cash reserve ratio, and liquidity ratio also significantly negatively affect bank lending.
4	Diriba (2020)	Deposit Ratio, Liquidity Ratio, Bank Size, Efficiency Ratio, banks ownership, Reserve Requirement Ratio, Exchange Rate, Lending Rate, Inflation Rate and Gross Domestic Product	Correlation and Multiple Regression Analysis	This study discovered that the deposit ratio, bank ownership, and exchange ratio significantly enhance lending. Conversely, the liquidity ratio, efficiency ratio, reserve ratio, and inflation rate have a negligible negative influence on lending. Additionally, bank size has a significant adverse effect on lending.
5	Bhattarai (2020)	Loans and Advances Liquid Assets, Investment Portfolio, Cash Reserve Ratio, Bank Size, Gross Domestic Products and Inflation Rate	Correlation and Multiple Regression Analysis	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.
6	Haritone & Mirie (2020)	Bank Size, Lending, Credit Risk, Liquidity Ratio and Interest Rate	Correlation and Multiple Regression Analysis, SPSS	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.
7	Goet (2021)	Cash Reserve Ratio, Lending, Inflation Rate and Deposit	Correlation and Multiple Regression Analysis	This study indicates that the cash reserve ratio (CRR) has a negligible negative impact on lending. Additionally, the interest rate spread has a minor positive effect on lending. Furthermore, the inflation rate significantly reduces lending, whereas total deposits significantly increase lending.
8	Akindutire (2021)	Deposit, Credit, Lending rate, Cash Reserve Ratio, Money Supply, Inflation and GDP	Correlation and Multiple Regression Analysis	This study found that the volume of deposits has a negligible positive effect on credit. Additionally, both the lending rate and reserve ratio have a minor negative impact on credit. Furthermore, the money supply to GDP ratio significantly reduces credit, and inflation also has a significant negative impact on credit.
9	Makanile & Pastory (2022)	Lending, Liquidity, Capital Adequacy Ratio, Interest Rate, Management Adequacy Ratio	Correlation and Multiple Regression Analysis	This study found a significant relationship between liquidity and CAR with lending, while interest rates and management efficiency do not have a statistically significant impact on lending.
10	Poudel (2024)	Loan and Advance, Liquidity Ratio, Capital Adequacy Ratio, Lending Interest Rate, Bank Size and Inflation Rate	Correlation and Multiple Regression Analysis, SPSS	This study found that the liquidity ratio and lending interest rate have a significant negative relationship with loans and advances, while the capital adequacy ratio and bank size have a significant positive relationship. Additionally, the inflation rate significantly negatively impacts bank lending. However, the liquidity ratio and inflation rate have an insignificant negative effect on lending, whereas the capital adequacy ratio and bank size have a significant positive effect, and the lending interest rate has an insignificant positive impact.

2.3 Research Gap

This points to a disparity between prior and current research findings. Firstly, there exists a temporal gap between this study and previous ones. While earlier studies focused on earlier time periods, this study extended its analysis to cover the years 2021–2022. Moreover, whereas previous research typically examined time frames of no more than five years, this study encompassed a period of ten years. None of the previous studies incorporated control variables, and they did not align with earlier international research which suggests that lending behavior of commercial banks is influenced by various factors or determinants. This study sought to address these gaps by incorporating the t-test and multicollinearity test alongside descriptive, correlation, and multiple regression analyses, which were not previously utilized for data analysis. Additionally, the inclusion of the three government-owned banks, Garima Bikas Bank, Muktinath Biskas Bank, and Shine Resunga Development Bank, sets this study apart from previous research efforts. As a result, the aim of this study is to bridge the research gap and provide a more comprehensive understanding of the determinants of lending behavior among commercial banks.

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

In this study, both causal and explanatory research designs have been employed to investigate issues about bank lending factors. Explanatory research designs aim to explore the direction and magnitude of relationships between independent factors and the dependent variable, which in this case is bank lending. On the other hand, descriptive research designs examine the patterns and current status of lending and its determinants.

3.2 Population and Sample, and Sampling Design

As of March 2024, Nepal is home to 17 development banks, which constitute the population for this study. However, for this research, only three development banks have been selected: Garima Bikas Bank, Muktinath Biskas Bank, and Shine Resunga Development Bank. This selection was based on the purposive sampling method. These specific development banks were chosen due to their prominence in earning and paid-up capital management within the current context. Additionally, they have demonstrated a commendable lending policy over the past few years.

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

The research relies on secondary data to achieve its goals. Secondary data refers to statistics that have been previously gathered or utilized by another entity and subsequently made available to the public through publications such as journals, newspapers, magazines, and annual reports. In this study, the primary source of secondary data is the annual reports of relevant financial institutions. Additionally, other sources of data, such as newspapers, periodicals, economic journals, reports from the Nepal Rastra Bank (NRB), and study plan documents, have been consulted alongside the annual reports.

3.4 Method of Analysis

The organization of the data facilitates the calculations and determination of outcomes in this study. Various statistical techniques such as ratios, means, standard deviations, correlations, regression analysis, and hypothesis testing are employed to analyze the data and their numerical values. These statistical methods can be broadly categorized into two groups: descriptive statistics and inferential statistics, both of which are utilized in this investigation.

3.4.1 Descriptive Statistics

Arithmetic mean

The average of a dataset is calculated by dividing the sum of all values by the total number of values. In this context, each individual data point holds equal significance. Given the analytical requirements, we employ the basic arithmetic mean in this investigation.

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 (s).

3.4.2 Inferential Statistics

Correlation of coefficient (r)

Correlation serves as a statistical technique to examine the association between two variables. Represented by the coefficient 'r', also known as the linear correlation coefficient, it indicates both the strength and direction of a linear connection between the variables. Another term for this coefficient is the Pearson product moment correlation coefficient, named after Karl Pearson, the pioneer who initially identified it. When changes in one variable seem linked to changes in another, the variables are considered correlated. For quantitative relationships, correlation analysis is a suitable statistical method to uncover and summarize these relationships succinctly.

Multiple Regressions Analysis

Regression analysis comprises a set of statistical techniques employed in statistical modeling to gauge the relationships between variables. When examining the association between a dependent variable (such as Lending Behavior) and an independent variable (like deposits, investments, borrowings, net profits/net income), it encompasses various modeling and analytical methods. Specifically, regression analysis elucidates how altering one independent variable while holding others constant affects the typical value of the dependent variable, also known as the "criterion variable.

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.

Model: $LB = \beta_0 + \beta_1 DPQ_{it} + \beta_2 INVit + \beta_3 BW_{it} + \beta_4 NI_{it}$, Where:

LA_{it} = Lending Behavior i^{th} for the time period t

$DP_i t$ = Deposits of bank i^{th} for the time period t

INV_{it} = Investment of bank i^{th} for the time period t

BW_{it} = Borrowings of bank i^{th} for the time period t

NI_{it} = Net Income of bank i^{th} for the time period t

β_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

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

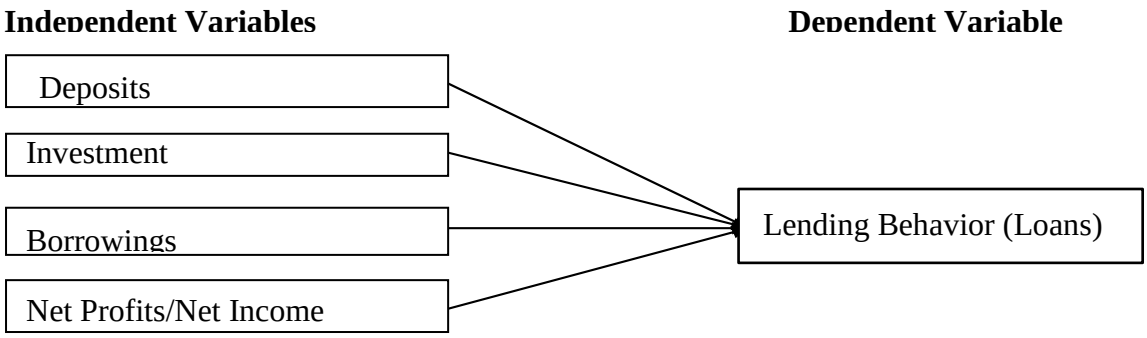

Figure 1 Research Framework of the Study

Source: Adhikari & Jha (2020).

Dependent Variable

The analysis of the lending practices of development banks' is a crucial component of the study. As a result, the dependent variable is lending behavior (Loans).

Lending Behavior (Loans)

Bank lending indicates the ability of the banks to provide credit facility to various creditors in the market. In this regard, credit growth provides a comprehensive view for the firm's capacity to provide loan in the market place.

Independent Variables

To analyze factor affecting bank lending, as independent variables deposits (DP), investments (INV), borrowings (BW) and net income (NI) have been considered as proxies for bank lending.

Deposit

Deposit in the banking context is the placement of funds into an account for safekeeping, management, and potential growth through interest. Banks' lending is of course dependent on volume of deposits. Main source of fund for lending in banks is deposits. Therefore, deposits have great to play in lending operation in banks. This was taken from the balance sheet section for the relevant banks. Deposits include non-interest bearing deposits, saving deposits, term deposits, call deposits and margin deposits. Deposits by banks & customers are financial liabilities of the bank as there is an obligation to deliver cash or financial assets back to the depositing bank or customer and are initially recognized at fair value, plus for those financial liabilities

not at fair value through profit and loss. The transaction price is considered as the fair value for measuring the deposits.

Investment

Investments refer to the allocation of resources, such as capital, time, or effort, into assets, projects, or ventures with the expectation of generating returns or profits over time. The primary goal of investing is to grow the value of the initial resources by earning income, appreciation, or other financial gains. This was taken from the balance sheet section for the relevant banks.

Borrowings

Borrowings refer to the act of obtaining funds from external sources with the agreement to repay the principal amount along with interest over a specified period. Borrowings are a crucial aspect of personal finance, business operations, and governmental funding, allowing entities to access necessary capital for various purposes. This was taken from the balance sheet section for the relevant banks. Calculating borrowings involves determining the total amount of money a company or individual has borrowed from various sources. This includes loans, lines of credit, bonds, and other forms of debt.

Net Income

Net income, also known as net profit, net earnings, or the bottom line, is the total amount of profit a company or individual has after all expenses, taxes, and costs have been subtracted from total revenue. This was taken from the income statment section for the relevant banks. It represents the actual profit available to shareholders or owners and is a key indicator of financial performance. Net income can be calculated using the following formula:

$$\text{Net Income} = \text{Total Revenue} - \text{Total Expenses}$$

CHAPTER IV
RESULTS AND DISCUSSION

Systematic and orderly presentations, interpretations and analysis of the secondary data have been made in this chapter. In addition, the discussion of the results obtained has been made based on statistical tools described in previous chapter.

4.1 Descriptive Statistics

Total loan of the banks

Loan and advances of Garima Muktinath, and Shine Resunga bank are presented in Table 1.

Table 1

Loan and advances of banks (in billions of Rupees)

Year	Garima	Muktinath	Shine Reshunga
2070	2.42	3	3.08
2071	3.5	4.38	4.25
2072	5.44	6.63	5.17
2073	7.91	9.8	7.2
2074	12.83	15.16	1.03
2075	18.62	25.26	14.54
2076	28.21	38.14	12.34
2077	34.86	47.66	24.87
2078	51.69	72.92	31.84
2079	59.23	86.81	37.79
2080	63.56	94.46	45.96
Mean	26.21	36.75	17.10
SD	23.02	34.18	15.58
CV	87.83	93.02	91.14

In terms of the total loan amounts, Muktinath Development Bank has highest total loans of Rs. 94.46 billion. Following closely behind is Garima Development Bank with total loans of Rs. 63.56 billion. Similarly, Shine Resunga Development Bank has the lowest total loans among the

three, totaling Rs. 45.96 billion. This comparison highlights the differences in loan sizes across the three banks, with Muktinath Development Bank as the top performer, Garima Development Bank in the middle, and Shine Resunga Development Bank having the smallest total loans.

Table also shows that Garima has a mean of 26.21, a standard deviation of 23.02, and a coefficient of variation (CV) of 87.83. Muktinath, on the other hand, exhibits a higher mean of 36.75, a standard deviation of 34.18, and a CV of 93.02. Shine Reshunga falls between the other two entities with a mean of 17.10, a standard deviation of 15.58, and a CV of 91.14. These statistics suggest that Muktinath has the highest average values and greatest variability, while Garima shows comparatively lower mean values but with significant variability. Shine Reshunga displays values that lie between the other two entities in terms of mean and variability.

The loan of the three banks shows different patterns from 2070 to 2080. Garima Development Bank experienced significant growth in loans, starting at Rs. 2.42 billion in 2070 and steadily increasing to Rs. 63.56 billion by 2080. Muktinath Development Bank also demonstrated consistent loan growth, ranging from Rs. 2.99 billion in 2070 to Rs. 94.46 billion in 2080. In contrast, Shine Resunga Development Bank started at Rs. 3.07 billion in 2070, peaked at Rs. 45.96 billion in 2080, showcasing a steady upward trend.

Total Deposit of the banks

Total deposit of the banks is presented in Table 2.

Table 2

Deposit of the bank (in billions of Rupees)

Year	Garima	Muktinath	Shine Reshunga
2070	3	3.66	4.01
2071	4.02	5.2	4.91
2072	6.36	7.78	6.24
2073	9.23	11.28	8.39
2074	14.51	16.78	8.79
2075	21.22	30.35	12.39
2076	29.76	41.47	14.54
2077	42.43	57.31	30.59
2078	63.9	86.9	35.77
2079	68.41	104.68	43.45
2080	76.96	116.45	56.42
Mean	30.89	43.81	20.50
SD	27.73	41.71	18.04
CV	89.75	95.22	88.01

When we compare the total deposit amounts, Muktinath Development Bank stands out with the highest total deposits of Rs. 94.46 billion. Garima Development Bank follows with deposits totaling Rs. 63.56 billion. On the other hand, Shine Resunga Development Bank has the lowest total deposits among the three, amounting to Rs. 45.96 billion. This comparison shows the different financial positions of the banks, with Muktinath Development Bank leading in deposit value, Garima Development Bank in a strong position, and Shine Resunga Development Bank lagging behind in terms of total deposits.

Table 2 also shows that Garima bank has the mean amounts or Rs. 30.89 billion, with a standard deviation of Rs.27.73 billion and a coefficient of variation of 89.75%. Muktinath, on the other hand, show a higher mean of Rs.43.81 billion, a standard deviation of Rs.41.71 billion, and a coefficient of variation of 95.22%. Shine Reshunga falls between the other two with a mean of

Rs.20.50 billion, a standard deviation of Rs.18.04 billion, and a coefficient of variation of 88.01%. These values indicate that Muktinath has the highest mean values and greatest variability, while Garima shows lower mean values with variability. Shine Reshunga shows moderate values for both mean and variability.

Table also shows that Garima Development Bank saw its deposit amount grow from Rs. 2.42 billion in 2070 to Rs. 63.56 billion by 2080. Muktinath Development Bank also did well by increasing its deposits from Rs. 2.99 billion in 2070 to Rs. 94.46 billion in 2080. Shine Resunga Development Bank also showed improvement, starting with Rs. 3.07 billion in 2070 and reaching Rs. 45.96 billion by 2080, showing a steady increase.

Investment of the banks

Investment of the three selected banks is presented in Table 3.

Table 3 shows that Garima has a mean investment of Rs. 3936.77 million, a standard deviation of Rs.5433.78 million, and a coefficient of variation (CV) of 138.03%. Muktinath, on the other hand, shows a higher mean of Rs.5892.70 million, a standard deviation of Rs. 8297.08 Rs million, and a CV of 140.80%. Shine Reshunga indicates a mean value of Rs.2154.24 million, a standard deviation of Rs.3093.78 million, and a CV of 143.61%. These statistics reveal that Muktinath retains the highest mean values and greatest variability, whereas Garima exhibits lower mean values with significant variability.

Table 3

Investment of the banks

Year	Garima	Muktinath	Shine Reshunga
2070	0.62	53.68	1
2071	30.9	85.68	1
2072	39.98	103.47	29.01
2073	101.96	114.96	34.26
2074	187.64	156.89	41.52
2075	501.86	660.97	1073.33
2076	1390.88	2516.85	1221.37
2077	5749.37	6592.81	1638.7
2078	10473.16	14513.4	4060.18
2079	9909.53	17936.38	6509.15
2080	14918.55	22084.61	9087.16
Mean	3936.77	5892.70	2154.24
SD	5433.78	8297.08	3093.78
CV	138.03	140.80	143.61

Comparing the total investment amounts across the three banks, Muktinath Development Bank emerges as the leader with the highest total investments by 2080 followed by Garima Development Bank. Shine Resunga Development Bank holds the lowest total investment amount among the three banks.

It also shows that Garima Development Bank saw a gradual increase in investments, starting at an initial figure and reaching a peak by 2080. Muktinath Development Bank also displayed consistent growth in investments, beginning at a lower amount in the initial year and achieving a higher value by 2080. Similarly, Shine Resunga Development Bank showed a positive trend, with investments increasing steadily over the period.

Net income of the banks

Table 4 presents the net inciome of three selected banks.

Comparing the total net income across the three banks by 2080 reveals Muktinath Development Bank is the leader with the highest total net income of Rs. 1.25 billion. Garima Development Bank follows closely with Rs. 1.26 billion, placing it in the second. Shine Resunga Development Bank holds the lowest total net income amount among the three, reaching Rs. 758.0 million. This analysis shows that Muktinath Development Bank leading in total net income. Trend of net income is shown in following figure.

Table 4

Net income of the banks (in millions of Rs.)

Year	Garima	Muktinath	Shine Reshunga
2070	61.1	98.02	87.08
2071	104.23	151.85	162.37
2072	144.21	217.64	182.24
2073	222.02	361.37	269.64
2074	349.01	486.93	350.47
2075	441.86	575.53	322.98
2076	594.42	856.17	326.77
2077	577.26	707.41	426.75
2078	836.32	1156.26	503.72
2079	1030.01	1341.81	648.71
2080	1264.68	1248.23	758.03
Mean	511.37	654.66	367.16
SD	396.42	446.49	205.48
CV	77.52	68.20	55.96

Comparing the total net income across the three banks by 2080 reveals Muktinath Development Bank is the leader with the highest total net income of Rs. 1.25 billion. Garima Development Bank follows closely with Rs. 1.26 billion, placing it in the second. Shine Resunga Development Bank holds the lowest total net income amount among the three, reaching Rs. 758.0 million. This

analysis shows that Muktinath Development Bank leading in total net income. Trend of net income is shown in following figure.

Table 4 also shows that Garima has a mean net income of Rs. 511.37 million, a standard deviation of Rs. 396.42 million, and a coefficient of variation (CV) of 77.52%. Muktinath shows a higher mean of Rs. 654.66 million, a standard deviation of Rs. 446.49 million, and a CV of 68.20%. Shine Reshunga shows a mean value of Rs. 367.16 million, a standard deviation of Rs. 205.48 million, and a CV of 55.96%. These figures reveal that Muktinath possesses the highest mean values and least variability, while Garima exhibits lower mean values with a considerable amount of variability. Shine Reshunga lies between the other two.

It also shows that Garima Development Bank witnessed a consistent rise in net income, starting at Rs. 61.1 million in 2070 and increasing to Rs. 1.26 billion by 2080. Muktinath Development Bank demonstrated steady growth as well, with net income growing from Rs. 98.0 million in 2070 to Rs. 1.25 billion in 2080. Shine Resunga Development Bank also experienced positive growth, starting at Rs. 87.1 million in 2070 and escalating to Rs. 758.0 million by 2080.

Overall, when comparing Garima Development Bank, Muktinath Development Bank, and Shine Resunga Development Bank for loans, deposits, investments, and net income from 2070 to 2080, Muktinath Development Bank emerges as the best performing bank overall, showing highest total loans, deposits, and net income by 2080. Garima Development Bank is second. Shine Resunga Development Bank is in the last.

Descriptive statistics

This section shows the decsriptive statisics such as mean, minimum, maximum, and standard deviation of the variabels for development banks from 2070 -2080. Restults are presented in Table 5.

Table 5

Descriptive statistics

	Mean	**Min**	**Max**	**S dev**
Loan	26683.15	1026.90	94456.97	25943.69
Deposit	31731.88	2997.50	116449.87	31294.44
Investmen	3994.57	0.62	22084.61	6011.22
Net income	511.06	61.10	1341.81	372.57
Borrowing	31.65	0.00	248.83	67.35

Table shows that the average loan amount is Rs. 26.68 million, ranging from Rs. 1.03 million to Rs. 94.46 million, showing significant variability denoted by a standard deviation of Rs. 25.94 million. For deposits, the average deposit amount is Rs. 31.73 million, ranging from Rs. 2.99 million to Rs. 116.45 million, with a standard deviation of Rs. 31.29 million. In terms of investments, the average investment is Rs. 3.99 million, ranging from Rs. 0.62 million to Rs. 22.08 million, with a standard deviation of Rs. 6.01 million. Regarding net income, the average is Rs. 0.51 million, with values ranging from Rs. 0.06 million to Rs. 1.34 million and a standard deviation of Rs. 0.37 million. Lastly, for borrowing, the average borrowing amount is Rs. 0.03 million, with values varying from Rs. 0 to Rs. 0.25 million, showing variability with a standard deviation of Rs. 0.07 million.

4.2 Correlation Analysis

This section analyses the correlation between lending behaviour (loan) and other variables. results are presented in Table 6.

Table 6

Correlation analysis

	Loan	Deposit	Investment	Net income	Borrowing
Loan	1				
Deposit	0.997	1			
Investment	0.963	0.972	1		
Net income	0.967	0.964	0.912	1	
Borrowing	-0.123	-0.124	-0.102	-0.145	1

The correlation table provides a relationships between loans, deposits, investments, net income, and borrowing. Loans shows strong positive correlations with deposits and investments, indicating a increases in loans are accompanied by corresponding increases in deposits and investments. Net income also shows a positive correlation with loans, underscoring a connection where higher loan amounts are associated with increased net income. Conversely, borrowing displays a negative correlation with loans, suggesting an inverse relationship where higher loan amounts correspond to lower borrowing amounts.

4.3 Regression Analysis

The model used in the study makes the assumption that both bank-specific factors affect bank lending. As a result, the link and influence of the research variables have been examined using the model: $LB = \beta_0 + \beta_1 DPQ_{it} + \beta_2 INVit + \beta_3 BW_{it} + \beta_4 NI_{it.}$ Results are presented in Table 7.

Table 7

Regression statistics

Multiple R	0.962
R Square	0.925
Adjusted R Square	0.915
Standard Error	0.350
Observations	33

Table 7 provides regression statistics for the model above. The high Multiple R value of 0.998 indicates an strong positive linear relationship between the predictors and the loan. Similarly, the

R-Square value of 0.996 suggests that approximately 99.6% of the variance in loan amounts can be explained by the independent variables deposit, investment, net income, and borrowing. Overall, these regression statistics affirm the model's reliability and efficacy in explaining and predicting loan values.

Table 8

ANOVA table

	df	**SS**	**MS**	**F**	**Sig. F**
Regression	4	42.486	10.621	86.935	0.000
Residual	28	3.421	0.122		
Total	32	45.907			

**** significant at 1 percent level of significance.*

This ANOVA Table 8 provides regression model's overall statistical significance in predicting the loan variable. F-statistic of 1729.30 indicates that the independent variables collectively have a impact on determining loan values.

Regression results

To analyse the efect of bank specific variables on lending behaviour of development banks, following regression results are presented in Table 9. Results are caluculated using Microsoft excel.

Table 9

Results of regression analys

	Coefficients	**Standard Error**	**t Stat**	**P-value**	**Sig**
Intercept	-1.763	1.097	-1.607	0.119	Insignificant
Deposit	1.349	0.281	4.802	0.000	**Significant**
Investment	-0.053	0.026	-2.039	0.038	**Significant**
Net income	0.598	0.314	1.97	0.049	**Significant**
Borrowings	0.008	0.038	0.216	0.830	Insignificant

In Table 9 depedent variable is lending behaviour measured in terms of log of total loans of three development banks.

Deposit has a coefficient of 1.349, which means it has a strong positive effect on lending. The very low P-value of 0.000 shows that this variable is highly significant. So, when Deposits increase, lending also tends to increase.

Investment has a coefficient of -0.053, suggesting a small negative effect on lending. This variable is statistically significant with a P-value of 0.038, which means Investment negatively affects lending at the 5% significance level. This indicates that when bank invests on securities and other alternatives, there lendings decrease.

Net Income has a coefficient of 0.598, meaning it positively affects lending. The P-value is 0.067, so Net Income is significant at the 10% level. This means Net Income has a positive influence on lending.

Borrowing has a coefficient of 0.008, indicating a very small positive effect. But with a P-value of 0.830, it is not statistically significant. This means Borrowing does not have a meaningful impact on lending in this model. This is because these banks do not have much borrowing. Most of the banks show borrowing during covid period.

Discussion

The result shows a positive effect of deposits on lending, with a coefficient of 1.349. This indicates that higher deposits increase the lending capacity of banks. This is similar with Malede (2014), who found that deposits significantly increase lending. Similarly, Goet (2021) observed that total deposits have a significant positive impact on lending. However, this contrasts with Timsinan (2017), who noted a significant negative impact of deposits on lending, suggesting that the relationship between deposits and lending may vary based on regional banking practices. Investment, which has a coefficient of -0.053 and a significant P-value of 0.038, shows a small negative effect on lending. This suggests that higher investments might slightly reduce the funds available for lending, potentially because resources are being diverted into investment portfolios.

Similar findings were reported by Bhattarai (2016), who discovered that the investment portfolio has a significant negative effect on loans and advances. Poudel (2017) also noted that investment portfolios positively impact bank credit, which appears inconsistent with our results. Net Income, with a coefficient of 0.598 and a P-value of 0.067, indicates a meaningful but marginally significant positive influence on lending. This finding aligns with the theoretical perspective that increased profitability enhances a bank's internal funds, thereby facilitating more lending.

Borrowing, indicated by a coefficient of 0.008 seems to have an insignificant impact on lending. This aligns with Diriba (2020), who found that the reserve requirement ratio and other ratios did not significantly affect lending. Similarly, Akindutire (2021) highlighted the negligible positive effect of deposits and minor negative impacts of the reserve ratio on credit, which indirectly supports our observation regarding borrowing's limited effect on lending.

Several studies provide contrasting views on the discussed variables, highlighting the complexity of factors influencing lending. For instance, Bhattarai (2016) and Timsinan (2017) stress the negative impact of liquidity ratios on lending. This is in contrast to our findings. Similarly, the positive but marginal significance of net income in our study could reflect dynamic banking environments and varying institutional practices, indicating that the relationship between profitability and lending is subject to specific contextual factors.

CHAPTER V
SUMMARY, CONCLUSION AND IMPLICATION

This chapter provides major findings and summary, conclusion and recommendation based on lending behaviours of three development banks, Muktinath Development Bank, Garima Development Bank, and Shine Resunga Development Bank.

5.1 Summary

After analysing lending behaviour of three banks, study shows that Muktinath Development Bank exhibited the highest growth in total loans from Rs. 3.00 billion in 2070 to Rs. 94.46 billion by 2080. Garima Development Bank followed with an increase from Rs. 2.42 billion to Rs. 63.56 billion, while Shine Resunga Development Bank grew from Rs. 3.08 billion to Rs. 45.96 billion in the same period. Similalry, Muktinath Development Bank led in total deposits, growing from Rs. 3.66 billion in 2070 to Rs. 116.45 billion by 2080. Garima Development Bank's deposits rose from Rs. 3.00 billion to Rs. 76.96 billion, while Shine Resunga Development Bank saw an increase from Rs. 4.01 billion to Rs. 56.42 billion.

The study found that Muktinath Development Bank had the highest investment growth, starting from Rs. 53.68 million in 2070 to Rs. 22,084.61 million in 2080. Garima Development Bank increased its investments from Rs. 0.62 million to Rs. 14,918.55 million, and Shine Resunga Development Bank from Rs. 1.00 million to Rs. 9,087.16 million. Muktinath Development Bank again led in net income, increasing from Rs. 98.02 million in 2070 to Rs. 1,248.23 million by 2080. Garima Development Bank's net income grew from Rs. 61.10 million to Rs. 1,264.68 million, while Shine Resunga Development Bank went from Rs. 87.08 million to Rs. 758.03 million.

The mean loan amount across the banks was Rs. 26.68 million, ranging from Rs. 1.03 million to Rs. 94.46 million with a standard deviation of Rs. 25.94 million. The average deposit amount was Rs. 31.73 million, varying from Rs. 2.99 million to Rs. 116.45 million, with a standard deviation of Rs. 31.29 million. The mean investment was Rs. 3.99 million, ranging from Rs. 0.62 million to Rs. 22.08 million and with a standard deviation of Rs. 6.01 million. The average net

income stood at Rs. 0.51 million, ranging from Rs. 0.06 million to Rs. 1.34 million, and had a standard deviation of Rs. 0.37 million. The average borrowing amount was Rs. 0.03 million, ranging from Rs. 0.00 to Rs. 0.25 million, with a standard deviation of Rs. 0.07 million.
Correlation analysis shows that loans showed strong positive correlations with deposits (0.997), investments (0.963), and net income (0.967). Conversely, borrowing displayed a negative correlation with loans (-0.123).

5.2 Conclusion

This study analyze the lending behaviour of development banks in Nepal—Garima Development Bank, Muktinath Development Bank, and Shine Resunga Development Bank. Lending behaviour was measured from 2070 to 2080, and includes key financial details like loans, deposits, investments, and net income. Apart from analyzing lending behavior, the study also looks at these financial data to understand their patterns and variations. Another goal is to identify the main factors that influence lending behaviour.

Therefore, in conclusion, shows that deposits have a strong positive effect on lending, implying that an increase in deposits typically leads to a subsequent rise in lending activities. On the other hand, Investment shows a negative impact on lending, signifying that investments in securities and alternative assets may result in decreased lending volumes. Net Income demonstrates a positive influence on lending, indicating that higher net income levels are associated with increased lending activities. Lastly, Borrowing appears to have a minimal effect on lending within the model, suggesting that borrowing activities may not significantly impact lending practices, except during specific periods such as the COVID-19 pandemic when borrowing behaviors change.

5.3 Implication

1. Since deposits show positive impact, banks should focus more to attract deposit schemes to encourage more customers to save with them.
2. Introduce tiered savings products that offer higher interest rates or other benefits for larger deposits to attract high-value customers and increase deposit volumes.

3. Improve customer service and build strong relationships with clients to increase customer loyalty, which can help maintain and grow deposit bases.
4. Utilize digital banking platforms to make it easier for customers to open and manage accounts, thereby increasing convenience and attracting more deposits.
5. Adopt strong risk management frameworks to ensure that lending practices are sustainable and that the bank’s financial health is protected, thereby maintaining depositor confidence.
6. While investments have an impact on lending, it's crucial to ensure these investments are strategic and aligned with the bank's long-term goals. Diversify and optimize investment portfolios to balance risk and return.
7. Enhance profitability through cost management, efficient operations, and identifying profitable lending opportunities to improve the net income, which indirectly supports lending capacity.
8. Conduct financial literacy programs to educate customers on the benefits of saving and investing with the bank. This can increase deposit volumes and customer engagement.
9. Utilize advanced data analytics to better understand customer needs, predict behaviors, and tailor products and services accordingly. This can also help identify profitable lending opportunities.
10. Develop loyalty programs and long-term engagement strategies to retain customers. Ensure that the customers see the value in staying with the bank long-term, which helps in maintaining a steady flow of deposits and customer relationships.

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Appendix 1: Data

Bank	Year	Loan	Deposit	Investment	Net income	Borrowing
	2070	2,42,15,15,196.00	2,99,74,97,500.00	6,18,700.00	6,10,98,989.00	1,00,00,000.00
Garima	2071	3,49,64,03,793.00	4,01,54,79,641.00	3,08,99,340.00	10,42,32,944.00	
	2072	5,43,77,44,317.00	6,35,85,93,057.00	3,99,82,970.00	14,42,09,771.00	
	2073	7,90,91,48,703.00	9,22,86,00,008.00	10,19,60,058.00	22,20,17,420.00	
	2074	12,83,49,62,318.00	14,51,33,90,540.00	18,76,41,118.00	34,90,11,274.55	-
	2075	18,61,89,10,774.00	21,22,12,05,396.00	50,18,62,353.00	44,18,59,945.00	21,85,00,000.00
	2076	28,21,09,92,186.00	29,76,25,09,255.00	1,39,08,79,576.00	59,44,23,927.00	-
	2077	34,86,18,96,434.00	42,43,30,22,223.00	5,74,93,73,568.00	57,72,55,769.00	-
	2078	51,68,73,70,843.00	63,90,20,87,200.00	10,47,31,61,475.00	83,63,17,904.00	-
	2079	59,22,64,30,663.00	68,41,02,12,441.00	9,90,95,27,832.00	1,03,00,13,992.00	2,29,16,667.00
	2080	63,56,11,84,263.00	76,96,41,58,230.00	14,91,85,48,503.00	1,26,46,76,082.00	1,45,83,333.00
	2070	2,99,82,00,000.00	3,66,28,12,000.00	5,36,78,608.00	9,80,17,000.00	24,88,30,000.00
	2071	4,37,75,96,000.00	5,19,78,85,000.00	8,56,78,943.00	15,18,45,000.00	9,81,50,000.00

	2072	6,62,52,60,000.00	7,78,15,58,000.00	10,34,71,549.00	21,76,44,000.00	2,74,70,000.00
Mukti	2073	9,79,86,14,000.00	11,27,66,53,000.00	11,49,59,673.00	36,13,69,000.00	
	2074	15,15,93,95,000.00	16,77,52,23,000.00	15,68,87,805.00	48,69,34,000.00	
	2075	25,26,00,12,000.00	30,35,48,45,000.00	66,09,72,978.00	57,55,29,000.00	
	2076	38,14,43,21,489.00	41,47,07,04,753.00	2,51,68,53,930.00	85,61,66,479.00	-
	2077	47,66,09,04,611.00	57,31,08,62,701.00	6,59,28,08,543.00	70,74,05,117.00	-
	2078	72,91,92,49,873.00	86,90,29,14,373.00	14,51,34,02,926.00	1,15,62,56,498.00	-
	2079	86,81,19,48,415.00	##################	17,93,63,81,659.00	1,34,18,05,287.00	2,50,16,438.00
	2080	94,45,69,65,952.00	##################	22,08,46,09,500.00	1,24,82,26,268.00	1,87,50,000.00
	2070	30,76,319.00	4,01,27,83,877.00	10,00,000.00	8,70,75,931.00	
	2071	4,24,98,49,136.00	4,90,60,17,390.00	10,00,000.00	16,23,74,940.00	
Shine	2072	5,17,29,38,645.00	6,24,39,93,088.00	2,90,12,708.00	18,22,35,418.00	
	2073	7,19,93,62,535.00	8,38,67,58,690.00	3,42,60,117.00	26,96,44,245.00	
	2074	1,02,68,96,000.00	8,78,81,70,000.00	4,15,24,469.00	35,04,71,000.00	-
	2075	14,53,99,17,000.00	12,38,74,22,000.00	1,07,33,28,230.00	32,29,78,000.00	-
	2076	12,33,74,22,450.00	14,53,99,17,261.00	1,22,13,65,446.00	32,67,71,199.00	-

2077	24,87,17,09,712.00	30,58,96,92,318.00	1,63,86,98,845.00	42,67,47,044.00	-
2078	31,83,54,60,514.00	35,76,62,93,666.00	4,06,01,82,355.00	50,37,21,759.00	-
2079	37,79,04,66,289.00	43,44,97,92,521.00	6,50,91,53,955.00	64,87,07,271.00	2,50,00,000.00
2080	45,96,45,46,829.00	56,41,59,81,843.00	9,08,71,58,177.00	75,80,28,242.00	1,87,50,000.00

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ABSTRACT This thesis investigates the lending behavior of development banks in Nepal, focusing on Garima Bikas Bank, Muktinath Bikas Bank, and Shine Resunga Development Bank from fiscal year 2070 to 2080. The study aims to identify and analyze the key factors influencing lending activities, including deposits, investments, borrowings, and net incomes. Employing both descriptive and inferential statistics, the research utilizes data from annual financial reports and secondary sources to explore patterns and correlations among the variables. The findings indicate that deposits have a significant positive impact on lending, suggesting that higher deposit volumes enhance the banks' capacity to extend credit. Investments, on the other hand, show a slight negative effect on lending, highlighting the potential trade-off between resource allocation for investments and loan disbursements. Net income positively correlates with lending activities, underscoring the role of profitability in expanding credit services. Borrowings, however, exhibit an insignificant influence on lending, except during specific periods such as the COVID- 19 pandemic. Keywords: Independent Variable: Deposit, Investment , Borrowing, Net Profit Net Loss Dependent Variable: Landing Behavior (Loans)