

# **LOAN MANAGEMENT AND PROFITABILITY OF RETAIL MICROFINANCE COMPANY IN NEPAL**

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

By

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## **Certificate of Authorship**

I hereby corroborate that I have researched and submitted the final draft of dissertation entitled “**Loan Management and Profitability of Retail Microfinance Company in Nepal**”. The work of this dissertation has not been submitted previously for the purpose of conferral of any degrees nor has it been proposed and presented as part of requirements for any other academic purposes.

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

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## Report of Research Committee

Mrs. Kriti Thapa has defended research proposal entitled “**Loan Management and Profitability of Retail Microfinance Company 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. Binita Manandhar and submit the thesis for evaluation and viva voce examination.

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## **Approval Sheet**

We, undersigned, have examined the thesis entitled **“Loan Management and Profitability of Retail Microfinance Company in Nepal”** presented by Kriti Thapa a candidate for the degree of Master of Business Studies (MBS Semester) and conducted the Viva voce examination of the candidate. We hereby certify that the dissertation is acceptable for the award of degree.

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## **Acknowledgement**

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## Abbreviations

ANOVA	Analysis of Variance
BL	Bank Leverage
BZ/BS	Bank Size
CV	Coefficient of Variation
DER	Debt Equity Ratio
DMB	Deposit Money Banks
DR	Debt Ratio
EPS	Earnings Per Share
i.e.	That is
ICR	Interest Coverage Ratio
LDR	Loan to Total Deposit Ratio
LLP	Loan Loss Provision Ratio
LR	Liquidity Ratio
MPT	Modern Portfolio Theory
MR	Market Risk
NEPSE	Nepal Stock Exchange
NPL	Non - Performing Loan
NRB	Nepal Rastra Bank
OLS	Ordinary Least Square
ROA	Return on Assets
ROE	Return on Equity
SD	Standard Deviation
SME	Small and Medium Size Enterprises

## Abstracts

The main objective of this study is to examining the loan management and profitability of retail microfinance company in Nepal. The descriptive and causal research design has been adopted for the study. The study used secondary data of five microfinance companies in Nepal of ten years i.e. 2012/2013 to 2021/2022 data has been analyzing by using different statistical tools. Data is received from the annual report of selected microfinance company's website. ROA and ROE are taken as indicator of profitability of microfinance companies whereas; debt equity ratio, debt ratio, interest coverage ratio and size are the key factors of debt management. The collected information and the numerical data has been analyzed by using excel software and historical trend, descriptive statistics, correlation, ANOVA and regression tools are used and tables, graphs are used to show the data and results clearly.

The results of the correlation analysis reveal certain relationships within the study. Firstly, there is a positive relationship of loan to deposit ratio with ROA and ROE. There is a positive correlation of the debt equity ratio, debt ratio and interest coverage ratio with return on assets and return on equity, while company size shows a negative association with return on assets and return on equity. These positive correlations indicate favorable conditions, suggesting that an increase in loan-to-deposit ratio, debt-equity ratio, debt ratio, or interest coverage ratio is associated with higher returns on assets and return on equity. However, an increase in company size is linked to a decrease in the performance of retail microfinance companies, as reflected in lower returns on assets and equity.

From the regression analysis, the loan-to-deposit ratio has a positive but not statistically significant impact on return on assets and a negative and insignificant impact on return on equity. The debt-equity ratio has a negative and insignificant impact on the return on assets but a positive and significant impact on the return on equity. The return on assets is positively and significantly influenced but the return on equity is positively and insignificantly influenced by the debt ratio. Interest coverage ratio has a positive and insignificant effect on profitability i.e. return on assets and returns on equity. The performance of microfinance is positively and insignificantly influenced by the size of microfinance companies.

*Keywords: Loan to Deposit Ratio, debt-equity ratio, debt ratio, interest coverage ratio, profitability, microfinance*

# CHAPTER I

## INTRODUCTION

### **Background of the Study**

The modern complex economic system cannot function without the bank. The bank helps in the mobilization and allocation of scarce resources, which are essential for economic development. The banking system has facilitated personal transactions such as deposit and remittance of money, lending and borrowing of money. It has made it easier to develop agriculture, industry and trade (Cheney and Moses, 1999). At the same time, it has helped to accelerate the pace of economic development. Bank plays the intermediary role by receiving savings primarily from households and transforming them into loans to business firms and others to make investments in building factories, plants and equipment. The bank collects idle money from people. This money is channeled by banks to individuals, businesses and the government for productive investments. This increases capital formation by increasing productive investments. This, in turn, raises the level of employment, income and standard of living. Banks do not keep a cent percent reserve against the deposit to meet the demands of depositors, as all depositors do not need money at the same time. Banks with a small reserve satisfy their demand whenever demonstrated and grant loans from excess reserves that depositors need to needy feasible subscribers. Loans and advances are the important item on the asset side of the balance sheet of commercial banks. Banks earn interest on credits and advances, which is one of the major sources of income for the banks. Banks prepare credit portfolios, otherwise it will not only add bad debts but also affect profitability adversely (Oddy and Winsor, 1990).

Microfinance institutions play a crucial role in fostering economic development, particularly in underserved communities. By providing financial services to low-income individuals and small businesses, microfinance facilitates the redirection of limited resources to needy sectors. Individuals can deposit their surplus money with microfinance institutions, which in turn use these funds to offer loans and advances for various income-generating activities. Loans are especially significant for microfinance institutions as they form a substantial portion of their transactions, investment activities, and profitability. The success of a microfinance institution heavily relies on effective loan management. Key

factors that determine its strength include the quality of the loan portfolio, the mix of risk assets, and a robust credit administration system. By extending loans, microfinance institutions significantly contribute to the growth of new businesses, thereby improving the overall economic health of the country. Various loan forms, such as overdrafts, cash credits, direct loans, and bill discounting, are commonly offered by microfinance institutions.

Loans and advances constitute a significant portion of a microfinance institution's assets, and the interest income generated from these loans greatly contributes to its profitability. To achieve the desired returns, it is crucial for microfinance institutions to effectively manage their loan assets, ensuring they remain performing and liquid. By maintaining an efficient loan management system, microfinance institutions can fulfil their pivotal role in supporting economic development and empowering marginalized communities (Khan, 1982).

Loan management refers to the systematic administration and monitoring of loans provided by financial institutions or lenders to individuals, businesses, or other entities. Effective loan management is essential for both borrowers and lenders to ensure the smooth functioning of the lending process. It involves various key aspects, including loan origination, underwriting, disbursement, repayment schedule, and risk assessment. Lenders use loan management systems and software to streamline these processes, enabling them to assess the creditworthiness of applicants, determine appropriate interest rates, and establish repayment terms. Borrowers benefit from loan management practices that provide transparency, flexibility, and assistance in meeting their financial obligations. In essence, loan management plays a crucial role in maintaining the financial stability of both borrowers and lenders while promoting responsible lending and borrowing practices (Keen and Willcocks, 2017).

Efficient handling of debt plays a critical role in shaping a company's financial well-being and profitability. Skillful management of debt can offer opportunities for growth and increased returns, while poor debt management can lead to financial difficulties and hinder profitability. Effective debt management involves finding the right balance between using debt for expansion and maintaining a manageable level of debt. Employing debt strategically can magnify returns on equity (ROE) during periods of growth, as borrowed funds generate higher profits than borrowing costs. Nevertheless, excessive debt can result in insignificant interest expenses that eat into profitability, particularly in challenging

economic conditions. A well-executed approach to debt structure, which includes an appropriate blend of long-term and short-term debt, can provide financial flexibility and stability, positively influencing profitability. Prudent management also takes into account interest coverage ratios, ensuring that the company generates enough operating earnings to comfortably meet interest payments. Investors and analysts frequently evaluate a company's debt management practices to assess its financial risk and growth potential. Research conducted by Baker and Powell in 2016 delves into the interplay between debt management and profitability, underscoring the significance of maintaining an optimal debt-to-equity ratio. Their study offers valuable insights into the intricate relationship between debt and profitability, assisting businesses in making well-informed decisions concerning their financial structure (Bakar and Powell, 2016).

### **Problem Statement**

Microfinance institutions serve as vital components of the financial system and play a catalytic role in driving the economic development of a nation, particularly in the context of developing countries. While their primary objective is profit and wealth maximization, microfinance institutions also bear the responsibility of safeguarding the interests of their stakeholders. In many developing countries, including Nepal, the challenge of capital formation and its proper utilization is prevalent. In the absence of specialized institutions, microfinance institutions in these countries shoulder additional responsibilities and often function as development banks. Lending has become a critical issue, especially in the context of developing countries like Nepal.

Many business enterprises, particularly smaller ones, often struggle with subpar performance due to the various challenges encountered by their managers or owners when making financial decisions. The choices firms make regarding their sources of funding ultimately lead to different capital structures, and these can significantly impact overall company performance. It's crucial to recognize that financing is an indispensable aspect of business operations. Companies rely on financing to support both their fixed assets and working capital needs, and in the fiercely competitive business environment, access to financial resources is essential for a company's survival. Therefore, financing plays an indispensable and pivotal role in the world of business (Erasmus and Josephine, 2014).

Microfinance institutions face the task of addressing the pressing need for capital formation and effective utilization, particularly among underserved communities. By providing access to financial services and offering small loans to low-income individuals and small businesses, microfinance institutions fill the gap left by traditional commercial banks. They play a vital role in channelling funds to sectors that lack access to formal financial institutions. Moreover, microfinance institutions prioritize financial inclusion and social empowerment, aiming to uplift marginalized communities by providing them with the necessary financial resources and support to start or expand their businesses. By extending credit to those who are traditionally excluded from the formal banking sector, microfinance institutions contribute to poverty alleviation and the overall socio-economic development of the country. Credit activities are the major banking functions and the most valuable commodity for credit institutions. In situations where credit is not adequately harnessed, managed, and handled, it has a crippling impact on banks, decreasing their efficiency, profitability and thus further contributing to banking crises and loss (Berger and Christa 2009).

The possibility that a creditor will default on a loan by failing to meet his obligations is known as credit risk. When a creditor defaults, it is the consequence of replacing cash flow. From its inception, analyzing the financial soundness of creditors has been a central banking practice. The most critical feature of the banking industry is credit management. It is the riskiest and most complex task undertaken by banks, as well as the most lucrative. The capacity of a bank to balance credit risk has always been crucial to its financial importance. Without an appropriate risk management, monitoring, and follow-up plan, this would not be possible. The hazard grows when credit principles are breached. Good banking policies enable bank management to set criteria for examining and accepting individual credit applications to ensure that loans given are repaid (Cai and Anjan, 2008).

Many factors are affecting the profitability of the company. External factors like economic policies, a country's economic development, the industry structures are essential for a company. However, when investors focus on a specific industry, they are more concerned about how to select the one with the highest profitability from many competitors. Capital structure plays an extremely important role in the profitability of a company. The equity structure affects the way of operation and management of the company. Using equity financing is less risky but implies a dilution of control of existing shareholders. It's possible

to divert control of the company and the new shareholders can have different thoughts running the company. The capital structure may reveal if leverage financing is rational. Moreover, debt can also affect companies' profitability (Zhang et al., 2020).

In summary, microfinance institutions assume a crucial role in the context of capital formation and utilization in developing countries. They act as catalysts for economic development, filling the gaps left by traditional commercial banks and specialized institutions, and promoting financial inclusion and empowerment among marginalized communities. The problem statements are:

- What is the existing position of LTDR, DER, DR, ICR SIZE and profitability of microfinance institutions?
- What is the relationship between LTDR, DER, DR, ICR SIZE and the profitability of microfinance institutions?
- How do LTDR, DER, DR, ICR SIZE impact on profitability i.e., ROA, ROE of microfinance institutions?

### **1.3 Objective of the Study**

The objectives of the study are as follows;

- To analyze the existing position LTDR, DER, DR, ICR SIZE and profitability of microfinance institutions.
- To examine the relationship between LTDR, DER, DR, ICR SIZE and profitability of microfinance institutions.
- To find out the impact of LTDR, DER, DR, and ICR SIZE on profitability i.e., ROA, and ROE of microfinance institutions.

### **Rationale of the Study**

Research itself is important because it aims to gain knowledge and to add new literature in existing fields. The significance of this study lies mainly in filling a research gap in the study of loan management of microfinance. This study will contribute significantly to solving the problem existing in microfinance to formulate the policy and strategies to maintain credit activities effectively. Mainly, the study is important for the researcher to fulfil the academic requirements of a master's degree. On the other hand, the study is important for microfinance, scholars, investors, students, government and many other parties. To conclude, this study will be helpful to those who want to study in further detail

and widely in this field. At last, it is expected that the study will be a drop of literature in the field of microfinance and loan management analysis.

As a business student, it is a golden opportunity to show skill in financial analysis; this report will show the intelligence and skill of the student. This report is a criterion for evaluation of the student's qualifications. This thesis will provide students an experience in financial analysis. This thesis will provide information to the student as to how the business house is running. This thesis might be useful for those who are willing to know something about loan management in microfinance. This thesis may be useful for library purposes so that any student wanting to prepare a report can have some ideas about it. This thesis can be used as a guideline while preparing a small project report.

### **Limitations of the Study**

This study is focused on loan management practices of the selected microfinance. This study has its limitations. The following are the limitations of the study:

- This study is concentrated on the loan management and profitability of retail microfinance institutions in Nepal.
- Chhimek, Nerude, Swabalamban, Deprosc and Nirdhan Utthan Lagibitta Bittiya Sanstha Limited are taken as a sample for the study.
- This study is based on secondary data.
- The study covers ten years of data from fiscal year 2012/2013 to 2021/2022.

## **CHAPTER II**

### **LITERATURE REVIEW**

This chapter presents the efforts that have been made to examine and review some of the related books and articles published in different economic journals, bulletins, dissertation papers, magazines, newspapers, and websites. This chapter is a comprehensive study of the conceptual framework, a review of books, journals and various types of research regarding the impact of debt management on the profitability of microfinance companies. Review of Literature can be studied by dividing it into the following ways i.e. Theoretical Review, conceptual review and Empirical Review.

#### **Conceptual Review**

##### **Concept of Loan Management**

Loans and advances dominate the assets side of the balance sheet of any bank, similarly, earnings from such loans and advances occupy a major space in the income statement of the bank. Lending can be said to be the raison d'être of a bank. However, it is very important to maintain that most bank failures in the world are due to shrinkage in the value of loans and advances (Dahal and Dahal, 2002). So the management of loans is a major task for any banks and financial institutions. Let's bifurcate the term loan management to deliver a meaningful sense of the topic. Cambridge International of English dubbed the term loans above and the 'management' is the control and organization of something. In other words, the management of a company is/ are the group of people responsible for controlling and organizing it. So, loan management means proper meaning, organizing and controlling of lending money from the bank.

The 'loan management' term concerned matters being presented as loan administration involves the creation and management of risk assets, the process of lending takes into consideration the people and system required for the evaluation and approval of loan requests, negotiation of terms, documentation, disbursement, administration of outstanding loans and workouts, knowledge of the process and awareness of its strength and weakness are important in setting objective and goals for lending activities and for allocating available funds to various lending function such as commercial, instalment and mortgage portfolios (Johnson and Johnson, 1940).

Debt financing sources may also exert different effects on managerial incentives and resolve moral hazard issues. In addition, when ownership and control over a firm are diluted, managerial optimality rather than shareholder optimality should be considered (Zwiebel, 1996). Bank debt may decrease managerial incentives to underperform, resolving the moral hazard issue by a greater monitoring ability of banks. As a final payoff, a priori, decreased by interest payments, overall managerial incentives decrease with any additional external finance. Bank debt, in turn, may enhance managerial performance and improve a project's probability of success by exerting greater influence on its management (Stiglitz, 1985; Besanko and Kanatas, 1993).

Here are some ratios that measure the impact of loan management on the profitability of microfinance companies that are operating in Nepal.

- **Loan to total deposit ratio**

The loan-to-total deposit ratio is used by banks and financial institutions to assess their lending practices and overall financial health. It is calculated by dividing the total amount of loans extended by the institution by the total deposits it holds. This ratio provides insight into the bank's liquidity and risk exposure, as a higher ratio indicates that a larger portion of customer deposits is being used to fund loans, potentially increasing the institution's vulnerability to economic downturns or unexpected withdrawal demands. Conversely, a lower ratio suggests a more conservative lending approach with a higher proportion of deposits held in reserve, which may offer greater stability but could also limit profitability. A typical target for the LDR depends on a bank's risk tolerance, regulatory requirements, and market conditions. Banks with higher LDRs may be seen as more aggressive in their lending practices, while those with lower LDRs may be viewed as more conservative. It's important to note that the LDR can vary widely among banks and can also change over time. A high LDR may indicate that a bank is using more of its deposits for lending, which could lead to profitability through interest income but also carries higher risks if a significant portion of the loans turns bad (Ogunmakinju, 2022).

- **Debt-equity ratio**

The debt-to-equity (D/E) ratio is used to evaluate a company's financial leverage. It is calculated by dividing a company's total liabilities by its shareholder equity. The D/E ratio is a measure of the degree to which a company is financing its operations with debt rather than its resources. It is a particular type of gearing ratio and is an important metric in

corporate finance. A higher D/E ratio suggests more risk among similar companies, while a particularly low one may indicate that a business is not taking advantage of debt financing to expand. Investors will often modify the D/E ratio to consider only long-term debt because it carries more risk than short-term obligations. The D/E ratio varies by industry and is best used to compare direct competitors or to measure the change in the company's reliance on debt over time (Sharma et al, 2018)

- **Debt ratio**

The debt-to-assets ratio is a ratio that measures the proportion of a company's total assets that are financed by debt. It helps assess the financial risk and leverage of a company. Here's a simple explanation: Imagine you have a collection of toys, and you want to figure out how many of them you bought with borrowed money (debt) compared to how many you bought with your own money (equity). In a business context: Debt represents money borrowed from lenders, such as banks or bondholders. Assets are all the things a company owns, like buildings, equipment, cash, and inventory. This ratio tells you the percentage of a company's assets that are financed by debt. A higher debt-to-assets ratio indicates that a larger portion of the company's assets is funded through borrowing, which can increase financial risk because the company has more debt obligations to meet. However, a lower debt-to-assets ratio means that the company relies less on borrowed money and has more of its assets financed by equity or internal funds, which can be seen as a safer financial position. The ideal debt-to-assets ratio can vary depending on the industry, company size, and financial goals. Some industries, like utilities, may naturally have higher debt-to-assets ratios, while others, like technology startups, might aim for lower ratios to minimize financial risk. Companies use this ratio to assess their financial health, make borrowing decisions, and determine their ability to meet debt obligations (Sharma et al., 2018).

- **Interest coverage ratio**

The interest coverage ratio (ICR) is a ratio that measures how well a company can handle its interest payments on outstanding debt. It's computed by dividing a company's earnings before interest and taxes (EBIT) by its interest expenses for a specific period. The ICR is also referred to as the times interest earned (TIE) ratio. A higher ICR signifies that the company generates more earnings to cover its interest obligations, which is a positive signal for investors, creditors, and lenders. Conversely, a lower ICR suggests that the company's earnings may not be sufficient to meet its interest payments, raising concerns for investors, creditors, and lenders. The ideal ICR can vary by industry, but generally, a higher coverage

ratio is more favourable. In essence, the interest coverage ratio (ICR) assesses a company's ability to meet its interest obligations, calculated by dividing EBIT for a specific period by interest expenses for the same period, often a year (Pradhan, 2017).

- **Firm size**

Total assets are defined as the sum of net fixed assets, total intangibles, total investments, net current assets, and other assets. It assesses whether the size of the firm is related to performance. (Sufian et al., 2009) found a positive impact of firm size on performance. The study concluded that a large firm size reduced costs due to the economies of scale that this entails, large firms can also raise capital at a lower cost. Jonsson (2008) showed that bigger firms have higher profitability as compared to smaller firms.

### **Concept of return**

Profitability or return, in the context of finance and business, refers to the measurement of a company's ability to generate earnings and financial gains relative to its investments, assets, or equity. It is a critical metric that assesses the efficiency and success of a business in utilizing its resources to create value for its shareholders or stakeholders. Profitability is typically quantified through various financial ratios and metrics, such as net profit margin, return on assets (ROA), return on equity (ROE), and earnings per share (EPS). These ratios provide insights into a company's ability to generate profits from its sales, assets, and shareholders' equity. High profitability indicates that a company is effectively managing its operations, while low profitability may signal inefficiencies or challenges that need addressing (Brealey et al., 2017). In this study return on assets and return on equity are adopted to analyze the profitability of microfinance companies in Nepal.

- **Return on assets**

Return on assets (ROA) is a financial ratio that shows the percentage of profit that a company earns from its overall resources (total assets). Return on assets is a key profitability ratio that measures the amount of profit made by a company per dollar of its assets. This ratio is calculated as net profit after tax divided by the total assets. This ratio measures the operating efficiency of the company based on the firm's generated profits from its total assets. It shows the efficient management of using assets to generate earnings. The ratio of net income to total assets measures the return on total assets (ROA) after interest and taxes (Siraj and Pillai, 2012).

- **Return on equity**

The amount of net income returned as a percentage of shareholder's equity. Return on equity measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested (Siraj and Pillai, 2012).

### **Credit evaluation**

This is a very sensitive stage because it helps ensure loan quality. In simple terms, the giving of credit rests on the sureness the lender has in the borrower's ability to pay (creditworthiness). Creditworthiness is the ability and the readiness of a borrower to settle his or her debt. This is one of numerous issues which determine what should go into the credit policies of a lender. A lot of financial models come into play when assessing the creditworthiness of the deficit units. The most commonly used are the five financial analysis tools which include character, capital, capacity, condition, and collateral. These tools are generally known as the 5c of credit. ([corporatefinanceinstitute.com](http://corporatefinanceinstitute.com))

- **Character**

Character signifies the customer's preparedness and willpower to settle his or her debt. Character is usually known when the lender engages in a one-on-one talk with the borrowers; scrutinizes their debt history and also how they manage their finances and operational aspects of their business. Character is considered the most important of the five C's because refusal to do due diligence will lead to a clear case of moral hazard.

- **Capacity**

Capacity is a quantitative financial analysis to decide whether the customers can pay back what they have taken. Capacity is the ability of the borrower to generate cash from the overall operations to pay for the loans given. Capacity is very important to the lender because it serves as a form of assurance that the loan can be recovered.

- **Capital**

Capital is also referred to as the net worth which represents funds set aside to cater for unexpected losses. Thus, it serves as a cushion for the business. The lender is very interested in the capital adequacy of the borrower.

- **Condition**

Condition is the outward factors that can have an impact on the credit portfolio of a business. This can take the form of economic policies prevailing in the country and the international market at large. Lenders will be in a safe position if they consider the effect of the economic conditions on both the borrowers and themselves.

- **Collateral**

Collateral is the property of a lender in exchange for the loan given. It serves as insurance for the lender when the borrower cannot settle his or her debt. Collateral is considered as insulation against default but a lender shouldn't give out loans based on collateral. Credit officers should not only consider these 5C's but to gain a better understanding of how to analyze the credit risk factors, some principal economic determinants that control the performance of a loan portfolio and the impact these economic factors have on one another must be determined. These factors include inflation, interest rate, GDP, and the market value of collaterals.

### **Empirical Review**

A review of literature is written by the scholar to determine the existing knowledge which includes major findings as well as theoretical and methodological contributions to a particular topic. The major purpose of literature review is, thus to find out what research studies have been conducted in the chosen field of study and what remain to be done. This section briefly reviews the existing studies, related to the subject matter of the study as follows.

Ogunmakinju, (2022) conducted a research on credit management effects and performance of deposit money Banks in Nigeria. The objective of the study was to investigate credit management effects and the performance of the Deposit Money Banks in Nigeria. The researcher used descriptive statistics and multiple regression to analyze the data. The findings showed that non-performing loans were insignificantly positive to influence profit after tax (PAT), loan to deposit ratio revealed a positive significant impact on PAT, and capital adequacy ratio exhibited a positive insignificant impact on PAT. The study concluded that no causal relationship between non-performing loan (NPL) and profit after tax (PAT), loan loss provision and profit after tax have no causal relationship, loan to

deposit ratio (LDR) and profit after tax (PAT) revealed no unidirectional relationship, and capital adequacy ratio (CAR) move free without any direction.

Çollaku and Aliu, (2021) conducted a research on the Impact of Non-Performing Loans on a Bank's Profitability: Empirical Evidence from commercial banks in Kosovo. The objective of the study was to examine the impact of non-performing loans on Kosovo banks' profitability. The researcher used multi-variable regression to analyze the data. The findings showed that the effect of non-performing loans on profitability is statistically significant. The study concluded that there is a need for increased oversight by the Central Banks of Kosovo. The size of a bank plays a crucial role in attaining improved financial outcomes and can act as a cushion in the event of loan defaults.

Upreti, (2021) conducted a research on the credit management of commercial banks concerning (NIB and NIL) Banks. The objective of the study was to analyze the functions, procedures, and activities of commercial banks' credit. The findings showed that NIB has consistently maintained a high ratio of loans and advances to total deposits, indicating its strength in effectively utilizing its total deposits for lending purposes. The average interest income to loan and advances ratio for NIB didn't exhibit a clear trend. Furthermore, there is a moderate, negative correlation observed between non-performing loans and loans for NIB. The study concluded that there is a relationship between a decrease in loan management performance and a subsequent decrease in non-performing loans.

Anggari and Dana, (2020) conducted a research on the Effect of Capital Adequacy Ratio, third-party funds, Loan Deposit Ratio, and Bank Size on Profitability in Banking Companies on IDX. The objective of the study was to analyze the effect of Capital Adequacy Ratio (CAR), Third Party Fund, Loan Deposit Ratio (LDR), and Bank Size on Profitability in banking companies listed on the Indonesia Stock Exchange. The researcher used multiple regression to analyze the data. The findings showed that the Capital Adequacy Ratio, third-party fund, and Bank Size have a positive and significant effect on profitability. Meanwhile, the Loan Deposit Ratio had a positive and insignificant effect on the Profitability of Banking Companies in the Indonesia Stock Exchange during the 2016–2018 period. The study concluded effective bank management should prioritize maintaining a high Capital Adequacy Ratio (CAR) to enhance risk-bearing capacity, leading to increased profitability and improved financial performance. Banks of larger sizes

should ensure sound asset management, as total assets correlate with increased profitability while adhering to standards set by Bank Indonesia is essential.

Nugraha et al., (2020) conducted a research on the influence of company size, asset structure, company growth, and Profitability on debt policy. The objective of the study was to determine the determinants of debt policy in the food and beverage industry sub-sector. The researcher used the ordinary Least Square Method (OLS) method to analyze the data. The results showed that two variables affect debt policy, including tangibility which has a positive influence on debt policy and company growth has a negative effect on debt policy. While company size and profitability do not affect debt policy.

Nurdani and Rahmawati, (2020) conducted a research on the effect of firm sizes, profitability, dividend policy, asset structure, sales growth, and Free Cash Flow on Debt Policy (On Manufacturing Companies Listed on The Indonesia Stock Exchange). The objective of the study was to examine the effect of company size, profitability, dividend policy, asset structure, company growth and free cash flow on debt policy. The researcher used a multiple regression model to analyze data. The findings showed that the size of the company has a negative and not significant effect on debt policy, and profitability has a negative and significant effect on debt policy. Dividend policy variables and asset structure have a negative and significant effect on debt policy. While sales growth and free cash flow do not affect debt policy.

(Wuave et al., 2020) conducted a research on the effect of liquidity management on the financial performance of banks in Nigeria. The objective of the study was to examine the effect of liquidity management on the financial performance of banks in Nigeria. The researcher used a Panel regression to analyze the data. The findings showed that liquidity ratio (LQR) has a positive and significant effect on the financial performance of DMB as measured by return on assets (ROA), return on equity (ROE), and net interest margin (NIM). The study concluded that banks in Nigeria should establish sound governance and risk management systems by developing strategies, and policies for liquidity management that are well integrated into its risk management practices as well as establish a contingency funding plan to address any liquidity shortfall during periods of stress or emergency while ensuring that active monitoring of liquidity funding needs to avert any liquidity challenge that could trigger crisis in the banks is promptly addressed.

Zelalem, (2020) conducted a research on the impact of financial leverage on the performance of commercial banks: evidence from selected commercial banks in Ethiopia. The objective of the study was to investigate the effect of financial leverage on the financial performance of Ethiopian Commercial Banks. The researcher used descriptive statistics and a fixed effect model to analyze the data. The findings showed that Debt Ratio (DR) has a negative insignificant effect on Banks' performance measured by Return on Assets (ROA) and Return on Equity (ROE) while Debt Equity Ratio (DER) and Interest Coverage Ratio (ICR) have a significant positive effect on Banks' performance measured by Return on Assets (ROA) and Return on Equity (ROE).

Zhanget al., (2020) conducted a research on the debt's effect on profitability. The objective of the study was to understand the impact of debt ratio on profitability. The researcher used descriptive statistics, correlation and multiple regression for analyzing the data. The findings showed Corporate profitability is negatively correlated with debt ratio, tax ratio, and intangible assets. The study concluded that the Assets growth is not related to corporate profitability.

Reschiwati, (2019) conducted a research on the effect of liquidity, profitability, and size of companies on firm value. The objective of the study was to examine and analyze the effect of liquidity, profitability, the size of the firm, and its value in capital structure. The researcher used descriptive statistics, a Panel data regression model and a t-test in the research. The findings showed that liquidity, profitability, and firm size significantly influence capital structure. Capital structure is not a mediator of the influence of liquidity and profitability on firm value. The study concluded that capital structure is a mediator of the effect of firm size on firm value.

Kajola et al., (2019) conducted a research on the liquidity and profitability dynamics: evidence from the Nigerian banking sector. The objective of the study was to examine the effect of liquidity management on profitability in ten deposit money banks in Nigeria. The researcher used random effects generalized least squares as an estimation technique to find out the impact of liquidity management on profitability. The findings showed a positive and statistically significant relationship between two liquidity management proxies (current ratio and liquidity ratio) and return on asset. The study concluded that for sustainable profitability to be achieved, the board of directors and top financial managers of banks should put in place a robust framework that will efficiently manage their banks' liquidity.

Specifically, utmost attention should be taken to the management of the current ratio and liquidity ratio as well as the investment of excess liquidity in short-term assets.

Gurung, (2019) conducted a research on comparative study on liquidity and credit management practices of commercial banks in Nepal with reference to Nepal Investment Bank Ltd. and Himalayan Bank Ltd. The objective of the study was to analyze the trend of liquid assets maintained by the selected banks. The researcher used descriptive statistics, correlation and regression to analyze the data. The findings showed that HBL is better positioned to meet its short-term obligations within a year than NIBL. HBL's high ratios of cash and bank balance to current assets and current liabilities also indicate that NIBL is better equipped to meet its cash needs promptly and fulfil its financial obligations when required. The study's findings suggest that HBL currently holds a slightly higher current ratio compared to NIBL.

Ghimire, (2018) conducted a research on the credit management of joint venture commercial Bank-Nepal Investment Bank and Bank of Kathmandu. The objective of the study was to examine the efficiency of selected banks. To find out strengths and weaknesses in credit administration the major findings where BOK has maintained higher credit and advances to total deposit. Fixed deposit is the main source of granting credit for both banks. Credit loss provisioning is in a decreasing trend so; it indicates an efficient credit policy. Interest rate affects the amount of deposit, which in turn affects credit.

Tuladhar, (2017) conducted a research on the loan management of Standard Chartered Bank Nepal Limited (SBL) in comparison to other joint venture banks in Nepal. The objective of the study was to study fund mobilization and Loan management concerning fee-based off-balance sheet transactions and fund-based on-balance sheets. The findings showed that the three banks' management of liquidity, liabilities, and profitability. It notes that the current ratios among the banks are similar, with high total liability to total assets ratios due to substantial shareholder equity. Himalayan Bank Limited (HBL) emphasizes savings and fixed loan management over current loans, resulting in a lower non-interest-bearing loan management ratio. HBL also leads in deploying total loan management for earning activities, suggesting strong fund mobilization efforts. However, SBL stands out for superior profitability, with the highest earnings per share (EPS) among the banks studied.

Habib et al., (2016) conducted a research on the impact of debt on the profitability of firms with evidence from the non-financial sector of Pakistan. The objective of the study was to investigate the relationship between debt and the profitability of firms with empirical evidence from the non-financial sector of Pakistan. The researcher used a random effect regression analysis to analyze the data. The findings showed a significant but negative relationship between short-term debt, long-term debt, total debt, and return on assets. The study concluded a negative relationship between debt and profitability, i.e., increasing debt in capital structure will decrease profitability. Therefore, companies should prefer internal financing or other sources of financing on debt financing.

Pradhan and Khadka, (2016) conducted a research on the effect of debt financing on the profitability of Nepalese commercial banks. The objective of the study was to examine the effect of debt financing on the profitability of Nepalese commercial banks. The researcher used a multiple regression model to analyze the collected data. The findings showed profitability is negatively related to long-term debt to total assets, total debt to total assets, and debt to equity ratio. The regression result showed that beta coefficients are positively significant for short-term debt to total assets, interest coverage ratio, and size of the banks with profitability. Whereas the beta coefficients are negatively significant for long-term debt to total assets, total debt to total assets, and debt to equity ratio with profitability. The study concluded that in Nepalese commercial banks, long-term debt to total assets, total debt to total assets, debt to equity ratio, and interest coverage ratio significantly influence profitability. Additionally, bank size is also observed to have a significant impact on their profits.

Lekhak, (2016) conducted a research on the loan management of HBL commercial banks. The objective of the study was to examine the total amount of loans disbursed concerning total deposits within the selected period. The researcher used financial as well as statistical tools are used to analyze the collected data. The findings revealed that deposit collection and loan disbursement are positively correlated and there is a negative trend of individual growth of loan disbursement and loan collection. If loan collection is high, then there will be a high amount of loan disbursement. The deposit collection is directly affecting the disbursement of the loan.

Nepal, (2015) conducted a research on the credit management of commercial banks in Nepal. The objective of the study was to assess the credit practices of selected Nepalese

commercial banks. The researcher used financial as well as statistical tools are used to make the analysis more convenient, reliable, and authentic. The findings revealed that the repayment is satisfactory in the agro-based industry and production sector compared to other sectors. Management quality and credit efficiency of selected banks were found satisfactory as they have standard credit practices. Credit disbursement and repayment have a significant relationship. The flow of new credit depends upon the recovery status.

### Summary of reviewed articles

S.N.	Sources	Topic	Objectives	Methodology	Findings
1.	Ogunmakinju (2022)	Credit management and Performance of deposit money Banks in Nigeria	To investigate credit management and the performance of the Deposit Money Banks in Nigeria.	Descriptive and regression analysis	The findings reported that non-performing loans were insignificantly positive to influence profit after tax (PAT), loan to deposit ratio revealed a positive significant impact on PAT, and capital adequacy ratio exhibited a positive insignificant impact on PAT. loan to deposit ratio (LDR) and profit after tax (PAT) revealed no uni or bi-directional relationship, and capital adequacy ratio (CAR) moved free without any direction
2.	Çollaku and Aliu (2021)	Impact of Non-Performing Loans on Bank's Profitability: Empirical Evidence from Commercial Banks in Kosovo	To examine the impact of non-performing loans on Kosovo banks' profitability	Multi-variable linear regression	The results showed that the effect of non-performing loans on profitability is statistically significant and shows that for each 1% increase in NPL, the Return of Assets decreases by 0.19%, holding other variables constant.

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3.	Anggariand Dana (2020)	The Effect of Capital Adequacy Ratio, Third Party Funds, Loan to Deposit Ratio, Bank Size on Profitability in Banking Companies on IDX	To analyze the effect of Capital Adequacy Ratio (CAR), Third Party Fund, Loan to Deposit Ratio(LDR), and Bank Size to Profitability in banking companies listed on the Indonesia Stock Exchange	Multiple linear regression	The results of this study indicate that the Capital Adequacy Ratio, Third Party Fund, and Bank Size have a positive and significant effect on profitability. Meanwhile, the Loan Deposit Ratio has a positive and insignificant effect on the Profitability of Banking Companies in the Indonesia Stock Exchange during the 2016–2018 period.
4.	Nugraha et al. (2020)	The influence of company size, asset structure, company growth, and Profitability on debt policy	To determine the determinants of debt policy in the food and beverage industry sub-sector	Ordinary Least Square Method (OLS)	The results showed that two variables affect debt policy, including tangibility which has a positive influence on debt policy and company growth has a negative effect on debt policy. While company size and profitability do not affect debt policy
5.	Nurdaniand Rahmawati (2020)	The Effect of Firm Sizes, Profitability, Dividend Policy, Asset Structure, Sales Growth and Free Cash Flow on Debt Policy (On Manufacturing Companies Listed on The Indonesia Stock Exchange 2015-2018)	To examine the effect of company size, profitability, dividend policy, asset structure, company growth and free cash flow on debt policy	Multiple regression analysis	The analysis shows that the size of the company has a negative and not significant effect on debt policy, and profitability has a negative and significant effect on debt policy. Dividend policy variables and asset structure have a negative and significant effect on debt policy. While sales growth and free cash flow do not affect debt policy.

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6.	Wuaveetal. (2020)	Effect of liquidity management on the financial performance of banks in Nigeria	Toexaminetheeffect of liquidity managementonthe financialperformance ofbanks in Nigeria	Panel regression analysis	The study finds that liquidity ratio(LQR)hasapositiveand significant effect on the financialperformanceofDMB as measured by return on assets(ROA),returnonequity (ROE) and net interest margin(NIM).
7.	Zelalem (2020)	The Impact ofFinancial Leverage on the Performance of Commercial Banks: EvidencefromSelected Commercial Banks in Ethiopia	To investigate the effect of financial leverage on the financialperformance of Ethiopian Commercial Banks	ex-postfacto and longitudinal research design	Theresultofthestudyshowed that Debt Ratio (DR) has a negativeinsignificanteffecton Banks'performancemeasured by Return on Assets (ROA) and Return on Equity (ROE) while Debt Equity Ratio (DER) And Interest Coverage Ratio (ICR) have a significant positive effect on Banks' performance measured by Return on Assets (ROA) and Return on Equity (ROE)
8.	Zhangetal. (2020)	Debt effect on profitability	To understand the impact of debt ratio on profitability	Descriptive research design	Corporate profitability is negativelycorrelatedwithdebt ratio, tax ratio and intangible assets. Assets growth is not related to corporate profitability
9.	Reschiwati (2019)	Effect of Liquidity, Profitability, and Size of Companies on Firm Value	To examine and analyzetheeffectof liquidity,profitability, thesize ofthefirmandits value in capital structure	Causal and descriptive research design	The results of this study indicate that liquidity, profitability, and firm size significantly influence capital structure. Capital structure is notamediatoroftheinfluence ofliquidity andprofitability on firmvalue,whilecapital

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				structure is a mediator of the effect of firm size on firm value.	
10.	Kajola et al., (2019)	Liquidity and Profitability Dynamics: Evidence from the Nigerian Banking Sector	To examine the effect of liquidity management on profitability in ten deposit money banks in Nigeria	random effects generalized least squares estimation technique	The results reveal a positive and statistically significant relationship between two liquidity management proxies (current ratio and liquidity ratio) and return on asset. The study did not find empirical evidence in support of loan-to-deposit ratio and deposit-to-asset ratio as influencing the profitability of the selected banks, as results produced an insignificant relationship with profitability
11.	Habib et al., (2016)	Impact of debt on the Profitability of firms; Evidence from the non-financial Sector of Pakistan	To investigate the relationship between debt and profitability of firms with empirical evidence from the non-financial sector of Pakistan	Random effect regression analysis	Results indicate a significant but negative relationship between short-term debt, long-term debt, total debt, and return on assets.
12.	Pradhan and Khadka (2016)	The Effect of debt financing on the profitability of Nepalese commercial Banks	To examine the effect of debt financing on the profitability of the Nepalese commercial banks	Regression model	The result shows a positive relationship of banks' profitability with short-term debt to total assets, interest coverage ratio and size of the banks. However, profitability is negatively related to long-term debt to total assets, total debt to total assets and debt to equity ratio. The regression

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result shows that beta coefficients are positively significant for short-term debt to total assets, interest coverage ratio and size of the banks with profitability. Whereas the beta coefficients are negatively significant for long-term debt to total assets, total debt to total assets and debt to equity ratio with profitability

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### **Research Gap**

Based on the review of previous research and studies, it has been observed that the increasing non-performing loans pose a significant challenge for existing financial institutions in the current context. Some researchers have focused on examining the implementation of directives issued by the regulatory body (such as NRB) by banks and financial institutions, while others have investigated non-performing loans and loan loss provisioning in the microfinance sector. However, no research has specifically addressed the impact of loans such as loan-to-total deposit ratio, debt-equity ratio, debt ratio, interest coverage ratio and firm size of microfinance institutions on profitability. Furthermore, the analysis of loans and advances in previous studies has been limited to simple comparisons of ten-year data. There has been a lack of explanation regarding the impact of debt management on the profitability of microfinance companies in Nepal. Therefore, this research aims to bridge this gap in the existing literature by referencing the experiences of Chimek, Swablamban, Depros, Nerude and Nirdhan Uthhan Laghubitta Bittiya Sanstha Limited.

## CHAPTER III

### RESEARCH METHODOLOGY

Research Methodology is a systematic way of solving the research problem. It refers to the various sequential steps to be adopted by a researcher in studying a problem with certain objectives in view. In other words, research Methodology describes the methods and processes applied to the entire subject of the study. It is a way to solve the research problem systematically. It may be understood as a science of studying how research is done significantly. The researcher must know not only the research methods/techniques but also the methodology. Researchers not only need to know how to develop certain indicators or tests, and how to calculate the mean, the mode, and the research techniques but they also need to know which of these methods or techniques are relevant and which are not and what would they mean and indicate and why.

Research has two important aspects. First, it is sufficiently broad to include all types of investigations requiring solutions to a problem. Second, it explicitly recognizes the systematic nature of the research process in which data are gathered, recorded, analyzed, and interpreted in an orderly manner. The following methodology has been followed to conduct the present study (Pant, 2021).

#### **Research Design**

Research design is an overall framework or plan for the collection and analysis of data that focuses on the data-collection methods, the research instruments utilized, and the sampling plan to be followed. Research design is the plan, structure and strategy of investigation conceived to obtain answers to research questions and to control variance. The problem, the methodology, data gathering, data analysis and report writing are the basic elements of a research design.

This research study attempts to analyze the loan management of microfinance sectors. The research design follows its loan proceeds methods, current scenario of management and future planning for this section. Mostly the analysis is based upon secondary data, i.e., ten years' financial statements of the sample firms, collected directly from those firms and their websites. The descriptive and causal research design is adopted in this study.

### **Population and Sample**

The population for this study comprises all the microfinance institutions of Nepal. According to NRB, 61 MFIs are operating in Nepal. The study deals with the loan management policy of microfinance and its impact on the long run of business activities. The sample size of the study is five among them: Chimek, Deprosc, Swablamban, Nerude and Nirdhan Uthhan Laghubitta Bittiya Sanstha Limited.

### **Nature and Sources of Data**

The study is based on secondary data only. The required data for analysis are directly collected from the balance sheet, and profit and loss account of concerned MFIs from the annual report provided. It has also taken the NRB research report for comparison to see whether the studied microfinance goes as per the rules and regulations of the central bank or not. The main sources of data assessed under the study include Chimek, Deprosc, Swablamban, Nerude and Nirdhan Uthhan Laghubitta Bittiya Sanstha Limited.

### **Method of Data Analysis**

Data analysis is done according to the pattern of data available. Specific financial and statistical tools are used in this research to show the relationship between different variables related to the study. Regarding presentation, the calculated results are tabulated under different headings for ease of reading and then they are compared with each other to interpret the results. Mean and correlation analysis are done to study the relationship between the variables. Presentation and Analysis of the collected data are the core part of the research work. The collected data are first presented systematically in tabular form and are then analyzed by applying different financial and statistical tools to achieve the research objective. Besides that, some graph charts and tables have been presented to analyze and interpret the study. Various Financial and statistical tools are used for data analysis.

### **Data Analysis Tools**

Financial as well as statistical tools are used to make the analysis more convenient, reliable and authentic. Their ratio, percentage, mean, standard deviation and coefficients of variations are then calculated and presented in the tables. To study the relationship between two or more variables, correlation coefficients are also calculated. Likewise, trend analysis

is also used to know the trend of various ratios. Following is a brief introduction to the financial and statistical tools used in this study.

### **Financial Tools**

To evaluate the financial condition and performance of a company, the financial analyst needs a certain yardstick. The yardstick frequently used is a ratio of index relating two pieces of financial data to each other. Analysis and interpretation of various ratios should give experienced, skilled analysts a better understanding of the financial condition and performances of the firm than they would obtain from analysis of the financial data alone. The type of analysis varies according to the specific interest of the party involved. The claims of bondholders, on the other hand, are long-term. Accordingly, they are more interested in the cash flow ability of the company to provide service debt over the long run.

The bondholder may evaluate this ability by analyzing the capital structure of the firm, the major sources and uses of funds, its profitability over time, and projections of future profitability.

- **Loan to total deposit ratio (LDR)**

The loan-to-total deposit ratio, often abbreviated as the LTD ratio, is a financial metric used by banks and financial institutions to assess their lending practices and overall financial health. It is calculated by dividing the total amount of loans extended by the institution by the total deposits it holds. This ratio provides insight into the bank's liquidity and risk exposure, as a high ratio indicates that a larger portion of customer deposits is being used to fund loans, potentially increasing the institution's vulnerability to economic downturns or unexpected withdrawal demands. Conversely, a low ratio suggests a more conservative lending approach with a higher proportion of deposits held in reserve, which may offer greater stability but could also limit profitability. The loan-to-deposit ratio is a key metric that indicates the proportion of loans and advances extended to customers. It serves as a crucial variable illustrating the delicate balance between liquidity and profitability for banks (Kajola et al., 2019). It is calculated as

$$\text{Loan to Total Deposit Ratio (LDR)} = \frac{\text{Total Loan and Advances}}{\text{Total Deposits}}$$

- **Debttoequityratio(DER)**

The debt-equity ratio measures the long-term financial solvency of a firm. The debt-to-equity ratio is a financial ratio that measures the relative proportion of a company's debt, typically represented by long-term loans and liabilities, to its equity, which comprises shareholders' ownership of the company. This ratio provides insights into a company's financial leverage and risk exposure, as a higher ratio suggests a greater reliance on borrowed funds, potentially amplifying financial risks and interest obligations. Conversely, a lower ratio implies a more conservative financial structure with a higher portion of financing coming from shareholders' equity. The debt-to-equity ratio is calculated by dividing total debt by total equity, and it plays a crucial role in assessing a company's solvency and financial stability. Describe the connection between the proportion of a company's total assets funded by external creditors through debt and the portion financed by the company's owners through equity. This ratio signifies the competing interests of creditors and shareholders about the company's assets (Zelalem, 2020). It is calculated as follows:

$$\text{DebttoEquityRatio}(DER) = \frac{\text{TotalDebt}}{\text{TotalEquity}}$$

- **Debratio(DR)**

The debt ratio is a financial ratio that measures the extent of a company's leverage. It is defined as the ratio of total debt to total assets, expressed as a decimal or percentage. The debt ratio can be interpreted as the proportion of a company's assets that are financed by debt. A ratio greater than 1 indicates that a considerable amount of a company's assets is funded by debt, which means the company has more liabilities than assets. However, a ratio below 1 means that a greater portion of a company's assets is funded by equity. The lower the debt ratio, the higher the protection afforded to creditors in the event of liquidation (Sharma et al., 2018). It is calculated as

$$\text{DebtRatio}(DR) = \frac{\text{TotalDebt}}{\text{TotalAssets}}$$

- **Interestcoverageratio(ICR)**

The interest coverage ratio (ICR) is a financial ratio that measures a company's capacity to pay interest on its outstanding debt. It is calculated by dividing a company's earnings before

interest and taxes (EBIT) by its interest expense during a given period. The ICR is also referred to as the times interest earned (TIE) ratio. A higher ICR indicates that the company has more earnings to cover its interest payments, which is a positive sign for investors, creditors, and lenders. Conversely, a lower ICR indicates that the company has less earnings to cover its interest payments, which could be a warning sign for investors, creditors, and lenders. The ideal ICR may vary by industry, but generally, a higher coverage ratio is better. It measures the ability of a firm to pay its interest charges. This ratio indicates how many times interest charges can be covered by the available earnings before interest and tax (EBIT) (Zelalem, 2020). It is calculated as;

$$\text{Interest Coverage Ratio (ICR)} = \frac{\text{EBIT}}{\text{Interest Expenses}}$$

Where,

EBIT = Earnings before taxes or Operating Profit

- **Return on assets (ROA)**

The term return on assets (ROA) refers to a financial ratio that indicates how profitable a company is about its total assets. Corporate management, analysts, and investors can use ROA to determine how efficiently a company uses its assets to generate a profit. The metric is commonly expressed as a percentage by using a company's net income and its average assets. A higher ROA means a company is more efficient and productive at managing its balance sheet to generate profits while a lower ROA indicates there is room for improvement. ROA is an indicator which shows the ability of a company to generate profits against its total assets. It reflects the efficiency of management in utilizing its assets to generate earnings (Habib et al., 2016).

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

- **Return on equity (ROE)**

Return on equity (ROE) is a measure of financial performance calculated by dividing net income by shareholders' equity. Because shareholders' equity is equal to a company's assets minus its debt, ROE is considered the return on net assets. ROE is considered a gauge of a corporation's profitability and how efficient it is in generating profits. The higher the ROE, the more efficient a company's management is at generating income and growth from its equity financing. Return on equity is the amount of net income returned as a percentage of

shareholder's equity. Return on equity measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested. Return on equity is measured by dividing net income after tax by the book value of owner equity (Pradhan, 2017). The formula of return on equity is given below

$$\text{Return on Equity (ROE)} = \frac{\text{Net Income}}{\text{Total Equity}}$$

### **Statistical Tools**

Various statistical tools mentioned below here are used to analyze and interpret the loan management policy of concerned banks. Similarly, statistical tools help to find out the trends of the financial position of microfinance and to analyze the relationship between variables that help the bank to make appropriate loan management policy regarding profit maximization and deposit collection, fund utilization through providing loans and advances or investments on other companies. In this study, statistical tools such as the coefficient of correlation between different variables, and trend analysis of important variables have been used for analyzing and interpreting the financial data. This basis of statistical analysis related to this study is discussed below: -

- **Arithmetic Mean**

The mean or average value is a single value within the range of the data that is used to represent all the values in the series. Since an average value is somewhere within the range of the data, it is also called a measure of central value. The average value is obtained by adding together all the terms and by dividing this total by the number of items. This formula is given below: -

$$\bar{X} = \frac{\sum X}{n}$$

Where,  $\sum X = X_1 + X_2 + X_3 + \dots + X_n = \text{Sum of given set of observation}$

$n = \text{Number of items observed. } X =$

Variables

- **Standard Deviations**

Karl Pearson first suggested standard deviation (SD) in 1893 as a measure of dispersion. It is usually denoted by sigma ( $\sigma$ ). The measurement of the scatterings of the mass of figures

in a series about an average is known as dispersion and standard deviation measures the absolute dispersion. The greater the amount of dispersion greater the standard deviation and vice versa. A small standard deviation means a high degree of uniformity of the observation as well as homogeneity of a series. A large standard deviation refers to low uniformity and homogeneity of the series.

Symbolically,

$$SD(\sigma) = \sqrt{\frac{\sum (X - \bar{X})^2}{n}}$$

- **Coefficient of variation**

The relative measure of dispersion based on the standard deviation is known as the coefficient of standard deviation. The coefficient of dispersion based on standard deviation multiplied by 100 is known as the coefficient of variation (CV)

$$CV = \frac{SD}{Mean} \times 100\%$$

The coefficient of variation reflects the relationship between standard deviation and mean. Since C.V. is independent of the unit, two distributions can better be compared with the help of it for their variability. Higher CV denotes higher variability, i.e., lesser uniformity and consistency and vice versa.

- **Correlation Coefficient**

Correlation is defined as the "relationship" (of association) between (Among) the one dependent variable (or factor) and one (or more than one) independent variable(s) or factor(s). In other words, correlation is the relationship between (or among) two or more variables (i.e., only one variable dependent and one or more variable(s) independent).

$$\text{Correlation of coefficient, } r = \frac{n \cdot \sum XY - (\sum X) \cdot (\sum Y)}{\sqrt{n \cdot \sum X^2 - (\sum X)^2} \cdot \sqrt{n \cdot \sum Y^2 - (\sum Y)^2}}$$

Where,

n = Number of pairs of observation. X =

Variable

Y = Variable

r = correlation of coefficient

- **Regression Analysis**

Regression analysis is a statistical method employed to assess the extent of the relationship between a dependent variable and one or more independent variables. It involves examining the nature and magnitude of the connection between these variables. Consequently, regression entails either estimating unknown values or predicting one variable based on the known values of others. It serves as a valuable tool for quantifying the strength of the relationship between two variables (Simple Regression) or more (Multiple Regression). The regression line of the dependent variable (Y) on the independent variable (X) is given by:

$$Y = a + bX \dots \dots \dots (I)$$

Where,

a = Constant

b = regression coefficient

### **Multiple Regression Analysis**

Multiple regression analysis is an extension of simple linear regression, where instead of a single independent variable, multiple independent variables are employed to predict the unknown values of a dependent variable. Nonetheless, the core concept in this analysis remains consistent. Multiple regression can be defined as a statistical method utilized to estimate or predict the most likely value of a dependent variable by considering the known values of two or more independent variables. The following multiple regression equation is analyzed.

Multiple Regression Model

$$\hat{Y} = a_1 + b_1X_1 + b_2X_2 + b_3X_3 + \dots \dots \dots + e_i.$$

Where,

$\hat{Y}$  = Dependent variable

$X_1, X_2, X_3$  = Independent variable

$a_1$  = Constant

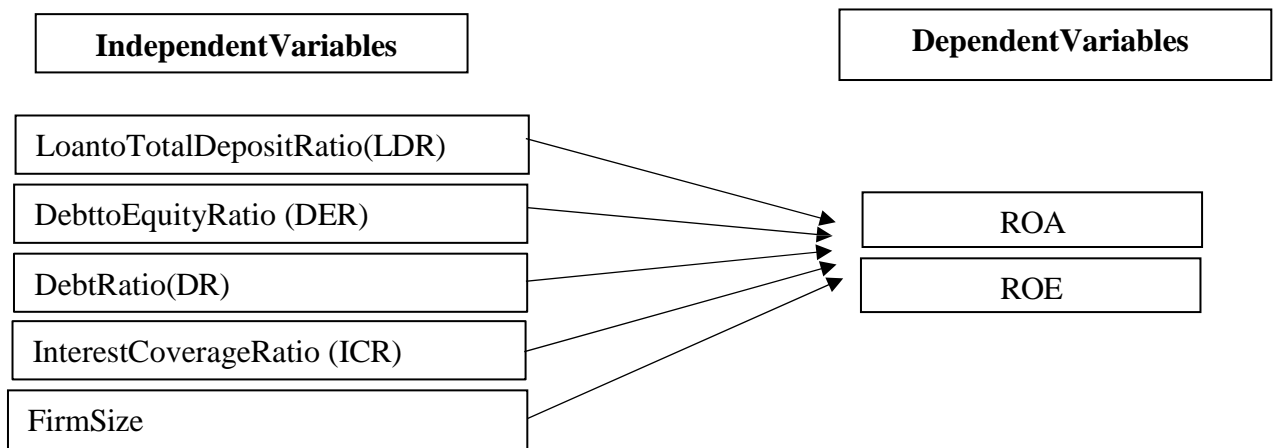
$b_1, b_2, b_3$  = Regression Coefficient

$e_i$  = Error term

## Research Framework and Variable Definitions

The conceptual framework is the foundation on which the entire thesis is based. This research is comprised of the independent variable (liquidity) and the dependent variable (profitability).

Figure 1 Variables Definitions



*Sources: Ogunmakinju, 2022; Zelalem, 2020; Pradhan, 2017)*

Profitability is a dependent variable affected by various factors such as loan-to-total deposit ratio, debt-to-equity ratio, debt ratio, interest coverage ratio and firm size. The debt and profitability ratios were used to examine the relationship between those variables and profitability in microfinance companies in Nepal. Debt management ratios are taken as independent variables and profitability ratios as dependent variables were used in the study.

- **LoantoTotalDepositRatio (LDR)**

Banks primarily function as intermediaries, transferring funds from entities with surplus funds to those with deficits. This financial intermediation process is at the core of their operations. The loan-to-deposit ratio is a key metric that indicates the proportion of loans and advances extended to customers. It serves as a crucial variable illustrating the delicate balance between liquidity and profitability for banks. Banks seeking higher profits often achieve this goal by providing more loan facilities to customers. However, banks prioritizing liquidity tend to limit their lending, resulting in a lower loan-to-deposit ratio in such cases (Kajola et al., 2019).

- **Debttoequityratio**

The debt-to-equity ratio evaluates a company's financial structure and risk. It is calculated by dividing the total amount of a company's debt (which includes long-term loans and liabilities) by the total equity (representing shareholders' ownership in the company). This ratio provides insights into the level of financial leverage a company employs, as a higher ratio indicates a greater reliance on borrowed funds, potentially leading to higher financial risk and interest obligations. Conversely, a lower debt-to-equity ratio signifies a more conservative financial structure, with a higher proportion of financing coming from shareholders' equity. This ratio is essential for assessing a company's solvency, financial stability, and risk profile. It is a measure of the proportion of debt to shareholder's funds (i.e., net worth) in the total financing of a business. The ratio indicates how much money was raised as debt (Pradhan, 2017).

- **Debt Ratio**

A ratio greater than one shows that a considerable amount of a company's assets is funded by debt, which means the company has more liabilities than assets. A high ratio indicates that a company may be at risk of default on its loans if interest rates suddenly rise. A ratio below 1 means that a greater portion of a company's assets is funded by equity. A debt ratio measures the amount of leverage used by a company in terms of total debt to total assets. This ratio varies widely across industries; such that capital-intensive businesses tend to have much higher debt ratios than others. A company's debt ratio can be calculated by dividing total debt by total assets. A debt ratio of greater than 1.0 or 100% means a company has more debt than assets while a debt ratio of less than 100% indicates that a company has more assets than debt. Some sources consider the debt ratio to be total liabilities divided by total assets. (Zekelem, 2020).

- **Interest Coverage Ratio**

The interest coverage ratio (ICR) is a financial metric that measures a company's ability to pay interest on its outstanding debt. It is calculated by dividing a company's earnings before interest and taxes (EBIT) by its interest expense during a given period. The ICR is also known as the times interest earned (TIE) ratio. A higher ICR indicates that the company has more earnings to cover its interest payments, which is a positive sign for investors, creditors, and lenders. Conversely, a lower ICR indicates that the company has less earnings to cover its interest payments, which could be a warning sign for investors,

creditors, and lenders. The ideal ICR may vary by industry, but generally, a higher coverage ratio is better. The interest coverage ratio (ICR) is a measure of a company's ability to meet its interest payments. The interest coverage ratio is equal to earnings before interest and taxes (EBIT) for a period, often one year, divided by interest expenses for the same period (Pradhan, 2017).

- **Firm Size**

The size of a firm is primarily determined by the value of its assets. Larger companies tend to have an easier time financing their investments because they typically experience higher sales growth rates and encounter fewer issues related to information asymmetry. This aligns with the Trade-Off Theory, which suggests that larger firms can employ more debt in their capital structure because their lower risk of bankruptcy makes the cost of using substantial corporate debt lower compared to smaller companies. As a result, larger companies are incentivized to increase their reliance on debt. In essence, a company's size plays a significant role in shaping its capital structure, (Marfuah and Nurlala, 2019).

- **Return on Assets (ROA)**

It is used as a Dependent variable. ROA is an indicator which shows the ability of a company to generate profits against its total assets. It reflects the efficiency of management in utilizing its assets to generate earnings (Habib et al., 2016). Return on Assets (ROA) is a measure that assesses a company's profitability about its overall asset base. ROA is determined by dividing a company's yearly earnings by its total assets, and it is typically expressed as a percentage. According to Ekwe and Daru (2012), ROA was selected as the dependent variable in their study because it serves as an indicator of managerial effectiveness.

- **Return on Equity (ROE)**

Return on Equity (ROE) is a financial metric that represents the percentage of a company's net income about its shareholders' equity. ROE is a valuable measure of a corporation's profitability, as it indicates the level of profit generated from the funds invested by shareholders. To calculate ROE, you divide the after-tax net income by the book value of owner equity (Pradhan, 2017).

## **CHAPTER IV**

### **RESULT AND DISCUSSION**

#### **Results**

This chapter comprises compiled data and its corresponding presentations, focusing on the examination of how loan management influences the profitability of retail microfinance firms in Nepal. Utilizing various tools and reviewing journals, articles, reports, and thesis in the second chapter, we endeavour to assess the effects of loan management on microfinance companies. All information is derived from secondary sources, facilitating a comprehensive analysis and presentation through the use of tables and figures.

#### **Descriptive Analysis**

This study shows the analysis of descriptive statistics for the sample's retail microfinance companies in Nepal, encompassing variables such as minimum, maximum, mean and standard deviation. Descriptive statistics serve to offer a succinct overview of key features within a dataset, encompassing measures of central tendency, variability, and distribution. The mean, representing the arithmetic average of the observed variable, encapsulates its essence and provides a representative value. The minimum and maximum values signify the lowest and highest points that a variable can attain. Standard deviation, highlighting the spread within each variable's dataset, is small when data points are close to the mean and larger when there is a broader distribution across a wide range. The provided table outlines profitability indicators for retail microfinance companies like return on assets and returns on equity and the independent variables such as loan-to-deposit ratio, debt-to-equity ratio, debt ratio, interest coverage ratio and size of the firm.

The given table reveals the descriptive statistics of dependent variables such as return on assets, return on equity and independent variables i.e. loan to deposit ratio, debt-equity ratio, debt ratio, interest coverage ratio and firm size.

**Table 2 Descriptive statistics analysis**

	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Standard Deviation</i>
Loan to Total Deposit Ratio	0.2248	3.3771	2.0983	0.7188
Debt to Equity Ratio	3.01160	12.6630	7.5475	1.9583
Debt Ratio	0.4481	0.9268	0.8727	0.0659
Interest Coverage Ratio	-0.6388	1.6394	0.7658	0.4576
Size	1.3422	38.2559	12.4216	9.1261
Return on Assets	0.0078	0.0448	0.0297	0.0092
Return on Equity	0.0559	0.3913	0.2602	0.0913
Count (N)=49				

(Sources: Data output from Excel analysis)

Table 2, shows the descriptive statistics of the past ten years' data of selected retail microfinance. The minimum values of the variables such as loan-to-deposit ratio, debt-to-equity ratio, debt ratio, interest coverage ratio, size, return on assets and return on equity are 0.2248, 3.01160, 0.4481, -0.6388, 0.0078 and 0.0559 respectively. The highest minimum value is 3.01160 of debt to equity ratio but the interest coverage ratio has the lowest minimum value i.e. -0.6388. The maximum value of the variables such as loan to deposit ratio, debt to equity ratio, debt ratio, interest coverage ratio, size, return on assets and return on equity are 3.3771, 12.6630, 0.9268, 1.6394, 38.2559, 0.0448 and 0.3913 respectively. The highest maximum value accounted to size is 38.2559 but return on assets has the lowest maximum value i.e. 0.0448.

The average loan-to-total deposit ratio is 2.0983, the debt-to-equity ratio is 7.5475 and the debt ratio, interest coverage ratio, size, return on assets and return on equity have the following average values 0.8727, 0.7658, 12.4216, 0.0297 and 0.2602 respectively. The mean values offer a representative value within the data. The debt-to-equity ratio has a 1.9583 standard deviation and the loan-to-total deposit ratio, debt ratio, interest coverage ratio, size, return on assets and return on equity have 0.7188, 0.0659, 0.4576, 9.1261, 0.0092 and 0.0913 respectively. The standard deviation displays the range of values for each variable in the dataset. A smaller standard deviation means that the data point is closer

to the average value; on the other hand, a larger standard deviation suggests a distribution that spans a larger range.

### Correlationanalysis

Thecorrelation coefficient defines the relationship between a dependent variable and one or more independent variables. The following table shows the relationship between dependent variables i.e. ROA, ROE and independent variables i.e. loan to total deposit ratio, debt-equity ratio, debt ratio, interest coverage ratio and size.

**Table3Correlationanalysis**

	<i>Loan to Deposit Ratio</i>	<i>Debt Equity Ratio</i>	<i>Debt Ratio</i>	<i>Interest Coverage Ratio</i>	<i>Size</i>	<i>Return on Assets</i>	<i>Return on Equity</i>
LoantoDepositRatio	1						
DebtEquityRatio	0.0563	1					
Debt Ratio	0.1308	0.5169	1				
InterestCoverage Ratio	0.2596	0.1867	0.2206	1			
Size	-0.6698	-0.3814	-0.3213	-0.3086	1		
Returnon Assets	0.1366	0.0380	0.2787	0.7342	-0.0634	1	
Returnon Equity	0.0818	0.4659	0.4351	0.7249	-0.2681	0.8193	1

a. Dependentvariable:ROA,ROE

b. Independentvariable:LoantoDepositRatio,DebtEquityRatio,DebtRatio,InterestCoverage  
Ratio, Size

*(Sources:outputfromExcelanalysis)*

Table3,indicatesthecorrelationamongthedependentvariablesandindependentvariables. The loan-to-deposit ratio has positive correlation values with return on assets i.e. 0.1366. There is a positive relationship between the debt-to-equity ratio and return on assets i.e. 0.0380, it is positively correlated with each other which means there is a favourable relationship between the debt-equity ratio and return on assets (ROA). There is a positive relationship between debt ratio and return on assets i.e. 0.2787 which means if debt increases the value of return on assets also increases. The Interest coverage ratio shows a positive signtowardsreturnonassetsbasedoncorrelationi.e.0.7342.however,thereisa

negative relationship between size and return on assets i.e. -0.0634, which means if the size of the firm increases the value of return on assets will decrease.

The return on equity is positively affected by the loan-to-deposit ratio which has a 0.0818 correlation value. There is a positive relationship between the debt-to-equity ratio to the return on equity i.e. 0.4659, it is positively correlated with each other which means there is a positive relationship between both variables. The favorable impact of debt ratio on return on equity the correlation value is 0.4351 which means if the debt ratio increases the value of return on equity also increases. The interest coverage ratio has also a positive sign toward the return on equity as per the correlation analysis i.e. 0.7249 but there is a negative relationship between firm size and the return on equity i.e. -0.2681, which leads to the opposite relationship between size and return on equity.

### Regression analysis

Regression analysis is a set of statistical tools used to predict the relationship between two variables such as dependent and independent variables. The goal is to identify the line that best fits the data of the independent variable to forecast the value of the dependent variable. Regression facilitates inference and prediction by assisting in the understanding of correlation and quantifying the direction and degree of the link between variables.

### Model Summary

**Table 4 Model**

Summary	Regression Statistics	
	ROA	ROE
Multiple R	0.7876	0.8197
R Square	0.6203	0.6719
Adjusted R Square	0.5761	0.6338
Standard Error	0.0060	0.0552
Observations	49	49

(Sources: output from Excel analysis)

Table 4, shows the Multiple R is the correlation coefficient which displays how strong the linear relationship is between the dependent and independent variables. The multiple R of return on assets (ROA) is 0.7876 and the return on equity (ROE) is 0.81977. The value of the R square of ROA is 0.6203 which indicates that 62.03% of the systematic variation in

return on assets can be explained by loan-to-deposit ratio, debt-equity ratio, debt ratio, interest coverage ratio and size. The remaining is due to the effect of other factors. The value of the R square of return on equity is 0.6719 which indicates that 67.19% of systematic variation in ROE is explained by the above-mentioned independent variables and the remaining is due to the effect of other factors. The standard error of return on assets (ROA) is 0.0060 and return on equity (ROE) is 0.0552, which shows the deviation between the actual value and the estimated value of dependent variables which is return on assets and return on equity. The total number of observations in this study is 49.

### ANOVA analysis

ANOVA (Analysis of Variance) in regression provides insights into the overall significance of the model and individual variables contributions. The following table shows the ANOVA analysis.

**Table 5 ANOVA analysis**

#### ANOVA

	<i>ROA</i>				<i>ROE</i>				
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance</i>		<i>Significance</i>		
					<i>F</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>F</i>
Regression	5	0.0025	0.00051	14.0493	3.7696	0.2688	0.0538	17.6147	1.8189
Residual	43	0.0016	3.6047			0.1312	0.0031		
Total	48	0.0041				0.4000			

a. Dependent variable: ROA, ROE

b. Independent variable: Loan to Deposit Ratio, Debt Equity Ratio, Debt Ratio, Interest Coverage Ratio, Size

(Sources: output from Excel analysis)

Table 5, illustrates the ANOVA analysis which indicates the significance F of return on assets (ROA) is 3.7696 and returns on equity (ROE) is 1.8189, significance F value of return on assets and return on equity is higher than the level of significance i.e. 0.05 it is concluded that there is an insignificant relationship between dependent variable i.e. return on assets, return on equity and independent variables. The value of F of return on assets is 14.0493 and return on equity is 17.6147, which is a measure used in the analysis of variance (ANOVA) and regression analysis to assess the significance of the difference between group means or the significance of the overall regression model.

### Regressionanalysis

By establishing an estimated functional relationship between the variables, regression is a statistical tool for analyzing the relationship between the variables. When assessing the degree of correlation between two (simple regression) or more (multiple regression) variables, it is thought to be a helpful tool. The regression of profitability and loan management variables i.e. loan deposit ratio, debt-equity ratio, debt ratio, interest coverage ratio and size, the impact has been analyzed by defining return on assets and return on equity changes in terms of the loan management position of selected retail microfinance. The equation for this regression module is given below;

$$ROA = \beta_0 + \beta_1 LDR + \beta_2 DER + \beta_3 DR + \beta_4 ICR + \beta_5 S \dots \dots \dots (i)$$

$$ROE = \beta_0 + \beta_1 LDR + \beta_2 DER + \beta_3 DR + \beta_4 ICR + \beta_5 S \dots \dots \dots (ii)$$

Where;

ROA: Return on Assets

ROE: Return on Equity

$\beta_0$ : Constant

LDR: Loan to Deposit Ratio

DER: Debt Equity Ratio

DR: Debt Ratio

ICR: Interest Coverage Ratio

S: Size

$\beta_1, \beta_2, \dots, \beta_4$ : coefficients that represent the effect of each independent variables

**Table 6 Regression analysis**

	<i>ROA</i>			<i>ROE</i>		
	<i>Coefficients</i>	<i>Standard</i>		<i>Coefficients</i>	<i>Standard</i>	
		<i>Error</i>	<i>P-value</i>		<i>Error</i>	<i>P-value</i>
Constant	-0.0137	0.0139	0.3313	-0.1112	0.1285	0.3915
LoantoDepositRatio	0.0011	0.0017	0.5264	-0.0153	0.0157	0.3356
DebtEquityRatio	-0.0007	0.0006	0.2309	0.0123	0.0051	0.0204
Debt Ratio	0.0358	0.0156	0.0269	0.2357	0.1440	0.1090
InterestCoverageRatio	0.0153	0.0020	1.7843	0.1344	0.0186	5.9563
Size	0.0003	0.0001	0.0836	0.0001	0.0013	0.9126

a. Dependent variable: ROA, ROE

b. Independent variable: LoantoDepositRatio, DebtEquityRatio, DebtRatio, InterestCoverage Ratio, Size

(Sources: output from Excel analysis)

Table 6, shows the regression analysis of ROA on loan management illustrates that some of them have positive and some of them have negative coefficients. The constant value of the regression line with return assets is -0.0137 and the return on equity is -0.1112. The loan-to-deposit ratio has a positive coefficient with return on assets i.e. 0.0011 with 0.5264 p-values but there is a negative coefficient with return on equity i.e. -0.0153 and the p-value is 0.3356, which means loan to deposit ratio has a positive and insignificant relationship with return on assets but negative and insignificant relationship with return on equity. The debt-to-equity ratio has a negative coefficient i.e. -0.0007 and the p-value is 0.2309, which means there is a negative and insignificant relationship between the debt-equity ratio and return on assets. The debt-to-equity ratio has a positive coefficient i.e. 0.0123 and the p-value is 0.0204 < 0.05, which indicates there is a positive and significant relationship between debt-equity ratio and return on equity. The Debt ratio has a positive coefficient with return on assets i.e. 0.0358 and the p-value is 0.0269 < 0.05, which means the debt ratio is positive and significantly impacts on return on assets. Even the debt ratio has a positive coefficient with a return on equity i.e. 0.2357 and p value is 0.1090, which means return on equity is positively and insignificantly affected by the debt ratio.

The interest coverage ratio has a positive coefficient with a return on assets of 0.0153 and the p-value is more than the level of significance i.e. 0.05 < 1.7843, Interest coverage ratio

has a positive coefficient with return on equity i.e. 0.1344 and the p-value is 5.9563 which is higher than the level of significance, which means interest coverage ratio has a positive and insignificant impact on return on assets and return on equity. The size coefficient with return on assets is positive i.e. 0.0003 and the p-value is higher than the level of significance  $0.0836 > 0.05$  and the size regression coefficient with return on equity is also positive i.e. 0.0001 and p-value is  $0.9126 > 0.05$ , which means the return on assets and return on equity are positive and insignificantly affected by the firm size.

The standard error displays the variation between the dependent variables estimated and actual values. The dependent variable's value will increase if the independent variables' values rise, as indicated by the positive regression coefficient, which indicates a positive link between the two sets of data. However, the negative regression coefficient in a reverse link between dependent variables and independent factors.

## **Discussion**

In this study, the loan management of the profitability of retail microfinance companies in Nepal was examined.

The result disclosed that the loan-to-deposit ratio has a positive and insignificant impact on return on assets but a negative and insignificant impact on return on equity. Anggari and Dana, (2020) supported the results of this study the loan-to-deposit ratio has a positive and insignificant effect on profitability in banking companies. The impact of liquidity risk (loan/deposit) showed a negative relation but was not statistically significant on banks' profitability, Çollaku and Aliu, (2021). The result found by Wuave et al., (2020) contradicts this result, loan to deposit ratio has a negative and insignificant impact on return on assets and return on equity. Ogunmakinju, (2022) found loan to the deposit ratio has a positive but statistically significant impact on the profitability of deposit money banks in Nigeria. Kajola et al., (2019) support this finding, the Loan deposit ratio (LDR) exhibits a positive relationship with profitability (ROA) but is statistically insignificant. This finding is consistent with the works of Bassey and Moses, (2015) and Salim and Bilal, (2016) and it suggests that when LDR is used as a proxy for liquidity, liquidity management does not influence the profitability of Nigerian banks.

The result revealed that the debt-equity ratio has a negative and insignificant impact on return on assets and a positive and significant impact on return on equity. The result

supported by Pradhan and Khadka, (2016), the debt-to-equity ratio has a negative significant impact on the profitability of the banks. This result argued with Nazir et al., (2021), that short and long-term debt have negative and significant impacts on firm performance in profitability. Zelalem, (2020) partially support this result, that equity Ratio (DER) has a positive and significant effect on a bank's performance measured by return on assets (ROA) and return on equity (ROE).

Return on assets and return on equity have negatively but not statistically significantly influenced by the debt-equity ratio. Basit and Hassan, (2017) argued the results that the findings show earnings per share, return on equity and return on assets are significantly correlated to the debt-to-equity ratio. While debt to equity ratio found a significant impact on size and return on assets. Habib et al., (2016) disagreed with the above findings, results indicate a significant but negative relationship between long-term debt and return on assets.

The debt ratio has a positive and significant impact on return on assets and a positive but insignificant impact on return on equity. Habib et al., (2016) argued to this result, there was a significant but negative relationship between debt and profitability, thus, the higher the debt, the lower the profitability. It concurs with the Pecking order theory. Debt appears to be more costly due to certain reasons, therefore increasing the proportion of debt in capital structure will result in low profitability. The result found by Ndubusi et al., (2017), loan management has a positive and statistically significant relationship with the ROA of quoted deposit money banks. The result found Milosev, (2021), that the high ratio of total debt to total assets is negatively related to firm profitability in Serbia. Statistical significance and negative relationship between total debt and profitability are consistent with the results from Andersson and Minnema, (2018) in the analysis of the relationship between leverage and profitability of consulting firms in Sweden and with the results of the analyzed firms in Czech by Stryckova, (2017). The result of the study showed that Debt Ratio (DR) has a negative insignificant effect on Banks' performance measured by Return on Assets (ROA) and Return on Equity (ROE) Zelalem, (2020).

The return on assets and return on equity are positive and insignificantly affected by the debt ratio. Zhang et al., (2020) found that corporate profitability is negatively correlated with debt ratio. Aziz and Abbas, (2019) found that debt financing has a negative but also significant impact on firm performance in Pakistan of quoted deposit money banks in Nigeria. Habib et al., (2016) support the above findings, result indicate a significant but

negative relationship between short-term debt, long-term debt, total debt and return on assets. Prempeh et al., (2016) also support the results, that debt (short-term debt, long-term debt and total debt) hurts firms' performance.

The interest coverage ratio has a positive and insignificant impact on the return on assets and return on equity. The result found by Pradhan and Khadka, (2016) is in favour of this result, the interest coverage ratio contributes a significant positive impact on all the proxies of profitability of Nepalese commercial banks. Zelalem, (2020) partially agreed with this result, Interest Coverage Ratio (ICR) has a positive and significant effect on a bank's performance measured by return on assets (ROA) and return on equity (ROE). The result shows that financial leverage significantly affects the profitability of Banks Measured by both Return on Assets (ROA) and Return on Equity (ROE). Debt is the cheapest source of finance in the capital structure of a corporation business because of tax benefits than equity funds. The main source of profit for banks is the rate of interest charged which is greater than the rate of interest paid on deposits so financial leverage has no negative effect on banks that is why a positive significant effect is revealed in this study and consistent with a study conducted by Vintilla and Duce, (2012), Nwanna and Ivie, (2017), Njeri et al., (2013), Abdul et al., (2015) and Abubakar, (2015).

For the control variable, the result indicated that the company size has a positive and insignificant impact on the return on assets and return on equity. Anggari and Dana, (2020) argued that bank size has a positive and significant effect on the profitability of banking companies in IDX. The result found by Pradhan and Khadka, (2016) is in favour of this result, the bank size contributes a significant positive impact on all the proxies of profitability of Nepalese commercial banks. It can be observed that profitability is positively correlated with the control variables i.e. size. The results of this study concur with Mohammad and Jaafer, (2012), and Kebewar, (2013). Çollaku and Aliu, (2021) partially support these findings, the relationship between bank size and bank profitability (ROA) shows positive relations and statistically is significant. Bank size has an important role for banks to achieve better financial results and can serve as an amortization if banks face loan default. For the control variables and consistent with the prior study of Anarfi et al., (2016), firm size (FSZ) showed a positive but insignificant relationship with profitability Kolapo et al., (2012), Samad, (2015), and Kajola et al., (2018).

Return on assets and return on equity have a positive and insignificant effect on the size of microfinance companies. The result argued these findings, a negative and statistically significant relationship between size and profitability is identified in this study, and it's consistent with the results of Margaretha and Supartika, (2016), This study has found that productivity and firm size are the strongest determinants of profitability. There is a significant relationship between size and return on assets founded by Milosev, (2021). Size has a positive and significant impact on return on assets and return on equity the result found by Alvarez et al., (2020). Tauseef et al., (2016) constant in this finding, the firm size has no significant impact on return on equity.

## CHAPTER V

### SUMMARY AND CONCLUSION

This chapter is divided into these three sections, The first is to provide all the information about the study in short. The second section is about the conclusion of the study and the last section is about the implication.

#### **Summary**

All businesses must prioritise profit production because it is the foundation of an organisation's sustained survival in the marketplace. As such, financial managers need to be able to identify the critical elements that enhance an organization's profitability. Managers may face a wider range of organizational difficulties if they fail to evaluate these crucial components. Because of this, attaining and maintaining profitability has become a top priority for all commercial establishments.

To deal with these financial issues and solve these problems, this study aimed to examine the relationship between loan management and the profitability of retail microfinance companies and also find out the impact of loan management and the profitability of microfinance companies. This study focused on the loan-to-deposit ratio, debt-equity ratio, debt ratio, interest coverage ratio and size impact on the return on assets and return on equity of retail microfinance companies. While analyzing the impact of debt management on profitability some brief articles, journals and thesis reviews were performed. To find out the relationship between loan management and profitability descriptive and causal research design was used. 61 microfinance companies are operating in Nepal out of them 5 companies are taken as a sample for this study. The secondary data are used which is available from microfinance companies' websites and their annual reports. This study covers only ten years of data from 2012/2013 to 2021/2022. In this study to find out the relationship between loan management and profitability of retail microfinance companies and its impact on profitability. There are three kinds of variables were used in this study i.e. independent variables loan to deposit ratio, debt-equity ratio, debt ratio and interest coverage ratio and dependent variables return on assets and return on equity. Firm size has been taken as a control variable. The collected information and the numerical data have been analyzed by using Excel software and historical trends, descriptive statistics,

correlation, ANOVA and regression tools are used and tables are used to show the data and results clearly.

The findings of the study from correlation analysis show that the loan-to-deposit ratio and debt-equity ratio have a positive relationship with return on assets. Interest coverage ratio has a positive impact on return on assets and return on equity. However, firm size, as a control variable, has a negative relationship with both independent variables such as loan-to-deposit ratio, debt-equity ratio, debt ratio, and interest coverage ratio and dependent variables such as returns on assets, and return on equity. A positive relationship shows a favourable relationship between independent and dependent variables but microfinance companies' size has a negative relationship with both independent variable and dependent variables. The positive relationship shows that there is a favourable condition between both of them which means that the loan-to-deposit ratio, debt-equity ratio, debt ratio, and interest coverage ratio increase the return on assets and return on equity also.

From the regression analysis, the loan-to-deposit ratio has a positive relationship but is not statistically significant with return on assets but the return on equity is negatively and insignificantly influenced by the loan-to-deposit ratio. The debt-equity ratio has a negative and insignificant impact on the return on assets but the relationship between the debt-equity ratio and the return on equity shows a positive relation and statistically is significant. The return on assets is positively and significantly influenced by the debt ratio whereas, the relationship between return on equity and debt ratio shows a positive relation but is not statistically significant. The Interest coverage ratio has a positive and insignificant effect on profitability i.e. return on assets and return on equity. Performance of microfinance is positively and insignificantly affected by the size of the retail microfinance companies.

## **Conclusion**

This research examined loan management and its relation and impact on the profitability of five retail microfinance companies for the period of ten years i.e. 2012/2013 to 2021/2022. The researchers analysed the relationship between the loan-to-deposit ratio, debt-equity ratio, debt ratio, interest coverage ratio and the company size variables against profitability variables such as return on assets and return on equity.

This study result reveals that the loan-to-total deposit ratio (LDTR) has a positive and insignificant impact on return on assets but return on equity is negatively and insignificantly influenced by the loan-to-total deposit ratio. The Loan to deposit ratio is the ratio used to measure the level of microfinance lending. The higher the credit extended by microfinance, the higher the chances of obtaining a profit. Payment of interest earned from customer credit payments will increase bank profits. The increase in the amount of profit can increase the profitability of the microfinance. The higher the LDR, the higher the microfinance's profitability. Management of sources of funds that are from the community can be done by redistributing the funds collected in the form of credit to the public, distribution in the form of credit will certainly generate income in the form of credit interest, and increased credit interest income contributes to profits and microfinance management can invest their funds in profitable assets, so that this has an impact on increasing profitability which will also improve its financial performance. Microfinances are expected to increase lending to increase company profits by paying attention to the quantity of lending and maintaining the offered loan interest rate. Because the higher the LDR of retail microfinance companies, the microfinance's profitability will also increase, and its financial performance will remain good.

Returns on assets are negatively and insignificantly influenced by the debt-equity ratio but the impact of the debt-equity ratio on return on equity is positive and significant. A moderate amount of debt can improve a company's return on equity and possibly boost profitability. The debt-equity ratio has a major and delicate balance impact on profitability. This is so that the company can leverage its investments and increase shareholder returns by taking on debt. Nevertheless, a greater debt-to-equity ratio can raise financial risks since it makes interest payments more onerous and puts pressure on the company's cash flow. Therefore, to optimize their capital structure and ensure a mix that promotes growth and financial health without compromising profitability, microfinance organizations must strike the correct balance in the debt-to-equity ratio.

The debt ratio has a positive and significant effect on return on assets and is positive but not statistically significant on return on equity. According to this research, a larger debt load is linked to lower profitability, which means that microfinance firms with more debt will be less profitable. Financial leverage increases default risk even while it offers tax benefits to the businesses. Overspending can result in financial hardship, which can impair

a business's capacity to pay its debts and reduce profitability. Finding the appropriate balance is essential because while using debt wisely can increase profitability, using too much leverage can cause financial instability and have a detrimental effect on a company's results.

The Interest coverage ratio has a positive and insignificant impact on the return on assets and return on equity, which means a greater interest coverage ratio greater the profitability of the company. A strong interest coverage ratio gives creditors and investors confidence because it is typically linked to stability and sound financial conditions. A company's ability to manage its debt commitments is called into question by a reduced interest coverage ratio, which could result in higher financing costs and a detrimental effect on profitability. Therefore, since it indicates a company's ability to efficiently manage its financial commitments, a robust interest coverage ratio is essential for both sustaining and increasing profitability.

Return on assets and return on equity are positively and insignificantly influenced by the size of the retail microfinance companies. Bigger businesses might have greater access to resources for marketing, R&D, and innovation, which would improve their capacity to take market share and turn a profit. The particular industry, market circumstances, and management techniques all have a substantial impact on a company's overall financial performance, even though firm size can have an impact. Large microfinance institutions are supposed to have excellent asset management.

### **Implication**

The researchers have viewed the implications of this study from the viewpoint of financial managers and future researchers. Therefore, the implications of this study from the perspective of financial managers and further researchers are given below;

- This study suggests that there is a positive and insignificant relation of loan to total deposit ratio (LDTR) with return on assets but a negative and insignificant relation with return on equity. An insignificant and negative relationship between the debt-equity ratio with ROA but a positive and significant relation with ROE. The debt ratio has a positive and significant relationship with return on assets and a positive but not significant relation with return on equity. With the knowledge of this relationship,

managers should go for increasing return on assets and return on equity by reducing the amount of debt making debt-equity ratio and debt ratio.

- The Loan to deposit ratio is the ratio used to assess the microfinance company's lending level. A greater extension of credit by these microfinance companies has a higher chance of obtaining profit. If the interest spread increases, the company's profit will increase. The increase in the amount of profit can increase the profitability of the companies. The higher the LTDR, the higher the company's profitability.
- Interest coverage ratio has a positive but not significant relationship with return on assets and return on equity. It implies that the business has a sufficient safety net to cover its interest costs even in challenging circumstances. However, there may occasionally be a greater chance of defaulting on its loan.
- This study has shown that the return on assets is 62.03% affected by those independent variables and the return on equity is 67.19% influenced by those factors. So, the financial manager should take the best action to increase the profitability of the company.
- This study was conducted in only 5 microfinance companies listed in NEPSE. Now further researchers can conduct on the same topic by adding more or another sample size.
- Ten years of data have been used in this research; further researchers can go for more periods of data.
- This study used the loan-to-total deposit ratio, debt-equity ratio, debt ratio, interest coverage ratio and size to find out the impact on return on assets and return on equity of selected retail microfinance companies. Further researchers can use these variables as a reference for the studies or can go for more variables.

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## APPENDICES

### APPENDIX I

#### RAW DATA

(Amount in Billion)

Year	Sample	Loanto Deposit Ratio	Debt Equity Ratio	Debt Ratio	Interest Coverage Ratio	Size	Return on Assets	Return on Equity
2012/2013	Chimek	1.3172	12.1444	0.9239	0.4698	4.5541	0.0238	0.3122
2013/2014	Chimek	1.3583	12.6630	0.9268	0.4813	6.2114	0.0208	0.2839
2014/2015	Chimek	1.5205	3.0116	0.9143	0.7916	9.1453	0.0311	0.3633
2015/2016	Chimek	1.3831	9.2547	0.9025	1.0332	12.5243	0.0376	0.3861
2016/2017	Chimek	1.3654	9.2366	0.9023	0.8732	15.5095	0.0371	0.3800
2017/2018	Chimek	1.3754	9.2980	0.9029	0.7416	19.5496	0.0341	0.3511
2018/2019	Chimek	1.2686	5.6574	0.8498	0.6928	24.0603	0.0310	0.2066
2019/2020	Chimek	1.0102	5.8509	0.8540	0.4176	27.2668	0.0243	0.1664
2020/2021	Chimek	1.1092	5.7612	0.8521	0.9201	34.2868	0.0383	0.2591
2021/2022	Chimek	1.2241	5.5804	0.8480	0.5975	38.2559	0.0248	0.1629
2013/2014	Deprosc	3.2557	7.9486	0.8883	0.9634	2.4394	0.0298	0.2671
2014/2015	Deprosc	3.3643	6.9909	0.8749	1.6394	3.1691	0.0424	0.3387
2015/2016	Deprosc	3.3771	7.1268	0.8769	1.5000	4.4510	0.0426	0.3464
2016/2017	Deprosc	3.2546	5.1392	0.8371	1.2106	6.0561	0.0422	0.2594
2017/2018	Deprosc	3.2170	6.5452	0.8675	0.5403	8.5710	0.0264	0.1994
2018/2019	Deprosc	3.0948	6.9661	0.8745	0.4113	12.4867	0.0339	0.2704
2019/2020	Deprosc	2.3411	6.6253	0.8689	(0.6389)	13.5664	0.0212	0.1619
2020/2021	Deprosc	2.3289	6.1480	0.8601	0.9400	17.3780	0.0409	0.2923
2021/2022	Deprosc	0.2248	6.0044	0.8572	0.3822	19.2642	0.0261	0.1826
2012/2013	Swabalamban	2.0982	8.9908	0.8999	0.5420	3.3368	0.0190	0.1898
2013/2014	Swabalamban	2.4181	9.4930	0.9047	1.2798	4.8302	0.0373	0.3913
2014/2015	Swabalamban	2.2893	8.2369	0.8917	1.4518	6.1530	0.0383	0.3535
2015/2016	Swabalamban	2.0706	7.5750	0.8834	1.5395	7.6290	0.0424	0.3633
2016/2017	Swabalamban	1.9059	8.2562	0.8920	0.8102	10.0184	0.0264	0.2440
2017/2018	Swabalamban	1.7618	7.7967	0.8863	0.6819	11.7116	0.0293	0.2577
2018/2019	Swabalamban	1.9222	7.7778	0.8861	0.6496	15.9314	0.0266	0.2337
2019/2020	Swabalamban	1.6371	7.0490	0.8758	0.3681	16.9793	0.0188	0.1513
2020/2021	Swabalamban	1.6373	6.0207	0.8576	1.1289	18.9636	0.0362	0.2541
2021/2022	Swabalamban	1.5561	6.5234	0.8671	0.3867	21.8897	0.0133	0.0998
2012/2013	Nerude	2.3738	8.8894	0.8989	0.9449	1.3422	0.0345	0.3413
2013/2014	Nerude	2.4460	7.8925	0.8875	1.3062	1.5917	0.0406	0.3608
2014/2015	Nerude	2.4809	6.6137	0.8687	1.4256	1.9324	0.0402	0.3062

2015/2016	Nerude	2.5787	6.7031	0.8702	1.0272	2.4258	0.0334	0.2572
2016/2017	Nerude	2.6843	6.2940	0.8629	0.6315	3.7213	0.0254	0.1854
2017/2018	Nerude	2.4985	7.2085	0.8782	0.2690	4.4458	0.0125	0.1022
2018/2019	Nerude	2.5547	5.9239	0.8556	0.4172	5.5224	0.0220	0.1525
2019/2020	Nerude	2.4500	6.1547	0.8602	0.1046	6.0126	0.0078	0.0559
2020/2021	Nerude	2.9536	7.1801	0.8778	0.3816	8.3863	0.0228	0.1864
2021/2022	Nerude	3.0693	7.8034	0.8864	0.2157	10.6654	0.0183	0.1608
2012/2013	Nirdhan	2.7088	11.5890	0.9206	0.5638	4.6352	0.0198	0.2487
2013/2014	Nirdhan	2.5833	10.2525	0.9111	1.1415	6.1538	0.0337	0.3792
2014/2015	Nirdhan	2.4694	9.7441	0.9069	1.4035	8.3360	0.0335	0.3594
2015/2016	Nirdhan	2.3653	9.7799	0.9072	1.3732	11.8378	0.0341	0.3671
2016/2017	Nirdhan	1.9550	9.3783	0.9036	1.1267	15.3401	0.0373	0.3867
2017/2018	Nirdhan	1.7763	9.4238	0.9041	0.6618	17.9679	0.0302	0.3151
2018/2019	Nirdhan	1.7450	8.0123	0.8890	0.7702	22.1434	0.0322	0.2904
2019/2020	Nirdhan	1.4427	4.0222	0.4481	0.2548	23.8461	0.0107	0.0965
2020/2021	Nirdhan	1.5005	5.8904	0.8549	0.1182	26.5405	0.0448	0.3086
2021/2022	Nirdhan	1.4942	5.4009	0.8438	0.5824	29.6210	0.0253	0.1621

**APPENDIX II**  
**DESCRIPTIVE ANALYSIS**

	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Standard Deviation</i>
LoantoTotalDepositRatio	0.2248	3.3771	2.0983	0.7188
DebttoEquity Ratio	3.01160	12.6630	7.5475	1.9583
Debt Ratio	0.4481	0.9268	0.8727	0.0659
InterestCoverageRatio	-0.6388	1.6394	0.7658	0.4576
Size	1.3422	38.2559	12.4216	9.1261
Returnon Assets	0.0078	0.0448	0.0297	0.0092
Returnon Equity	0.0559	0.3913	0.2602	0.0913
Count (N)=49				

**APPENDIX III**  
**CORRELATIONANALYSIS**

	<i>Loanto Deposit Ratio</i>	<i>Debt Equity Ratio</i>	<i>Debt Ratio</i>	<i>Interest Coverage Ratio</i>	<i>Size</i>	<i>Return on Assets</i>	<i>Return on Equity</i>
LoantoDepositRatio	1						
DebtEquityRatio	0.0563	1					
Debt Ratio	0.1308	0.5169	1				
InterestCoverage Ratio	0.2596	0.1867	0.2206	1			
Size	-0.6698	-0.3814	-0.3213	-0.3086	1		
Returnon Assets	0.1366	0.0380	0.2787	0.7342	-0.0634	1	
Returnon Equity	0.0818	0.4659	0.4351	0.7249	-0.2681	0.8193	1

c. Dependentvariable:ROA,ROE  
d. Independent variable: Loan to Deposit Ratio, Debt Equity Ratio, Debt Ratio, Interest Coverage Ratio, Size

**APPENDIX IV**  
**MODELSUMMARY**

<i>Regression Statistics</i>		
	<i>ROA</i>	<i>ROE</i>
MultipleR	0.7876	0.8197
R Square	0.6203	0.6719
AdjustedR Square	0.5761	0.6338
Standard Error	0.0060	0.0552
Observations	49	49

**APPENDIX V**  
**ANOVAANALYSIS**

<b>ANOVA</b>										
	<i>ROA</i>					<i>ROE</i>				
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>	
Regression	5	0.0025	0.00051	14.0493	3.7696	0.2688	0.0538	17.6147	1.8189	
Residual	43	0.0016	3.6047			0.1312	0.0031			
Total	48	0.0041				0.4000				

c. Dependentvariable:ROA,ROE  
d. Independentvariable:LoantoDepositRatio,DebtEquityRatio,DebtRatio,InterestCoverageRatio, Size

**APPENDIX VI**  
**REGRESSIONANALYSIS**

	<i>ROA</i>			<i>ROE</i>		
	<i>Coefficients</i>	<i>Standard Error</i>	<i>P-value</i>	<i>Coefficients</i>	<i>Standard Error</i>	<i>P-value</i>
Intercept	-0.0137	0.0139	0.3313	-0.1112	0.1285	0.3915
LoantoDeposit Ratio	0.0011	0.0017	0.5264	-0.0153	0.0157	0.3356
DebtEquityRatio	-0.0007	0.0006	0.2309	0.0123	0.0051	0.0204
Debt Ratio	0.0358	0.0156	0.0269	0.2357	0.1440	0.1090
InterestCoverage Ratio	0.0153	0.0020	1.7843	0.1344	0.0186	5.9563
Size	0.0003	0.0001	0.0836	0.0001	0.0013	0.9126
c. Dependentvariable:ROA,ROE						
d. Independentvariable:LoantoDepositRatio,DebtEquityRatio,DebtRatio,InterestCoverage Ratio,Size						

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