

**THE EFFECT OF LIQUIDITY ON PROFITABILITY OF  
MICROFINANCE COMPANIES IN NEPAL**

A Dissertation Submitted to the Office of the Dean, Faculty of Management  
in partial fulfillment of the requirements for the Master of Business Studies  
(MBS)

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June, 2024

## **CERTIFICATION OF AUTHORSHIP**

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

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

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January, 2024

## REPORT OF RESEARCH COMMITTEE

Ms. Rita Thapa Has defended research proposal entitled "**A Case Study on the Effect of Liquidity on Profitability of Microfinance Companies in Nepal**" successfully. The research committee has registered the dissertation for further progress. It is recommended to carry out the work as per suggestion and guidelines of supervisor Asso. Prof. Dr. Kapil Khanal submit the thesis for evaluation and viva-voce examination.

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## APPROVAL SHEET

We, the undersigned, have examined the thesis entitled "**A Case Study on the Effect of Liquidity on Profitability of Microfinance Companies in Nepal**" Presented by Rita Thapa 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 thesis is worthy of acceptance.

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## **ACKNOWLEDGEMENTS**

I would like to offer my sincere gratitude to my respected supervisor Associate Prof. Dr. Kapil Khanal, Department of Management, Shankar Dev Campus, Tribhuvan University, for his constant encouragement, guidance and valuable supervision at every stage of my work. This study would not have been materialized in the present form without his incisive observations and intellectual direction in the course of completion.

I am totally grateful to Associate Prof. Sajib Kumar Shrestha (Head, Research Committee) for his help and support while preparing this thesis. I am also thankful to all the senior staffs and personnel of sample banks for providing the information and necessary data sincerely and timely. I am thankful to staffs of Department of Management and other staffs of Shankar Dev Campus for their kind co-operation during my library visit.

I would like to thank my friends for their valuable suggestion, continuous encouragement and help through the research work.

**Rita Thapa**

(Researcher)

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## **ABBREVIATIONS**

AMFI	Association of Microfinance Institutions
ALM	Asset Liability Management
CBK	Central Bank of Kenya
CMA	Capital Markets Authority
DTM	Deposit Taking Microfinance Institution
GDP	Gross Domestic Product
MFI	Microfinance Institution
MFB	Microfinance Bank
NSE	Nairobi Securities Exchange
ROA	Return on Assets
ROE	Return on Equity
SBP	State Bank of Pakistan
SPSS	Statistical Package for the Social Sciences

## ABSTRACT

Many institutions worldwide lack a formal and suitable financial policy on the administration and management of liquidity. For financial institutions experiencing fast-paced growth like microfinance banks, the establishment of norms and policies to administer cash and liquidity is nonetheless crucial for the institutional viability as much in the short term as in the long term. This study sought to establish the effect of liquidity on profitability of microfinance companies in Nepal. The population of the study was comprised of all 65 microfinance companies in Nepal operating in the years 2015 to 2022. For a microfinance bank to qualify it needed to have been in operation during the whole period of the study and therefore institutions that were not in operation in the whole period of study were eliminated. Secondary data was used in conducting the study. The study involved secondary data collection of the return on assets, to measure profitability and the ratio of loans to deposits to measure liquidity during a specific year. The study used secondary data obtained from Central Bank of Nepal, annual supervision reports and Association of Microfinance institutions annual publications. The study used descriptive statistics and regression analysis to establish the relationship between the study variables. The response rate was 67% that is a total 3 out of 65 licensed microfinance banks in Nepal that satisfied the data collection criteria. The study found out that there is a weak negative relationship between liquidity and profitability of microfinance banks in Nepal. Liquidity was found to be one of the determinants of profitability of Microfinance Banks in Nepal. The study recommends that the finance managers of microfinance banks maintain optimal levels of liquidity in order to remain profitable.

**Key Words:** *Capital Adequacy Ratio, Operation Efficiency, Liquidity Ration, Asset Quality, Return on Asset*

# **CHAPTER-I**

## **INTRODUCTION**

### **1.1 Background of the Study**

Any firm needs liquidity to function properly. The organization's assets may be seized by creditors in the event that payment commitments are not fulfilled on schedule, potentially leading to bankruptcy. Because financial organizations are more susceptible to unforeseen and urgent payment requests, liquidity is even more important to them. This is the nature of the businesses that make loans and accept deposits. For the institution to continue operating, it must be able to promptly process and grant requests for credit as well as withdrawals. An important factor in a business firm's ability to operate successfully is liquidity. To pay its short-term commitments, a company should make sure it does not have insufficient or excessive liquidity. The goal of liquidity management is to strike the right balance between profitability and liquidity. A company's need for liquidity varies depending on its unique circumstances, and there is no set formula for figuring out how much liquidity is best to have a positive influence on a company's profitability (Raheman and Nasr, 2022).

A lot of microfinance organizations have started along the road to becoming legitimate financial intermediaries, providing a whole range of banking services, such as checking and savings accounts, as well as various non-cash payment options, in addition to loans. Liquidity management is a challenging activity requiring methodical planning since it deals with both irregular changes in deposits and the shifting demand for loans. Therefore, every microfinance institution's first priority is liquidity. Because of its intimate connection to a company's daily operations, liquidity is a critical component for both internal and external observers. A firm's solvency and profitability are at risk, and it becomes dangerous and unsound, when it has a poor liquidity position (Niresh 2021).

#### **1.1.1 Liquidity**

The capacity of an organization to produce enough cash or its equivalent on schedule and at a fair price to cover its obligations as they become due is known as liquidity. These obligations may be satisfied via borrowing money, using current cash inflows, depleting stockpiles of cash, or turning liquid assets into cash. The likelihood that an asset may be

transformed into an anticipated amount of value in an expected length of time is known as liquidity. The most liquid assets in the asset section of a company's balance sheet are cash and cash equivalents. Liquidity levels may be a sign of a company's success or failure (Mainelli, 2022).

Since liquid assets are easily turned into cash, having them on hand is crucial during emergencies and times of crisis. Lack of liquidity may cause money to become stuck in systems that are hard to get out of and even harder to determine whether they have real monetary worth (Chaplin, Emblow, and Michael, 2023). Large banking institutions close their doors during emergencies, which makes it hard for individuals to get the money they need to purchase necessities like food, fuel, and other supplies.

Because of the risk of contagion through interbank settlements, a liquidity crisis at one bank could have detrimental effects on the entire banking system, making it imperative to maintain an adequate level of liquidity throughout the system (Greunin & Bratanovic, 2022).

### **1.1.2 Profitability**

For most businesses, profit is the ultimate aim. The capacity of a company to turn a profit on all of its commercial endeavors is known as profitability. It gauges how well managers utilize organizational resources to increase value addition to the company. One may define profitability as a relative phrase that is quantifiable in terms of profit and how it relates to other factors that have the potential to directly affect profit. The link between income and a balance sheet metric that represents the relative capacity to generate revenue from assets is known as profitability. Despite the fact that profitability is a crucial component of company, it may have flaws such using various accounting methods and hiding certain financial activities. The question of a company's profitability and performance efficiency has been the subject of several theoretical and empirical studies of various types. Nonetheless, the primary metrics that describe a company's profitability have long been identified as return on equity (ROE) and return on assets (ROA).

One popular statistic used to assess a company's profitability is return on assets, or ROA. According to Khrawish (2021), it is the ratio of net income to total assets. It assesses how well the management of the organization can turn a profit by making use of the resources

available to them. Stated differently, it demonstrates the effectiveness with which the company's resources are used to produce revenue. It also shows how well a company's management uses all of the institution's resources to generate net income (Khrawish, 2021). A greater ROA, according to Wen (2021), indicates that the business utilizes its resources effectively.

A financial ratio called return on equity (ROE) measures a company's profit margin in relation to the total amount of invested or balance sheet shareholder equity. Therefore, the better the corporation is at generating profits, the greater the ROE. Khrawish (2021) goes on to say that ROE is calculated as the net income after taxes divided by the entire equity capital. It shows the rate of return that investors in the bank have received on their capital. ROE is a measure of a company's management's efficiency in allocating shareholders' money. From the previous statement, it follows that management is using shareholder money more effectively if the ROE is greater.

### **1.1.3 The Effect of Liquidity on Profitability**

Practically speaking, Eljelly (2022) proposed that liquidity and profitability are good measures of the performance and corporate health of all profit-oriented endeavors, not only businesses. For the shareholders and depositors, who make up the majority of a bank's customer base, these performance metrics are crucial. Depositors are more concerned with a bank's liquidity position than its profitability level as it indicates its capacity to meet withdrawal requests, which are often made on demand or with little warning, depending on the situation. A bank's capacity to satisfy its cash flow obligations—which are unpredictable due to external events and the actions of other agents—is aided by effective liquidity management. As to Crowe's (2021) findings, a bank that had excellent profits, good asset quality, and sufficient capital may nonetheless collapse if it fails to maintain sufficient liquidity.

In addition to industry and macroeconomic factors, firm-specific factors including credit risk, capital sufficiency, expenditures management, business diversification, bank size, etc., Said and Tumin (2021) see liquidity management as a significant internal predictor of bank profitability. This is primarily because it might be a cause of bank collapse; consequently, it becomes very advisable to retain a sizeable amount of liquid assets that can be easily converted into cash in order to prevent bankruptcy. However, as strongly

supported by Molyneux & Thornton (2024), who find a weak relationship between the liquidity level and bank profitability while Bourke (1989) finds a strong and positive relationship between them, maintaining a higher amount of liquid assets is typically associated with a lower rate of return.

Economists often use the assumption that businesses act to maximize profits when analyzing business behavior (Atkinson and Miller, 1988). As a result, profitability is the appropriate metric for evaluating the success of any business that is focused on producing money, including MFCs. Analyzing a bank's income statement, which includes a description of the sources of revenue and the costs that impact the bank's profitability, is the first step towards understanding how well the bank is performing (Mishkin and Eakins, 2021).

#### **1.1.4 Overview of selected microfinance companies**

##### **Deprosc Laghubitta Bittiya Sanstha Limited**

Since July 2022, Deprosc Laghubitta Bittiya Sanstha Limited has been in business, having obtained a license from the Central Bank to provide financial services to the underprivileged, especially those who fall below the poverty line. Despite providing technically sound, financially sound, and long-lasting microfinance services, it has given women from underprivileged areas more influence. By offering knowledgeable, economical, and personalized services to its consumers and extending its reach to the lowest segments of society, the organization hopes to increase the scope of its influence.

Nabil Bank Ltd, Nepal Bank Ltd, Agriculture Development Bank Ltd, Lumbini Bikas Bank Limited (previously known as Lumbini Finance and Leasing Company Ltd), Development Project Service Center (NGO), CEAPRED (NGO), and former bankers with 15 to 20 years of experience are all equity participants in the promotion of Deprosc Laghubitta Bittiya Sanstha Limited. The Company Registration Act of 2023 was used to register the bank on January 12, 2022, and the Bank and Financial Institution Act of 2022 was used to provide Nepal Rastra Bank an operating license on July 3, 2022.

##### **Chhimek Laghubitta Bittiya Sanstha Limited**

Chhimek Laghubitta Bittiya Sanstha Ltd (CBBL), which was incorporated in September 2022, was granted a microfinance banking license by the Nepal Rastra Bank in November

2022. CBBL is a spin-off of the microfinance program that Neighborhood Society Service Centre (NSSC), a national non-governmental organization, has been running in Mahottari and Chitwan, central Nepal, since the 2020s.

The main goal of Chhimek is to increase the impoverished and members of disadvantaged communities' access to financial services. Its goals are to assist the growth of microenterprises, instill a culture of saving, generate revenue, and provide social security benefits to its members.

Through 192 locations nationwide, Chhimek has impacted over 400,000 impoverished and disadvantaged women customers in 69 districts by the end of 2021. Beginning with a meager NRs 10 million paid-up capital, Chhimek's core fund has grown by around 180 times by the end of 2021.

The Neighborhood Society Service Center (NSSC), prominent commercial institutions, and private owners are the promoters of Chhimek. The firm is traded under the symbol CBBL on the Nepal Stock Exchange (NEPSE).

### **Nirdhan Utthan Laghubitta Bittiya Sanstha Ltd**

Under the Company Act of Nepal 2023 (now Company Act 2022), Nirdhan Utthan Laghubitta Bittiya Sanstha for upliftment of the poor, is a microfinance institution that was founded in November 2023. The Development Bank Act of 2023 authorized Nepal Rastra Bank, the country's central bank, to conduct banking operations in April 2023. It officially opened for business in July 2023. Now operating under the Bank and Financial Institutions Act of 2017, Nirdhan Utthan offers low-income Nepalese households microfinance services such loans, deposits, microinsurance, and remittance services. Through a network of 181 branch offices dispersed across all 77 districts of Nepal, NULBSL implements group lending based on the Grameen Bank, Bangladesh model as well as group lending based on the NULBSL-developed Self-Reliant Group model.

Although NULBSL was formally founded as a firm in 2023, its operations are a continuation of the microfinance services offered by NIRDHAN NGO, which has been doing so since March 2023. The narrative around the founding of "NIRDHAN" begins in

1986 with a visit to Grameen Bank in Bangladesh by the late Dr. Harihar Dev Pant, a senior official of the Central Bank of Nepal at the time. He was motivated by this visit to start a microfinance program in Nepal, which gave rise to "NIRDHAN," or "People Without Money," in 2024. In March 2023, NIRDHAN started doing microfinance transactions.

As an NGO, NIRDHAN lacked the resources and ability to meet the unmet needs of the underprivileged throughout the nation. Consequently, NULBSL was founded and started its activities in accordance with the Development Bank Act of 2023. All NIRDHAN microfinance activities were moved to NULBSL in July 2023.

One of the liveliest microfinance markets in Sub-Saharan Africa is Nepal. To help the underprivileged, it consists of a sizable branch network and a variety of institutional forms. However, Nepal has only had regulations on microfinance enterprises since 2022. Innovations have been made possible by the lack of regulations, which made it simple to establish institutions and removed obstacles like minimum capital requirements. In this setting, the microfinance sector has flourished (Nyaga, 2022).

The Microfinance (Deposit Taking Institutions) Regulations 2022, which are published under the Microfinance Act, 2022, provide the legal, regulatory, and supervisory framework for the microfinance sector in Nepal. On May 2, 2022, the Microfinance Act went into force. Many already-operational microfinance organizations submitted licensing applications so they could accept deposits from members and the public. The Microfinance Act's primary goal is to control the creation, conduct, and management of microfinance institutions in Nepal by means of licensing and oversight. According to a CBK (2021) research, there are nine MFCs that are active in Nepal right now. Microfinance companies help clients expand and grow their businesses by providing financing services with the goal of turning a profit.

Former credit-only MFIs must make a broad range of changes: they must transition from being totally unregulated to being subject to strict prudential oversight. The following prudential ratios have been specified under CBK (2022)'s DTM regulations: (1) capital adequacy ratios, such as a minimum liquidity ratio of 20%; (2) a maximum limit on insider loans of 2% of core capital; and (3) a cap on insider loans that should be contained collectively within a ceiling of 20% of core capital. Core capital should be 10% of total

risk adjusted assets plus risk adjusted off balance sheet items; 8% of total deposit liabilities; and 12% of total risk adjusted assets plus risk adjusted off balance sheet items. The management of liquidity and the creation of policies pertaining to it become important since these companies have to make sure that they keep adequate liquidity levels to meet their short-term financial obligations, which are necessary for the regular operation of their business, in order to avoid harsh penalties from the regulator for non-compliance.

## **1.2 Problem Statement**

Businesses and government regulators are become more watchful of the liquidity levels that financial institutions maintain (Muranaga and Ohsawa, 2022). The lifeblood of the banking industry is its deposits. Deposits power the majority of banking activities. If depositors begin to take their money out of the bank, the bank will find itself in a liquidity trap and would have to pay more to borrow money from the interbank market or the central bank (Plochan, 2022).

The majority of microfinance institutions in Nepal make an effort to have enough cash on hand to cover unforeseen depositor requests, although doing so comes at a high cost. This is accomplished by keeping a large cash reserve, which may cause one to miss out on many market chances in addition to having to pay for the high expenses related to cash. A financial organization that manages its liquidity well will be able to pay its debts on time and benefit from lucrative investments that will probably increase in value over time. The ideal level of liquidity is established by a financial institution's credit management strategies to reduce exposure to credit risk (Myers and Majluf, 2022).

Numerous research on the liquidity of different organizational operations elements have been conducted. According to Graham and Bordeleau (2021), there is a limit beyond which, all other things being equal, a company's profitability decreases when it holds more liquid assets. This suggests that there is a nonlinear connection between profitability and the keeping of liquid assets. Simultaneously, estimate findings provide some proof that the bank's business strategy and the likelihood of funding market challenges influence the link between liquid assets and profitability. A bank may maximize earnings even with less liquid assets if it adopts a more conventional business plan, such as one

centered on loans and deposits. Similarly, in an environment where economic growth is a good proxy for the possibility of financing market challenges, corporations need to maintain fewer liquid assets in order to maximize profitability.

Olagunju et al. (2021) came to the conclusion that commercial companies should not compromise efficient and effective liquidity management for the success of operations and survival. They also concluded that excess liquidity and illiquidity are "financial diseases" that can easily erode a bank's profit base and undermine its efforts to achieve a high level of profitability. According to Lartey et al. (2021), there is a tenuous positive correlation between listed businesses' profitability and liquidity in Ghana.

Maaka (2021) discovered that an increase in debt and the liquidity gap had a detrimental impact on the profitability of commercial enterprises in Nepal. If there is a large liquidity gap, the firms could have to borrow money even more expensively from the repo market, which would raise the cost of banking. The profitability of the bank was also shown to be favorably impacted by the amount of client deposits. Little research has been done on how liquidity affects the profitability of microfinance companies in Nepal in many of the studies that have been done. The majority of the study conducted in this field has focused on businesses. This vacuum in the literature serves as motivation for the research, which aims to ascertain how liquidity affects the profitability of microfinance companies in Nepal.

The major research questions of the study are:

- What is the liquidity position of sampled microfinance companies?
- What is the effect of liquidity on profitability of sampled microfinance companies?
- What is the relationship between liquidity and profitability of sampled microfinance companies?

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

The major objective of the study is to determine the liquidity management of microfinance companies in Nepal and its impact on profitability. Other specific objectives are as follows:

- To ascertain the relationship between liquidity and profitability of Microfinance Companies in Nepal.
- To determine the effect of liquidity on the profitability of Microfinance Companies in Nepal.

#### **1.4 Hypothesis of the Study**

H01: There is no effect of liquidity on the profitability of Microfinance Companies.

H02: There is no relationship between liquidity and profitability of Microfinance Companies.

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

Many parties would profit from this research, chief among them being MFC managers who could utilize the data to understand how effective liquidity management affects their institutions' revenue growth. Managers may make necessary revisions and implement relevant tactics when they identify the liquidity levels that optimize earnings. This research will be helpful to financial consultants, particularly those working in the microfinance sector, in their efforts to provide relevant, workable, and well-informed advice to actors in the public and private sectors.

The findings of this research will be very relevant to policymakers. The regulator should consider the trade-off between resilience to liquidity shocks and the expense of keeping lower-yielding liquid assets as they develop regulations setting a suitable amount of liquidity for MFCs, helping to provide enough stability for the entire financial system. While having liquid assets on hand can help businesses withstand liquidity shocks and lessen any negative externalities they may cause for other economic actors, having too many on hand might come at a heavy cost in the form of decreased profitability.

The study's findings will be useful to academicians and will add to the corpus of current knowledge. The study will also highlight gaps in the present research for more research and give background information to academics and research institutions.

## **1.6 Limitations of the Study**

The study's primary emphasis was on Nepali microfinance firms. Therefore, the study's population may be restricted to those who were interested in Nepal alone. Because other nations have distinct operating environments from Nepal's, the interpretations should be restricted to microfinance enterprises operating there and should not be applied generally. Conditions in various nations, such as a recession, may necessitate different choices about liquidity.

For consistency in the information and data analysis, more time was needed to put the information in a uniform presentable format as it was not presented in the financial statements of microfinance organizations in a consistent manner.

The research was restricted to the eight-year timeframe between 2015 and 2022. The working environment during this time may be different from that of previous times, such as during wartime, economic booms, or other economic shocks. Therefore, should there be similar economic shocks, the outcomes may change, and in this scenario, the choices made regarding the management of liquidity for microfinance firms would differ.

## **CHAPTER-II**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

In this chapter, the existent literature in the field of study is reviewed. It is a compilation of findings from other scholars who have conducted research in the identical academic discipline. The document comprises the theoretical framework, empirical studies, profitability determinants, and a literature review summary.

#### **2.2 Theoretical Review**

The three theories examined in this research are the Anticipated Income Theory of Liquidity, the Shiftability Theory, and the Liability Management Theory. The aforementioned theories furnish theoretical substantiation regarding the correlation between firm profitability and liquidity.

##### **2.2.1 Shiftability Theory**

According to this Moultonan theory (1918)-derived concept, a bank can maintain its liquidity by maintaining assets that are capable of being transferred or sold for cash to other lenders or investors without incurring significant losses. This perspective argues that a bank's liquidity could potentially be improved by maintaining a consistent supply of assets for sale, contingent upon the readiness of the Central Bank and the discount market to purchase the asset being offered at a discount. Therefore, this theory acknowledges and argues that a bank's ability to maintain liquidity is contingent on the assets' shiftability, marketability, or transferability.

Additionally, this theory posits that a bank's holdings of highly marketable securities serve as an exceptional reservoir of liquidity. The shiftability theory posits that the critical attributes of a prospective bank investment are contingent upon its potential for sale with minimal or no capital loss in the event that funds are required. Thus, whether a bank asset can be "shifted" to a different proprietor without incurring a financial loss constitutes the criterion for its acceptability (Elliot, 1984).

Alternatively stated, liquidity is equivalent to mutability (Lockett, 1984). By adopting an all-encompassing perspective on banking, the theory directs bankers' and regulators' focus from loans to investments as a viable means of generating liquidity. The criterion for investments that satisfy the shiftability theory is their short-term characteristics; such investments include government securities, call loans, and treasury bills.

### **2.2.2 Anticipated Income Theory**

Herbert V. Prochnov formulated the theory in 1948. It is argued that the management of a bank's liquidity can be achieved by strategically phasing and structuring the loan commitments it extends to its customers. Liquidity can be effectively managed when the loan repayment schedule of a client is predicated on the borrower's future. It is imperative for corporations to possess the ability to forecast the revenue generated from the investments they intend to make. Additionally, they must be confident in the security of the funds' deployment and repayment while investing in term-lending and working capital securities. The bank is obligated to evaluate the individual's capacity to repay granted loans.

As the final assurance of sufficient liquidity, the theory, according to Nzotta (2023), places emphasis on the creditworthiness and earning potential of the borrower.

Nwankwo (2024) asserts that the theory indicates a corporate trend toward self-liquidating commitments. As a result of this theory, numerous corporations have been motivated to incorporate ladder effects into their investment portfolios.

### **2.2.3 Liability Management Theory**

Initiated in the 1970s by Anglo-Saxon financial institutions in response to the escalating volatility of interest rates. In accordance with the liability management theory, organizations can satisfy their liquidity needs through market pricing on additional funds to satisfy loan demand and deposit withdrawal. It is unnecessary to adhere to antiquated liquidity standards, such as the maintenance of liquid investments or assets. In order to satisfy liquidity requirements, Diamond & Rajan (2022) hypothesize that liability management theory centers on corporations issuing liabilities.

Liability and liquidity management are intrinsically linked. It is a critical instrument in the process of decision making that aims to optimize value for stakeholders. Asset

liability management (ALM) encompasses the oversight of the overall dynamics of the balance sheet. It entails the deliberate assessment of risks and the formulation of decisions concerning the structure of asset liabilities, with the goal of optimizing interest earnings while considering perceived risks. While risk elimination is not the main aim of ALM, its management should ensure that short-term volatility of net interest income is minimized and long-term economic value of the organization is safeguarded.

Advocates of this theory contend that by implementing appropriate ALM, corporations can guarantee the management and mitigation of risks including credit risk, liquidity risk, interest rate risk, and currency risk, thereby ensuring their profitability and solvency. The costs associated with the various categories of liabilities held by a bank vary according to the tenor and maturity pattern. In a similar fashion, these consist of distinct categories whose yields fluctuate in accordance with maturity and risk factors. The alignment of assets and liabilities is the central tenet of this theory (SBP, 2021).

### **2.3 Determinants of Profitability**

MFCs and other financial institutions are susceptible to both internal and external factors that impact their profitability. Internal determinants consist of variables that are specific to MFCs. Significant determinants of the profitability of MFCs include internal factors including capital adequacy, asset quality, liquidity, and operational efficiency. The determinants of the macro economy are external factors.

#### **2.3.1 Capital Adequacy**

The equity to total assets ratio is utilized to assess the adequacy of a bank's capital. This metric quantifies the proportion of overall assets that are funded through equity capital. Therefore, capital adequacy refers to the sufficiency of the quantity of equity that enables businesses to withstand potential disruptions. It is anticipated that as the equity-to-assets ratio increases, the bank's profitability will consequently increase due to the reduced reliance on external funding. Furthermore, corporations with ample capital have a diminished risk of insolvency, resulting in a reduced funding burden (Kosmidou, 2022).

Organizations that possess a greater capital to asset ratio are generally regarded as more secure and have a greater margin of safety, enabling them to sustain profitability amidst

challenging economic conditions. On the contrary, firms characterized by inadequate capital are deemed to be more precarious in comparison to those that possess substantial capital.

### **2.3.2 Liquidity**

Companies' liquidity demonstrates their capacity to finance asset growth and fulfill financial obligations in a timely manner. Historically, corporations have received consumer deposits and extended loans. As an indicator of liquidity, the proportion of bank advances to customer deposits is therefore employed. Companies' primary concern is liquidity, and a deficiency in liquidity can result in their demise. Additionally, banking regulators consider liquidity to be a significant concern. This occurs because organizations that lack adequate liquidity to satisfy the demands of their depositors run the risk of encountering bank runs. Income is typically reduced when assets are held in a highly liquid state, as liquid assets are correlated with lower rates of return. To illustrate, cash, being the most readily convertible asset, is classified as a non-earning asset. Guru et al. (2023) and Molyneux et al. (2024) both found that profitability and liquidity level are negatively correlated. Bourke (1989), on the other hand, discovered a noteworthy and positive correlation between liquidity and the profitability of businesses.

### **2.3.3 Asset Quality**

Utilizing provisions for problematic debts to advances as a surrogate for asset quality is a prevalent practice. This metric reflects alterations in the credit quality and wellbeing of the bank loan portfolio. Thus, it serves as an indicator of the credit risk that businesses face. Credit risk, as defined by Heffernan (2023), pertains to the potential for an asset or loan to become irretrievably damaged through complete default, as well as the risk of a delay in loan repayment. Insolvency can result from the cascading effects of credit risk (Bessis, 2022). As the ratio of provisions for bad debt to advances increases, so does credit risk and the accumulation of delinquent loans and interest. Furthermore, the decrease in the present value of the asset compromises the solvency of the bank. Poor asset quality, as stated by Kosmidou (2022), can negatively affect the profitability of a bank through a decline in interest income revenue.

### **2.3.4 Operational Efficiency**

Operational efficacy is a critical internal determinant of a company's profitability. It is denoted by various financial ratios, including the growth rate of total assets, loans, and earnings. It is among the most difficult topics to quantify using financial ratios. Furthermore, another aspect of management quality is operational efficiency as it pertains to the management of operating expenses (Halling and Hayden, 2022). Frequently, management performance is assessed qualitatively via subjective evaluations of organizational discipline, staff quality, management systems, and control systems, among other factors. Certain ratios presented in the financial statements serve as surrogates for the level of operational efficacy. Financial ratios possess the capacity to assess the management's proficiency in resource deployment, income maximization, and operating cost reduction. The operating profit to income ratio is one of the metrics employed to assess the efficacy of management (Halling and Hayden, 2022).

### **2.3.5 Macroeconomic Variables**

Macroeconomic factors pertain to elements that define the milieu of the economy in which a financial institution functions. These variables are factors that serve as indicators of the overall economic performance. An illustration of this can be seen in the substantial positive impact that the GDP, which represents the aggregate value of economic activity in an economy during a given period, has on the profitability of the financial sector. A correlation exists between increased economic growth and the subsequent incentives for companies to expand their lending activities, increase their profit margins, and enhance the quality of their assets. Neely and Wheelock (2023) use per capita income as measure of total economic performance and suggest that this variable exerts a strong positive effect on bank earnings. In a significant number of nations, bank profitability increases due to brisk economic expansion. The level of interest rates in the economy is a direct consequence of monetary policy decisions that impact businesses (Demirguc-Kunt and Huizinga, 2023).

## **2.4 Empirical Review**

Liquidity was found to be one of the elements influencing profitability by Njihia (2022) in a research to determine the drivers of commercial enterprises profitability in Nepal. Over the course of five years, 35 commercial enterprises that operated in Nepal were

included in the research. Descriptive statistics and multiple regression analysis were used in the research to evaluate the factors that influence the profitability of commercial enterprises. The research came to the conclusion that, in one of the studied years, liquid assets had a major impact on commercial enterprises' profits, particularly during the post-election period after political unrest. The profitability was determined by the commercial businesses' ratio of advances, loans, and deposits.

An empirical investigation of the factors influencing the liquidity of Nepalese commercial enterprises was conducted by Kamoyo (2022). Thirty commercial businesses that were active in Nepal between 2023 and 2022 were included in the research. To determine the factors influencing liquidity in commercial enterprises, the research used multiple regression analysis, descriptive statistics, and inquisitive questionnaires. The study's findings showed a negligible inverse link between liquidity and profitability.

A study on the methods of managing liquidity and how they affect the profitability of commercial enterprises in Nepal was carried out by Loo (2022). In order to determine liquidity management strategies, a study of all commercial businesses that operated in Nepal between 2013 and 2022 was carried out using questionnaires given to senior financial management personnel. The research discovered that a firm's liquidity management strategy was influenced by a number of variables, including profitability. The research found a favorable relationship between the firms' profit levels and liquidity. In his study work "Role of Saving, Liquidity Investment & Capital Formation in Economic Development: A Case of Nepal," Pradhan, Dr. Radhe Shyam (2022) examined the significant influence that capital formation, investment, and saving have on Nepal's economic growth. Only secondary data were used in this investigation. The required information about capital formation, saving, investment, and GDP has been gathered for the years 1974–1975 and 2013–2014. Regression models of different kinds were used to examine the function and significance of capital production, investment, and saving on economic growth. This research's regression equation was calculated both in real terms and at current prices, breaking down the full study period into several sub-periods.

The Shrestha, M. B. (2021) came to the conclusion that, under the identical conditions, the liquidity deposit ratio in 2022 A.D. would have been 51.30% in his paper, "A study on deposit & liquidity of commercial bank in Nepal." which, throughout the evaluation

period, was the lowest. Therefore, it is highly advised that commercial banks make every effort to provide new fields that yield liquidity. If not, they may not even be able to cover all of the costs.

Between 2013 and 2021, Bordeleau, Crawford, and Graham (2021) examined the effect of liquidity on bank profitability for 55 US corporations and 10 Canadian enterprises. The influence of liquidity on bank profitability was evaluated by means of quantitative metrics in the research. The study's findings indicated a nonlinear connection between liquid asset holding and profitability; that is, there is a threshold beyond which, all other things being equal, storing more liquid assets reduces a company's profitability. Theoretically, this outcome is in line with the notion that financing markets partially compensate banks for retaining liquid assets, which lowers their liquidity.

In a 2021 research, Owolabi, Obiakor, and Okwu examined the connection between profitability and liquidity in 15 Nigerian listed firms. Examining the nature and degree of the link between liquidity and profitability in profit-driven listed businesses, as well as establishing if there was a cause-and-effect relationship between the two performance metrics, was the main goal. The current assets-liability ratio was used as a liquidity metric, while the operating profit-turnover ratio was used as a profitability metric. The research included both quantitative and investigative analytical techniques.

According to Adebayo et al. (2021), there is a significant relationship between liquidity and profitability. The study examined the impact of effective liquidity management on the profitability of commercial companies and how these companies can stimulate their liquidity and profitability situations through quantitative research methods. Data from primary and secondary sources was statistically tested using Pearson correlation data analysis.

Maina (2021) investigated the link between the profitability of oil businesses in Nepal and liquidity. She discovered that other factors, such as liquidity management, affect ROA and that liquidity management is not a major factor in the firm's profitability on its own.

Sharma, M.P. Additionally, Bhatt, M.P. "The commercial banks should take the of board national interest & they showed not confine their lending activities only to commercial area providing quick interest if some proportion could be directed to the area conclusive to build economic infrastructures of the country it would create atmosphere conducive to their liquidity investment in the future," the article "Priority receiver sector" from 2021 states. It is imperative that banks look for entrepreneurs rather than having entrepreneurs hunt for books in our culture, where ignorance and literacy rates are quite high. Accordingly, they believe that the priority sector program is a timely and effective way to raise productivity and the quality of life for rural poor people. However, how well the is understood in conjunction with other rural development programs will determine how successful it is in the end. Furthermore, they concur that although having certain conceptually philosophical and food purposes, several programming, such as champion audit literacy, return to the village national, rural development land reform, etc., were unable to materialize their goals.

According to the findings in this article, GOP is strongly correlated with saving in every situation. Capital creation and investment, both in real terms and at current prices. Three significant results emerged from the empirical analysis: first, capital generation, investment, and saving all have a beneficial influence on economic growth. Second, saving, investing, and capital creation have good effects on economic growth both now and in the past, but now they have the biggest effects. Third, capital generation and saving have a significant impact on economic growth, but investment has a less significant impact.

According to Bayyoud, Mohammed & Sayyad, Nermeen (2021), "Liquidity risk management is one of the crucial aspects of financial institutions, irrespective of their nature." In order to conduct a more thorough examination of the banking industry in Palestine, investment and commercial banks were selected to evaluate the correlation between profitability and liquidity risk management. The study's explanatory design aided in determining the causal link between the research variables. While structured interviews with bank managers were used to collect qualitative data, the regression model was utilized to collect quantitative results. The results of the present study's regression model verified that the profitability of Palestine's commercial and investment banks is unaffected by liquidity risk. Furthermore, it was discovered that the link between the

Palestinian commercial and investment banks is the same.

Sarwar, B. & Asif Raza, M. The study's objective is to determine the risk management tactics used by Pakistan's commercial banks in Balochistan to reduce or eliminate liquidity risk, as stated in the article published in 2021. The study's conclusions are important because they will help commercial banks minimize liquidity risk by helping them understand which risk management techniques work best. The perspectives of workers of certain commercial banks about effective techniques for minimizing liquidity risk are analyzed in this explanatory research. Two hundred and fifty commercial bank workers provided quantitative data for multiple regression analyses, which were used in this study. The findings revealed four variables that have an effect on liquidity risk management (CRM): corporate governance has the most influence, then diversification—which is important—hedging—and the bank's cash reserve ratio. These four risk management techniques are emphasized in this research because they are essential for commercial banks to address their liquidity risk.

Shah, AK. The research is mainly focused on liquidity risk assessment techniques in commercial banks on the basis of their internal efficiency, asset evaluation, and borrower assessment, according to (2021) in his work. The study's approach is predicated on an examination of the connections between loan repayment, liquidity risk mitigation strategies, and management practices. The study used survey-based primary data and conducted a correlation analysis on them using a descriptive research methodology. It found that although borrower hurdles have no discernible link with loan payback, liquidity risk reduction strategies and management techniques had a favorable relationship with loan repayment. Through the establishment of a profitable and sustainable model for liquidity risk assessment, commercial bank managers can benefit from the study's findings as they analyze their model of liquidity risk management system, policies, and practices. This can be achieved by setting a risk tolerance level and managing liquidity risks through market competition.

A research on the factors influencing a company's liquidity and how they affect the financial performance of certain Nepali commercial enterprises was conducted in 2021 by Neupane and Subedi. The relationship between each of the dependent variables and ROA was ascertained using a multivariate linear regression model. Bank size and the growth

rate of the gross domestic product on a price-level basis were two statistically significant factors affecting a company's liquidity capital adequacy. These factors had a negative impact on the financial performance of the company, while the liquidity premium paid by borrowers had a positive impact. Consequently, there was a nonlinear relationship between bank liquidity and financial performance.

Maaka (2021) investigated the connection between Nepali commercial businesses' performance and liquidity risk. The study used a correlation research approach, extracting data from 33 Nepalese enterprises' 2022–2021 balance sheets, income statements, and notes. Multiple regression analysis was used to evaluate how liquidity risk affected the profitability of businesses. Information was gathered from yearly reports that were filed with the CMA and NSE. The study found that an increase in the liquidity gap and leverage has a negative impact on the profitability of commercial banks in Nepal. The F-test was used to determine the significance of the regression, and the coefficient of determination, or R<sup>2</sup>, was used to determine how much variation in Y is explained by X.

Alshatti (2021) looked at how profitability in Jordanian commercial banks was affected by liquidity management between 2022 and 2021. A selection of thirteen institutions has been made to represent all Jordanian commercial banks. Return on equity (ROE) and return on assets (ROA) served as stand-ins for profitability, while investment ratio, quick ratio, capital ratio, net liquidity facilities/total assets, and liquid assets ratio served as liquidity indicators. Regression analysis was used to test the hypothesis after a time series of the study variables was examined for a unit root utilizing the Augmented Dickey Fuller (ADF) stationary test model. The empirical findings demonstrate that although a rise in the capital ratio and the ratio of liquid assets results in a drop in the profitability of the Jordanian commercial banks, an increase in the quick ratio and the investment ratio of the available funds leads to an increase in profitability. The researcher makes the following recommendations: banks should adopt a general framework of liquidity management to ensure sufficient liquidity for carrying out their operations more efficiently; they should start an analytical study of the evolution rates of liquidity and their ability to achieve a balance between sources and uses of funds; and finally, they should adopt an optimum utilization of the available liquidity in various aspects of investment in order to increase the profitability of the banks.

Ravi Sharma. P (2020) said in his work that, "This research aims to investigate a number of criteria relevant to the management of liquidity risk as it relates to banks' financial performance. The study's factors were the cash reserve ratio, cost per loan asset, and default rate. For eleven years (2010–2021), 31 banks' financial reports were analyzed. The profitability ratio was compared to the default rate, cost of each loan asset, and cash reserve ratio. The data was provided in a descriptive manner, and regression and correlation analysis were used to assess the information. According to the research, the default rate is the best indicator of a bank's financial success, but all other indicators have an inverse effect on it. The advise given to banks is to create and implement plans that will both reduce their exposure to liquidity risk and increase their profitability.

"The concept of the liquidity risk management has gained momentum in recent years with financial institutions developing techniques aimed at minimizing liquidity risk and regulatory bodies coming up with policies ensuring banks adequately manage their risks," as stated in an article by Muhamet, Aliu, and Arbana, Sahiti (2020). The purpose of this research was to quantify the relationship between risk management and bank profitability. For this investigation, PCB, RBKO, NLB, and TEB were chosen as the sample banks. In order to calculate the nonperforming loan ratio—which, along with the risk asset ratio, was used as a liquidity risk management metric—and the return on equity, which was used as a measure of profitability, time series data from the banks' annual reports had to be extracted. The non-performing loan ratio and risk asset ratio were used to represent return on equity, which was then included into a multivariate regression model. SPSS software was used to analyze the data. A trend analysis and a basic linear regression were conducted in order to investigate the relationship further. The results demonstrated a significant relationship between the variables and indicated that although larger nonperforming loans had a more favorable and significant impact, a higher risk asset ratio would only marginally reduce profitability. Subsequent investigation revealed a mostly negative impact, suggesting that the multivariate model may not be sufficient.

Bhattacharya, B. (2020) said in his essay that "Regardless of the nature of the financial institutions, liquidity risk management is one of the vital aspects." Both commercial and investment banks were selected for a more thorough examination of the Nepalese banking industry in order to determine how profitability and risk management of liquidity relate to one another. The study's casual effect association between the research variables was

evaluated with the use of a descriptive and casual research design. While structured interviews with bank managers were used to collect qualitative data, the regression model was utilized to collect quantitative results. The results of the present study's regression model verified that the profitability of Nepali joint venture banks is unaffected by liquidity risk. With reference to NABIL, NIBL, SADBL, EBL, NSBL, and HBL, the study is centered on the profitability and risk management of liquidity in joint venture commercial banks in Nepal. It is able to determine a comparative analysis of joint venture banks based on ROA, non-performing liquidity to total liquidity ratio, and liquidity to deposit ratio. The study's whole set of secondary data came from joint venture commercial banks' annual reports. This research used a sample of six joint venture banks. The bank's five-year performance from 2020 to 2020 served as the basis for this analysis.

The impact of liquidity management on profitability in Pakistan's banking industry was studied by Nabeel and Hussain (2017). Profitability is a dependent variable, whereas liquidity management is an independent variable. Ten banks' published annual reports provided the secondary data for this research (2010-2015). Regression analysis, descriptive statistics, and correlation were used to examine the data. The dimensions of liquidity were determined by analyzing the quick, current, cash, interest coverage, and capital adequacy ratios; the profitability dimensions were determined by analyzing the return on equity, return on assets, and profits per share. The study's conclusions demonstrated that although cash and current ratios had a negative link with bank profitability, interest coverage, capital adequacy, and quick ratio had a favorable relationship. The information was extracted from 10 banks' annual reports between 2010 and 2015. The findings indicated that the profitability of the bank was positively correlated with the majority of liquidity measures and negatively correlated with a few liquidity factors. The results of this research demonstrate that, when compared to return on equity and return on assets, the interest coverage ratio showed a positive and substantial link with banks' profitability. Earnings per share and return on equity were positively and significantly correlated with the capital adequacy ratio. There was a favorable correlation between profitability and the quick ratio. When comparing the current ratio to return on assets, a positive but negligible link was shown. Additionally, the current ratio indicated a negative and substantial correlation between earnings per share and return on assets, as well as a negative and insignificant correlation. Thus, the total findings clarified the beneficial relationship between liquidity management and bank

profitability.

According to Salim and Bilal (2016), there is a significant correlation between the bank's deposits and liquid assets as well as between return on equity and liquid assets split by short-term liabilities. The bank's loans to total assets, loan to deposit and short-term liabilities, bank loans - client bank deposit to total assets and return on assets were all determined to have a significant association by the research. Additionally, the research discovered no significant correlation between Omani banks' liquidity status and their NIM (net interest margin). To investigate the connection between liquidity and financial performance throughout five time periods from 2010 to 2015, information was gathered from the financial statements of four banks. The information was examined by multiple regression analysis. In order to investigate the link, this research recommended employing the variables of profitability and liquidity as independent and dependent variables.

Vintila (2016) concentrated on the interaction between the actual economy and the market's liquidity as well as the potential impacts of the banking sector, which forms the backbone of the whole financial system. The foundation of this research was the idea that concerns of profitability and liquidity have a big influence on the growth and stability of businesses. The firms listed on the Bucharest Stock Exchange were the subject of the study. Data were gathered over a ten-year period, from 2005 to 2014, to observe the changes documented before to the crisis and the development that followed. This article examined the correlations between the variables under investigation rather than evaluating a particular model. A graphical analysis of the current liquidity and leverage ratio trends was done in the first section of the research. In order to track the effects of tax pressure and changes seen throughout the financial crisis, the effective tax rate was also examined. For the empirical investigation, multivariate regression models were used in econometric analysis using imbalanced panel data. Return on equity and return on assets, two accounting metrics, were used to assess financial success. The main emphasis of factors that might affect a company's success was on measures of liquidity and solvency. The findings demonstrated a negative connection between liquidity and company financial performance and supported the statistical significance of the link between the variables under analysis.

The link between the profitability and liquidity of Pakistani commercial banks was studied by Khan and Ali (2016). Determining the kind and degree of the association between the variables was the primary goal of the research. The kind and degree of the association between the dependent and independent variables were ascertained by using regression and correlation, respectively. Analysis was done using secondary data that was taken from Habib Bank Limited's annual statements for the past five years (2010-2015). It was discovered via correlation and regression analysis that there is a strong positive association between bank profitability and liquidity. Because banking sector data was utilized, it was not possible to extrapolate the findings to other industries. It significantly affects Pakistan's commercial banks' earnings. None of the variables exhibit a negative association when the liquidity level rises to the point where profitability rises as well. Each liquidity measure had a positive correlation with all other liquidity ratios. Thus, it is recommended that banks hold a sizeable portion of their liquid assets in order to increase their rate of return.

Aliraza (2016) came to the conclusion that any organization's profitability is crucial. Tells about how much we have earned compared to its costs and how much we must suffer over the course of a year or longer in the banking business. Additionally, this study demonstrated how profitability is affected by liquidity management. Liquidity refers to assets that are readily convertible into cash, or that can be done so in a short amount of time. Furthermore, profitability is defined as having greater sales than total expenses. Additionally, eight banks' financial reports and eight years' worth of data were collected from 2008 to 2015 for this research paper. The banks that were chosen for the study were Bank of Punjab, Allied Bank, United Bank, Askari Bank, Alfalah Bank, Meezan Bank, Jahangir Saddiqui Bank, and Muslim Commercial Bank Limited. The banking sector in Pakistan was chosen because the country and sector both showed a significant relationship between liquidity and profitability. A pooled analysis was performed to compile the correlation and regression data. More than eight banks' worth of data were gathered in a short amount of time, and it is further recommended that future researchers use more than eight banks' worth of data and more than eight years' worth of data from financial reports. They can also use other profitability and liquidity formulas, such as the quick ratio, return on equity, return on investment, and net profit margin, as well as other ratios as dependent and independent variables in various industries.

According to Maqsood et al. (2016), the banking industry's bank profitability is greatly impacted by liquidity. The information utilized in this was obtained from eight distinct banks' financial statements between 2010 and 2015. In this investigation, the regression and correlation techniques were used. The return on assets is the dependent variable used to quantify profitability, while the current and cash ratios are used to look at liquidity. It recommended measuring the effect of liquidity on profitability using additional variables and scientific instruments.

Better liquidity management is dependent on the state of the market, internal rules, and how these policies are implemented, according to Das et al. (2015). Banks must manage liquidity extremely well if they want to boost profits. This study's analysis of the banking environment demonstrates how having too much liquidity lowers profitability. Numerous methods have been used to ascertain this fact. It is advised to examine the bank's deposit and advancement policy, which places a premium on preserving the bank's liquidity.

Rehaman et al. (2015) looked at how profitability and liquidity affect a company's capacity to develop and survive. For financial managers, the ability to shift between the two realms with agility is crucial. The present research really attempted to explore the connection between the profitability and liquidity of firms listed on the Tadawul, the Saudi Stock Exchange. 99 listed firms in (Tadawul) were included in the research. The information was gathered during a five-year period, from 2010 to 2014, from listed corporations' audited annual financial statements. The metrics, return on equity (ROE) and return on assets (ROA), showed the profitability aspects of the firms. The absolute liquid ratio, quick ratio, and current ratio were used to assess the firms' liquidity. The aggregate findings showed that the current ratio (CR) and return on assets (ROA) of Saudi Arabian enterprises had only one positive, meaningful association. Furthermore, it is shown that the Saudi Arabian firms' quick ratio (QR), cash ratio (CR), and return on assets (ROA) have a negative but negligible association. Similarly, there is no significant correlation between return on equity (ROE) and the three independent variables that were chosen, which are the cash ratio (CR), quick ratio (QR), and current ratio (CR). Regression and correlation analysis were recommended in this research to determine the link between profitability and liquidity.

Alshatti (2015) looked on the link between profitability and liquidity management in Jordanian commercial banks between 2010 and 2014. The investment ratio, capital ratio, liquid ratio, net liquidity facilities to total assets, and fast acid ratio are used in the study article to assess the independent variable of liquidity management; the profitability dependent variable is measured using return on equity and return on assets. The data was analyzed using ratio analysis and quantitative methods. The study clarified that, when measured by return on equity, the impact of investment and quick ratio is positive; similarly, when measured by return on assets, the impact of capital ratio is positive; on the two measures of profitability, however, the impact of other independent variables is negative (return on assets and return on equity).

Bourke (1989) conducted research from 1972 to 1981 to determine the correlation between bank profitability and liquid assets for ninety corporations in Europe, North America, and Australia. Profitability, the dependent variable, was regressed against a set of control variables and a non-linear expression of relative liquid asset holdings. In this research, liquid assets were mostly used as a control variable, and there was very little discussion of the estimated parameter. According to the research, a business with great profitability but poor liquidity must borrow more money, which raises its financial expenses. Interest rates would undoubtedly rise as a result, as the less expensive sources run out faster. Additionally, by taking on additional debt, the business increases its credit risk, which drives up the interest rates that its lenders demand. In these circumstances, the business must give suppliers additional time, which leads to the purchase of raw materials at a premium. Additionally, it won't be able to take advantage of the financial savings provided by anticipating payments, and because late payments will result in interest and penalties, the liquidity issues will only become worse. The research stressed that the company's medium- and long-term strategies determine both profitability and solvency, which are prerequisites for the business's continued viability.

## **2.5 Research Gap**

The literature review highlights several research gaps that underscore the need for a comprehensive investigation into the relationship between liquidity and profitability, especially within the commercial banking sector. Existing studies have mainly explored this relationship in various industries, leaving a notable gap in the understanding of

liquidity and profitability dynamics specific to commercial banks (Eljelly, 2004; Saleem & Rehman, 2011). Furthermore, the inconsistency in findings among previous studies reveals a lack of consensus regarding the nature of the relationship between liquidity and profitability. Some studies advocate for a linear association, while others argue for a non-linear one (Akter & Mahmud, 2014). This inconclusiveness emphasizes the necessity for a more thorough and context-specific examination of liquidity and profitability in the commercial banking context.

In terms of variables, the literature indicates a research gap related to the limited exploration of the impact of liquidity management on profitability, often focusing on a narrow set of liquidity ratios (Mishra & Pradhan, 2019). The current study seeks to address this gap by incorporating a broader array of liquidity ratios over an extended period of 8 years, providing a more comprehensive understanding of the interplay between liquidity and profitability (Wuave, Yua, & Yua, 2020). Methodologically, there is a notable gap in the existing literature, with most studies relying on time series or cross-sectional data to investigate the liquidity-profitability relationship. In contrast, the present study employs a casual comparative research design and descriptive research design, introducing a novel methodological approach to comprehensively explore this relationship (Rehman, Khan, & Khokhar, 2015). Additionally, the literature highlights a geographical research gap, as the majority of studies have been conducted in developed markets, neglecting the representation of emerging markets like Nepal (Magar, 2022). This emphasizes the need for more studies in these regions to understand how unique economic conditions may influence the relationship between liquidity and profitability in commercial banks.

Lastly, the lack of comparative analyses among specific cooperatives, further accentuates the research gap (Ajay & Lawal, 2021). Despite numerous studies on liquidity and profitability, none have undertaken a comparative analysis of these cooperatives, indicating a specific void in the literature that the present study aims to fill. The identified research gap encompasses the need for a more nuanced understanding of the liquidity-profitability relationship within the cooperative sector. This necessitates considering diverse variables, methodologies, and geographical contexts and addressing the gap in comparative analyses among specific banks.

## **CHAPTER-III**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

The approach utilized to conduct the research is described in this chapter. Research design, demographic and sample design, data collecting techniques, data processing techniques, and verifying data validity and dependability are among the topics addressed.

#### **3.2 Research Design**

In order to clarify the connection between liquidity and profitability of microfinance companies in Nepal, a descriptive research approach was used in the study. Descriptive studies, according to Cooper and Schindler (2021), are those whose goals are to identify relationships between various variables, estimate the percentage of a population with comparable features, and explain a phenomena.

The research employs both descriptive and causal research designs. It aims to scrutinize and assess the influence and correlation between liquidity management and the profitability status of three chosen cooperative companies in Nepal over a span of 8 years (from 2015 to 2022), offering recommendations based on the findings. The study utilizes comparative, analytical, and descriptive research designs to meet its objectives. Analysis involves financial tools such as liquidity ratios and profitability ratios, while statistical tools like arithmetic mean, standard deviation, coefficient of variation, coefficient of correlation, and regression analysis are employed to scrutinize facts and articulate the outcomes.

#### **3.3 Population and Sampling**

Populations involve all elements, individuals, or units that meet the selection criteria for a group to be studied, and from which a representative sample is taken for detailed examination (Mugenda and Mugenda, 2022). The target population for this study comprised all Microfinance Companies in Nepal. As at 31st December 2022 there were a total of sixty five (65) MFCs in Nepal. (Appendix I). The researcher has chosen only three MFCs i.e. Nirdhan Utthan Laghubitta Bittiya Sanstha Ltd, Chhimek Laghubitta Bittiya Sanstha Ltd and Deprosc Laghubitta Bittiya Sanstha Ltd. These three cooperatives

have been chosen for the study as they are well established and old ones. It is easier to get their past annual reports from the secondary sources.

The study only considered microfinance companies which had full financial statements from 2015 to 2022. The list of microfinance companies was obtained from the investpaper.com website.

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

The research will include gathering secondary data. The audited financial accounts of the microfinance companies under consideration will be used to infer the research variables. The Central Bank of Nepal website and the CBK Annual Supervision reports will be the sources of this information. Secondary data from the annual reports of the Association of Microfinance Institutions in Nepal (AMFIs) will also be used into the research. An eight-year period (2015–2022) was taken into consideration in order to ascertain the link between liquidity and profitability of microfinance companies in Nepal.

### **3.5 Data Collection Procedure**

To know the stock price behavior and its determinants relating to development banks, the researcher will collect the data from secondary sources such as annual reports of concerned institutions, the NEPSE index and the various websites.

### **3.6 Method of Analysis**

To make the study more specific and reliable, the researcher uses the following types of analytical tools:

#### **3.6.1 Financial Tool**

##### **Arithmetic Mean**

Dividing the sum of all observations by the total number of observations yields the simple mean, often called the arithmetic mean, of a set of data. This will be used to find the best possible value, which will show the overall average of a variable to the group. It can be calculated as:

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

Where,

$\bar{X}$  = arithmetic mean

$\sum X$  = sum of observations

N = no of observations

### Standard Deviation

The standard deviation may be expressed as either the square root of the mean, or as the variation squared from the arithmetic mean. The dispersion around the mean or centre, as well as its size, are shown. The dispersion is precisely measured. When the standard deviation is large, the variability is also large. Dispersion is a measure of how far the data deviate from the mean or median. To rephrase, one may tell whether the data is reliable by looking at its variability. It can be calculated as:

$$S.D. = \frac{\sum (X - \bar{X})^2}{N}$$

### 3.6.2 Statistical Tools

#### Descriptive Statistics

Descriptive statistics are brief informational coefficients that summarize a given data set, which can be either a representation of the entire population or a sample of a population. Descriptive statistics are broken down into measures of central tendency and measures of variability (spread). Measures of central tendency include the mean, median, and mode, while measures of variability include standard deviation, variance, minimum and maximum variables.

#### Correlation Coefficient (r)

The correlation coefficient describes the link between two independent variables. It is a method for finding the relationship between these two variables. When two variables are highly related to one another, like when changes in one variable have an effect on the other, we get a correlation coefficient. A little "r" is used to indicate it.

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

Where,

$r$  = coefficient of correlation

$\Sigma XY$  = Sum of product of two series.

$\Sigma X^2$  = Sum of squared in X series

$\Sigma Y^2$  = Sum of squared in Y series

$n$  = number of years

This coefficient's value can never be less than -1 or greater than + 1. Therefore, the limits of this coefficient are + 1 and -1. Positive correlation between variables is indicated by a value of  $r = + 1$ , and vice versa. Zero indicated no association at all.

### **Multiple Regressions Analysis**

By fitting a linear equation to the observed data, multiple linear regression attempts to predict the relationship between a response variable and two or more explanatory factors. The dependent variable  $y$  takes on a value for every possible value of the independent variable  $x$ .

The study adopted a multiple regression model to analyze the results of this study by determining the effect of liquidity on profitability of Microfinance Companies in Nepal. The study used the model below to achieve the objective of this study.

#### **Model**

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where:

$Y$  = Profitability which is the dependent variable will be measured by the Return on Assets. ROA is the ratio of Net income after taxes to the Total assets

$X_1$  = Liquidity will be measured using the ratio of Gross loans and advances to Customers' deposits

$X_2$  = Asset Quality will be measured by the ratio of Provision for bad debts to Grossloans and advances

$X_3$  = Operational Efficiency will be measured by the ratio of Operating profit to Total income.

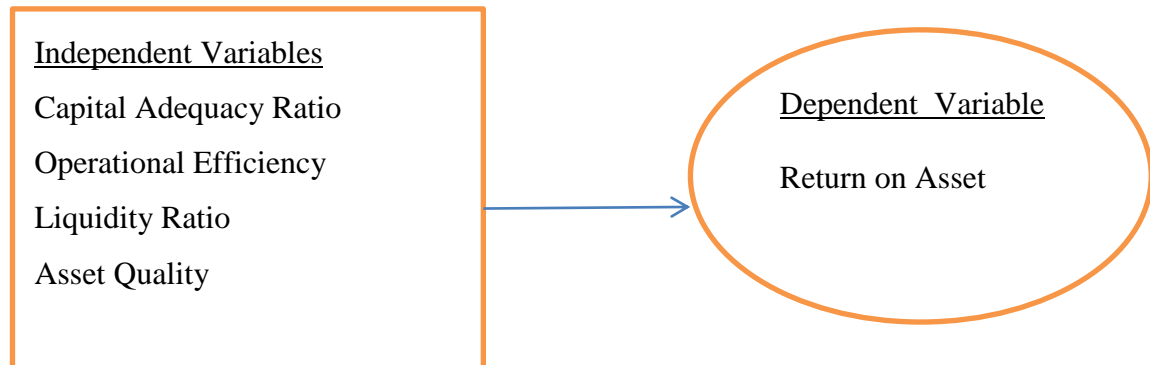
$X_4$  = Capital Adequacy will be measured by the ratio of Total shareholders' equity to Total assets.

$\epsilon$  = Error term within a confidence interval of 5% will be used.

$\beta_i$  = Coefficient of the independent variable  $i$  which measures the responsiveness of  $Y$  to changes in  $i$ .

$X_2, X_3, X_4$  are the control variables

### 3.7 Research Framework and Definition of Variables



Source: Ajay and Lawal (2021) and Khati (2020)

Figure 1: Research Framework

#### Definition of Variables

##### **Return on Asset (ROA)**

A financial ratio known as return on assets (ROA) shows how lucrative a business is in comparison to its total assets. ROA is a useful metric for investors, analysts, and corporate management to assess how well a business utilizes its resources to turn a profit.

Typically, a company's net income and average assets are used to quantify the measure as a percentage. A company's ability to manage its balance sheet profitably is shown by a greater return on assets (ROA); conversely, a lower ROA suggests that there is still opportunity for development.

##### **Capital Adequacy ratio (CAR)**

The equity to total asset ratio is used to gauge how well capitalized a bank is. This indicates what proportion of all assets are funded by equity capital. Therefore, capital adequacy refers to how much equity is sufficient to cushion potential shocks to a

company. It is anticipated that a larger equity to asset ratio would result in less of a need for outside financing and, therefore, improved bank profitability. Furthermore, well capitalized businesses have a lesser chance of filing for bankruptcy, which lowers their financing costs (Kosmidou, 2022).

### **Liquidity ratio (LR)**

Companies' liquidity reflects their capacity to finance asset growth and pay bills when they become due. Traditionally, businesses have issued loans after receiving deposits from clients. Because of this, the ratio of bank advances to client deposits serves as a stand-in for liquidity. Companies' top worry is liquidity, and a lack of it may lead to a company's demise. The main concern of banking regulators is liquidity as well. This is due to the possibility of bank runs occurring in businesses that do not have enough liquidity to satisfy the demands of their depositors. Because highly liquid assets often have lower rates of return, holding them in this manner tends to diminish income. For example, the most liquid asset in the portfolio, cash, does not provide income. It was found by Molyneux et al. (2024) and Guru et al. (2023) that there is a negative relationship between profitability and liquidity. Nonetheless, Bourke (1989) discovered a strong positive correlation between a company's profitability and its liquidity.

### **Asset Quality (AQ)**

As a stand-in for asset quality, the ratio of loans to the provision for bad debts is used. This metric captures changes in the credit quality and overall health of bank loan portfolios. As such, it also serves as a gauge of a company's credit risk. Heffernan (2023) defined credit risk as the possibility that a loan or asset may be lost entirely in the event of an outright default, or the possibility that loan servicing will be delayed. According to Bessis (2022), credit risk may have cascading effects that result in bankruptcy. Credit risk and the buildup of overdue loans and interest are positively correlated with the provision for bad debt to advances ratio. Furthermore, when an asset's present value decreases, a bank's viability is threatened. Kosmidou (2022) asserts that low asset quality might negatively affect a bank's profitability by lowering interest income.

### **Operating Efficiency (OE)**

One of the most important internal variables that affects a company's profitability is its operational efficiency. Various financial statistics, such as total asset growth, loan growth rate, and profits growth rate, are used to illustrate it. One of the most difficult subjects to quantify using financial ratios is this one. Furthermore, another aspect of management quality is operational efficiency in controlling operating expenditures (Halling and Hayden, 2022). Subjective assessments of organizational discipline, control systems, personnel quality, management systems, and other areas are common ways for managers to convey their performance on a qualitative level. Operational efficiency is proxied by certain financial ratios included in the financial accounts. Financial ratios may be used to assess a management team's capacity to maximize revenue, minimize operational expenses, and allocate resources effectively. Operating profit to income ratio is one of the ratios used to assess management quality (Halling and Hayden, 2022).

## CHAPTER-IV

### RESULTS AND DISCUSSION

#### 4.1 Introduction

Based on the research goals, the outcomes and conclusions of the study are presented in this chapter. Summaries tables are used to display the findings. The data are analyzed using regression and correlation analysis in order to address the study goal.

#### 4.2 Descriptive Statistics

Table 1 below summarizes the descriptive statistics of the variables included in the regression models as presented. It represents the variables of three (3) MFCs operating in the Nepal whose financial results were available for the years 2015-2022.

**Table: 1**

*Descriptive Statistics*

	<b>N</b>	<b>Mean</b>	<b>Minimum</b>	<b>Maximum</b>	<b>S.D.</b>
ROA	24	-1.07	-13.56	2.36	3.87811
Capital Adequacy	24	31.1175	6.42	80.65	24.20228
Operational Efficiency	24	-6.2345	-111.11	28.43	41.71266
Liquidity	24	184.4461	92.53	516.37	103.78288
Asset Quality	24	2.2839	0	13.16	2.92252
Valid N (listwise)	24				

*(Source: SPSS output)*

ROA had a mean value of -1.07 and a standard deviation of 3.87811. The highest performance was 2.36 while the least performance was -13.56 for the eight year period. Capital Adequacy had a mean of 31.1175 and a standard deviation of 24.20228; Operational efficiency had a mean of -6.2345 and a standard deviation of 41.71266; Liquidity had a mean of 184.4461 and a standard deviation of 103.78288

while Asset Quality had a mean of 2.2839 and a standard deviation of 2.92252.

### 4.3 Correlation Analysis

To evaluate the association between the variables, the data collected was analyzed to generate the Pearson correlation coefficient which gives tests the presence of association between the variables. The significance level was set at 5% with a 2-tailed test. The results are therefore as presented in table 2 below.

**Table: 2**

*Correlation Table*

Variables	ROA	CA	OE	LQ	AQ
ROA	1				
	Sig.				
CA	-0.748*	1			
	Sig.	0.000			
OE	0.884*	-0.468	1		
	Sig.	0.000	0.000		
LQ	-0.456*	0.263	-0.215	1	
	Sig.	0.009	0.913	0.672	
AQ	-0.512*	0.389	-0.269	0.141	1
	Sig.	0.000	0.158	0.882	0.153

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

*(Source: SPSS output)*

With the exception of operational efficiency, all of the components in Table 2 show a negative association with the dependent variable. This suggests that there is a negative correlation between the MFCs' profitability and liquidity.

The Pearson's correlation scale is used to measure the strength of the association. A value in the range of 0.0–0.3 indicates no correlation, a value in the range of 0.3–0.5 indicates a weak correlation, a value in the range of 0.5–0.7 indicates a fair correlation, and a value in the range of 0.7 and 1 indicates a strong correlation. A complete link between the

variables is shown by a correlation value of 1. The kind of correlation—positive or negative—is indicated by the size of the association (+ or -).

The table shows that there is a -0.456 connection between the MFCs' profitability and liquidity based on these periods. This suggests that there is little to no correlation between profitability and liquidity. The profitability of MFCs and asset quality also have a slight, negative association. This is in line with the found coefficient of -0.512, which shows a poor correlation between the two variables. Profitability and capital sufficiency have a negative relationship. There is a significant link. This relates to the analysis's correlation coefficient, which comes out to be 0.748. The correlation chart shows a substantial positive association between operational efficiency. A high positive connection is shown by the obtained correlation value of 0.884.

As indicated in Table 2, all of the independent variables were found to have a statistically significant association with the dependent variable and a statistically non-significant association with each other when the significance of the association was tested at the 5% level using a 2-tailed test.

#### **4.4 Regression Analysis**

Regression analysis was used to assess the connection between MFC profitability and liquidity. Table 3 displays the summary of the regression model, indicating the degree to which the predictor variables influence the dependent variable. Table 4.4 presents the analysis of variance, assessing the dependability of the model constructed to explain the relationship. Table 4.5 displays the regression coefficients, providing the coefficient that explains the degree to which the independent variables influence the dependent variable.

**Table: 3***Regression Model Summary*

Model R	R Square	Adj. R Square	Std. Error of Estimate
1	.940	.884	1.45569

a. Predictors: (Constant), Asset quality, Liquidity, Operational efficiency, Capital adequacy

(Source: SPSS output)

Table 3 yields a R square value, or coefficient of determination, of 0.884. This suggests that liquidity, asset quality, operational efficiency, and capital sufficiency account for 88.4% of the variation in MFC profitability. Given this, the variability resulting from additional variables not included in the present study is 11.6%. The findings' dependability is measured by the adjusted R square, which is 0.859 based on the table as well. As a consequence, the model's findings are significant and trustworthy in illuminating how the predictor variables affect the dependent variable, and the study's results are 85.7 percent dependable.

**Table: 4***Analysis of Variance*

Model	Sum of Square	df	Mean Square	F	Sig.
Regression	305.653	4	76.413	36.060	.000
Residual	40.262	19	2.119		
Total	345.914	23			

a. Dependent Variable: ROA

b. Predictors: (Constant), Asset quality, Liquidity, Operational efficiency, Capital adequacy

The *F*-ratio in Table 4 tests whether the overall regression model is a good fit for the data. The table shows that the independent variables statistically significantly predict the dependent variable,  $F(4, 19) = 36.060, p < 0.05$  (i.e., the regression model is a good fit of the data).

**Table: 5***Regression Coefficients*

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std.Error			
(Constant)	1.717	0.721		2.382	0.028
Capital adequacy	-0.034	0.019	-0.102	-1.791	0.011
Operational efficiency	0.067	0.01	0.721	6.748	0.000
Liquidity	-0.007	0.003	-0.179	-2.16	0.044
Asset quality	-0.274	0.119	-0.206	-2.308	0.032

(Source: SPSS output)

The table gives the regression coefficients which are used to answer the regression model proposed

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where:

$Y$  = Profitability

$X_1$  = Liquidity

$X_2$  = Asset Quality

$X_3$  = Operational Efficiency

$X_4$  = Capital Adequacy

$\varepsilon$  = Error term within a confidence interval of 5% will be used.

$\beta_i$  = Coefficient of the independent variable  $i$  which measures the responsiveness of  $Y$  to changes in  $i$ .

From the data in Table 10, the model therefore becomes:

$$Y = 1.717 - 0.007 X_1 - 0.274 X_2 + 0.067 X_3 - 0.034 X_4$$

Given that their coefficients are negative, it is evident from the model that all variables—aside from operational efficiency—have a negative relationship with the dependent variable. The positive coefficient of operational efficiency suggests a favorable correlation with profitability. The model also demonstrates that the profitability (ROA) would be 1.717 if the predictor variables were held constant at zero (0). Additionally, the data demonstrate a negative link between liquidity and MFC profitability, with a unit increase in liquidity translating into a 0.007-times fall in MFC profitability.

The model also shows that a unit increase in operational efficiency would result in a 0.067 times increase in profitability, a unit change in capital adequacy would result in a 0.034 times decrease in profitability of MFCs, and a unit increase in asset quality would result in a 0.274 times decrease in profitability. The coefficients' p-values, which are all less than 0.05, show that the 2-tailed test was successful in finding the significance of the coefficients at the 5% level.

#### **4.5 Discussion**

The results of the research showed that the profitability of MFCs and their liquidity had a weakly negative correlation. A modest negative association between the variables is shown by the correlation coefficient of -0.456. This suggests that the profitability of MFCs and their liquidity are inversely related. The findings of the regression test showed that there is a negative correlation between MFCs' liquidity and profitability, with an increase in liquidity translating into a 0.007-fold drop in MFC profitability. This demonstrates how the MFCs' profits would decrease if they attempted to create a unit shift in liquidity.

The results also showed a negative correlation between MFC profitability and asset quality. With a correlation value of 0.512, this suggests a poor relationship between the two variables. According to the regression coefficient, MFC profitability would decrease by 0.274 times for every unit increase in the asset quality parameter.

The study's findings showed a favorable and significant correlation between MFC profitability and operational efficiency. This suggests that MFCs would become more profitable if their operations become more efficient. This is corroborated by the regression results, which indicate that an improvement in efficiency of one unit leads in a 0.067-fold rise in MFC profitability.

The research also showed that capital sufficiency and MFC profitability are strongly and negatively correlated. This suggests that raising capital adequacy in MFCs would make them less profitable. Based on the analysis's regression coefficient, MFC profitability is predicted to decrease by 0.034 times for every unit change in capital adequacy.

## **CHAPTER- V**

### **SUMMARY, CONCLUSION AND IMPLICATION**

The main results of the research are summarized in this chapter, together with the conclusions and suggestions drawn from them. The topics for further research that were identified throughout the study are also presented in this chapter.

#### **5.1 Summary**

The purpose of the research was to assess how liquidity affected the profitability of microfinance firms in Nepal. The analysis used secondary data to examine the variables. Data spanning eight years was gathered from the Central Bank of Nepal Annual Supervision Reports and the Association of Microfinance Institutions in Nepal publications. Inferential statistics were used to investigate the study's goal, with regression analysis being used to examine the connection between the independent factors and the dependent variable and correlation analysis being used to examine the link between the variables. To create the regression model connecting the research variables, a multiple regression analysis was carried out. A two-tailed test was used to assess the significance of the findings at a 5% level of significance.

Based on the research, the study concluded that all of the criteria examined had a negative link with MFC profitability, with the exception of operational efficiency, which had a positive correlation. As a result, there is a positive correlation between liquidity and MFC profitability. The correlation coefficient between MFC profitability and liquidity is -0.456, indicating a weakly negative link.

The study's conclusions demonstrate that there is only a slight negative association (coefficient of -0.512) between MFC profitability and asset quality. With a correlation value of -0.748, capital adequacy has a high negative connection. The only aspect that positively correlated with MFC profitability was its operational efficiency. It shows a high association with a correlation value of 0.884.

The findings of the regression study showed that liquidity, asset quality, operational efficiency, and capital sufficiency account for 88.4% of the variation in MFC profitability. Since the study's findings were deemed to be 85.9% trustworthy, the model did a decent job of describing how liquidity affects MFC profitability. The constructed model revealed a modest negative correlation between MFC profitability and liquidity. The study's conclusions also showed that the MFCs' profitability would be 1.717 if the predictor factors were held constant at zero. The findings showed that there is a negative correlation between liquidity and MFC profitability, with an increase in liquidity of one unit translating into a 0.007-fold drop in MFC profitability.

Additional research showed that the profitability would decrease by 0.274 times for every unit increase in asset quality. Additionally, a 0.067-times improvement in profitability would result from a unit increase in operational efficiency. Additionally, research indicates that a 0.034-fold decrease in profitability would result from a unit change in MFCs' capital adequacy.

Since all of these correlations were shown to be statistically significant, the regression model could be used to explain how MFC profitability and liquidity are related.

## **5.2 Conclusion**

One factor influencing the profitability of microfinance firms is liquidity, according to the data analysis findings in Chapter 4. Since ROA and liquidity have a negative relationship, more liquidity will likely result in lower microfinance bank profitability. Based on research findings, it may be concluded that a little amount of profitability is influenced by a microfinance bank's liquidity.

The study's findings indicate a negative correlation between profitability and liquidity, with liquidity serving as a driver of microfinance enterprises' profitability. According to the study's findings, liquidity is just one of many factors that affect the profitability of microfinance enterprises rather than a major one. The profitability of microfinance firms has also been shown to be impacted by capital sufficiency, operational effectiveness, and asset quality.

### **5.3 Implications**

The study's findings indicate that the profitability of Nepali microfinance firms is negatively correlated with their liquidity. The research concludes that in order to guarantee the long- and short-term stability of the overall system, microfinance firms should have procedures for tracking, reporting, and evaluating liquidity levels.

Since profitability and liquidity management are essential to microfinance organizations' existence, they shouldn't focus just on maximizing profits; they should also take steps to guarantee adequate liquidity management. The actions will lessen or prevent instances of too little and too much liquidity.

The microfinance companies should consider other reasonable measures to meet such requirements, such as maintaining a stock of liquid assets that is appropriate to the institution's cash flow profile and that can be easily converted into cash without causing undue capital losses, rather than keeping excessive liquidity as a provision for unexpected withdrawal demands of the customers. Furthermore, the excess capital held by microfinance firms must to be periodically allocated to short-term money market products.

It is recommended that microfinance enterprises align the maturity dates of their secondary reserve assets with the anticipated duration of capital requirements. The microfinance institutions have to establish a customer forum wherever their clientele would get education on the many types of deposits and the operational prerequisites associated with each. Microfinance organizations may estimate the degree of liquidity to be maintained in a scenario where clients operate any of the deposits as needed.

### **5.4 Suggestions for Further Research**

Future research may focus on times when there have been economic shocks. In this instance, the emphasis should be on the effects of liquidity on microfinance firms' financial performance during periods of non-business as usual. For instance, during a sharp rise or drop in interest rates, a sharp decline in the value of the currency, or an economic boom or bust.

The effect of liquidity risk management strategies used by microfinance institutions to increase their profitability may also be investigated further. In order to maintain ideal liquidity levels for the institution, it would be interesting to evaluate the different liquidity risk management strategies used in the microfinance industry. In order to gather information for their investigations, these studies have to think about using primary sources of data. This would save time and make it easier to get comprehensive data from original sources, which would also provide accurate and dependable findings that clarify the specifics of the topic.

It is recommended that more study be conducted to examine the diverse experiences that these institutions have incurred as a result of the issues under investigation, with a focus on enterprises operating in distinct economic sectors. This would help in formulating broad suggestions that pertinent authorities would use to guarantee the effectiveness of businesses' financial performance.

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## APPENDIX

### *Return on Asset (ROA) of sampled MFCs in percentage*

Year	NUBL	CBBL	DDBL
2015	0.04	2.36	0.24
2016	1.77	-3.87	-1.87
2017	1.30	0.27	1.76
2018	-10.48	-2.56	1.47
2019	-3.00	1.33	0.35
2020	-13.56	1.80	-4.08
2021	0.76	0.24	0.76
2022	0.85	-1.78	0.63

(Source: Annual report of sample companies)

### *Capital Adequacy ratio of sampled MFCs in percentage*

Year	NUBL	CBBL	DDBL
2015	10.82	27.07	12.67
2016	11.30	56.35	62.62
2017	12.61	7.62	17.07
2018	80.65	70.51	18.64
2019	30.61	6.42	16.95
2020	79.66	13.32	23.34
2021	8.04	26.18	52.66
2022	11.30	39.17	51.25

(Source: Annual report of sample companies)

*Liquidity ratio of sampled MFCs in percentage*

Year	NUBL	CBBL	DDBL
2015	165.63	143.39	132.15
2016	158.26	140.98	304.17
2017	182.45	108.5	110.13
2018	292.86	211.11	114.57
2019	106.12	121.21	118.97
2020	400.00	266.31	123.40
2021	167.82	143.58	110.84
2022	516.37	92.53	195.31

(Source: Annual report of sample companies)

*Asset Quality of sampled MFCs in percentage*

Year	NUBL	CBBL	DDBL
2015	0.90	2.20	1.29
2016	2.00	2.33	0.00
2017	3.67	2.36	1.23
2018	4.88	13.16	0.91
2019	0.00	0.80	1.11
2020	6.25	0.73	6.24
2021	0.77	2.00	1.09
2022	0.30	0.62	0.00

(Source: Annual report of sample companies)

*Operating Efficiency of sampled MFCs in percentage*

Year	NUBL	CBBL	DDBL
2015	17.10	28.43	17.48
2016	8.72	-46.15	-12.50
2017	22.72	3.96	17.72
2018	-92.86	-8.33	19.27
2019	-110.00	19.33	11.55
2020	-111.11	22.57	-11.62
2022	21.56	14.89	4.35
2022	25.30	-17.39	5.41

(Source: Annual report of sample companies)



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**ABSTRACT** Many institutions worldwide lack a formal and suitable financial policy on the administration and management of liquidity. For financial institutions experiencing fast- paced growth like microfinance banks, the establishment of norms and policies to administer cash and liquidity is nonetheless crucial for the institutional viability as much in the short term as in the long term. This study sought to establish the effect of liquidity on profitability of microfinance companies in Nepal. The population of the study was comprised of all 65 microfinance companies in Nepal operating in the years 2015 to 2022. For a microfinance bank to qualify it needed to have been in operation during the whole period of the study and therefore institutions that were not in operation in the whole period of study were eliminated. Secondary data was used in conducting the study. The study involved secondary data collection of the return on assets, to measure profitability and the ratio of loans to deposits to measure liquidity during a specific year. The study used secondary data obtained from Central Bank of Nepal, annual supervision reports and Association of Microfinance institutions annual publications. The study used descriptive statistics and regression analysis to establish the relationship between the study variables. The response rate was 67% that is a total 3 out of 65 licensed microfinance banks in Nepal that satisfied the data collection criteria. The study found out that there is a weak negative relationship between liquidity and profitability of microfinance banks in Nepal. Liquidity was found to be one of the determinants of profitability of Microfinance Banks in Nepal. The study recommends that the finance managers of microfinance banks maintain optimal levels of liquidity in order to remain profitable.

. Keywords: Capital Adequacy Ratio, Operational Efficiency, Liquidity Ratio, Asset Quality, Return on Assets CHAPTER-I

INTRODUCTION 1.1 Background of the Study Any firm needs liquidity to function properly. The organization's assets may be seized by creditors in the event that payment commitments are not fulfilled on schedule, potentially leading to bankruptcy. Because financial organizations are more susceptible to unforeseen and urgent payment requests, liquidity is even more important to them. This is the nature of the businesses that make loans and accept deposits. For the institution to continue operating, it must be able to promptly process and grant requests for credit as well as withdrawals. An important factor in a business firm's ability to operate successfully is liquidity. To pay its short-term commitments, a company should make sure it does not have insufficient or excessive liquidity. The goal of liquidity management is to strike the right balance between profitability and liquidity. A company's need for liquidity varies