

CASH FLOW ANALYSIS OF NEPALESE COMMERCIAL BANKS

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CERTIFICATE OF AUTHORSHIP

I hereby corroborate that I have researched and submitted the final draft of dissertation entitled “**CASH FLOW ANALYSIS OF NEPALESE COMMERCIAL BANKS**” The work of this dissertation has not been submitted previously for the purpose of conferral of any degrees nor has it been proposed and presented as part of requirements for any other academic purposes.

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

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REPORT OF RESEARCH COMMITTEE

Mr. Jyoti Rimal has defended research proposal entitled “**CASH FLOW ANALYSIS OF NEPALESE COMMERCIAL BANKS**” successfully. The research committee has registered the dissertation for further progress. It is recommended to carry out the work as per suggestion and guidance of supervisor Indra Bahadur Bohara and submits the thesis for evaluation and viva voce examination.

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ABBREVIATIONS

AD	:	Anno Domini
AIC	:	Akaike information criterion
ATM	:	Automated Teller Machine
BS	:	Bank Size
CFFA	:	Cash flows from Financing Activities
CFIA	:	Cash flows from Investing Activities
CFOA	:	Cash flows from Operating Activities
e.g.	:	Example
ETA	:	Total Equity to Total Assets Ratio
F/Y	:	Fiscal Year
i.e.	:	That is
Ltd	:	Limited
MBS	:	Master of Business Studies
OLS	:	Ordinary Least Squares
ROA	:	Return on Assets
ROE	:	Return on Equity
SD	:	Standard Deviation
SEM	:	Structural Equation Modelling

ABSTRACT

This study is undertaken to make an assessment, the effect of cash flow on financial performance of Nepalese commercial banks. The entire work has been divided into five broad chapters to study almost all aspects of cash flow on financial performance in general and its application in Nepalese Commercial Bank in particular. The study uses only secondary data; it does not cover the opinions and views of the banks concerned. The study covers only a ten-year period, i.e., from 2013/14 to 2022/23. If a longer trend had been used, a more accurate trend could have been analyzed. There are 20 commercial banks currently operating in Nepal. However, this study is limited to only three commercial banks in Nepal, namely, Nabil Bank Ltd., Himalayan Bank Ltd., and Kumari Bank. The study is carried out based on the information gathered. The study deals with only certain financial tools, such as statistical tools. EM, leverage ratio, firm size, and CFFA are relationships between cash flow and financial performance (ROA). CFOA and CFIA are therefore insignificant when compared to ROA. Therefore, CFOA and CFIA have no relationship between cash flow and financial performance (ROA). Again, in terms of ROE, the EM, leverage ratio, firm size, and CFFA are all positive and significant. So that, EM, leverage ratio, firm size, and CFFA are relationships between cash flow and financial performance (ROE). CFOA and CFIA are therefore insignificant in terms of ROE. Therefore, CFOA and CFIA have no relationship between cash flow and financial performance (ROE). The study concluded that the variables equity multiplier, firm size, leverage, CFOA, CFIA and CFIA are insignificant on financial performance (ROA). So that, these variables have no effect of cash flow on financial performance (ROA). Leverage, firm size, and CFOA, CFIA, and CFFA have no significant impact on financial performance (ROE). As a result, neither cash flow on financial performances are affected by these variables. The equity multiplier is significant for financial performance (ROE). As a result of this variable impact of cash flow on financial performance.

Keywords: Return on Assets, Return on Equity, Cash flows from Operating Activities, Cash flows from Investing Activities, Cash flows from Financing Activities, Leverage Ratio, Firm Size, Equity Multiplier

CHAPTER-I

INTRODUCTION

1.1 Background of the Study

A bank is a type of financial institution that takes deposits from the general population and lends money to those in need. Banks support the development of economic activity. Economic activity growth and improvement are essential to the country's development. An egalitarian society is created in the country as a result of economic progress and its distribution among the population. The financial resources needed for the growth of commerce, industry, and agriculture are provided by banks. They are regarded as one of the main economic drivers. In the country, they engage in a variety of financial and commercial activities. However, most of them are not doing effectively in our situation. Both directly and indirectly, they are dealing with a number of issues (Mahajan & Jamindar, 2024).

Prior to the foundation of banking institutions in Nepal, certain moneylenders such as goldsmiths conducted financial transactions. These efforts were not focused on the nation's economic aim or goal, notwithstanding their lack of organization. Thus, even before Nepal Rastra Bank was founded, in 1937, Nepal Bank Ltd. became the country's first commercial bank in order to address the expanding needs of the national economy. Since its founding, Nepal Bank Ltd. has been acting with dispersed capital in order to mobilize in the productive sector. It helped Nepal build a methodical culture and manner of life for modern financial devices. Such a device would wish to be able to create a solid foundation for strengthening the country's economy (Basnet, 2024).

Under the Nepal Rastra Bank Act of 1955, Nepal Rastra Bank was established in 1956. Nepal Rastra Bank holds a pivotal role in various industries. It promotes trade and the industrial sector for improvement and aids in the mobilization of funds or resources for improvement. It provides industrial banks and other associated sectors with financial security as well as invaluable guidance. As a result, it is more essential to the development of banking technology and the regulation of financial activities by Nepali authorities. Business banks are currently run in accordance with NRB Act 2058 and NRB directives. In order for commercial banks to operate in the new

environment, the Bank and Financial Insinuation Act (BAFIA) also exists. Numerous commercial banks began to provide services in the financial sector of the nation following liberalization in the decade of 2050. To provide the nation with financial carriers, a wide range of finance organizations as well as savings and credit co-ops have been founded. The methodical and analytical reporting of cash flow from unique sources within an accounting period is known as a cash flow announcement. It is the opening and closing cash reconciliation. The cash flow was divided into three categories by the FASB No. 95 Statement of Cash Flow, which was published in 1987: operating, investment, and financing activities. In a similar vein, Nepal's well-known accounting report, which was released by the NASB in 2003, tracks cash flow over time and is divided into three categories: working, investing, and financing operations (Dhakal, 2019).

A cash flow statement is a statement that shows the inflow and outflow of funds, or the money of any corporate organization for a specific period of time. The last section of a company's annual report is the cash flow statement. It aids in determining an enterprise organization's capacity to generate revenue. This announcement displays how a company's cash function differs throughout an economic year. A cash flow statement is defined by the Institute of Cost and Works Accountants of India as an announcement that tracks the flow of funds under various headings of sources of funding and their utilization to ascertain the amount of cash required over a given period of time and to plan for adequate provision of it (Varshney & Jain, 2019).

The financial statement device is a crucial instrument that provides users with crucial data on which to make their decisions in order to directly attract lenders and investors and support managers in managing commercial company operations. Several studies claim that although cash flow statements are a component of financial statements, individuals utilize stability sheets and earnings statements to evaluate a company. In the last few decades, the cash glide statement has been the subject of much research worldwide, with particular focus on the effect that accounting data has on how money flows are reported to lenders by businesses. Vietnam in particular has not seen much research on the issue in developing nations. Customers of an enterprise's economic statements are interested in how the employer generates and uses money and money equivalents. Therefore, sufficient and useful accounting facts on the cash float statement supplied might also help the lenders to fully and comprehensively analyze

and evaluate the commercial enterprise performance, ensuring the lenders make lifelike mortgage selections in order to avoid risks and enhance the effectiveness of capital lending (Nguyen, 2020). This is true independent of the activities that the business engages in and whether or not money can be considered the enterprise's product, as may also be the case with economic enterprise. Businesses require cash to maintain their operations, fulfill their obligations, and provide returns to their investors. Every commercial enterprise's ability to handle its finances determines its success. The availability of funds frequently poses a challenge to the effective implementation of numerous policies and initiatives. Therefore, it is vital to examine an organization's cash composition to understand how its money flow decisions affect its liquidity, profitability, and solvency. The financial items in this study are associated with the flow statements, which are often a subset of the financial statements of numerous companies to whom the Accounting Standard (AS) is applied. In accordance with and based upon the aforementioned Accounting Standard, Cash Flow Statements are required as provided by ICAI (Patel, 2017).

In the context of Nepalese commercial banks, understanding the intricacies of cash flow analysis is crucial for assessing their financial health and operational efficiency. Commercial banks play a pivotal role in the economy by mobilizing financial resources for commerce, industry, and agriculture, thereby fostering economic growth and societal equity. Despite facing challenges in effective financial management and regulatory compliance, these banks have evolved significantly since the establishment of Nepal Bank Ltd. in 1937 and the subsequent founding of Nepal Rastra Bank in 1956 under the Nepal Rastra Bank Act of 1955. Today, guided by modern accounting standards and regulatory frameworks such as the Bank and Financial Insinuation Act (BAFIA), these institutions are mandated to provide systematic and analytical reporting of cash flows, ensuring transparency and stability in financial operations. As Nepal continues to liberalize its financial sector, commercial banks must navigate evolving economic dynamics and regulatory landscapes to sustain their pivotal role in driving economic development through effective cash flow management and strategic financial planning.

1.2 Problems Statement

Despite being well-known financial institutions with nearly identical corporate structures and goals, the banks are no longer making the same amount of money

flows or profit, and they are also unable to satisfy the return on cash foundations within the same time frames. These banks also have distinct share values. The industrial banks operating in the United States are subject to many possibilities and threats, which are imposed by regulatory bodies and the National Bank of Retail (NRR) (Dhakal, 2019).

The fundamental components of a nation's monetary system's effectiveness and efficiency are the performance and efficacy of its business banks. The main objective of India's banking sector reforms has been to increase the banks' efficiency and profitability. Before the banking reforms, public region banks controlled nearly all of the business. Nonetheless, a number of private and foreign banks have expanded their market reach thanks to banking reforms, giving them more autonomy. Operational efficiency is a metric that will help the general public as well as management, regulators, and supervisors identify and assess the relative efficacy of the players in the banking industry. In order to assess SBI and ICICI Bank's effectiveness and solvency status, this study attempts to follow profitability ratios, solvency ratios, and management effectively ratios (Padam & Arulmathi, 2013).

Scholars from a wide range of company and strategic management fields have given the issue of financial performance a great deal of attention. Additionally, because financial performance affects an organization's health and ultimately its existence, it has become a top concern for practitioners of commercial activity in all kinds of corporations. Excellent performance demonstrates efficient management and efficient use of the company's resources, which in turn supports the nation's financial system as a whole. Many industries in Jordan performed well, including the banking industry. The insurance plan zone, however, did not respond to the growth in the Jordanian economy. In Jordan, insurance plan groups often have a bad financial track record, with some groups managing to conclude with some income. This study attempts to examine the areas of vulnerability in the overall financial performance of insurance businesses. The primary goal of the study could therefore be summed up as identifying the factors influencing the financial performance of Jordanian insurance companies (Almajali & Alamro, 2012).

These research questions have been attempted to be addressed in this study.

- What is the trend of ROA, ROE, CFOA, CFIA, CFFA, Firm Size, Leverage and Equity Multiplier in Nepalese commercial banks?
- Is there the relationship between CFOA, CFIA, CFFA, Firm Size, Leverage and Equity Multiplier and Financial Performance in Nepalese commercial banks?
- Do CFOA, CFIA, CFFA, Firm Size, Leverage and Equity Multiplier have impact on Financial Performance in Nepalese commercial banks?

1.3 Objective of the Study

The main objective of this study is to analyze the relationship between cash flows, firm size, leverage and financial performance of Nepalese commercial banks. However, the specific objectives of the study are as follows:

- To assess the trend of ROA, ROE, CFOA, CFIA, CFFA, Firm Size, Leverage and Equity Multiplier in Nepalese commercial banks.
- To examine the relationship between CFOA, CFIA, CFFA, Firm Size, Leverage and Equity Multiplier and Financial Performance in Nepalese commercial banks.
- To analyze the effect of CFOA, CFIA, CFFA, Firm size, leverage and equity multiplier on financial performance in Nepalese commercial banks.

1.4 Hypothesis of the Study

This study is effects of cash flow on financial performance of commercial banks in Nepal.

This study examines the relationship between cash flow and financial performance.

This study has tried to address the follows.

H₁ = There is significant relationship between CFOA and ROA.

H₂ = There is significant relationship between CFOA and ROE.

H₃ = There is significant relationship between CFIA and ROA.

H₄ = There is significant relationship between CFIA and ROE.

H₅ = There is significant relationship between CFFA and ROA.

H₆ = There is significant relationship between CFFA and ROE.

H7= There is significant relationship between Leverage ratio and ROA.

H8= There is significant relationship between Leverage ratio and ROE.

H9= There is significant relationship between Firm Size and ROA.

H10= There is significant relationship between Firm Size and ROE.

H11= There is significant relationship between Equity Multiplier and ROA

H12= There is significant relationship between Equity Multiplier and ROE

1.5 Rationale of the Study

Users of financial statements are interested in understanding the firm's cash inflow and outflow since the smooth operation of the business depends on the firm's liquidity. Everyone is aware that money is a company's lifeblood. Every firm needs money for daily operations, business expansion, development initiatives, and other reasons. In reality, the first thing that comes to mind while thinking about a business is how much money we have and what kind of business we may start with the help of these assets. The statement that displays the company's cash position is known as the cash float declaration. Customers who purchase economic statements are provided with statistics regarding the enterprise's net property exchange, liquidity, solvency position, and liquidity as well as the business's potential to generate cash and cash equivalents and adjust the timing and amount of money flows in response to opportunities and changing circumstances. By removing the effects of applying different accounting treatments to identical transactions and events, this declaration enhances the comparability of the reporting of working overall performance by exclusive agencies and creates models to evaluate and compare the present cost of future cash flows of distinct organizations. This study conducts a separate analysis of two banks' cash waft statements: one from a private zone bank and one from a public sector bank. According to Accounting Standard Number Three (AS 3), financial statements and flow statements are required for all business enterprises. Because it replaces accrual basis accounting with money foundation accounting, the cash flow declaration analysis is essential. For the earnings statement and stability sheet, accrual foundation accounting is utilized. Comprehending the cash waft statement analysis is essential since a business may generate accounting revenues but may also be unable to obtain the necessary funds. In 2019. Varshney and Jain.

The specific rationales are follows:

- This study is a financial performance analysis of the cash flow statement picking bank.
- The cash statement is the statement that displays the cash position of the firm.
- This study assists bank customers in determining their cash inflow (deposit cash, interest money).
- People can operate banks more easily by using this study to help with financing and investing activities.
- Analysis of cash flow statements is crucial for balance sheets and income statements, requiring expertise from bankers, students, and bank customers as well as research.

1.6 Limitations of the Study

The public financial accounts of the banks and other information obtained from bank officials serve as the sole basis for this analysis. This secondary data is the foundation for any analysis. Thus, to that degree, it can be dependable.

- The study does not include the opinions and viewpoints of the relevant banks; it solely makes use of secondary data.
- The study only looks at the ten-year period from 2013/14 to 2022/23; if a longer trend had been employed, a more accurate trend analysis might have been done.
- There are 20 commercial banks currently operating in Nepal. However, this study is limited to only three commercial banks in Nepal, namely, Nabil Bank Ltd., Himalayan Bank Ltd., and Kumari Bank Nepal Ltd.
- Only specific financial instruments, namely statistical tools, are covered in the study.

CHAPTER-II

LITERATURE REVIEW

In order to clarify what has already been discussed and how the current research contributes to this dimension, this chapter highlights the literature and research that are currently available that are relevant to the current study. Numerous books, journals, articles, and earlier research have been reviewed and consulted for this study.

2.1 Conceptual Review

2.1.1 Cash Flow Statements

The most liquid asset and essential support for any firm is cash. If funds are not available, no business activities can be undertaken. The disclosure of financial flows has been an integral part of an organization's economic announcement in recent times. The cash flow statement gives the essential information regarding the sources and uses of the company's funds over the course of an accounting period. The company can evaluate its liquidity, financial flexibility, profitability, and risk with the help of the money waft statistics. Cash flow records are closely associated with cash flow, and this is why investors, analysts, creditors, managers, and other users use them. The balance sheet provides information about a company's assets and how they have been financed over time using both owned and borrowed funds. However, it does not explain changes in assets, liabilities, and owner equity that have occurred over time as a result of the activities of the organization. An organization's financial performance during a certain time is documented in the earnings and loss declaration; nevertheless, earnings are calculated on an accrual basis. As a result, it no longer displays an era and employs money in its operations.

The statement that shows the total cash inflow and outflow for the course of an accounting period is known as the cash float assertion. One of the components of a financial statement that provides information about changes in cash on the foundation of a comparative balance sheet of two economic periods is the cash flow declaration. To put it another way, a cash waft announcement is a statement of cash receipts and cash price for a specific time period. Since 1971, a compulsory financial declaration

has been a statement of cash flows, as per the recommendation of the Financial Accounting Preferred Board (FASB) in 1987.

The announcement that shows the cash flows for a specific period of time, regardless of whether those flows are related to financing, investing, or operating activities. The cash waft disclosure provides a clear picture of the inflow and outflow of funds. It includes income tax, revenue receipts, capital receipts, and payments. According to Gyawali et al. (2019), it is prepared using the cash basis of accounting.

Cash flow statement preparation: Generally speaking, there are two methods for doing this. These techniques are:

1. Direct Method
2. Indirect Method

1. Direct method

The cash inflow and outflow on direct cash inflows and outflows are calculated using the direct method of money go with the flow declaration. Sales revenue is how it all began. Since the information includes the balance sheet and profits declaration, a direct method is required. Using the cash flow analysis technique, one may determine the amount of money coming in and going out of operating, investing, and financing activities. Operating activities, such as correctly collecting money from sales and charging fees for things like paying for the acquisition of goods, paying staff, and other operating expenses, are examples of cash inflow calculations. Investment activities assess the inflow of cash through fixed property purchases and sales of enduring possessions, among other means. Financing tasks include analyzing capital influx and outflow through long-term financing initiatives like share problems, debentures, debenture redemption, dividend payments, etc. The three phases for guiding the money flow statement using the direct method are as follows:

- Calculating operating activities' cash flow
- Calculating the cash flow from investments
- Calculating the cash flow from financing operations

2. Indirect method

The money waft statement, which is widely watched by creditors, investors, and other stakeholders, provides important information on the sources and uses of money through a company. It offers documentation on the money made from different operations and illustrates how changes in assets and obligations to the law affect a company's financial situation.

The statement of money flows using the oblique technique starts with online earnings or loss and ends with money float from operating activities after noncash income and fee items are added to or subtracted from that amount. In order to represent real cash inflows and outflows over the course of the period, the cash glide statement's indirect approach tries to convert the file back to the cash technique. The subsequent lines will display gains and decreases in the accounts for assets and liabilities. These items will be deducted from or added to net profits according to their cash influence (Gyawali et al., 2019).

a) Operating activities

The accrual basis of the earnings assertion is changed to the cash basis via the direct method of cash flow. Producing, delivering, and receiving items are all part of operating activities. Cash flows from working tasks, such as receiving payment from clients for goods and services (collection from debtors). Repayments for material and service purchases, charges for services rendered to employees, and payments given to the government for taxes and other responsibilities make up the cash outflows from operating activities (Gyawali et al., 2019).

b) Investing activities

Investing operations include borrowing money, making loans, and buying and selling fixed assets. Receivables from investments and steady asset income comprise cash inflows from investing activity. Among the many other cash flow outflows associated with investing activities are investments and the acquisition of fixed assets (Gyawali et al., 2019).

C) Financing activities

Financing activities include borrowing money and paying it back, as well as obtaining resources from owners and providing them with a return on their investment. It also

covers cash inflows from share and debenture problems, long-term mortgage problems, etc. Under cash outflows, preference share and debenture redemption, long-term loan repayment, divided payment, major with hobby compensation, etc. (Gyawali et al., 2019).

2.1.2 Return on Assets (ROA)

The return on assets, also known as the return on total assets of the company, is a metric used to assess how well management has performed overall in turning a profit using the company's assets. A company's operational performance is positively correlated with its return on assets, and vice versa. According to Teshome et al. (2017), the calculation involves dividing the total assets by the net income available to common stockholder.

$$\text{ROA} = \text{Net income} / \text{Total assets}$$

2.1.3 Return on equity (ROE)

The return on the owner's investment in the company is measured by the return on equity. The term "owner's investment" describes the equity money that the company uses. Common stock, paid-in capital, and retained earnings are all included. An increased return on equity ratio is advantageous to the owner. According to Teshome et al. (2017), it is computed as net income available to common stockholders divided by common equity.

$$\text{ROE} = \text{Net income} / \text{Common equity}$$

2.1.4 Equity Multiplier (EM)

The link between a company's total assets and common equity is expressed simply by the equity multiplier, commonly referred to as the leverage factor. It gauges the degree to which a company's total assets exceed its common stock capital (Poudel et al., 2019).

$$\text{EM} = \text{Total assets} / \text{Total common equity}$$

2.1.5 Leverage Ratio

Leverage ratios are useful in evaluating a company's long-term solvency. Understanding how long-term debt relates to overall capital or shareholder's fund is

helpful. The ratios listed below fall within the category of leverage ratios (Poudel et al., 2019).

- i. Debt-to-equity ratio: total debt / money owned by shareholders
- ii. Total debt / Total capital is the debt to total capital ratio.

2.1.6 Firm Size

Larger companies tend to have higher values for this variable, which can be attributed to their experience and potential for increased efficiency from economies of scale, hiring of skilled managers, reaching a wider customer base, and diversifying their operations. The natural logarithm of the total assets is used to calculate size (Teshome, Debala, & Mohammad, 2017).

Firm Size = Log (Total Assets)

2.2 Theoretical Review

2.2.1 Liquidity Preference Theory

Liquidity Preference Theory, introduced by John Maynard Keynes in his work "The General Theory of Employment, Interest and Money" published in 1936, posits that individuals prefer holding liquid assets (cash and near-cash equivalents) rather than illiquid ones due to the uncertainty of future events and the need to meet unforeseen expenditures. This preference for liquidity varies inversely with the interest rate: as interest rates rise, the opportunity cost of holding liquid assets increases, prompting individuals to prefer higher-yielding but less liquid investments such as bonds or securities. Conversely, when interest rates fall, the relative attractiveness of holding liquid assets increases, leading to an increased demand for cash and equivalents.

In the context of commercial banks in Nepal, Liquidity Preference Theory plays a crucial role in shaping their cash flow management strategies. Banks must maintain sufficient liquid assets to meet depositor withdrawals and unexpected liquidity demands while also complying with regulatory liquidity requirements set by the Nepal Rastra Bank (NRB), the central bank of Nepal. These requirements dictate the minimum reserves and liquid assets that banks must hold relative to their deposit liabilities, ensuring financial stability and depositor confidence.

Moreover, Liquidity Preference Theory helps explain the dynamics of interest rate movements and their impact on banks' funding costs and profitability. When interest

rates are low, banks may face increased demand for loans as borrowing becomes cheaper, potentially increasing their cash outflows. Conversely, during periods of high interest rates, banks may see reduced loan demand but higher returns on their interest-earning assets, influencing their cash inflows and overall liquidity position.

In practice, Nepalese commercial banks must navigate these liquidity preferences alongside economic fluctuations and regulatory constraints to ensure they maintain adequate cash flow to support lending activities and meet depositor withdrawals effectively. By understanding and applying Liquidity Preference Theory, banks can optimize their asset-liability management strategies, balance liquidity risk, and enhance their overall financial resilience in a dynamic economic environment.

2.2.2 Cash Flow Matching Theory

Cash Flow Matching Theory is a financial strategy that aims to align the timing of cash inflows and outflows of an entity, such as a financial institution like commercial banks, in order to meet its obligations without encountering liquidity issues. This theory is particularly relevant in the context of managing interest rate risk and ensuring stability in cash flow management.

Originally developed within the field of finance and economics, Cash Flow Matching Theory is rooted in the principle of matching the duration and timing of assets with corresponding liabilities. By doing so, the theory seeks to minimize the risk of cash flow mismatches, where cash outflows (liabilities) exceed inflows (assets) at any given point in time. This approach is crucial for financial institutions like commercial banks in Nepal, where managing liquidity and ensuring financial stability are paramount.

For Nepalese commercial banks, applying Cash Flow Matching Theory involves structuring their balance sheets to ensure that the maturity and cash flow patterns of their assets (such as loans and investments) correspond closely with those of their liabilities (such as deposits and borrowings). This practice helps mitigate interest rate risk, as changes in interest rates can affect the value of assets and liabilities differently. By matching the cash flows, banks can reduce the impact of interest rate fluctuations on their net interest income and overall profitability.

In practice, Cash Flow Matching Theory requires banks to assess the duration and cash flow characteristics of their financial instruments comprehensively. For instance,

banks may choose to invest in assets with predictable cash flows and maturities that align with their liabilities, thereby ensuring a steady stream of funds to meet ongoing obligations. This proactive approach not only enhances liquidity management but also bolsters the banks' ability to withstand economic uncertainties and regulatory changes.

Furthermore, adherence to Cash Flow Matching Theory supports prudent asset-liability management practices, which are essential for maintaining depositor confidence and regulatory compliance. By accurately forecasting cash flow needs and strategically allocating assets and liabilities, Nepalese commercial banks can enhance their operational efficiency and resilience in the face of market volatility and economic fluctuations.

Cash Flow Matching Theory is a financial strategy used by institutions, including banks, to align the timing of cash inflows and outflows from their assets and liabilities. This theory aims to minimize liquidity risk by matching the maturity profiles of assets (such as loans and investments) with corresponding liabilities (such as deposits and borrowings). By doing so, institutions ensure that they have sufficient funds available at any given time to meet their financial obligations without relying excessively on short-term borrowing or facing liquidity shortages.

The concept of Cash Flow Matching Theory is rooted in the principles of asset-liability management (ALM), where institutions strategically structure their balance sheets to manage cash flow uncertainties effectively. This strategy is particularly relevant for commercial banks in Nepal, where stability in cash flow management is crucial for maintaining depositor confidence and complying with regulatory liquidity requirements imposed by the Nepal Rastra Bank (NRB).

In practical terms, Nepalese banks implement Cash Flow Matching Theory by categorizing their assets and liabilities based on their maturity profiles. For instance, banks may match short-term liabilities, such as demand deposits or short-term borrowings, with short-term assets like cash reserves or liquid securities. Similarly, longer-term liabilities, such as fixed deposits or medium-term borrowings, are matched with longer-term assets such as loans or investments with corresponding maturities.

By aligning cash inflows and outflows through Cash Flow Matching Theory, banks can reduce the risk of liquidity mismatches that could arise from unexpected withdrawals or changes in market conditions. This proactive approach not only enhances financial stability but also supports banks in optimizing their profitability and managing interest rate risks effectively.

Furthermore, Cash Flow Matching Theory influences strategic decision-making within Nepalese commercial banks, guiding them in the diversification of their asset portfolios and the structuring of their funding sources. This theory also aids in mitigating the impact of interest rate fluctuations on their net interest income, as banks can manage their interest rate risk exposure by matching the repricing characteristics of their assets and liabilities.

In conclusion, Cash Flow Matching Theory serves as a fundamental principle in the financial management practices of commercial banks in Nepal, helping them navigate the complexities of liquidity management, regulatory compliance, and economic volatility. By adhering to this theory, banks can enhance their resilience to external shocks, maintain operational stability, and sustain long-term growth in a competitive banking landscape.

2.3 Empirical Review

2.3.1 Review of Journal and Articles

Samba et al. (2024) examined the patterns of a number of bank operations, investments, and financing activities as well as the differences between the banks' varied activities. The research employed a quantitative methodology and a descriptive design. The convenient method was employed by the researcher. The study measured the significant differences in the cash flow statements of HDFC and SBI with regard to operating, investing, and financing operations using statistical techniques like descriptive statistics with mean and standard deviation and a paired two-sample t-test. The hypothesis was accepted since the calculated value of t for operating activities (3.990) was less than the table value (2.78). It indicates that there were no appreciable variations in the way the chosen banks operated. Since the computed value of the (-4.859) for investing activities was smaller than the table value (2.78), the hypothesis was accepted. It indicates that there was little to no variation in the investment strategies employed by the chosen banks. Moreover, the hypothesis was accepted

because the computed value of the (0.952) was smaller than the table value (2.78). It indicates that there was no discernible variation in the methods used to finance the operations of the chosen institutions.

The impact of operating cash flow, sales growth, and operating capacity in predicting financial distress in all manufacturing companies listed on the Indonesia Stock Exchange in 2017–2019 was examined by Ayu and Putri (2022) through an analysis of empirical data. The Statistical Package for the Social Sciences (SPSS) software was used to support the associative quantitative method used in this investigation. All manufacturing firms that were listed between 2017 and 2019 on the Indonesia Stock Exchange were included in that study. Purposive sampling, together with a time series approach, was the sampling technique employed in this study. The number of samples was established through the application of this technique. The study found that while operating capacity had a beneficial impact on financial distress, operating cash flow and sales growth had a negative relationship. Practical Implication: Businesses can utilize this material as a preventative strategy to stay out of financial trouble. Financial statements were also taken into account by users prior to making an investment decision in order to identify signs of a company's financial crisis. In order for businesses to implement policies to take corrective or preventive action, the study's findings may have helped management assess the value of operating cash flow, sales growth, and operating capacity in forecasting financial hardship.

The impact of free cash flow on the Amman Stock Exchange (ASE) performance of companies was examined by Abughniem et al. (2020). The research employed a quantitative methodology and a descriptive design. The convenient method was applied in the investigation. Descriptive statistics with mean and standard deviation were among the statistical methods employed in the investigation. One hundred businesses from every industry in the Jordanian market throughout a six-year period, from 2010 to 2015, comprised the study's sample. In order to capture the various outcomes from using each, evaluate the relevance of each measurement to performance, and ultimately provide an explanation for the contradictory findings found in earlier studies, several aspects of cash flow were examined. Three distinct performance measurements—Return on Assets (ROA), Market Value Per Share (MVPS), and Tobin's Q—were also employed. The study's main discovery was identifying the true factors influencing business performance. There were three

factors that were thought to have the greatest influence on performance. Free cash flow, operational cash flow, and operating cash flow margin were these variables. There have been extremely few or no studies on this topic undertaken in the Arab world, and very few studies have been conducted in the Middle East. This study is regarded as the first to discover and close this gap because it is the first time the topic has been studied in Jordan.

The relationship between cash flow management and the financial performance of a few chosen oil and gas companies listed on the Nigerian Stock Exchange was empirically investigated by Nangin et al. (2020). A judgmental research design was adopted in the study. Data analysis methods included correlation and multiple regression analysis of the annual reports of five chosen listed companies during a five-year period (2013–2018). The main conclusion showed that, in the oil and gas industry, cash flows from financing operations had a positive and significant impact on firm performance, while cash flows from operating and investing activities had a negative and insignificant link with profitability. It was suggested that companies review their cash flow management plans to help them run more profitably and produce enough cash flows to cover their ongoing expenses as they become due.

The comparative financial performance of a subset of Indian public and private sector banks was examined by Undi and Basavaraj (2020), who also examined the comparative financial performance of these banks between 2015 and 2019. The research employed a quantitative methodology and a descriptive design. The convenient method was applied in the investigation. Descriptive statistics with mean and standard deviation as well as financial instruments such as return on equity, return on assets, financial return, financial cost, financial margin, net margin, and operating profit margin were employed in the study. The study's main conclusion was that, on average, private sector banks were outperforming public sector banks during the study period, as evidenced by the difference in average financial ratios. Based on the ten financial parameters used in this study, the average financial ratios of the private sector banks were superior than those of the public sector banks, indicating that the private sector banks were outperforming the latter. The researchers found that the weight of social programs, the bad loan overhang, high wage expenses, a lack of corporate governance, infrastructure investment, and a lack of capital were the main factors affecting the performance of public sector banks.

The impact of cash flow from operations (CFOs) on the financial performance of Saudi Arabian industrial and insurance enterprises was examined by Rehman and Sharma (2020). The research employed a quantitative methodology and a descriptive design. The convenient method was applied in the investigation. The study employed descriptive statistics, correlation, and pooled regression as its data sources for empirical analysis. The results revealed a negative association between SIZE and LEV but a positive and significant relationship between operating cash flows (CFOs) and financial success (ROA and ROE). Thus, the study came to the conclusion that Saudi Arabian manufacturing and insurance companies' operating cash flows had an impact on their financial performance.

Chukwunwike et al. (2018) examined the relationship between reported profit (RP) and cash flows (CF) in corporate entities. They also looked at the relationship between the activities of the cash flow statements—financing, investing, and operating—and reported profit (performance), utilizing the derived equation to predict future performance. Panel data from the annual reports of banks traded on the Nigerian Stock Exchange were used in the study's quasi-experimental research design over a ten-year period (2007–2016). Panel multiple regression analysis was used with STATA econometrics software to examine the study's data. The primary discovery indicated a marginally significant positive correlation between cash flows (CF) and reported profits (RP). In addition, the corresponding cash flow variables (CFOA, CFIA, and CFFA) had a favorable impact, albeit only in a small portion of the rating. Additionally, the cash flow element's coefficients were all negative, with operational cash flow showing the strongest correlation with profit prediction, however this correlation may not be very strong and hence not particularly useful for predicting corporate performance. The recommendation that the cash flow statement not be overly relied upon when evaluating company activities was made necessary by the study's findings.

Over a ten-year period (from 2005 to 2014), Muhammad and Mohammed (2018) investigated the relationship between operating cash flow and corporate financial performance of listed conglomerate firms in Nigeria. Throughout the study period, the annual reports and accounts of the selected firms provided secondary data for the analysis. Descriptive statistics, regression analysis, and correlation analysis were utilized to evaluate the data in order to ascertain how the change in operating cash

flow affected the financial performance. Regression analysis is done using a panel data set because the data is cross-sectional and time series. Thus, to estimate the research models, OLS and random effects regression were used. The main conclusion was that there was a positive but negligible relationship between cash flow from operational activities (CFO) and financial performance as measured by ROA, but a strong and significant relationship when financial performance was measured by ROE of the Nigerian listed conglomerate businesses. While they have a positive and insignificant effect on ROE, size and financial leverage have a positive and negative significant impact on ROA, respectively. According to the study, listed conglomerate companies in Nigeria shouldn't rely more on financial leverage even though it lowers agency costs related to equity. This is because too much leverage can have a detrimental effect on financial performance and raise the risk of bankruptcy. These businesses ought to establish a policy that limits the costs associated with bankruptcy. Managing expenses and boosting the effectiveness and financial performance of Nigerian listed conglomerate companies also required management efficiency. Increasing managers' equity participation will help them become more efficient, conservative, and less inclined to make hazardous investments.

The factors influencing the financial performance of Ethiopia's private commercial banks were studied by Teshome et al. (2017). The study's design was descriptive. Eight private banks with over a decade of experience in the market were the subjects of the study, which employed secondary data. These are selected from sixteen private commercial banks operating in Ethiopia's banking sector at the time. The national bank report, minutes, and annual reports of the banks provided the data for the study. Using a random effect model, panel data from the eight banks' years of 2007 to 2016 were correlated and subjected to multiple linear regressions. The data analysis program utilized was E Views 9. Non-performing loans, loan loss provision ratio, bank size, leverage ratio, credit interest income ratio, capital adequacy ratio, and operation cost efficiency were selected as independent variables, and non-performing loans, loan loss provision ratio, capital adequacy ratio, bank size, leverage ratio, and credit interest income ratio were selected as dependent variables. The main conclusion was that financial performance is positively and statistically significantly impacted by the capital adequacy ratio (CAR), credit interest income (CIR), and bank size (SIZE). The following factors have a statistically significant negative impact on

banks' financial performance: leverage ratio (LR), operational cost efficiency (OCE), non-performing loans (NPLs), loan loss provision (LLP), and LR.

The relationship between cash flow management and the financial performance of Jordanian insurance businesses was empirically studied by Alsbehet and Al-nimer (2017). Ten important financial ratios—return on assets, return on equity, financial return, financial cost, financial margin, net margin, and operating profit margin—were chosen by the researchers after they examined the financial performance. Both a random sample and a judging design were employed in the study. A paired t-test was one of the statistical tools employed in the study to determine whether there was a difference in the ratios between the two sectors. Conclusions: The average financial ratios of the private sector banks throughout the study period were superior to those of the public sector banks, indicating that the former are doing better than the latter. For the study, 10 Indian banks from the public and private sectors have been chosen, and the necessary information has been gathered from each bank's annual report for the five years between 2009 and 2013. According to the data, the JIC generates cash from its primary business and is not experiencing a liquidity issue. The cash flows from operating activities are also thought to be the absolute best when compared to other activities. The lessons learned showed that the return on assets is influenced by online money slip away from the day-to-day operations. Moreover, it was shown that internet cash flow from investments had a big impact on economic performance.

Based on their financial characteristics, Jha and Hui (2012) examined the financial performance of various ownership structured commercial banks in Nepal and determined the performance drivers revealed by the financial ratios, which are based on the CAMEL model. The study covered 18 commercial banks between 2005 and 2010. In order to estimate the effects of the capital adequacy ratio, non-performing loan ratio, interest expenses to total loan, net interest margin ratio, and credit to deposit ratio on these banks' financial profitability, namely the return on assets and return on equity, the study also created an econometric model (multivariate regression analysis) by combining two regression models. The main conclusion is that domestic private banks are just as efficient as foreign-owned (joint venture) banks, despite public sector banks being substantially less efficient than their counterparts. Additionally, the estimation findings show that while the capital adequacy ratio has a substantial impact on return on equity, it also significantly influences return on assets.

These factors include interest expenditures to total loan, net interest margin, and capital adequacy ratio.

2.3.2 Review Previous Thesis

There is a dearth of study on cash flow analysis in the Nepalese context, although a large body of research has been done on the profitability and financial performance of joint venture banks. Since some components of the cash flow statement are covered by financial performance and profitability condition, research in these areas is taken into account for the purpose of reviewing the joint venture banks' financial performance. Several of the studies listed below were used as sources for preparing this thesis:

Basnet (2024) examined Nepal's commercial banks' financial results, citing CZBIL, NABIL, and HBL as sources. The study's design was descriptive. For that study, a sample size of three banks was selected between 2012–2013 and 2018–2019. secondary data that was utilized to look at the financial performance analysis of particular institutions. The study's data was sourced from the websites of the sample banks, their published annual reports, and the central bank of Nepal's website. Regression analysis, correlation coefficients, and descriptive statistics are examples of statistical tools that were employed in the study. Credit risk, liquidity risk, operating costs, and capital adequacy ratio are the independent factors, and return on assets and net profit margin are the chosen dependent variables. The study's conclusions demonstrate that the independent variables capital adequacy ratio, operating cost, credit risk, and liquidity risk may account for 60.3% of changes in the dependent variable, NPM, and 44.8% of variations in ROA. Therefore, it can be said that the main variables influencing financial performance were the capital adequacy ratio, credit risk, operating costs, and liquidity risk. Operating costs have a substantial link with ROA, according to Pearson correlation, whereas the capital adequacy ratio, credit risk, and liquidity risk have no meaningful relationship with ROA. However, there is a strong correlation between NPM and capital adequacy ratio and liquidity risk.

The impact of cash management on commercial banks' financial performance was investigated by Remo (2019). The objectives of this study were to determine the impact of credit management, receivables management, and liquidity management on the financial performance of commercial banks (Centenary Bank) in the Arua district. A cross-sectional case study research design served as the study's guidance. Purposive sampling was used by Centenary Bank for credit and banking as well as branch managers and banking personnel! loan officers. 19 people were chosen by the researcher to be the study's sample, and questionnaires were used to gather data from the chosen respondents. In order to gather information from respondents, the researcher employed a descriptive study design that combined qualitative and quantitative methods. The results showed that the financial performance of commercial banks was positively impacted by cash management. In the end, the study was a great success and achieved all of its goals. The study discovered that the three goals—credit, account receivables, and liquidity management—had a favorable impact on the commercial bank's (Centenary Bank) financial performance. The research came to the conclusion that cash management aided commercial banks in maintaining capital, controlling credit risks, improving operational efficiency, and increasing their ability to seize opportunities.

In order to assess the macroeconomic factors that affect the financial performance of commercial banks, Rai (2019) looked at the financial performance of commercial banks in Nepal as well as the current status of a number of bank performance indicators, bank-specific factors, and macroeconomic factors. The study was conducted utilizing a quantitative method using a descriptive and analytical research design, with regression and correlation serving as analysis tools. The findings demonstrated a significant positive correlation between return on assets (ROA) and net interest margin (NIM) at a 0.05 level of confidence and the gross domestic product growth rate (GDPR); likewise, a significant positive correlation was found between return on equity (ROE) and the annual inflation rate (INF) at the same level of confidence.

Table 1*Meta Table*

Author(year)	Topic	Objective	Methodology	Findings
Samba et al. (2024)	A comparative study on cash flow statement of HDFC & SBI Bank	To analyze the trends of various activities such as operating, investing & financing of selected Bank. To study the variation among the activities of the Banks.	Descriptive analysis, Statistics tools like mean, standard deviation, T test	The bank is comparative is SBI is the level of performance best in operating & investing activities than HDFC and financing activities is HDFC than SBI .
Ayu and Putri, (2022)	The effect of operating cash flow sales growth and operating capacity in predicting financial distress	This study was conducted to obtain empirical evidence and to discuss the effect of operating cash flow, sales growth, and operating capacity in predicting financial distress in all manufacturing companies listed on the Indonesia Stock Exchange	Associative Quantitative Approach	This study can provide useful contributions and information for company management to determine the effect of operating cash flow, sales growth, and operating capacity in predicting financial distress so that companies can take policies to take corrective or preventive action.

Abughniem et al. (2020)	Free cash flow firm performance empirical evidence from the amman stock exchange	To analyze the free cash flow firm performance empirical evidence from the amman stock exchange	Descriptive analysis	The study is positive relation between free cash flow, operation cash flow and performance. Thus, impact of free cash flow on company performance are accepted.
Nangin et al. (2020)	Cash flow management and financial performance of quoted oil & gas firm in Nigeria	This study examined, empirically, the relationship between cash flow management and the financial performance of some selected oil and gas firms listed on the Nigerian Stock Exchange	Judgmental Analysis and using the correlation and regression	It was recommended that firms should reevaluate their cash flow management strategies in order to enable them operate more profitably as well as generate cash flows sufficient enough to meet their daily cash needs as they fall due.
Undi and Basava (2020)	Comparative financial performance of select public and private	To analyze the comparative financial performance of select public and private sector banks in India.	Descriptive analysis and t test, annual reports	The study finds that the private sector banks are performing better than the public sector banks as their average financial ratios are better than public sector banks during the study

				period.
Rahman and Sharm (2020)	Cash flow & financial performance in the industrial sector of Saudi arabi	To analyze the cash flow on financial performance in the industrial sector of Saudi arabi	Explanatory & descriptive	Positive and significant association between financial performance and operating cash flow and negative association for size and leverage. So that affect the financial performance in the industrial Saudi Arabi
Chukwunwike et al. (2018)	The potency of cash flow in predicting corporate performance	To ascertain the impact of cash flows (CF) on the reported profits (RP) of corporate entities. The study examined the impact of cash flow statements' activities (operating, investing and financing) and reported profit (performance); making prediction of the future performance using	Quasi experimental panel data , used regression correlation statistical tool	The study outcome necessitated the recommendation that cash flow statement should not be over dependent upon in reviewing of corporate performance efforts.

		the equation derived		
Muhammad and Mohammed (2018)	Operating cash flow and corporate financial performance of listed conglomerate companies	This study examines the impact of Operating Cash flow and Corporate financial performance of listed Conglomerate companies in Nigeria	Descriptive statistics correlation regression and using panel data with annual reports	These companies should set a policy to keep bankruptcy cost at a lower level and management efficiency is required in managing costs, increasing efficiency and financial performance of listed Conglomerate companies in Nigeria. For managers to be more effective and to become more prudent and avoid undertaking risky investments their equity participation should be increased.
Teshome et al. (2017)	Determinant of financial performance of commercial banks in ethiopia special on private commercial	To examined determinant of financial performance of in Ethiopia special private commercial bank.	Descriptive statistics correlation regression and using panel data with annual reports	The study is effect the variables in performance and impact the financial performance of commercial bank.

	bank			
Alsbehat and Alnimer (2017)	Empirical study of the relationship between cash flow	To examine the impact of cash flow management, namely operating, investing and financing activities on financial performance and the contribution of each of these activities to predict the financial performance of the Jordanian insurance companies.	Description, Observation and using the annual reports.	The study revealed that the net cash flow from the operating activities influences the return on assets. Moreover, the net cash flow from investing activities was found to play a significant role in the financial performance.
Jha and Hui (2012)	A comparison of financial performance of commercial bank a case study of Nepal	The objective of this study was to compare the financial performance of different ownership structured commercial banks in Nepal based on their financial characteristics and identify the determinants of performance	Descriptive statistics correlation regression and using panel data with annual reports	The results show that public sector banks are significantly less efficient than their counterpart are; however domestic private banks are equally efficient to foreign-owned banks. Furthermore, the estimation results reveal that return on assets was significantly

<p>exposed by the financial ratios, which were based on CAMEL Model</p>	<p>influenced by capital adequacy ratio, interest expenses to total loan and net interest margin, while capital adequacy ratio had considerable effect on return on equity.</p>
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2.4 Research Gap

It is clear from the previous analysis of pertinent literature that some research has been done on the impact of cash flow on financial performance, but not in a thorough manner. According to all the examined literature, earlier studies only focused on a small number of cash flow variables, but this study includes additional crucial variables that those earlier studies overlooked. As a result, the study is informal and descriptive. A review of pertinent literature revealed that few studies specifically examining the relationship between cash flow and performance in Somalia were conducted, and those that were found did not take moderating variables into account. Therefore, by examining the effects of cash flow on financial performance on a chosen bank and concentrating on the regression model, dependent variables ROE and ROA, this study aims to close these relevant gaps in the literature. The independent variables in this study include firm size, EM, leverage, CFFO, CFFI, and CFFF. This study examined performance metrics of Nepalese commercial banks from 2013/14 to 2022/23 in their annual reports (Jajali & Ali, 2017).

The majority of research papers focused on financial performance, primarily as it relates to private sector commercial banks, manufacturing organizations' financial systems, and production-oriented activities. The researcher was unable to locate any previous research on the financial performance of commercial banks in the public sector. Every dissertation has made clear that the relevant institutions lack an adequate financial planning and controlling framework and have not planned or implemented one. This research will be novel in the field because it is the first to use

an examination of commercial banks' financial performance. Although there have been many associated researchers in this field, there have only been a few number of exclusive researchers on this topic. The financial performance of RBBL and NBL is being examined in this study using a variety of ratios, trend analysis, statistical tools, and financial tools to analyze survey data. Although the researcher only used data from five fiscal years, all of the facts are factual and up to date. These are undoubtedly the problems with Nepalese commercial banks that the earlier researchers were unable to uncover. In order to define financial performance, this study applies and analyzes a variety of financial and statistical tools, including trend analysis and coefficient of correlation, as well as activity, profitability, credit risk, and liquidity ratios (Dhakal, 2019).

Numerous studies have been done on the credit management, financial performance, lending practices, and credit policy of different commercial banks. A few academics have examined the financial results of two or three distinct commercial banks. Researchers have employed a variety of ratio analyses to carry out those analyses. Previous studies on gauging a bank's financial performance have concentrated on narrow ratios that are unable to address the issues. Various ratios are methodically analyzed and generalized in this research. Previous researchers have not adequately analyzed bank fund mobilization and how it affects profitability. There is no classification of the ratios based on their nature (Karki, 2018).

However, because this study has adhered to variance and dimensions that previous researchers did not use, it can be fully utilized by interested parties, students, educators, businesspeople, members of civil society, bankers, the international community, other stakeholders, and the government from both an academic and policy standpoint.

CHAPTER-III

RESEARCH METHODOLOGY

This chapter describes the kind of design that was employed in the study in order to comprehend the subject and gather the necessary data using appropriate methods. The research plan and study design open this chapter, which is then followed by the population and sample. In a similar manner, the method, the tool, and the specifics of the data analysis tools and techniques are provided.

3.1 Research Design

The study is conducted using a causal comparative research design in addition to a descriptive research approach. Every private commercial bank in Nepal served as the study's population, from which samples were chosen. Using purposeful sampling, sample banks are specifically chosen in accordance with the researchers' predetermined criteria. Ten of the twenty-two private commercial banks were thus purposefully chosen as a sample based on the data that was available from 2013/14 to 2022/23. Descriptive statistics, mean, standard deviation correlations, and regression analysis of annual report data for the years 2013/14 to 2022/23 were used to examine the obtained data. Utilize the statistical tool SPSS to examine the potential correlation between the independent variables and the cash flow of a chosen commercial bank's financial performance.

3.2 Population and Sample

As of Ashad 31, 2080, Nepal had twenty commercial banks; three of the banks have been taken over. The banks included in the study were selected using the sample judgmental sampling technique. The analysis includes all commercial banks that were founded more than ten years ago and have been in business for ten years. Consequently, the banks Himalayan, Kumari, and Nabil were chosen as the study's sample. Secondary data is mostly gathered from each bank's audited financial accounts, which may be accessed on the website of the primary tool used to determine how the independent variable affects the dependent variable. Using the judgmental sampling approach, the following banks were chosen for the study: Himalayan Bank, Nabil Bank Ltd., Kumari Bank Ltd., and Nepal Bank Limited.

3.3 Source of Data

The main duty in doing any research project is gathering data. While primary and secondary data can both be used, secondary data served as the primary foundation for this thesis. Data is gathered from the respective banks' published annual reports. The relevant banks are the source of the information about financial performance. The study has made use of a variety of secondary data sources, including related publications, journal articles, reports, bulletins, data from Nepal Rastra Bank, Central Bureau of Statistics, related websites on the internet, etc., in addition to other supplemental data.

3.4 Data Collection and Processing Procedure

The main source of information used in this research has been secondary sources of data, therefore collecting them will require a lot of effort, time, and convincing of pertinent authorities. The published annual report, balance statement, prospectus, annual general meeting, unpublished office records, journals, magazines, government and university publications, NRB, and the websites of the two banks have all been used as sources of secondary information from the corresponding offices. Personal observation and a few unofficial interview approaches have been employed to obtain additional information and authenticity regarding the many published statistics that served as the primary data.

3.5 Data Analysis Tools

A range of statistical instruments, including mean, median, standard deviation, and correlation, were employed to examine and evaluate the information gathered from primary sources. SPSS is used to analyze the data that has been gathered. Using SPSS software, the data were tabulated and the frequency distribution was examined. The strength of the association between the variables was then tested and determined using a statistical approach called correlation.

Analysis is the process of carefully examining the information at hand in order to comprehend it and derive conclusions from it using accepted logic and rules. The information gathered from primary and secondary sources was tallied, categorized, and examined using the relevant statistical and financial instruments. The

questionnaires contain both open-ended and check-mark questions. Throughout the process of gathering data to obtain pertinent information, many concerned individuals have participated. The cash flow on financial performance analysis was done with the use of charts, graphs, and percentages. This study's empirical findings were gathered using listed firms' annual data. The following statistical instruments are used to infer the comparative outcomes:

3.5.1 Mean

a group of values represented by an average line. Stated differently, average refers to the amounts that serve as a representative sample of the enormous mass of quantities. The calculation of the sum of all variables divided by the total number of variables yields the most often used mean, known as the arithmetic mean or average. The arithmetic average of a variable is called its mean.

3.5.2 Standard Deviation

Among the several measures of dispersion, the standard deviation (S.D.) is the most widely used and practical. It displays the ranges and magnitudes of deviations from the mean or center. It gauges the dispersion in absolute terms. Variability increases with larger standard deviation values and vice versa. It is the average sum of squares of the observations' departures from the distribution's arithmetic mean, expressed as a positive square root.

3.5.3 Coefficient of Variance

A statistical measure of how widely apart data points are from the mean in a data series is called the coefficient of variation, or CV. Even when the means of two data series are very unlike from one another, the coefficient of variation—which is the ratio of the standard deviation to the mean—is a helpful statistic for comparing the degree of variation between them. A statistical indicator of the relative dispersion of data points around the mean in a data series is the coefficient of variation, or CV. Investors can ascertain how much volatility, or risk, is taken in relation to the anticipated return on investments by using the coefficient of variation in finance. A better risk-return trade-off is shown by a lower ratio of the standard deviation to mean return.

3.5.4 Correlation Analysis

Among statistics, correlation is one of the most helpful. Stated differently, correlation is a statistical technique that quantifies the extent of a relationship between two variables. When the value of one variable appears to be connected to the value of another, two or more variables are said to be correlated. The degree of association between two or more variables is expressed by correlation. It gives us no information regarding the relationship between cause and effect. Positive or negative correlation is possible. The range of correlation is -1 to +1. There is a strong correlation between two variables when Pearson's correlation (r) is near to 1. This indicates a high correlation between changes in one measure and changes in another. There is a weak association between two variables when correlation (r) is near to zero.

3.5.5 The Regression Model

The econometric model is used to quantify the explanatory power of cash flow and other fundamental variables for the financial performance of commercial banks, such as size, leverage, and equity multiplier. One important tool that's used is regression analysis. Regression analysis is used to assess the impact on the financial performance of commercial banks. The return on equity and other multiplier variables have been taken into account in model I, while the return on assets and other explanatory variables are explained in model (Teshome, Debela & Mohammad, 2017).

Model I :

$$ROA_{it} = \alpha + b_{1t}CFO_{it} + b_{2t}CFI_{it} + b_{3t}CFF_{it} + b_{4t}SIZE_{it} + b_{5t}LEV_{it} + b_{6t}EM_{it} + \epsilon_{it}$$

The multiple regression model, which is used to assess the explanatory power of independent variables to return on assets, is presented in Model I.

Model II :

$$ROE_{it} = \alpha + b_{1t}CFO_{it} + b_{2t}CFI_{it} + b_{3t}CFF_{it} + b_{4t}SIZE_{it} + b_{5t}LEV_{it} + b_{6t}EM_{it} + \epsilon_{it}$$

The multiple regression model, which is used to assess the explanatory power of independent variables to return on equity, is presented in Model II.

Where,

ROA_{it} = Return on assets for firm i at period t

ROE_{it} = Return on Equity for firm i at period t B_{it} = stock beta for firm I at period t

$CFFO_{it}$ = Cash flow from operating I at period t

$CFFI_{it}$ = Cash flow from investing I at period t CFF_{it} = cash flow from financing I at period t

$SIZE_{it}$ = Natural logarithm of total assets I at period t

LEV_{it} = Total liabilities to total assets I at period t

EM_{it} = Total assets to equity at I period t

ϵ_{it} = Unexplained residual error term

3.5.6 Specification of the Variables

Eight important factors are employed in this study: SIZE, leverage, equity multiplier, CFOA, CFIA, and CFFA, as well as return on equity and return on assets, which are the primary indicators of financial performance. Both independent and dependent variables are defined.

Table 2

Description of the Variables

Variables	Definition	Expected sign
Return on assets	Net income before tax/ total assets	-
Return on equity	Net income before tax and preference dividend / total shareholder's equity	-
Cash flow (CFOA, CFIA & Net cash flows CFFA)		+/-
Firm size	Log of total assets	+/-
Leverage	Total liabilities/ total assets	-
Equity Multiplier	Total assets/ equity	-

3.6 Research Framework and Definition of Variables

The complete research effort has been built upon the research framework. Here is the research framework:

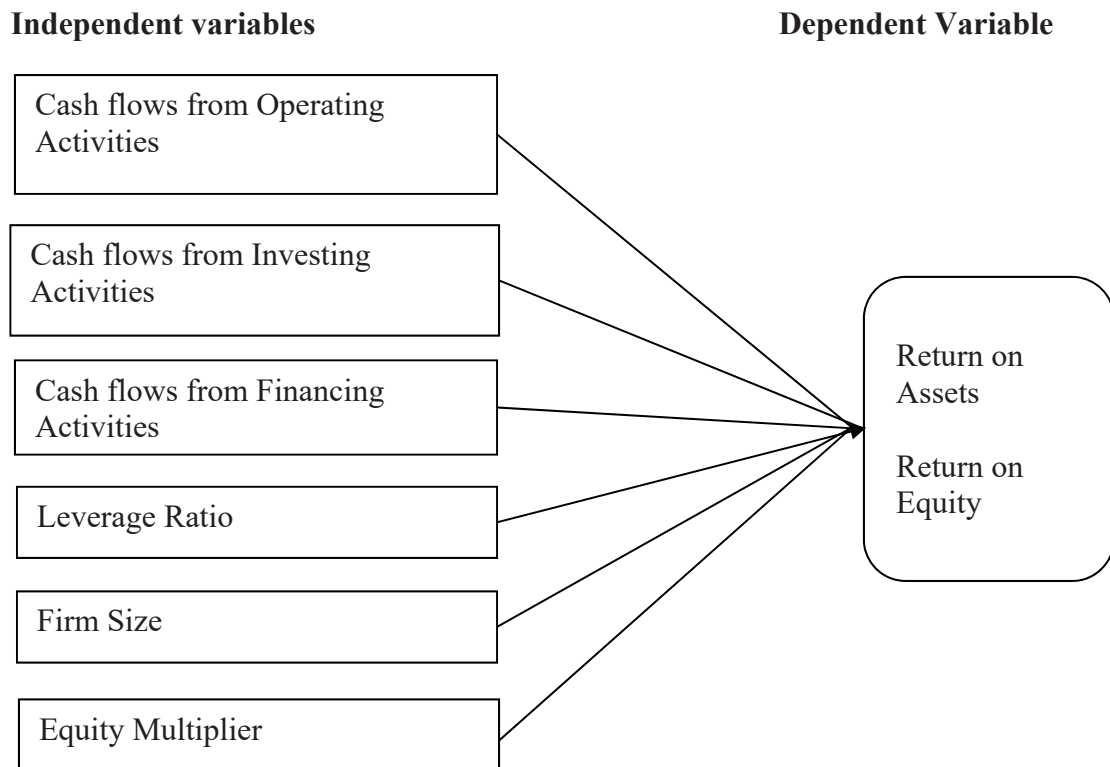


Figure 1 Conceptual Framework

Sources: Alslehat and Alnimer (2017); Teshome, Debala, and Mohammad (2017)

3.6.1 Definition of Variables

a) Cash flow from operating activities

The accrual basis of the earnings assertion is changed to the cash basis via the direct method of cash flow. Producing, delivering, and receiving items are all part of operating activities. Cash flows with the flow of tasks completed, such as receiving payment from customers for goods and services (collection from debtors). Repayments for material and service purchases, charges for services rendered to employees, and payments given to the government for taxes and other responsibilities make up the cash outflows from operating activities (Gyawali et al., 2019).

b) Cash flow from investing activities

Investing operations include borrowing money, making loans, and buying and selling fixed assets. Receivables from investments and steady asset income comprise cash

inflows from investing activity. Among the many other cash flow outflows associated with investing activities are investments and the acquisition of fixed assets (Gyawali et al., 2019).

C) Cash flow from financing activities

Financing activities include borrowing money and paying it back, as well as obtaining resources from owners and providing them with a return on their investment. It also covers cash inflows from share and debenture problems, long-term mortgage problems, etc. Under cash outflows, preference share and debenture redemption, long-term loan repayment, divided payment, major with hobby compensation, etc. (Gyawali et al., 2019).

D) Return on assets (ROA)

The return on assets, also known as the return on total assets of the company, is a metric used to assess how well management has performed overall in turning a profit using the company's assets. A company's operational performance is positively correlated with its return on assets, and vice versa. According to Teshome et al. (2017), the calculation involves dividing the total assets by the net income available to common stockholder.

$$\text{ROA} = \text{Net income} / \text{Total assets}$$

E) Return on Equity (ROE)

The return on the owner's investment in the company is measured by the return on equity. The term "owner's investment" describes the equity money that the company uses. Common stock was incorporated, along with capital payments and earnings retention. An increased return on equity ratio is advantageous to the owner. According to Teshome et al. (2017), it is computed as net income available to common stockholders divided by common equity.

$$\text{ROE} = \text{Net income} / \text{Common equity}$$

F) Equity Multiplier (EM)

The link between a company's total assets and common equity is expressed simply by the equity multiplier, commonly referred to as the leverage factor. It gauges the degree to which a company's total assets exceed its common stock capital (Poudel et al., 2019).

$EM = \text{Total assets} / \text{Total common equity}$

G) Leverage Ratio

Leverage ratios are useful in evaluating a company's long-term solvency. Understanding how long-term debt relates to shareholders' funds or total capital is helpful. The ratios listed below fall within the category of leverage ratios (Poudel et al., 2019).

- i. Debt equity ratio = $\text{Total debt} / \text{Shareholder's fund}$
- ii. Debt to total capital ratio = $\text{Total debt} / \text{Total Capital}$

H) Firm Size

Larger companies tend to have higher values for this variable, which can be attributed to their experience and potential for increased efficiency from economies of scale, hiring of skilled managers, reaching a wider customer base, and diversifying their operations. The natural logarithm of the total assets is used to calculate size (Teshome et al., 2017).

$\text{Firm Size} = \text{Log}(\text{Total Assets})$

CHAPTER-IV

RESULTS AND DISCUSSION

The display, analysis, and interpretation of data are the key topics of this chapter. To get the desired findings, the presented data are analyzed and evaluated using statistical tools such as the mean, standard deviation, correlation, and p value. This chapter is structured around a reliability test, the profile of the respondents, a descriptive analysis using a paired sample test, descriptive statistics at the conclusion, and a discussion based on the interpretation and analysis of the data.

4.1 Results

4.1.1 Descriptive Statistics

Table 3 displays the descriptive statistics for the variable that was employed in the investigation. The outcome demonstrates the minimum and maximum cash flow on financial performance measure using independent variables from Nepali commercial banks as indicators of ROA and ROE.

Table 3

Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	S. D.
ROA	30	0.0048	0.0265	0.0142	0.0069
ROE	30	0.0494	0.6324	0.2225	0.1927
CFOA	30	-300588432	7538567117	1791295493.10	2862276699.504
CFIA	30	-699305066	6178544909	-1705304042.4	3108023691.81
CFFA	30	-185873148	3223508204	186477954.67	1415525323.32
EM	30	5.3073	24.3926	13.9920	6.9851
Lev	30	0.8116	0.9590	0.9071	0.4428
Size	30	10.4762	11.3760	10.9065	0.2669

Sources: Annual Reports Selected Banks, used SPSS version 25 (Appendix)

According to Table 2, the ROA mean value falls between 0.0048 and 0.0265, with a range of 0.0142 to 0.0265. This is considered satisfactory as the ROA range is generally considered good, ranging from 0.00811 to 0.03066. Nonetheless, out of all the other variables, ROA has the lowest standard deviation. Based on a range of

minimum 0.0494 to maximum 0.6324, the ROE mean value of 0.2225 is considered satisfactory. Generally, ROE values between 0.06157 and 0.46949 are considered good. From a low of 5.3073 to a maximum of 2403926, the EM mean value is 13.9920, which is more than sufficient as it is generally considered good with EM 8.16801 to 30.8825. Of all the variables, the equity multiplier has the biggest standard deviation. Since leverage is generally reported to be between 0.86927 and 0.95377, the leverage mean value of 0.9071, which falls between the lowest of 0.8116 and the highest of 0.9590, is unsatisfactory. In a similar vein, the firm size mean value of 10.9065 is acceptable. Firm size and leverage both show comparatively steady standard deviation values of 0.2699 and 0.0304, respectively.

4.1.2 Correlation Analysis

The degree to which two or more variables are connected to or correlated with one another can be measured using correlation. The Pearson product-movement coefficient, often known as the Pearson correlation, is the most often used bi-variant correlation statistic and was utilized in this investigation. the relationship between the variables that were employed in this specific study. The way that the leverage ratio, EM, and firm size affect their performance reveals the banks' propensity to increase their paid-in capital in order to become stronger and take the lead in the sector.

Table 4

Correlation Analysis

	ROA	ROE	EM	Leverage	Size	CFOA	CFIA	CFFA
ROA	1							
ROE	0.913**	1						
EM	.624**	.811**	1					
Leverage	.580**	.799**	.812**	1				
Size	.442*	.538*	.633**	.431	1			
CFOA	.198	.225	.175	.206	.157	1		
CFIA	-.101	-.164	-.370	-.235	-.171	-.396	1	
CFFA	-.547*	-.619**	-.343	-.583**	.040	-.379	-.130	1

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

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

Sources: Annual Reports Selected Banks, used SPSS version 25 (Appendix)

The relationship between the independent variables (EM, company size, leverage, CFOA, CFIA, and CFFA) and the dependent variables (ROA and ROE) is displayed in Table 4. EM, firm size, and leverage have a perfectly positive and significant correlation with ROA and ROE. When it comes to ROA and ROE, the cash flow from investment and operating activities is negligible. Investing activities have a negative cash flow. In terms of ROA and ROE, the cash flow from financing activities is both highly considerable and perfectly negative.

4.1.3 Regression Analysis

The econometric model is used to calculate the explanatory power of cash flow and other key variables, such as size, leverage, and equity multiplier, for the financial performance of commercial banks. One important tool that's used is regression analysis. Model I explains the return on assets and other explanatory variables, while Model II takes into account the return on equity and other multiplier variables. The regression technique is being used to investigate the impact on commercial banks' financial performance.

Table 5

Model Summary of ROA

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.727 ^a	.529	.327	.00569495

a. Constant, cash flow from investment and financing activities, equity multiplier, cash flow from operating operations, firm size, and leverage ratio are the predictors.

The model summary for a regression analysis aiming at employing many predictors to explain the variability in Return on Assets (ROA) is shown in Table 5. This model uses a variety of financial and operational variables as predictors, including business size, the equity multiplier, cash flows from various activities (financing, investing, and operating), and the leverage ratio. R Square shows how much of the variance in the dependent variable (ROA) can be accounted for by the model's independent

variables, or predictors. With a R Square of 0.529, the cash flows, equity multiplier, company size, and leverage ratio all account for around 52.9% of the variability in ROA. This suggests that these predictors have a moderate to strong level of explanatory power, explaining more than half of the variability in ROA.

Table 6

ANOVA of ROA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	270.619	6	38.660	158.652	.000 ^b
	Residual	95.521	23	.244		
	Total	366.140	29			

a. Contingent Variable: Asset Return

b. Constant, cash flow from investment and financing activities, equity multiplier, cash flow from operating operations, firm size, and leverage ratio are the predictors.

The regression model's Analysis of Variance (ANOVA) findings for Return on Assets (ROA) prediction are shown in Table 6. To determine whether the model as a whole is statistically significant and how effectively the selected independent variables (predictors) explain the variation in ROA, one must have a clear knowledge of this table. The value of the F statistic is 158.652. A higher F value suggests that the predictors have a substantial role in explaining the variability in ROA since it shows that the variance described by the model is much greater than the variance not explained by the model. The probability that the observed F value might arise if the null hypothesis—that the model has no explanatory power—were true is evaluated by the p-value (Sig.). With a p-value of 0.000, the likelihood that the F statistic would be this high by pure chance is less than 0.1%. Consequently, the model's high statistical significance confirms that the predictors taken together have a significant effect on ROA.

Table 7*Regression Analysis of ROA*

Variable	Beta	S.E	T-Test	P value
Constant	.310	.134	2.316	.021
EM	.077	.047	1.635	.103
Leverage	.060	.036	1.675	.095
Firm Size	.056	.035	1.610	.108
CFOA	-.123	.034	-3.582	.000
CFIA	.131	.052	2.512	.012
CFFA	.321	.043	7.381	.000

Sources: Annual Reports Selected Banks, used SPSS version 25 (Appendix)

The findings of the regression study that looked at the different predictors' effects on the Return on Assets (ROA) are shown in Table 7. For every variable in the model, this table gives the coefficients (Beta), standard errors (S.E.), t-test results, and p-values. These measures shed light on each predictor's specific role and statistical significance in explaining the variation in ROA. The ROA rises by 0.077 units for every unit increase in the Equity Multiplier, providing all other variables remain constant, according to the beta coefficient of 0.077. This variable is nearly significant at the 10% level but not statistically significant at the 5% level, as indicated by the p-value of 0.103. This shows that the equity multiplier and ROA in this model have a moderate and not very significant relationship. The beta value of 0.060 indicates that, ceteris paribus, a one unit increase in leverage results in a 0.060 unit rise in ROA. The p-value of 0.095 suggests that leverage has a marginally beneficial impact on ROA, but not a big enough impact to be regarded as highly statistically significant. It also reveals that leverage is meaningful at the 10% level but not at the 5% level.

In a similar vein, the company size coefficient is 0.056, suggesting a positive correlation between ROA and size, meaning that larger organizations often have

marginally greater ROA. Firm size, however, is marginally significant at the 10% level and not statistically significant at the 5% level, with a p-value of 0.108, indicating that its impact on ROA is weakly positive and unimportant in this particular situation. A drop in ROA is correlated with an increase in cash flow from operational operations, according to the negative beta coefficient of -0.123. With a remarkably low p-value of 0.000, this adverse link is statistically significant and indicates a robust and consistent effect of CFOA on ROA. This outcome could appear unexpected because we typically anticipate that increased cash flow from operations will increase ROA. It can be the result of other elements' effect or the unique features of the data set.

Similarly, a positive correlation is indicated by the beta value of 0.131, indicating that a greater ROA is linked to larger cash flow from investing operations. At the 5% level, the t-test of 2.512 and the p-value of 0.012 show that the CFIA is statistically significant. This suggests that CFIA significantly and favorably contributes to ROA. Among the predictors, CFFA has the largest beneficial impact on ROA, with a Beta coefficient of 0.321. This implies that ROA will rise dramatically in tandem with an increase in cash flow from financing activities. The highly statistically significant nature of this association is indicated by the t-test value of 7.381 and the p-value of 0.000. The robust positive correlation suggests that companies with efficient financing operations typically have greater returns on assets.

Table 8

Model Summary of ROE

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.894 ^a	.799	.712	.10333333

a. Constant, cash flow from investment and financing activities, equity multiplier, cash flow from operating operations, firm size, and leverage ratio are the predictors.

A summary of the regression analysis results with Return on Equity (ROE) as the dependent variable is shown in Table 8. The table provides important indicators, such as the equity multiplier, company size, leverage ratio, and cash flows from various activities (financing, investing, and operating), that aid in assessing how well the

regression model performs in explaining the variability in ROE using several variables. The percentage of the ROE variance that the model can explain is indicated by the R Square value. With a R Square of 0.799, the independent variables can be responsible for about 79.9% of the variation in ROE. This high number means that the predictors used to explain the variations in ROE across the observations are highly effective, indicating that the model has great explanatory power.

Table 9

ANOVA of ROE

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	75.155	6	37.577	89.362	.000 ^b
	Residual	166.941	23	.421		
	Total	242.096	29			

a. Dependent variable: equity return

b. Constant, cash flow from investment and financing activities, equity multiplier, cash flow from operating operations, firm size, and leverage ratio are the predictors.

The regression model with Return on Equity (ROE) as the dependent variable is shown in Table 9 along with the results of the Analysis of Variance (ANOVA). This table is essential for determining if the model is statistically significant and how effectively the predictors—cash flows from financing, investing, and operating activities, equity multiplier, firm size, and leverage ratio—collectively explain the variability in ROE.

The ratio of the mean square residual (89.362) to the mean square regression is the F statistic. It evaluates the model's overall importance. A higher F value suggests that the predictors have a substantial role in explaining the variability in ROE since it shows that the variation described by the model is much greater than the variance not explained by the model. The probability that the observed F value might arise if the null hypothesis—that the model has no explanatory power—were true is evaluated by the p-value (Sig.). With a p-value of 0.000, the likelihood that the F statistic would be this high by pure chance is less than 0.1%. Consequently, the model's high statistical

significance confirms that the predictors taken together have a significant effect on ROE.

Table 10

Regression analysis of ROE

Variable	Beta	S.E	T Test	P value
Constant	1.186	.203	5.840	.000
EM	.566	.007	2.206	.045
Leverage	.126	1.127	.488	.633
Firm Size	.470	.059	7.944	.000
CFOA	.199	.062	3.224	.001
CFIA	.524	.048	7.348	.000
CFFA	-.334	.000	-1.790	.095

Sources: Annual Reports Selected Banks, used SPSS version 25 (Appendix)

Table 10 presents comprehensive findings from the regression study, emphasizing the ways in which different predictors impact Return on Equity (ROE). For every predictor in this table, there are coefficients (Beta), standard errors (S.E.), t-test results, and p-values. The significance and individual contributions of each variable in explaining the variation in ROE are shown by these data. Assuming all other variables stay the same, the beta coefficient of 0.566 indicates that a one-unit increase in the equity multiplier results in a 0.566 increase in ROE. This variable is statistically significant at the 5% level, as indicated by the p-value of 0.045. This suggests that financial leverage (equity multiplier) and return on equity (ROE) have a positive and significant relationship. Leverage has a somewhat favorable impact on ROE (beta = 0.126), but this effect is not statistically significant (p-value = 0.633) due to its large standard error (1.127) and low t-test value (0.488). This shows that in this scenario, leverage does not consistently affect ROE.

Operating cash flow (OCF) is positively correlated with ROE, with a beta coefficient of 0.199 indicating this relationship. There is statistical significance for this effect, as indicated by the t-test value of 3.224 and the p-value of 0.001. The significance of

robust operational cash flow in augmenting a company's equity returns is underscored by this outcome. A decline in ROE is correlated with an increase in cash flow from financing operations, according to the negative beta value of -0.334. At the 10% level, this link is statistically significant (p-value = 0.095); however, at the 5% level, it is not significant. The implication is that corporations may be financing operations that do not necessarily improve equity returns, as there appears to be a slight but noticeable negative impact of financing activities on ROE.

4.1.4 Hypothesis Results

The following hypothesis results have been according to correlation.

Table 11

Hypothesis Results

Statements	Results
H1= There is significant relationship between CFFOA and ROA	Rejected
H2= There is significant relationship between CFFOA and ROE	Rejected
H3= There is significant relationship between CFFIA and ROA	Rejected
H4= There is significant relationship between CFFIA and ROE	Rejected
H5= There is significant relationship between CFFFA and ROA	Accepted
H6= There is significant relationship between CFFFA and ROE	Accepted
H7= There is significant relationship between Leverage and ROA	Accepted
H8= There is significant relationship between Leverage and ROE	Accepted
H9= There is significant relationship between Firm Size and ROA	Accepted
H10= There is significant relationship between Firm Size and ROE	Accepted
H11= There is significant relationship between EM and ROA	Accepted
H12= There is significant relationship between EM and ROE	Accepted

H1: Significant Relationship Between Cash Flow from Operating Activities (CFFOA) and ROA

The rejection of H1 suggests that there is no statistically significant relationship between the cash flow from operating activities and ROA. Despite the intuitive

expectation that efficient operational cash flows should positively influence asset returns, the analysis did not support this hypothesis, indicating that other factors might play a more crucial role in determining ROA.

H2: Significant Relationship Between Cash Flow from Operating Activities (CFFOA) and ROE

Similar to H1, H2's rejection indicates that cash flow from operating activities does not significantly affect ROE. This suggests that operational cash flows, while vital for liquidity and day-to-day operations, may not directly translate into higher returns on equity, possibly due to the presence of other overriding financial dynamics or strategies at play.

H3: Significant Relationship Between Cash Flow from Investing Activities (CFFIA) and ROA

The rejection of H3 implies that investments made by the company do not significantly impact the returns generated from its assets. This could mean that the assets acquired or disposed of through investing activities are not directly enhancing the firm's asset efficiency or that their impact is not immediately observable in the short term.

H4: Significant Relationship Between Cash Flow from Investing Activities (CFFIA) and ROE

Rejecting H4 suggests that cash flow from investing activities does not have a significant effect on ROE. This indicates that the returns on equity are not notably influenced by the firm's investing activities, which might be due to the long-term nature of investments or their risk-adjusted returns not contributing directly to the equity returns.

H5: Significant Relationship Between Cash Flow from Financing Activities (CFFFA) and ROA

Acceptance of H5 shows that there is a significant relationship between cash flow from financing activities and ROA. This suggests that how a firm manages its financing (e.g., through debt or equity issuance and repayment) has a meaningful impact on its asset returns. Effective financing strategies can enhance asset utilization and profitability.

H6: Significant Relationship Between Cash Flow from Financing Activities (CFFFA) and ROE

The acceptance of H6 indicates a significant relationship between financing cash flows and ROE. This relationship underscores the importance of strategic financial management, such as leveraging or equity funding, in optimizing the returns generated on shareholders' equity. Financing activities are directly affecting how effectively equity is being utilized.

H7: Significant Relationship Between Leverage and ROA

The acceptance of H7 suggests that leverage has a significant impact on ROA. This implies that the proportion of debt in a firm's capital structure influences how well its assets are generating returns. Leveraging assets can enhance returns, but also comes with risks, making the management of debt levels crucial.

H8: Significant Relationship Between Leverage and ROE

Accepting H8 indicates that leverage significantly affects ROE. Leverage can amplify returns on equity through the use of debt financing, assuming the cost of debt is lower than the return on investment. Effective leverage management can thus enhance the equity returns, albeit with associated risks.

H9: Significant Relationship Between Firm Size and ROA

The acceptance of H9 indicates a significant relationship between firm size and ROA. Larger firms often benefit from economies of scale, better resource allocation, and operational efficiencies, which can enhance asset returns. This result suggests that size is an important determinant of how effectively a firm uses its assets to generate profits.

H10: Significant Relationship Between Firm Size and ROE

The acceptance of H10 shows that firm size significantly affects ROE. Larger firms typically have more resources and capabilities to generate higher returns on equity through improved efficiency, brand strength, and market leverage, leading to better overall financial performance.

H11: Significant Relationship Between Equity Multiplier (EM) and ROA

Accepting H11 suggests that the equity multiplier, a measure of financial leverage, has a significant impact on ROA. This indicates that how a firm finances its assets (through equity or debt) influences the returns generated from its assets. A higher equity multiplier generally means more leverage, which can increase asset returns when used effectively.

H12: Significant Relationship Between Equity Multiplier (EM) and ROE

The acceptance of H12 confirms that the equity multiplier significantly affects ROE. This shows that leveraging equity through debt can magnify the returns on equity, provided the returns generated exceed the cost of debt. Effective leverage use thus plays a crucial role in enhancing equity returns.

4.2 Discussion

This analysis demonstrates that the cash flow from financing activities has no effect on Nepalese commercial banks' return on equity. This finding is consistent with that of Rahman and Sharm (2020), who discovered that the cash flow from financing activities had little effect on return on equity. On the other hand, Muhammad and Mohammed (2018) discovered that cash flow from financing activities significantly affects return on equity.

In a similar vein, this study demonstrates that the cash flow from investing operations has a major impact on Nepalese commercial banks' return on equity. This outcome is consistent with that of Nangin et al. (2020), who discovered a substantial relationship between return on equity and cash flow from investing operations. Samba et al. (2024), on the other hand, discovered that the cash flow from investing operations has no effect on return on equity.

Similarly, this study demonstrates that the return on equity of Nepalese commercial banks is significantly impacted by cash flow from operating activities. This outcome is consistent with that of Nangin et al. (2020), who discovered a substantial relationship between return on equity and cash flow from operational operations. On the other hand, Ayu and Putri (2022) discovered that the cash flow from operating operations had little effect on return on equity.

This analysis demonstrates that the cash flow from financing activities has no effect on Nepalese commercial banks' return on equity. This outcome is consistent with Chukwunwike et al. (2018)'s findings, which showed that cash flow from financing

activities had no effect on return on equity. On the other hand, Jha and Hui (2012) discovered that cash flow from financing activities significantly affects return on equity.

In a similar vein, this study demonstrates that the cash flow from investing operations has a major impact on Nepalese commercial banks' return on equity. This result is consistent with that of Undi and Basava (2020), who discovered that cash flow from investing activities significantly affects return on equity. Teshome et al. (2017), on the other hand, discovered that the cash flow from investing activities has no effect on return on equity.

In conclusion, this research indicates that the cash flow from operations has a noteworthy influence on the return on equity of commercial banks in Nepal. This outcome is consistent with that of Samba et al. (2024), who discovered a substantial relationship between return on equity and cash flow from operational activities. On the other hand, Abughniem et al. (2020) discovered that the cash flow from operating operations had little effect on return on equity.

CHAPTER-V

SUMMARY AND CONCLUSION

The three sections of the study—summary, conclusion, and implication—are all included in this chapter. The study's overall summary is covered in the first section, the conclusion is shown in the second, and the study's ramifications are discussed in the last section.

5.1 Summary

The purpose of this study is to evaluate how cash flow affects the financial performance of Nepal's commercial banks. In order to examine practically every facet of cash flow on financial performance in general and its application in Nepalese Commercial Bank in particular, the complete book has been divided into five large chapters.

In order to examine current cash flow practices in selection organizations and analyze the relationship between cash flow and financial performance of Nepalese commercial banks, this study examines the effects of cash flows, firm size, leverage, and the equity multiplier on the financial performance of commercial banks in Nepal.

The statement that displays the company's cash situation is called the cash statement. This study examines the cash flow statement of a particular bank in terms of its financial performance. Customers of banks can use this study to determine the cash inflow (interest money, deposit cash). People can better comprehend bank operations, financing, investing, and conditions thanks to this study. The preparation of balance sheets and income statements depends on the analysis of cash flow statements, which calls for study as well as the expertise of bankers, students, and bank clients.

The study does not include the opinions and viewpoints of the relevant banks; it just makes use of secondary data. The study only looks at data from 2013–14 through 2022–23, or ten years. A more precise trend may have been examined if the trend had been longer. At the moment, Nepal has 20 commercial banks in operation. Nevertheless, Nabil Bank Ltd., Himalayan Bank Ltd., and Kumari Bank are the only three commercial banks in Nepal that are included in this analysis. Based on the data acquired, the study is conducted. Only specific financial instruments, namely statistical tools, are covered in the study.

By examining the impact of cash flow on finance performance at a particular bank and concentrating the regression model on the dependent variables ROE and ROA, this study aims to close relevant research gaps in the literature. The independent variables CFOA, CFIA, CFFA, leverage, company size, and EM were all investigated in this study. This study looked at Nepalese commercial banks' performance indicators in their annual reports from 2013–14 to 2022–23. This study will address the academic and policy needs of all of these interested parties, including students, teachers, businesspeople, members of civil society, bankers, members of the international community, other stakeholders, and the government, because it has adhered to the variance and dimensions that earlier researchers did not apply.

Data analysis, descriptive research, casual design, and statistical methods are all used in this study. Mean, standard deviation, correlation, and regression analysis The convenience sampling approach is only used to sample three of the twenty-ten commercial banks that make up the population. The private banks that are chosen in this case are Himalayan Bank Ltd., Kumari Bank Limited, and Nabil Bank Limited. For the purposes of this study, secondary sources of data are essential. To accomplish the goals, secondary data are gathered from yearly reports from banks that span a ten-year period from 2013–14 to 2022–23.

EM, leverage, firm size, CFOA, CFIA, and CFFA are the study's final independent factors, and the dependent variables are ROA and ROE. Regression models I and II Now indicate that EM positively affects ROE ($0.045 > 0.05$), with leverage (0.126), firm size (0.092), and CFIA (0.068) following suit. CFOA (0.031) and CFFA (-0.334) exhibit financial performance that is beta-negative with respect to ROE. The financial performance of the EM (0.573), company size (0.084), and CFIA (0.045) on ROA is beta-positive. Once more, the financial performances on ROA that are beta negative include leverage (-0.156), CFOA (-0.046), and CFFA (-0.434). The variables that show a favorable link between financial performance and ROA and ROE are the equity multiplier (0.002 and 0.000), leverage ratio (0.006 and 0.000), business size (0.045 and 0.012), and CFFA (0.010 and 0.003). The CFIA (0.662 & 0.487) and CFOA (0.391 & 0.328) have negative p-values.

Sharma and Rehaman (2020) carried out comparable studies. The findings show a strong and positive correlation between operating cash flows (CFOs) and financial performance (ROA and ROE), showing that rising cash flows lead to rising financial

performance and vice versa. Leverage ratio and firm size are two negative and negligible elements affecting financial performance. As a result, there is a weak and negative correlation between these variables (CFOA and CFIA) and financial achievements (ROA and ROE). The relationship and financial performance of Nepal's commercial banks are positively and significantly influenced by the EMH, company size, and leverage.

Teshome, Debala, and Mohammed (2017) carried out comparable studies. The findings demonstrate a positive and statistically significant relationship between financial performance and the capital adequacy ratio (CAR), credit interest income (CIR), and bank size (SIZE). The following factors have a statistically significant negative impact on banks' financial performance: leverage ratio (LR), operational cost efficiency (OCE), non-performing loans (NPLs), loan loss provision (LLP), and LR. According to the report, in order to increase their profitability, Ethiopian commercial banks should control their loan losses, practice cost-cutting, and set their leverage ratio at the highest possible level. The relationship and financial performance of Nepal's commercial banks are positively and significantly influenced by the EMH, company size, and leverage.

5.2 Conclusion

Several conclusions have been drawn from the full investigation. The focus of this study is on the relationship between cash flow and the financial performance of commercial banks, specifically examining the Himalayan Bank Limited, Nepal Commercial and Credit Bank Limited (NCC), and Nabil Bank Limited.

According to the study's findings, financial statements were created using the Nepal Financial Reporting Standard (NFRS), which was released by the Nepal Accounting Standard Board (NASB). The bank and auditor's books already contain the cash flow statement, but no financial performance ratio analysis is present. Consequently, net change cash flow is negative at Himalayan Bank in 2013–14 but positive at NCC and Nabil Bank. In the same way, Kumari Bank has a negative quantity in 2022–2023 while Nabil and Himalayan Bank have positive amounts.

The study indicates a connection between financial performance and cash flow. The dependent variables are ROA and ROE, while the independent variables are CFOA, CFIA, CFFA, equity multiplier, leverage ratio, and company size. In relation to ROA,

the EM, leverage ratio, firm size, and CFFA are all positive and significant. In order for,

There are links between cash flow and financial performance (ROA) through EM, leverage ratio, business size, and CFFA. For this reason, CFOA and CFIA pale in comparison to ROA. Consequently, there is no correlation between cash flow and financial performance (ROA) in terms of CFOA and CFIA. Once more, the company size, CFFA, leverage ratio, and EM are all good and significant in terms of ROE. In other words, there are linkages between cash flow and financial performance (ROE) through EM, leverage ratio, company size, and CFFA. For this reason, CFOA and CFIA have little effect on ROE. Consequently, there is no correlation between cash flow and financial performance (ROE) in CFOA and CFIA.

According to the study's findings, there is no substantial impact of the variables equity multiplier, company size, leverage, CFOA, CFIA, and CFIA on financial performance (ROA). In order for cash flow to have no impact on these variables' financial performance (ROA). The financial performance (ROE) is not significantly impacted by leverage, firm size, or CFOA, CFIA, or CFFA. Therefore, these factors have no effect on cash flow or financial performances. When it comes to financial success, the equity multiplier is important (ROE). Because of this fluctuating cash flow's effect on financial performance.

5.3 Implications

5.3.1 Managerial Implication

The goal of this study is to demonstrate how cash flow affects Nepalese commercial banks' financial performance. The study's sample banks prepared their financial statements in accordance with the NFRS and complied with directives from the Nepal Rastra Bank (the country's central bank). The following recommendations for policy makers are related to the impact of cash flow on the financial performance of commercial banks: a rise in deposits, an increase in bank interest, a decrease in operating costs, an increase in service sales, an increase in remittances, etc.

- Return on equity (ROE) is a measure of a bank's efficiency as well as its ability to quantify profit. The diminishing return on equity (ROE) suggests that shareholder money are not being used to their full potential. It also suggests that there isn't a suitable capital mobilization leverage framework in place. Thus, it

will be beneficial for the bank to increase deposits and asset turnover. Similarly, it's advisable to reevaluate the capital structure's leverage.

- One way to calculate profits that sheds light on how successful banks are is to use return on assets (ROA). The return on assets (ROA), which shows that total assets are not being utilized to their maximum potential, is decreasing. It also implies that investment isn't being mobilized and that there aren't enough fixed assets. As a result, the bank will profitably raise deposits and asset turnover.
- By boosting economic activity and lowering interest costs, the equity multiplier, firm size, and negligible positive correlation with return on assets should have an impact on the growth of net interest margin (NIM). Moreover, it implies that banks are facing a liquidity shortage of some kind. It will therefore be advantageous to forecast and maintain the liquidity position beforehand.
- One advantage of size would be the ability to access wider markets. Thus, rather of focusing just on the local market, banks should be pushed to strategically extend their activities to other geographic areas and economic sectors. Bank branches need to be positioned carefully if financial institutions want to optimize their return on investment. Agriculture and agroprocessing remain a potential market for banks. Banks should consider branch expansion as well as product diversification. Banks can maximize their profitability and offer more auxiliary services by leveraging their assets.
- Although high inflation is generally undesirable, it appears to have a positive effect on bank profits. The results could help bank management predict inflation more accurately and adjust loan rates accordingly. Low rates of inflation foster economic stability and a business-friendly environment that allows companies to invest in long-term initiatives that are critical to their survival and expansion. As a result, bank management should continue to be watchful and cautious when it comes to forecasting inflation and business strategy.
- To boost their lending capacity and guarantee their profitability, Nepal's commercial banks are encouraged to concentrate on enhancing their capitalization levels and assets, particularly their liquid holdings.
- In Nepal, leverage and nonperformance had a favorable and negligible impact on a private commercial bank's return on assets.

- In order to lower the amount of nonperforming loans, private banks in Nepal are advising updating their credit practices and guidelines.
- Bank performance can be adversely affected by excessive costs relative to income and taking on debt beyond one's means, so banks should closely monitor their operational cost efficiency and leverage ratio.
- Banks are also advised to use technology to reduce expenses and increase revenue.

5.3.2 Future Implication

Although there have been many studies done on cash flow analysis, the current study which examines how cash flow affects the financial performance of Nepali commercial banks is a novel and developing area of research. As a result, more thorough research and quantitative data are required to validate the impact of cash flow on financial performance. Therefore, more research is required to determine the impact of cash flow on the financial performance of Nepali commercial banks in order to make new comparisons and conclusions. Therefore, the following topics are recommended for more research. This study attempts to examine the impact of cash flow on the financial performance of commercial banks; however, more research on other service and manufacturing sectors, where cash flow plays a significant role, might be undertaken by researchers.

- Other licensed banks and financial institutions might also be taken into consideration for the study, in addition to these banks.
- Manufacturing firms can be researched in addition to banks and other financial entities.
- For New Year's, prospective researchers can investigate this subject.
- It may take ten to fifteen years to complete the study; data collection cannot be done for ten years.
- Additional factors, such as net margin, operating profit margin, capital adequacy ratio, credit interest, nonperformance loans, etc., may also be included in the study on this subject.

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APPENDIX

Descriptive Statistics of variable

Variable	Number. N	Minimum	Maximum	Mean	S.D.
ROA	30	0.0048	0.0265	0.0142	0.0069
ROE	30	0.0494	0.6324	0.2225	0.1927
CFOA	30	-3005884323	7538567117	1791295493.10	2862276699.504
CFIA	30	-6993050663	6178544909	-1705304042.43	3108023691.81
CFFA	30	-1858731486	3223508204	186477954.67	1415525323.32
EM	30	5.3073	24.3926	13.9920	6.9851
Leverage	30	0.8116	0.9590	0.9071	0.4428
Firm Size	30	10.4762	11.3760	10.9065	0.2669

Sources: Annual Reports Selected Banks, used SPSS version 25

		ROA	ROE	EM	Leverage	Firm Size	CFOA	CFIA	CFFA
ROA	Pearson Correlation	1							
	Sig.(2 tailed)								
ROE	Pearson Correlation	0.913**	1						
	Sig.(2 tailed)	.000							

EM	Pearson Correlation	.624**	.811**	1					
	Sig.(2 tailed)	.002	.000						
Leverage	Pearson Correlation	.580**	.799**	.812**	1				
	Sig.(2 tailed)	.006	.000	.000					
Firm Size	Pearson Correlation	.442*	.538*	.633**	.431	1			
	Sig.(2 tailed)	.045	.012	.002	.051				
CFOA	Pearson Correlation	.198	.225	.175	.206	.157	1		
	Sig.(2 tailed)	.391	.328	.447	.371	.498			
CFIA	Pearson Correlation	-.101	-.164	-.370	-.235	-.171	-.396	1	
	Sig.(2 tailed)	.662	.487	.099	.305	.458	.076		
CFFA	Pearson Correlation	-.547*	-.619**	-.343	-.583**	.040	-.379	-.130	1
	Sig.(2 tailed)	.010	.003	.128	.005	.865	.090	.603	

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

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

Sources: Annual Reports Selected Banks, used SPSS version 25

$$\text{Model } IROA_{it} = \alpha + b_1CFO_{it} + b_2CFI_{it} + b_3CFF_{it} + b_4SIZE_{it} + b_5LEV_{it} + b_6EM_{it} + \epsilon_{it}$$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.727 ^a	.529	.327	.00569495

a. Predictors: (Constant), Cash flow from financing activities, Cash flow from investing activities, Equity Multiplier, Cash flow from Operating Activities, Firm Size, Leverage ratio

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	270.619	6	38.660	158.652	.000 ^b
	Residual	95.521	23	.244		
	Total	366.140	29			

a. Dependent Variable: Return on Assets

b. Predictors: (Constant), Cash flow from financing activities, Cash flow from investing activities, Equity Multiplier, Cash flow from Operating Activities, Firm Size, Leverage ratio

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.310	.134		2.316	.021
	Equity Multiplier	.077	.047	.079	1.635	.103
	Leverage ratio	.060	.036	.056	1.675	.095
	Firm Size	.056	.035	.054	1.610	.108
	Cash flow from Operating Activities	-.123	.034	-.116	-3.582	.000
	Cash flow from investing activities	.131	.052	.119	2.512	.012
	Cash flow from financing activities	.321	.043	.343	7.381	.000

a. Dependent Variable: Return on Assets

Sources: Annual Reports Selected Banks, used SPSS version 25

Appendix-XII The Regression Analysis

$$\text{Model II } ROE_{it} = \alpha + b_1tCFO_{it} + b_2tCFI_{it} + b_3tCFF_{it} + b_4tSIZE_{it} + b_5tLEV_{it} + b_6tEM_{it} + \epsilon_{it}$$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.894 ^a	.799	.712	.10333333

a. Predictors: (Constant), Cash flow from financing activities, Cash flow from investing activities, Equity Multiplier, Cash flow from Operating Activities, Firm Size, Leverage ratio

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	75.155	6	37.577	89.362	.000 ^b
	Residual	166.941	23	.421		
	Total	242.096	29			

a. Dependent Variable: Return on Equity

b. Predictors: (Constant), Cash flow from financing activities, Cash flow from investing activities, Equity Multiplier, Cash flow from Operating Activities, Firm Size, Leverage ratio

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.186	.203		5.840	.000
	Equity Multiplier	.566	.007	.506	2.206	.045
	Leverage ratio	.126	1.127	.116	.488	.633
	Firm Size	.470	.059	.092	7.944	.000
	Cash flow from Operating Activities	.199	.062	.031	3.224	.001
	Cash flow from investing activities	.524	.048	.068	7.348	.000
	Cash flow from financing activities	-.334	.000	-.301	-1.790	.095

a. Dependent Variable: Return on Equity

Sources: Annual Reports Selected Banks, used SPSS version 25

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ABSTRACT This study is undertaking to make an assessment,

the effect of cash flow on financial performance of Nepalese commercial banks. The

entire work has been divided into five broad chapters to study almost all aspects of cash flow on financial performance in general and its application in Nepalese Commercial Bank in particular. The study uses only secondary data; it does not cover the opinions and views of the banks concerned. The study covers only a ten-year period, i.e., from 2013/14 to 2022/23. If a longer trend had been using, a more accurate trend could have been analyzing. There are 20 commercial banks currently operating in Nepal. However, this study is limited to only three commercial banks in Nepal, namely, Nabil Bank Ltd., Himalayan Bank Ltd., and Kumari Bank. The study is carried out based on the information gathered. The study deals with only certain financial tools, such as statistical tools. EM, leverage ratio, firm size, and CFFA are relationships between cash flow and financial performance (ROA). CFOA and CFIA are therefore insignificant when compared to ROA. Therefore, CFOA and CFIA have no relationship between cash flow and financial performance (ROA). Again, in terms of ROE, the EM, leverage ratio, firm size, and CFFA are all positive and significant. So that, EM, leverage ratio, firm size, and CFFA are relationships between cash flow and financial performance (ROE). CFOA and CFIA are therefore insignificant in terms of ROE. Therefore, CFOA and CFIA have no

relationship between cash flow and financial performance (ROE). The study concluded that the

variables equity multiplier, firm size, leverage, CFOA, CFIA and CFIA are insignificant on financial performance (ROA). So that, these variables have no effect of cash flow on financial performance (ROA). Leverage, firm size, and CFOA, CFIA, and CFFA have no significant impact on financial performance (ROE). As a result, neither cash flow on financial performances are affected by