DEPOSIT MOBILIZATION OF COMMERCIAL BANKS IN NEPAL

A THESIS

Submitted by:

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RECOMMENDATION

This is to certify that the thesis

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DEPOSIT MOBILIZATION OF COMMERCIAL BANKS IN NEPAL

has been prepared as approved by this department in the prescribed format of the Faculty of Management. This thesis is forwarded for examination.

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Asso. Prof. Dr. Kapil Khanal	**sso. Prof. Dr. Sajeeb Kumar Shrestha**	**Asso. Prof. Dr. Krishna Prasad Acharya**
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VIVA-VOCE SHEET

We have conducted the viva –voce examination of the thesis presented

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and found the thesis to be the original work of the student and written according to the prescribed format. We recommend the thesis to be accepted as partial fulfillment of the requirement for Master Degree of Business Studies (M.B.S.)

Viva-Voce Committee

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DECLARATION

I hereby declare that the work reported in this entitled ***DEPOSIT MOBILIZATION OF COMMERCIAL BANKS IN NEPAL*** submitted to Shanker Dev Campus, Faculty of Management, and Tribhuvan University in my original work done in the form of partial fulfillment of the requirement for the Masters' Degree in Business studies under the supervision of **Asso. Prof. Dr. Kapil Khanal** of Shanker Dev Campus

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TABLE OF CONTENTS

LIST OF TABLES

ABBREVIATIONS

Adj.	=	Adjusted
ATM	=	Automated Teller Machine
BAFIA	=	Banking and Financial Institution Act
C.D.	=	Coefficient of Variance
Contd.	=	Continued
Dr.	=	Doctor
e.g.	=	For example
ed.	=	Edition
Etc.	=	Etcetera
FOM	=	Faculty of Management
FY	=	Fiscal Year
i.e.	=	That is
JVB	=	Joint Venture Bank
NBL	=	Nepal Bank Ltd.
No.	=	Number
NRB	=	Nepal Rastra Bank
PP.	=	Page number
Prof.	=	Professor
Pvt.	=	Private
S.D.	=	Standard Deviation
S.N.	=	Serial Number
SCBNL	=	Standard Chartered Bank Nepal Limited
T.U.	=	Tribhuvan University

CHAPTER I

INTRODUCTION

1.1 Background of the Study

Deposits are one of the most important sources of finance for commercial banks. "Deposit" money into a bank or other financial institution's account in the UK, such as a building society. Money can be deposited into interest-bearing checking or current accounts in the US or the UK, which can be withdrawn whenever needed, or into deposit accounts in the UK, savings accounts, or time deposits in the US, which require notification and have interest attached. Recent years have seen a blurring of the boundaries between new account kinds (Oxford dictionary of economics, 2004:116).

One of the key roles of the banking industry is deposit mobilization. It is a crucial source of operating capital for the bank. Mobilizing deposits is a crucial component in expanding the banks' resources so they can function more efficiently. In order to provide various economic sectors with satisfactory service, deposit mobilization is crucial. Both rural and urban deposits must be accepted by the commercial banks. This facilitates the banks' ability to give significant sums of money to development-related priority industries.

The mobilization of deposits is a key factor in the success of banking. Deposits are essential to the bank's operations since they are typically regarded as an affordable source of working capital. Among the Commercial Banks' key goals is the mobilization of rural savings. It supports the growth of banking activities. By offering subsidies for branch growth, the NRB encourages banks to raise deposits. The amount of money mobilized determines how well commercial banks operate (Bhatta, 2061:163).

Deposits are the lifeblood of banking companies. Deposits are an important source of capital necessary for banking operations. There are many different types of deposits, with different terms and interest rates. Mobilizing deposits depends on deposit costs. Mobilizing deposits is as necessary for banks as oxygen is for humans. Mobilizing deposits is an indispensable part of banking operations. Mobilizing savings through

intensive collection of deposits is considered the main task of the banking industry in India today.

The primary responsibility of commercial banks is to accept deposits. It was try to examine the socio-economic effects of deposit mobilization in this essay. For the purposes of the study, three distinct deposit types fixed deposits, current deposits, and savings accounts are taken into account. There are two ways to make a bank deposit: the first is known as a primary deposit or basic deposit, and it occurs when a bank staff accepts money and credits it to the customer's air conditioner. The depositors are the ones who initiate these principal deposits. Secondly, invest in bonds and equities when banks lend money, discount bills of exchange, and offer overdraft facilities. We refer to these as derivative deposits. The money supply is increased by them. These deposits are actively made by banks (The Encyclopedia Britannica, 1981:700).

1.1.1 Brief Introductions of Sample Banks under Study

Standard Chartered Bank Nepal Ltd.

Standard Chartered Bank Nepal Limited, a prominent institution established in 1987, stands as the largest international bank in Nepal, with significant ownership by both the Standard Chartered Group and the Nepalese public. Boasting a rich history spanning over 150 years, Standard Chartered operates across 70 countries, reflecting its global reach and employing a diverse workforce of nearly 75,000 individuals from over 115 nationalities. In Nepal, the bank's extensive domestic network, comprising 29 ATMs and a dedicated team of over 350 local staff, underscores its commitment to delivering international banking services tailored to local needs. Aligned with its core values, Standard Chartered prioritizes Corporate Social Responsibility (CSR), integrating ethical, social, and environmental considerations into its operations. Through initiatives like 'Believing in Life,' the bank actively engages in community development projects, focusing particularly on enhancing children's health and education. This holistic approach reflects the bank's dedication to creating sustainable value while fostering positive impacts on society and the environment, embodying its vision to be the world's premier international bank (www.scbnl.com).

NABIL Bank Limited

Established in July 1984 as Nepal's first private sector bank, Nabil Bank Limited has pioneered modern banking in the nation. With a commitment to providing international standard banking services, Nabil operates through 118 points of representation and over 1500 Nabil Remit agents nationwide. Renowned for its innovative products and customer-centric approach, Nabil emphasizes modern technology and risk management under the leadership of a highly qualified management team. Guided by its mission to be the "1st Choice Provider of Complete Financial Solutions," Nabil focuses on delivering excellence across multiple fronts, encapsulated in its brand promise "Together Ahead" and upheld by its core values of being Customer Focused, Result Oriented, Innovative, Synergistic, and Professional. With 185 ATMs and 119 branches across the country, Nabil is committed to serving its stakeholders with distinction (www.nabil.com).

Nepal Bank Ltd.

Nepal Bank Limited was inaugurated on November 15, 1937, by King Tribhuvan, marking the onset of formal banking in Nepal. Initially met with skepticism, the bank faced challenges in raising equity shares and mobilizing deposits. Despite this, it commenced operations with NPR 1,985,000 in loans disbursed and outstanding deposits totaling NPR 17,02,025 in its first year. Over time, NBL has evolved into a sound institution, aiming to instill trust among depositors, provide reasonable credit facilities to borrowers, offer attentive service to customers, ensure fair compensation and career growth for employees, and deliver satisfactory returns to shareholders. Originally established as a joint venture between the government and the private sector, NBL started with an authorized capital of NPR 10 million and issued capital of NPR 2.5 million, with 60% government ownership and 40% private sector participation. Today, with 163 branches across the country, NBL continues to serve its customers with deposit facilities, various loan options, advanced banking services, and ATM facilities nationwide (www.nbl.com.np).

1.2 Statement of the Problem

The proposed study identifies several challenges within the domain of commercial banks and their customer relations, particularly concerning deposit types and banking services.

One prevalent issue is the underutilization of deposit funds for productive purposes, with banks showing a preference for retail banking over corporate banking.

Additionally, banks tend to hold a significant portion of their deposit liabilities as high-cost deposits. Moreover, there's a notable inefficiency in managing liquid assets. These problems can be broadly categorized into four groups, reflecting challenges in deposit mobilization, lending practices, deposit composition, and liquidity management.

Notably, recent trends indicate that only around 70 percent of total deposits are being lent out due to economic conditions, management decisions, and board attitudes. Addressing these issues is crucial for enhancing the efficiency and effectiveness of banking operations and improving customer satisfaction and financial performance.

- What is the relationship between deposit and loans and advances of SCBNL, NABIL and NBL?
- How far the interest rates of deposits have relationship with the deposit collection of SCBNL, NABIL and NBL?
- What is the trend of deposit mobilization of SCBNL, NABIL and NBL?

1.3 Objectives of the Study

Banks offer deposit and credit services to the public. They receive savings deposits and lend them to others seeking capital in the economy. Banks can only operate effectively and efficiently if they mobilize deposits within the prescribed scope and disburse funds on schedule. The fundamental goal of this investigation is:

- To examine the relationship between deposit and loans and advances of SCBNL, NABIL and NBL.
- To examine the relationship between interest rate of deposit and deposit collection of SCBNL, NABIL and NBL.
- To examine the trend of deposit mobilization of SCBNL, NABIL and NBL.

1.4 Significance of the Study

The value and span of a bank's financial mobilization strategy serve as indicators of its stability and, in the broader context, the health of the national economy. To maximize the

efficient use of the scarce financial resource, capital, banks must strategically define and effectively implement their fund mobilization strategies. The role of commercial banks in providing credit within the economy is pivotal. The proposed study is expected to benefit various stakeholders directly or indirectly, including lenders, creditors, investors, and shareholders of banks. However, it's noted that commercial banks' deposits and their investments in productive sectors are subject to fluctuations over time. Deposits constitute a vital component of commercial banks, directly influencing their capacity for investment and the potential for fund mobilization to ensure long-term profitability. Prudent credit allocation is essential for the survival of commercial banks, as loans are integral to their operations. Failure to adopt sound investment strategies may lead to future difficulties in collecting loan repayments. Hence, banks should carefully diversify their investment portfolios to mitigate the risk of default and ensure financial stability. Diversification is crucial for banks as they utilize people's money for the benefit of both depositors and the institution itself.

1.5 Limitations of the Study

- This study focuses on a subset of three commercial banks, namely SCBNL, NABIL, and NBL, chosen from a pool of 20 banks.
- It relies exclusively on secondary data extracted from the annual financial reports of these selected banks.
- The research spans a decade, encompassing data from the fiscal years 2010/011 to 2020/021.
- Due to resource constraints, the analysis employs a restricted set of financial and statistical tools.

1.6 Organization of the Study

The study details is planned into five separate chapters, each serving a specific purpose and contributing to the overall understanding of the study's subject matter.

1. Introduction:

This initial chapter provides a comprehensive overview of the study. It encompasses the background of the research, introduces the selected sample banks, articulates the

statement of the problem, elucidates the significance and objectives of the study, outlines the focus, delineates the limitations, and finally, presents the organizational structure of the report.

2. Review of Literature:

The second chapter delves into a thorough examination of existing literature relevant to the study. This includes a conceptual review, exploring key concepts such as commercial banking, deposits, and deposit mobilization. Additionally, it conducts a review of related studies, analyzing past research endeavors focusing on deposit-related topics, particularly within the realm of commercial bank deposit mobilization.

3. Research Methodology:

Chapter three elucidates the research methodology employed in the study. It delineates the research design, sources and nature of data, details the population and sample selection process, elucidates the data collection methods, and specifies the statistical and financial tools utilized for analysis.

4. Presentation and Analysis of Data:

Considered the pivotal chapter, this section presents and analyzes the gathered data in alignment with the study's objectives. It provides a detailed breakdown of the findings, allowing for insights into the state of deposit mobilization within selected commercial banks in Nepal.

5. Summary, Conclusion and Recommendations:

The final chapters sum up the soul of the study. It offers a summary of the research findings, draws conclusions based on the analysis, and provides recommendations to relevant banks and policymakers to enhance deposit mobilization efforts. This section serves as a guide for stakeholders to improve the deposit mobilization positions of the respective banks.

At the culmination of the report, a bibliography and appendices are included to provide supplementary information and sources utilized throughout the study.

CHAPTER-II

REVIEW OF LITERATURE

Review of Literature involves examining relevant topics in the research field and scrutinizing past research studies and findings to understand their conclusions and shortcomings. It serves to prevent duplication in the present study and builds upon existing knowledge. This chapter is divided into two main sections: a discussion of literature pertinent to the study and an exploration of past research findings, ensuring continuity and progression in research endeavors. By linking the current study with previous research, a foundation is established, underscoring the importance of continuity in research. This chapter acts as a "Stock Taking" exercise, providing an overview of available literature in the research field and offering insights into the current status of the research area. Thus, it plays a crucial role in informing the present study (Wolf and Pant, 2000:30).

2.1 Conceptual Frame Work

2.1.1 Concept of Commercial Bank

A bank is a business structure that receives and holds deposits from others, creates or expands deposits, and exchanges reserves through a group of contributors (Reference Book America, 1984:85).

A commercial shareholder can be a merchant who accepts cash and currency substitutes, such as a cheque or charge of trade. It also provides a variety of fiscal services (The Unused Reference Book Britannica, 1985:605).

A commercial bank is one that deals with the general public, accepting deposits and offering loans to a large number of families and small businesses. In the UK, such banks are referred to as retail or tall road banks. They also provide various services for investors, such as cash and credit card arrangements, capacity offices for resources and archives, remote trading, stock shaking, contract back, and agent concessions. Commercial banks are distinguished from central banks, as well as speculative, dealer, and other pro banks that engage in modest transactions with the general public.

The American money management organization has established capacities for commercial banks, such as receiving and dealing with stores, handling installments for its clients, providing advances and speculating, and producing cash through credit expansion. Essentially, a commercial bank accepts deposits and extends credit to businesses, so facilitating the flow of goods in the economy. Within the Nepalese context, the Commercial Bank Act of 1974 defines a commercial bank as one that trades cash, keeps cash, acknowledges deposits, grants credits, and performs commercial account management functions (Reference Book America, 1984:85).

The word commercial bank is also misleading because commercial banks serve a variety of functions rather than just one. Nowadays, commercial banks not only issue exchange stores through checks, but they also function as guarantors to modern value issue bargain offices, conduct assessments on behalf of their clients, and so on (Brealey, 1993:245).

A commercial bank can be regarded as an entity that bargains in cash. In other words, banks collect cash from individuals who have it to fight or who are sparing it out of their pay and lend this cash out against product security to those who require it (Crowther, 1985:58).

Commercial banks are those that aggregate the community's investment capital and manage them for profit. They meet the monetary needs of cutting-edge commerce using various means. They accept public deposits on the condition that they are repayable upon request of a brief take note. Commercial banks have a limited ability to invest in corporate securities. Their commerce is limited to financing the short-term needs of trade and industry, such as working capital loans. They are unable to fund in settled resources. They provide advances in the form of cash credits and overdrafts. Tolerating the financing, the Bank also provides administrations like collection of bills and checks, secure holding of resources, money-related advice, etc. to their clients (Vaidya, 2001:38).

2.1.2 Resources of Nepalese Commercial Banks

Commercial banks rely on a range of resources to support their daily operations and drive further growth. However, three key sources stand out as particularly vital:

I. Capital

In terms of capital funds, it's essential to note that they primarily serve as a nominal source for commercial banks. Consequently, they are typically not utilized for investment purposes. Capital funds typically comprise two main elements: paid-up capital and general reserves. Paid-up capital represents the initial investment made by shareholders, while general reserves consist of accumulated profits retained by the bank over time. While capital funds contribute to the overall financial stability of the bank, they are generally not deployed for investment activities. Instead, they serve as a foundational component of the bank's financial structure, providing a buffer against potential losses and supporting regulatory requirements.

II. Deposits

Deposits serve as the primary resource for commercial banks, especially in issuing loans to borrowers. These deposits are sourced from various channels and under different account types, with three main categories being current, savings, and fixed deposits. In a developing country like Nepal, where a large section of the population is still poor, savings deposits are critical to fueling the country's development. As such, deposits are the primary source of capital for banks. The deposit function of banks holds significant importance as it involves aggregating small sums of money from individuals, often in denominations of twenties, fifties, and hundreds. Individually, these sums may seem insignificant in terms of economic efficiency. However, when pooled together and effectively managed by banks, they can be leveraged to accomplish substantial tasks. This aggregation process allows banks to channel these funds towards various lending activities, investments, and other financial services, thereby contributing to economic growth and development (Roland, 1962:20).

III. Domestic and peripheral scrounge

Internal and external borrowings play a crucial role in supporting the financial needs of a developing country like Nepal, where commercial banks alone may not suffice to meet the demands of society due to limited resources. To bridge this gap, commercial banks are permitted to borrow from both internal and external sources. External borrowing typically involves obtaining funds from foreign entities such as foreign banks, foreign

governments, and international financial institutions like the International Bank for Reconstruction and Development (IBRD). These funds can be used to supplement domestic resources and support various developmental initiatives. However, external borrowing also exposes the country to foreign exchange risks and debt servicing obligations.

On the other hand, internal borrowing refers to obtaining funds from domestic sources within the country. In Nepal, commercial banks have the option to borrow internally solely from the Nepal Rastra Bank (NRB), the central bank. These internal borrowings provide banks with additional liquidity to meet their operational requirements, facilitate lending activities, and support economic growth. Internal borrowing offers advantages such as reduced exposure to foreign exchange risks and greater control over monetary policy.

Overall, both internal and external borrowings are essential mechanisms for commercial banks in Nepal to access additional funds and contribute to the economic development of the country. However, prudent management and careful consideration of the associated risks are crucial to ensure sustainable financial stability.

2.1.3 Types of Deposits

At the outset, understanding the concept of deposits is crucial. As per the Commercial Bank Act 2031, deposits refer to sums of money placed in a current, savings, or fixed account at a bank or financial institution. Deposits are made by individuals, including the general public, businessmen, industrialists, and other entities. Banks utilize these deposited funds to extend loans and make investments across various sectors to generate profits. Typically, banks accept three main types of deposits: current, savings, and fixed deposits. While some countries may offer additional deposit types, Nepalese banks typically allow customers to open accounts under these three categories, each governed by specific terms and conditions. This classification of deposits is grounded in both theoretical and financial considerations, ensuring a structured approach to managing customer funds within the banking system. Therefore, bank deposits are secret on the following source:

i. Demand Deposits

ii. Savings Deposits.

iii. Fixed Deposits

I. Demand Deposits

Demand deposits, also known as current accounts, involve immediate payment upon the account holder's request. These accounts offer flexibility, allowing withdrawals at any time without prior notice. As such, they are often utilized by merchants and traders who require frequent access to funds for daily transactions. Unlike other types of deposits, demand deposits cannot be invested in productive sectors, remaining as idle stock within the bank. Consequently, banks do not pay interest on these accounts, as they cannot generate profits through investment. However, this absence of interest is offset by the convenience and accessibility offered to customers. Banks are obligated to honor checks drawn against demand deposits as long as there are sufficient funds available. Demand deposits are crucial for individuals and businesses requiring regular access to liquidity for daily financial activities (Economic Growth and Commercial Banking: 2004).

II. Saving Deposits

Banks can also accumulate capital through saving deposits, which hold significant importance and have a broad scope. Saving accounts, as defined by the Commercial Bank Act 2031, are designed for individuals seeking to save money. These accounts cater to various segments of society, including the middle class, farmers, laborers, low-income earners, officials, and small business owners. Saving deposits combine features of both current and fixed period deposits, offering flexibility in deposits and withdrawals while also allowing for interest accrual over time. Given their accessibility and suitability for a diverse range of customers, saving deposits are among the most commonly opened accounts in banks.

III. Fixed Deposit

According to the Commercial Bank Act of 2031, a Fixed Account is one in which consumers deposit funds for a certain length of time. Commonly known as a time deposit, this account locks in funds for a predetermined duration, typically ranging from three months to five years. Individuals or institutions seeking higher interest rates often opt for

this account. Unlike other deposits, fixed accounts offer comparatively higher interest rates. Both banks and customers benefit from this arrangement: banks utilize these funds for investment in productive sectors, generating profits, while customers strengthen their financial position by earning increased interest. Funds deposited in fixed accounts are not accessible until the agreed-upon maturity date, ensuring that the principal amount remains intact until then.

2.1.4 Deposits Mobilization

Deposit mobilization involves gathering small amounts of capital from various sources and investing these funds in productive sectors to increase depositor income. This process also encourages further savings by reinvesting the accrued surplus (NRB, 1984: 10-12).

The primary goal of deposit mobilization is to convert idle savings into active investments, particularly among low-income individuals, thereby fostering economic development. Commercial banks play a pivotal role in this process by channeling funds towards key sectors such as trade, industry, agriculture, and commerce (NBL, 2037:17).

They facilitate the accumulation of capital within the country, which is essential for economic growth. By encouraging savings and investments, commercial banks contribute significantly to economic development, leveraging their network of branches and agencies to advise and support commercial activities. Overall, deposit mobilization serves as a catalyst for increasing savings rates and investment levels, driving economic progress and prosperity (Johnson, 1965:11).

Security of bank stores, creation of a legitimate environment may boost stores, and a boost of seriousness of financial markets with the support of banks will demonstrate feasible in mobilizing the existing coasting assets within the country (Ghosal and Sharma, 1965:92).

Capital arrangement is possible by gathering scattered useless and little savings from individuals. This collected fund can be used in a profitable section to increase corporate and national efficiency. Store mobilization is the most reliable as well as crucial source of capital arrangement (RBB, 2055:14).

Banking transactions involve the acceptance of deposits from individuals in exchange for extending credit and loans, with the deposits being returned upon request or at the end of a specified period. As per banking regulations, this definition emphasizes that deposit mobilization serves as the foundational aspect of banking operations. Banks aim to maximize their ability to attract and manage deposited funds efficiently to facilitate various banking activities.

Deposits, including current, savings, and fixed deposits, constitute a significant portion of working capital. This is why banks continuously strive to mobilize deposits through various means at their disposal. Commercial banks play a crucial role in converting scattered and inefficient small savings into lendable and productive investments. They not only gather savings but also incentivize savers and assist them in saving more. Established with the aim of mobilizing national resources, commercial banks contribute to the national financial development by increasing deposit collection. The steady annual growth rate of commercial bank deposits reflects satisfactory progress in deposit mobilization efforts (RBB, 2054:15).

2.1.5 Need for Deposits Mobilization

The following are a few reasons why Keep Deployment is necessary in a developing country like Nepal. Workshop report "Deposit Mobilization Why and How" Bunch "A" outlines the following focuses as needed for store mobilization (NRB, 1984, 10-12).

Capital is essential for the progress of any sector of the country. The goal of Store Mobilization is to gather scattered money in various formats around the country. It is far more important to channel the accumulated store into the need segment of a country. In our developing countries, we must grow our businesses and other sectors by directing the collected capital toward useful divisions. The need for store mobilization is felt to curb excessive use. If there is no saving, the extra money that people have can be used to make purchases of unnecessary and extravagant items. As a result, the government should provide aid in gathering additional stores while simultaneously implementing legal ways to curb unnecessary consumption.

Commercial banks play an important role in national improvement. Store mobilization is essential for extending their exercises. Commercial banks are making advances not only

in profitable sectors, but also in other sectors such as food grains, gold, and silver. Despite the fact that these credits are traditional in nature and are not conducive to increasing efficiency, they do make a difference in mobilizing bank reserves to varying degrees. It is because, if the production of rural and mechanical things increases, it provides additional wages, which allows people to save more, and ultimately plays a significant part in store mobilization. Store mobilized is critical for the financial development of an underdeveloped and developing nation, as opposed to a created nation, because a created nation does not feel the need for store mobilization.

2.2 Review of the Related Studies

This section encompasses an examination of previous research conducted by scholars that pertains to the subject matter.

2.2.1 Review of Article/journals

Panta (2014) examined on "A Study of Commercial Banks Deposit and its Utilization," aimed to uncover the origins of deposits and their allocation for effective utilization, shedding light on the disparity between resource collection and utilization. Utilizing secondary data from various sources, in study revealed that commercial banks struggled with resource utilization, primarily due to their focus on short-term lending and a lack of activity in long-term borrowing sectors. Notably, limits on overseas debt and a diminish role of nationalized financial society were identified as key factors contributing to this issue. It was recommended that NBBL diversify its loan and investment portfolio, particularly emphasizing the need to move beyond the low-return, risk-free investment in treasury bills. Additionally, he suggested that EBL attract more deposits by introducing new programs and offering competitive interest rates to customers, in line with recent trends in the banking sector.

Pradhan (2015) conducted a study titled "Deposit Mobilization, its Problems and Prospects" to examine the effective utilization of deposit mobilization and identify challenges encountered in mobilizing deposits across various sectors. Using primary data collected through field visits and questionnaires, the study aimed to ascertain whether banks adequately met the financial needs of the economy and to analyze the relationship between deposits and loans. The findings revealed that a significant portion of the

Nepalese population did not engage in institutional savings due to limited awareness, preferring instead to save in cash or valuables like ornaments. Moreover, the lack of banking services in rural areas and insufficient awareness among Nepalese regarding the services offered by banks were highlighted as key challenges. Additionally, customers displayed a lack of understanding regarding financial processes such as withdrawals and deposits.

Joshi (2016) conducted a study titled "Rural Saving Mobilization in Nepal" with the aim of enhancing the effectiveness of saving mobilization strategies. The study underscored the importance of policies focusing on tapping into savings within the existing banking framework while also implementing long-term measures to boost investment rates and enhance productivity. Findings highlighted the crucial role of increasing income levels to sustain deposit growth and overall saving rates. Furthermore, it was underlined that successful programs must address the population's low saving ability, as seen by flat per capita GDP over the previous decade. The study also examined the ability of commercial banks to collect deposits from various sectors and their role in satisfying the financial needs of the economy while analyzing the relationship between deposits and loans.

Lintner (2017) explained on the titled "Corporate Dividend Policy and Deposit Collection in the American Context," aimed to investigate several objectives, including identifying instances where changes in dividends were considered but not implemented, examining dividend patterns of 28 companies using a partial adjustment model, and assessing the "stickiness" of dividends in relation to changes in earnings. Additionally, Lintner sought to determine if commercial banks successfully collected deposits across different sectors, if they adequately met the financial needs of the economy, and to analyze the relationship between deposits and loans. The study's key findings revealed that dividends were closely linked to earnings, serving as a mechanism to incentivize shareholder investment, especially in preference shares. Moreover, it highlighted the diverse nature of shareholders and emphasized the importance of corporate dividend policy in capital formation.

Bajracharya (2018) conducted a study titled "Monetary Policy and Deposit Mobilization in Nepal" with the aim of examining the mobilization of domestic savings, a key

objective of Nepal's monetary policy. The study also investigated whether commercial banks successfully collected deposits from various sectors and analyzed the relationship between deposits and loans. The major finding highlighted the crucial role of commercial banks as active financial intermediaries in mobilizing resources through private sector deposits and providing credit to investors across different sectors of the economy. Based on these findings, Bajracharya recommended initiatives to encourage people to save and effectively utilize funds in sectors vital for the country's development.

Gordon (2019) examined an article on "The Stock Valuation using the Dividend Capitalization Approach," aimed to explore the impact of dividend policy on share value, particularly when the return on investment and required rate of return are equal. The study also examined whether commercial banks effectively collected deposits from various sectors and analyzed the relationship between deposits and loans. The major findings indicated that investors do not view current dividends and retention of earnings with equal indifference; instead, they exhibit a strong preference for present dividends over future capital gains, especially under conditions of uncertainty where current dividends are perceived as less risky. These findings shed light on the significance of dividend policy in influencing investor behavior and share valuation.

2.2.2 Review of Thesis

Karmacharya (2013) conducted a study on "*A Study on the Deposit Mobilization by Nepal Bank Ltd*."

The specific objectives:

- To assess the ability of commercial banks, specifically Nepal Bank Ltd., in collecting deposits from various sectors.
- To evaluate whether banks effectively fulfill the financial needs of the economy.
- To investigate the relationship between deposits and loans in the banking system.

The Methodology of the Study

- Karmacharya conducted a longitudinal study spanning eight years, employing a combination of quantitative and qualitative research methods.

- Data collection involved primary sources such as interviews and surveys, as well as secondary sources like financial reports and literature review.

Major Findings of the Study

- Nepal Bank Ltd. demonstrated satisfactory performance in deposit collection; however, it struggled with utilizing its funds due to limited investment opportunities.
- The bank prioritized factors like safety, profitability, project feasibility, resource availability, diversification, and legal compliance in the lending process.
- The lending process was characterized by lengthiness, with managers visiting investors annually for business updates.

The Recommendations of the Study

- Establishing more banking branches to enhance deposit collection and improve accessibility to banking services.
- Diversifying lending strategies to identify and capitalize on viable investment opportunities.
- Streamlining the lending process to reduce delays and improve efficiency, possibly through digitization and automation initiatives.
- Strengthening communication channels between bank managers and investors to facilitate more frequent updates and enhance the efficiency of the lending process.

Pradhan (2014) conducted a study on *"A Study on Investment Policy of Nepal Bank Ltd. (NBL)."*

The Specific Objectives of the Study

- To assess the effectiveness of NBL in utilizing mobilized deposits.
- To analyze the relationship between deposits and loans in NBL's operations.

The Methodology of the Study

- The study used ratio analysis to analyze loans and advances, deposits, bank liquidity, and profitability.
- Data were collected from NBL's financial reports and analyzed to draw conclusions regarding the bank's investment policy.

Major Findings of the Study

- NBL allocated only 2.98% of its resources to the priority sector in 2034 B.S., indicating a limited focus on mobilizing resources for priority areas.
- The study recommended that NBL should increase investment in the agriculture sector and develop a clear policy for providing loans in order to stimulate growth in this sector.
- Furthermore, the study suggested that NBL should consider investing in riskier sectors to potentially increase profits. Additionally, it recommended adjusting the interest rates on deposits and loans to attract more customers and optimize returns.

Recommendations of the Study

- NBL should revise its investment strategy to allocate more resources to priority sectors, particularly agriculture, to support economic development.
- Developing clear and transparent loan policies will enhance NBL's ability to provide financial support to various sectors.
- Exploring investment opportunities in riskier sectors can diversify NBL's portfolio and potentially increase profitability.
- Adjusting interest rates on deposits and loans can attract more customers and optimize returns for the bank. Moreover, introducing innovative programs to attract deposits can help NBL compete effectively in the market.

Tandukar (2015) conducted a study on *"Role of Nepal Rastra Bank (NRB) in Deposit Mobilization of Commercial Banks."*

The Specific Objectives of the Study

- To evaluating the role of Nepal Rastra Bank (NRB) in deposit collecting by commercial banks.
- To analyze deposit mobilization trends in connection to total investment, loans, and advances at commercial banks.

The Methodology of the Study

- It is employed a mixed-method approach, utilizing both secondary and primary data sources.
- Data collection involved reviewing existing literature, analyzing financial reports of commercial banks, and conducting interviews or surveys with relevant stakeholders.
- Analysis included financial instruments including liquidity ratios, profitability ratios, risk ratios, and correlation coefficients, as well as statistical approaches like trend analysis.

Major Findings of the Study

- The study found that restrictions on foreign-denominated debt and reduced influence of state-owned financial institutions impact deposit mobilization. Tandukar advised Nepal Bank Ltd. (NBBL) to diversify its loan and investment portfolio to improve its efficiency.
- The analysis revealed insights into the financial performance of commercial banks, including liquidity levels, profitability, and risk exposure.
- The trend analysis provided valuable insights into the changing patterns of deposit mobilization and its implications for investment and lending activities.

Recommendations of the Study

- NRB should continue to monitor and regulate foreign-denominated debt to ensure financial stability and mitigate risks associated with currency fluctuations.
- The government should consider policies to strengthen the role of state-owned financial institutions to support deposit mobilization efforts.
- NBBL should implement strategies to diversify its loan and investment portfolio, potentially exploring opportunities in new sectors or markets.
- Commercial banks should regularly assess their liquidity, profitability, and risk exposure using appropriate financial tools and techniques to make informed decisions and mitigate potential risks.

K.C. (2013) conducted a study on *"A Comparative Study on Investment Policy of Nepal Bangladesh Bank Ltd. and Other Joint Venture Banks of Nepal*."

The Specific Objectives of the Study

- To evaluate the extent to which banks satisfy the financial needs of the economy.
- To analyze the relationship between deposits and loans in commercial banks.

The Research Methodology of the Study

- It was conducted a comparative analysis focusing on the investment activities of Nepal Bangladesh Bank Ltd. (NBBL) and two other joint venture banks in Nepal.
- The study analyzed five years of financial data using several methodologies, including liquidity, profitability, risk, and correlation ratios.
- Additionally, trend analysis was used to detect patterns and trends in investment activities.

The Major Findings of the Study

- It was found that commercial banks also offer long-term loans, not just short-term ones, indicating a broader scope for investment.
- It is found that the adjusting interest rates to make them more favorable for expanding the services of commercial banks across all sectors.
- The analysis provided insights into the financial performance and investment strategies of NBBL and other joint venture banks, helping to identify areas for improvement and optimization.

Recommendations of the Study

- Commercial banks should adopt a more liberal lending policy to cater to the diverse financial needs of the economy.
- Banks should explore opportunities for long-term lending to support sustainable development initiatives.
- There is a need to adjust interest rates to incentivize investment and promote economic growth across all sectors.
- Continuous monitoring and assessment of financial performance using appropriate tools and techniques are essential for informed decision-making and strategic planning.

Khadka (2016) conducted a study on *"A Study on the Investment Policy of Nepal Arab Bank Ltd. in Comparison with Other Joint Venture Banks in Nepal."*

The Specific Objectives of the Study

- To analyze the sources of deposits from different sectors.
- To assess the extent to which banks satisfy the financial needs of the economy.
- To examine the relationship between deposits and loans in commercial banks.

The Research Methodology of the Study

- It was conducted a comparative analysis of the investment policies of Nepal Arab Bank Ltd. (NABIL) with Nepal Grindlays Bank Limited (NGB) and Nepal Indosuez Bank Ltd.
- The study spanned a period of five years and focused on analyzing key financial indicators and investment strategies employed by the selected banks.

The Major Findings of the Study

- The study emphasized the importance for joint venture banks to prioritize genuine profit generation to uphold the confidence of shareholders, depositors, and customers.
- Khadka strongly recommended Nepal Arab Bank Ltd. (NABIL) to optimize the utilization of risk assets and shareholders' funds to maximize profit margins. This includes reducing expenses and securing cheaper funds for enhanced profitability.
- It was made for NABIL to diversify its investments across various sectors and introduce different deposit schemes, such as house building deposit schemes, to attract more customers and increase its market share.

Recommendations of the Study

- Joint venture banks should prioritize genuine profit generation to maintain stakeholder confidence.
- NABIL should optimize the utilization of risk assets and shareholders' funds to maximize profitability.

- It is recommended for NABIL to diversify its investments across various sectors and introduce innovative deposit schemes to attract more customers and enhance its competitive position in the market.

Bajagain (2017) conducted a study on *"A Study on Deposit and Investment Position of Yeti Finance Company Ltd."*

The Specific Objectives of the Study

- To analyze the trend of deposit position and investment position of Yeti Finance Company Ltd.
- To assess whether finance companies are meeting the financial needs of the economy.
- To examine the relationship between deposits and loans in the finance sector.

The Research Methodology of the Study

- There is analyzed the secondary data using several financial methods.
- The research focused on examining the deposit collection and utilization trends of Yeti Finance Company Ltd. over a period of five years.

The Major Findings of the Study

- Agriculture emerges as a crucial sector in the Nepalese economy, highlighting the importance of finance companies investing in this sector.
- The study emphasizes the necessity for finance companies to establish branches in remote areas to facilitate the provision of affordable financing services.
- The analysis investigates whether commercial banks have been successful in collecting deposits from various sectors, shedding light on their role in economic development.

The Recommendations of the Study

- Finance companies should prioritize investment in the agriculture sector to support the growth of the Nepalese economy.
- It is recommended that finance companies expand their reach by establishing branches in remote areas, aiming to provide accessible and affordable financial services to underserved communities.

- Further research is warranted to delve deeper into the effectiveness of deposit collection strategies employed by finance companies and their impact on economic development.

Katuwal (2018) did a study titled *"The mobilization of Deposits and Investing of EBL Bank Limited."*

The Specific Objectives of the Study

- Evaluate the correlation between EBL Bank's deposit interest rates and collection rates.
- Analyze how interest rates affect EBL Bank's loan credit.
- Analyze EBL Bank's deposit mobilization trends, including increases and decreases.

Research Methodology of the Study

- This study found that the deposit and investment activities of EBL Bank Limited over a specified period.
- The study employed quantitative analysis methods to assess the relationship between interest rates, deposit collection, and credit extension.
- Data from the bank's financial records and other relevant sources were utilized for the analysis.

The Major Findings of the Study

- EBL Bank's interest in saving deposits has consistently increased during the study period, indicating a positive trend.
- While the percentage changes in all deposits reflect an overall upward trend, there is considerable variation near the end of the study period.
- The bank's overall deposit growth ratio over 15 years is 13.48%, suggesting consistent growth in deposit collection. However, there is potential for improvement in terms of deposit collection rates.
- The total credit growth ratio is higher at 17%, indicating that the bank is well-positioned to boost total credit relative to deposit growth.

Recommendations of the Study

- EBL Bank should continue to focus on attracting saving deposits while also exploring strategies to stabilize and increase the percentage of total deposits.
- Efforts should be made to maintain a steady growth rate in deposit collection, potentially through promotional campaigns or incentives for depositors.
- The bank should leverage its strong position in extending credit by further expanding its loan portfolio and exploring opportunities for credit growth in sectors with high potential.

Sharma (2019) investigated the *"Gathering of Deposit & Investment of Nabil Bank Limited."*

The Specific Objectives of the Study

- Analyze deposit and investment trends at Nabil Bank Limited (NABIL) across the research period.
- Evaluate how interest rates affect NABIL's deposit collecting.
- Evaluate the correlation between NABIL deposits and investments.

The Research Methodology

- Sharma conducted the study by analyzing the deposit and investment activities of Nabil Bank Limited over the specified study period.
- The study employed quantitative analysis methods to assess deposit trends, interest rate impacts, and the relationship between deposits and investments.
- Data from NABIL's financial records and other relevant sources were utilized for the analysis.

The Major Findings of the Study

- The study reveals that while current deposits, saving deposits, and margin deposits show a fluctuating trend, call deposits and fixed deposits demonstrate an increasing trend over the study period.

- Portfolio diversification is recommended for NABIL to maintain equilibrium and optimize its investment portfolio. The bank should explore new, competitive, and high-yielding investment opportunities to achieve this.
- NABIL needs to focus on promoting and mobilizing funds from small depositors and entrepreneurs to diversify its investor base.
- NABIL's investment in overseas assets has not yielded expected outcomes.
- During the research period, total deposits grew by 24%, suggesting satisfactory deposit collection. However, the total credit growth ratio is 25%, indicating that collected deposits are being used effectively. Total investment has a lower growth ratio (22%), compared to total deposits and credits.

Recommendations of the Study

- NABIL should continue to monitor deposit and investment trends closely and adapt its strategies accordingly to optimize its portfolio.
- Emphasis should be placed on diversifying the investment portfolio to mitigate risks and maximize returns.
- Efforts should be made to attract and mobilize funds from small depositors and entrepreneurs to expand the bank's investor base.
- The bank should explore opportunities to enhance the effectiveness of its investment activities to achieve desired results.

K.C. (2020) conducted a study on *"Investment Policy of Commercial Bank of Nepal: A Comparative Study of Nabil Bank Limited (NABIL) with Nepal Arab Bank Limited (NABIL) and Bank of Kathmandu Limited (BOK)."*

The Specific Objectives of the Study

- To compare liquidity asset management, profitability, and investment policies of NABIL with BOKL.
- To analyze the relationship between NABIL's loans and advances, total investment, and other financial indicators, and compare to BOKL.

Research Methodology

- It was conducted a comparative study by analyzing the liquidity asset management, profitability position, and investment policies of NABIL, NABIL, and BOKL.
- The study employed quantitative analysis methods to evaluate the relationships between loans and advances, total investment, and other financial variables.
- Data from financial records and relevant sources were collected and analyzed to draw conclusions.

The Major Findings of the Study

- NABIL's increased idle cash and bank balance may reduce profits.
- Investing in shares and debentures promotes financial and economic development in the country.
- Commercial banks should diversify their capital by investing in various industries, such as shares and debentures of other financial and non-financial organizations.
- NABIL has invested a greater share of its funds, as seen by the total investment to total deposit ratio, than other commercial banks. However, the ratio of investment in shares and debentures is quite low.

Recommendations of the Study

- NABIL should consider strategies to optimize its idle cash and bank balance to improve profitability.
- Increasing investments in shares and debentures can lead to greater financial and economic development, and NABIL should explore opportunities in this area.
- Diversifying investment portfolios to include shares and debentures of other financial and non-financial companies can help mitigate risks and enhance returns.

2.3 Research Gap

The research gap identified in this study lies in the specificity and currency of the data and analysis conducted. While previous research has examined deposit mobilization across various commercial banks using older data, this study focuses specifically on SCBNL, NABIL, and NBL Bank Limited, using up-to-date information. By narrowing the scope to these three banks, the study aims to provide a comprehensive analysis of

deposit mobilization, exploring each aspect in detail. Unlike previous studies that covered a broader range of banks, this research fills the gap by delving deeper into the deposit mobilization practices of these selected banks individually. Furthermore, the study recognizes that the banking landscape is dynamic, with changes occurring over time. By using new data and focusing on specific banks, this research ensures that the analysis reflects the current scenario. This targeted approach allows for a more accurate assessment of deposit mobilization strategies and performance. Additionally, the study highlights that previous research has not specifically addressed the deposit mobilization of SCBNL, NABIL, and NBL as separate entities. Therefore, this study contributes by providing a dedicated analysis of these banks, offering insights that were previously lacking in the literature. Overall, this research serves to bridge the gap in existing literature by offering a focused and timely analysis of deposit mobilization practices in the selected banks. It aims to provide valuable insights for policymakers, practitioners, and researchers, serving as a reference for future studies in this area.

CHAPTER–III

RESEARCH METHODOLOGY

3.1 Research Design

This study examines and evaluates the budget process in the performance assessment programs of SCBNL, NABIL, and NBL. Various functional budgets, as well as other associated accounting information and bank statements, are used to analyze and evaluate the bank's performance measurement systems. This study used both descriptive and analytical methodologies. This is a comparative analysis of commercial banks.

3.2 Population and Sample

The purpose of this study is to investigate the performance assessment aspect of commercial banks using SCBNL, NABIL, and NBL as examples, financial data from five fiscal years of operation were analyzed. Although all 20 commercial banks are included in the study, SCBNL, NABIL, and NBL were chosen as samples for the current study.

3.3 Data Collection Procedures and Sources of Data

This study is primarily based on secondary data. Secondary data were acquired from the banks' published annual accounting and financial statements. Similarly, other relevant data were gathered from websites, newspapers, and associated publications.

3.4 Research Variables

This study's research variables include bank loans/advances, overdrafts, and bills discounted (LDO), client deposits, total resources, total deployment, interest expenses, other expenses, interest revenue, other income, and so on.

3.5 Analysis of Data

The majority of this study was based on secondary data analysis. As a result, the data were collected correctly, maintained, evaluated, and displayed in appropriate tables, formats, diagrams, graphs, and charts. Such presentations were interpreted and explained as necessary. The supplied data was analyzed using financial, mathematical, and

statistical methods such as ratio, percentage, regression, correlation, mean, standard deviation, coefficient of variance, percentile increment, and so on.

3.6 Statistical tools

To get a conclusion after evaluating the acquired data, simple statistical tools such as arithmetic mean, multiple bar diagram, pie chart, and tabulation were used to display the comparison results.

3.6.1 Coefficient of correlation(R)

Correlation analysis is a statistical technique that describes the degree to which one variable is linearly related to another. The coefficient of correlation indicates the direction of the association between two sets of figures. It represents the square root of the coefficient of determination. Correlations can be negative or positive. It always ranges from +1 to -1. The correlation coefficient (R) defines the degree of relationship between two variables, such as X and Y.

$$R = \frac{\sum xy}{\sqrt{x^2}\sqrt{y^2}}$$

Where,

$X = X - \overline{X}$ and $Y = Y - \overline{Y}$

3.6.2 Regression analysis

Regression is a statistical tool that determines the statistical relationship between two (or more) variables and estimates (or predicts) one variable based on the other(s). In other words, regression is a statistical method that estimates the unknown value of one variable using the known value of another variable.

3.6.3 Standard Deviation (σ)

The standard deviation is an absolute measurement of dispersion. It is defined as the positive square root of the mean of the square of the departure from the arithmetic average. A low standard deviation indicates a high degree of observational regularity and series homogeneity, whereas a high standard deviation indicates the reverse.

3.6.4 Coefficient of Variation (C.V.)

The coefficient of variation is a relative measure of dispersion calculated using the standard deviation. It is independent of the unit. As a result, two distributions can be bitterly contrasted in terms of variability using C.V. Less C.V. equals more uniformity, consistency, stability, and homogeneity, and vice versa.

Accounting tools

In financial analysis, ratios serve as a standard for assessing a company's financial status and performance. Several ratios produced from accounting data can be classified into several categories based on the financial activity and function to be examined. The following accounting tools were utilized. Analysis is the process of determining an organization's financial strengths and weaknesses by appropriately establishing links between balance-sheet items and profit and loss accounts. Ratio analysis is a valuable technique for financial analysis. A ration is defined as "the indicated quotient of two mathematical expressions" and "the relationship between two or more things".

- Liquidity ratio
- Profitability ratio
- Risk ratio
- Growth ratio

CHAPTER-IV

PRESENTATION AND ANALYSIS OF DATA

4.1 Performance Ability Ratio

Performance ability ratios are beneficial for measuring a firm's operational efficiency in terms of performance. Performance is an indicator of a firm's financial performance. Commercial banks acquire Performance by offering several types. A higher Performance ability ratio indicates that management is more efficient. The following performance ability ratios are relevant to the study under this category.

4.1.1 Return on Loan and Advances Ratio

The return on loan and advances ratio assesses a bank's earning capacity based on the total deposits it has mobilized for loans and advances. Loans, cash credit, and overdrafts were the most common types of advances, as were purchased and discounted bills. In other words, the return on loan and advances ratio reveals how efficiently the bank's resources were used in the loan and advances business.

Table: 4.1

Return on Loan & Advances Ratio

Year	SCBNL	NABIL	NBL
2010/011	2.31	3.78	0.28
2011/012	2.70	3.45	0.12
2012/013	2.45	3.50	0.11
2013/014	2.13	3.30	0.14
2014/015	2.14	3.45	0.21
2015/016	2.16	3.65	0.20
2017/018	1.92	5.37	1.81
2018/019	2.44	5.56	2.26
2019/020	2.24	4.90	2.36
2020/021	2.42	4.92	2.79
Mean	2.25	4.70	1.83
S.D	0.1765	0.7353	0.8274
C.V.	7.85	15.66	45.13

(Source: Appendix: 1)

The Table 4.1 presents the Return on Loan & Advances Ratio for three banks (SCBNL, NABIL and NBL) over a span of ten years, from 2010/011 to 2020/021. The Return on

Loan and Advances Ratio indicates the profitability of a bank's loan portfolio, measuring how efficiently the bank is earning returns from its loans and advances. The values in the table represent the Return on Loan & Advances Ratio for each bank in the respective fiscal years. For example, in 2010/011, SCBNL had a Return on Loan and Advances Ratio of 2.31, NABIL had a ratio of 3.78, and NBL had a ratio of 0.28. The Return on Loan & Advances Ratio varies across the years for each bank. There are fluctuations in the ratios over the years, indicating changes in the profitability of their loan portfolios. NABIL bank consistently maintains higher Return on Loan and Advances Ratios compared to SCBNL and NBL throughout the period. SCBNL and NBL show similar trends but with variations in their ratios. The mean Return on Loan & Advances Ratio provides an average measure of profitability for each bank over the period. The standard deviation and coefficient of variation help assess the variability and relative dispersion of the ratios across the years for each bank. NBL exhibits the highest variability in returns, as evidenced by its higher coefficient of variation. A higher Return on Loan & Advances Ratio indicates better profitability and efficiency in managing loan portfolios. Banks with consistently high ratios may be considered more successful in generating returns from their lending activities. Overall, analyzing the Return on Loan & Advances Ratio for each bank over time provides valuable insights into their performance and profitability in the lending business.

4.1.2 Return on Total Working Fund Ratio

This ratio assesses Performance earning capacity by leveraging available resources (total assets). The bank must produce a good return on assets or working funds that are carefully managed and efficiently utilized; optimizing taxes within the legal alternatives available will also improve or increase the return. Net Performance is the performance that remains for internal equities after all charges and expenditures have been incurred. The table illustrates the return on assets for SCBNL, NABIL, and NBL.

Table: 4.2

Return on Total Working Fund Ratio

Fiscal Year	SCBNL	NABIL	NBL
2010/011	1.10	1.10	1.26
2011/012	1.24	1.47	1.25
2012/013	1.35	1.21	1.20
2013/014	1.32	1.30	1.12
2014/015	1.20	1.44	1.15
2015/016	1.29	1.55	1.12
2017/018	1.17	2.51	0.15
2018/019	1.49	2.72	1.10
2019/020	1.45	3.02	1.42
2020/021	1.49	2.85	1.65
Mean	1.37	2.38	1.12
S.D	0.1172	0.5773	0.4771
C.V.	8.55	24.24	42.66

(Source: Appendix1)

The table 4.2 displays the Return on Total Working Fund Ratio for three banks (SCBNL, NABIL and NBL) over a period of ten fiscal years, from 2010/011 to 2020/021. Here's how we can interpret the data with respect to each sampled company. This ratio assesses the profitability of a bank's total working funds, indicating how effectively the bank is generating returns from its overall operational funds. SCBNL's Return on Total Working Fund Ratio ranges from 1.10 to 1.49 over the period. The mean Return on Total Working Fund Ratio for SCBNL is 1.37. The standard deviation (S.D.) for SCBNL is 0.1172, indicating relatively low variability in its ratios. The coefficient of variation (C.V.) for SCBNL is 8.55, suggesting moderate dispersion relative to its mean ratio.

NABIL's Return on Total Working Fund Ratio varies from 1.10 to 3.02 across the years. The mean Return on Total Working Fund Ratio for NABIL is 2.38. NABIL exhibits higher variability in its ratios, with a standard deviation (S.D.) of 0.5773. The coefficient of variation (C.V.) for NABIL is 24.24, indicating significant dispersion relative to its mean ratio.

NBL's Return on Total Working Fund Ratio ranges from 0.15 to 1.65 over the period. The mean Return on Total Working Fund Ratio for NBL is 1.12. NBL demonstrates the highest variability among the sampled banks, with a standard deviation (S.D.) of 0.4771.

The coefficient of variation (C.V.) for NBL is 42.66, indicating considerable dispersion relative to its mean ratio.

Banks with higher return on total working fund ratios generally indicate better profitability and efficiency in utilizing their operational funds. Variability in the ratios, as indicated by standard deviation and coefficient of variation, reflects the stability and consistency of returns generated by each bank over the years. Overall, analyzing the Return on Total Working Fund Ratio provides insights into the profitability and efficiency of each sampled bank in managing their overall operational funds during the specified period.

4.1.3 Total Interest Earned to Total outside Assets Ratio

It assesses a bank's ability to produce income by maximizing the use of all outside assets. A higher ratio shows that a commercial bank makes greater use of its outside assets. Total outside assets comprise loans and advances, investments in government securities, stock and debentures, and other sorts of investments. The table below shows the total interest earned to total outside assets ratios of SCBNL, NABIL, and NBL.

Table: 4.3

Total Interest Earned to Total outside Assets Ratio

Fiscal Year	SCBNL	NABIL	NBL
2010/011	7.10	7.25	8.70
2011/012	7.30	7.19	8.60
2012/013	7.48	7.10	8.47
2013/014	7.14	7.13	8.55
2014/015	7.45	7.12	8.45
2015/016	7.87	7.17	8.96
2017/018	7.93	7.38	7.81
2018/019	7.81	7.14	6.98
2019/020	7.38	7.20	7.13
2020/021	6.45	6.86	6.75
Mean	7.88	7.33	7.98
S.D	1.0152	0.4235	1.2441
C.V.	12.88	5.78	15.60

(Source: Appendix:1)

The table 4.3 presents the Total Interest Earned to Total outside Assets Ratio for three banks (SCBNL, NABIL and NBL) over a period of ten fiscal years, from 2010/011 to 2020/021. This ratio assesses how efficiently a bank is earning interest income from its total outside assets. SCBNL's Total Interest Earned to Total outside Assets Ratio ranges from 6.45 to 7.93 over the period. The mean ratio for SCBNL is 7.88 and the standard deviation (S.D.) for SCBNL is 1.0152, indicating moderate variability in its ratios. The coefficient of variation (C.V.) for SCBNL is 12.88, suggesting a relatively high dispersion relative to its mean ratio.

NABIL's Total Interest Earned to Total outside Assets Ratio ranges from 6.86 to 7.38 across the years. The mean ratio for NABIL is 7.33. NABIL exhibits lower variability in its ratios compared to SCBNL, with a standard deviation (S.D.) of 0.4235. The coefficient of variation (C.V.) for NABIL is 5.78, indicating relatively low dispersion relative to its mean ratio.

NBL's Total Interest Earned to Total outside Assets Ratio varies from 6.75 to 8.96 over the period. The mean ratio for NBL is 7.98. NBL demonstrates the highest variability among the sampled banks, with a standard deviation (S.D.) of 1.2441. The coefficient of variation (C.V.) for NBL is 15.60, indicating considerable dispersion relative to its mean ratio.

Higher Total Interest Earned to Total outside Assets Ratios suggests better efficiency in generating interest income from external assets. Variability in the ratios, as indicated by standard deviation and coefficient of variation, reflects the stability and consistency of interest income generation for each bank over the years. Overall, analyzing the Total Interest Earned to Total outside Assets Ratio provides insights into the efficiency of each sampled bank in earning interest income from its external assets during the specified period.

4.1.4 Total Interest Earned to Total Working Fund Ratio

This ratio is used to determine the percentage of interest earned compared to total assets. It represents the extent to which banks are successful in mobilizing their overall assets in order to earn higher interest. A higher ratio suggested that the bank's total operating

money had greater earning ability. The table below compares the interest earned to the total working fund ratios of SCBNL, NABIL, and NBL.

Table: 4.4

Total Interest Earned to Total Working Fund Ratio

Fiscal Year	SCBNL	NABIL	NBL
2010/011	6.01	6.12	7.14
2011/012	6.12	6.40	7.30
2012/013	6.14	6.48	7.12
2013/014	6.45	6.10	7.25
2014/015	6.70	6.12	7.12
2015/016	6.71	6.39	7.45
2017/018	6.46	6.15	6.67
2018/019	6.84	5.98	5.97
2019/020	6.10	6.22	6.16
2020/021	5.66	5.87	5.85
Mean	6.53	6.29	6.60
S.D.	0.5526	0.4108	0.6696
C.V.	8.46	6.53	10.15

(Source: Appendix: 1)

The table demonstrates that the ratio of SCBNL is declining, while the ratio of NABIL has a distinct tendency (6.39% > 6.15% > 5.98% < 6.22% > 5.87%). The NBL's maximum ratio was 7.45% in FY 2014/015 and its lowest ratio was 5.85% in FY 2020/021. In contrast, the mean value of SCBNL is higher than that of the other two banks. It has a mean of 6.53, which is greater than NABIL (6.29), but lower than NBL (6.60). Similarly, the coefficient of variation for SCBNL is 8.46%, which is higher than NABIL but lower than NBL. After examination, it can be determined that SCBNL's total interest earned on its total working capital is satisfactory when compared to other banks. It implies that the total interest earned to total working funds ratio remains steady. NABIL has a larger coefficient of variation than the other two banks. That means it is not successful in earning interest revenue because a high ratio indicates a bank's high earning power on its total working capital, and vice versa.

4.1.5 Total Interest Paid to Total Working Ratio

This ratio is used to determine the proportion of interest paid to the total working capital. A larger ratio meant higher interest expenses on the total working capital, and vice versa.

The table below shows the mean, standard deviation, and cumulative value of total interest paid to total working fund ratio.

Table: 4.5

Total Interest Paid to Total Working Fund Ratio

Fiscal Year	SCBNL	NABIL	NBL
2011/012	3.45	1.28	3.45
2012/013	3.60	1.30	3.78
2013/014	3.50	1.25	3.78
2014/015	3.77	2.62	3.47
2015/016	3.88	2.64	4.48
2017/018	3.82	1.92	3.72
2018/019	3.29	1.69	3.10
2019/020	2.54	1.42	2.45
2020/021	2.52	1.60	2.51
Mean	3.43	2.09	3.53
S.D.	0.73333	0.6488	0.9666
C.V.	21.37	31.09	27.38

(Source: Appendix: 1)

The accompanying table demonstrates that the total interest paid to working fund ratios of all banks are dropping over the research period. SCBNL has a varied trend ranging from 4.54% to 2.52% between FY 2010/011 and 2020/021. NABIL and NBL likewise show a fluctuating trend, ranging from 3.25% to 1.60% and 5.01% to 2.51%, respectively. When compared to other mean values, SCBNL falls between NABIL and NBL, with a mean of 3.43, which is higher than 2.09 and lower than 3.53. This suggests that SCBNL has paid average interest. Similarly, the coefficient of variance is lower between the two banks, indicating that the total interest and total working fund ratio is discordant with that of NABIL and NBL. After examination, it is possible to conclude that SCBNL is in a better situation in terms of interest payments. It appears to be successful in collecting its working capital from less expensive sources than others.

4.2 Risk Ratio

Risk-taking is the primary activity of bank investment management, which improves the bank's effectiveness and performance. To generate a return on investment, the bank must take on risk. Increased performance compensates for the risk taken. As a result, if a bank wants a higher return on investment, it must take on more risk. These ratios have been

used to assess the level of risk inherent in the SCBNL when compared to the NABIL and NBL.

4.2.1 Credit Risk Ratio

The bank used its acquired funds to provide credit to various sectors while also investing. It is critical for a bank to assess the credit risk of the project. This ratio represents the proportion of nonperforming assets in the bank's total loans and advances. Due to the lack of relevant data, the ratio is calculated using loan and advances to total assets.

Table: 4.6

Credit Risk Ratio

Fiscal Year	SCBNL	NABIL	NBL
2010/011	67.14	54.40	65.14
2011/012	65.14	55.12	68.45
2012/013	62.14	58.12	70.55
2013/014	62.18	57.14	72.14
2014/015	63.01	56.47	73.15
2015/016	62.09	55.87	74.51
2017/018	62.63	55.93	62.88
2018/019	62.60	57.50	60.30
2019/020	73.60	70.71	63.51
2020/021	61.50	56.96	63.13
Mean	63.66	59.29	65.04
S.D.	4.5691	5.2014	4.5383
C.V.	7.18	8.77	6.98

(Source: Appendix: 1)

The table above illustrates the credit risk ratios of SCBNL, NABIL, and NBL. SCBNL's credit risk ratio fluctuated during the research period, with a high of 73.60% in FY 2017/018 and a low of 59.52% in FY 2014/015. Similarly, NABIL's credit risk ratio is increasing; it has maintained a maximum ratio of 70.71%, while NBL's credit risk ratio is dropping, going from 74.51%, 62.88%, and 60.30% to 63.51% and 63.13%. The mean of

SCBNL is between NABIL and NBL, implying that SCBNL has average credit in relation to both banks. The coefficient of variance for SCBNL is 7.18%. NABIL has 8.77%, while NBL has 6.98%. NBL has the lowest C.V of the three banks, indicating that its credit policy is more consistent than the other two.

4.2.2 Liquidity Risk Ratio

The bank's liquidity risk determines its liquidity need for deposits. A higher liquidity level suggests a lower risk and performance of the bank, and vice versa. The cash and bank balance ratio to total deposits is an indicator of the bank's liquidity needs. Cash and bank balances are liquid assets that are used as bank liquidity sources, while deposits are used to meet liquidity needs.

Table: 4.7

Liquidity Risk Ratio

Fiscal Year	SCBNL	NABIL	NBL
2010/011	13.39	6.30	9.69
2011/012	13.45	6.14	9.72
2012/013	14.66	6.60	9.76
2013/014	14.12	6.45	9.88
2014/015	12.01	6.75	10.12
2015/016	11.03	6.78	11.95
2017/018	17.02	8.51	11.23
2018/019	7.84	6.87	10.11
2019/020	10.39	3.83	8.28
2020/021	11.25	3.26	6.95
Mean	12.63	5.73	11.37
S.D.	3.7256	1.8349	4.0842
C.V.	29.50	32.02	35.93

(Source: Appendix: 1)

The above table displays the percentage of liquidity risk ratios for SCBNL, NABIL, and NBL. This table shows that SCBNL's liquidity risk ratio fluctuates, with a maximum of 18.25% in FY 2014/015 and a minimum of 7.84% in FY 2016/017. Similarly, the NABIL and NBL liquidity risk ratios are dropping. Both banks' minimum ratios for FY 2020/021 are 3.26% and 6.95, respectively. When comparing the mean of three banks, NABIL is between SCBNL and NBL, with 12.63 > 5.73 < 11.37, indicating that SCBNL's liquidity

risk is average in comparison to other banks. The coefficients of variance for the three banks are 29.50%, 32.02%, and 35.93% correspondingly. In compared to them, SCBNL has a lower C.V., indicating that its liquidity risk ratio is consistent. The C.V ratio of SCBNL is slightly lower than that of NBL, with 29.50% < 32.02%.

4.2.3 Capital Risk Ratio

The capital risk ratio illustrates how much a bank's asset value may decrease before its position with other creditors is compromised. So, a bank must keep appropriate capital in relation to the kind and condition of its assets, depositors, obligations, and other corporate responsibilities. This ratio evaluates the bank's capacity to attract deposits and interbank funds. It also sets the level of performance. A bank can profit if it chooses to take on significant capital risk.

Table: 4.8

Capital Risk Ratio

Fiscal Year	SCBNL	NABIL	NBL
2010/011	15.01	8.90	7.12
2011/012	15.15	7.10	8.14
2012/013	14.20	7.12	9.90
2013/014	12.14	5.44	9.12
2014/015	13.14	5.66	9.10
2015/016	13.73	4.99	10.25
2017/018	10.74	11.78	10.60
2018/019	9.82	12.48	10.32
2019/020	8.37	11.68	10.41
2020/021	6.82	9.76	9.50
Mean	10.02	11.07	9.80
S.D	2.1470	3.2495	1.0022
C.V.	21.43	29.35	10.23

(Source: Appendix:1)

The above table shows that SCBNL's capital risk ratio decreased from 13.73% to 6.82% between FY 2014/015 and 2020/021 throughout the study period. SCBNL's maximum ratio is 13.73%, with a minimum ratio of 6.82%. Similarly, NABIL and NBL have followed a fluctuating trajectory. They had a maximum ratio of 15.74 and 10.60% in fiscal years 2010/011 and 2017/018, respectively. SCBNL's average capital risk ratio is comparable to the other two banks. SCBNL has a coefficient of variance of 21.43%,

which is greater than NBL's C.V but lower than NABIL (21.43% < 29.35% > 10.23%). NBL has the lowest capital value of the three banks. As a result, SCBNL is more stable and heterogeneous than NABIL, but less stable and heterogeneous than NBL since it maintains a lower C.V across the three banks.

4.3 Growth Ratio

It reflects how successfully commercial banks with particular growth ratios maintain their economic and financial position. These growth ratios are evaluated and interpreted in relation to a bank's money mobilization and investment management. This topic covers four types of growth ratios, and this section calculates the growth ratios for total deposit, total investment, loan and advances, and net performance.

4.3.1 Growth ratio of total deposit

Table: 4.9

Growth Ratio of Total Deposit

Fiscal Year	SCBNL	NABIL	NBL
2010/011	5288.20	1866.45	5544.66
2011/012	5255.18	1888.20	4878.45
2012/013	5688.11	16557.50	5045.22
2013/014	5655.44	14556.30	5545.21
2014/015	5544.55	15545.20	5622.20
2015/016	5466.60	15506.40	5723.29
2017/018	6694.96	13447.70	6170.71
2018/019	8063.90	14119.03	7741.65
2019/020	10097.69	14586.60	8942.75
2020/021	13802.44	19347.40	10485.00
Growth Rate (%)	24.72	4.08	12.91

(Source: Appendix: II)

Table 4.9 compares the growth ratios of SCBNL deposits to those of NABIL and NBL. SCBNL maintains a ratio of 24.72%, whereas NABIL and NBL have ratios of 4.08% and 12.91%, respectively. This signifies that SCBNL has performed better than other banks in

terms of deposit collections. NABIL and NBL are improving year after year. NABIL has the lowest growth ratio of the three banks, at 4.08%.

4.3.2 Growth ratio of loan and advances

According to comparative table 4.10, SCBNL loan and advances have a greater growth ratio than other banks. SCBNL was able to maintain a 26.67% rate, whereas NABIL and NBL were able to maintain 10.82% and 11.96%, respectively. SCBNL outperforms other banks, such as NABIL and NBL, in terms of loan and advances granted. The highest growth ratio is 26.67%, while the lowest growth ratio is 10.82%. The above table clearly shows this. SCBNL performs better than other banks year after year.

Table: 4.10

Growth Ratio of Loan and Advances

Fiscal Year	**SCBNL**	**NABIL**	**NBL**
2010/011	5755.12	6622.40	5744.91
2011/012	5647.55	6647.45	5588.33
2012/013	4588.77	5587.30	5045.12
2013/014	4045.66	6677.45	4847.20
2014/015	4033.12	7744.88	4521.20
2015/016	4044.23	7437.89	4613.61
2017/018	5049.58	7755.95	4542.70
2018/019	6095.84	8189.99	5646.69
2019/020	7900.00	10586.17	5656.69
2020/021	9801.31	12922.50	7259.08
Growth Rate (%)	26.67	10.82	11.96

(Source: Appendix: II)

According to comparative table 4.10, SCBNL loan and advances have a greater growth ratio than other banks. SCBNL was able to maintain a 26.67% rate, whereas NABIL and NBL were able to maintain 10.82% and 11.96%, respectively. SCBNL outperforms other banks, such as NABIL and NBL, in terms of loan and advances granted. The highest

growth ratio is 26.67%, while the lowest growth ratio is 10.82%. The above table clearly shows this. SCBNL performs better than other banks year after year.

4.3.3 Growth ratio of total Investment

Table: 4.11

Growth Ratio of Total Investment

Fiscal Year	SCBNL	NABIL	NBL
2010/011	2021.45	5872.10	1240.20
2011/012	1877.45	6648.46	1141.20
2012/013	1755.20	7755.58	879.88
2013/014	1945.66	8871.32	678.98
2014/015	188.12	7755.45	678.14
2015/016	1779.17	8199.51	667.46
2017/018	1654.00	6031.17	1816.15
2018/019	2535.70	5835.95	2477.40
2019/020	2128.90	4267.23	2598.25
2020/021	4200.52	6178.53	3378.13
Growth Rate (%)	36.03	4.31	51.74

(Source: Appendix: II)

Table 4.11 compares SCBNL's total investment growth ratio to that of NBL and NABIL, with 36.03 > 4.31 < 51.74%. SCBNL's total investment ranks average when compared to NABIL and NBL.

4.3.4 Growth ratio of total net Performance

According to comparison table 4.12, NBL's overall net performance has a greater growth ratio than two other banks. (NABIL and SCBNL) NABIL's net performance is weak when compared to SCBNL and NBL. SCBNL has managed to keep its growth ratio in the ordinary range. So it is apparent that NBL has a higher growth rate than other banks.

Table: 4.12

Growth Ratio of Total Net Performance

Fiscal Year	SCBNL	NABIL	NBL
2010/011	108.79	14.88	16.12
2011/012	106.12	9.14	15.20
2012/013	105.14	10.78	11.45
2013/014	95.45	9.45	10.48
2014/015	86.12	8.12	8.20
2015/016	85.33	9.28	9.28
2017/018	94.17	82.13	82.13
2018/019	143.57	127.48	127.48
2019/020	170.80	139.52	139.52
2020/021	237.38	635.30	163.44
Growth Rate (%)	22.77	16.87	25.37

(Source: Appendix II)

Based on the aforementioned examination of all tables, it can be stated that SCBNL's performance in terms of deposit collection, loan and advances on total investment, and net performance is comparatively better.

4.4 Statistical Tools

4.4.1 Trend Analysis of Total Deposit

Under this issue, attempts have been made to compute the trend values of SCBNL, NABIL, and NBL deposits for the five years from mid-July 2016/017 to 2020/021, as well as forecast for the next five years from 2021/022 to 2025/026.

Table: 4.13

Trend Value of Total Deposit of SCBNL, NABIL and NBL

(Rs. In Million)

Fiscal Year	Trend value of SCBNL	Trend value of NABIL	Trend value of NBL
2016/017	5219.26	12624.4	5361.14
2017/018	8116.68	15474.4	7462.82
2018/019	11014.1	18324.4	9564.49
2019/020	13911.5	21174.4	11666.2
2020/021	16808.9	24024.4	13767.8
2021/022	19706.4	26874.4	15869.5
2022/023	22603.8	29724.4	17971.2
2023/024	25501.2	32574.4	20072.9
2024/025	28398.6	35424.4	22174.6
2025/026	31296.0	38274.4	24276.2

(Source: Appendix, III)

Table 4.13 displays the trend value of total deposits at three banks from 2014/015 to 2022/023. The total deposits of SCBNL, NABIL, and NBL have been rising. If all other conditions remain constant, the NABIL's total deposits will be the greatest among the three banks during the research period. The total deposit of the NBL will be 24276.20 million by mid-July 2024/025. The total deposit of NABIL will be 38274.40 million by mid-July 2024/025. The total deposit for SCBNL will be 31296.0. Analyzing the above trend value reveals that NABIL's total deposit position collecting is superior to that of NBL. Deposit positions at NABIL, SCBNL, and NBL are all expanding in the same proportion.

4.4.2 Trend Analysis of Loan and Advances

The trend values of SCBNL, NABIL, and NBL loans and advances were calculated for a five-year period from mid-July 2016/017 to 2020/021. The prediction for the following five years, up to 2025/026 has been completed. Table 4.14 shows that the trend value of the three banks' loans and advances has been increasing. If all factors stay constant,

SCBNL's total loan and advances will be 22941.30 million by 2025/026. Similarly, the total loan and advances for NBL will be 16458.20 million. The total loan and advances of NABIL will be 28147.10, the highest during the study period.

Table: 4.14

Trend Values of Loan and Advances of SCBNL, NABIL and NBL

(Rs. In Million)

Fiscal Year	Trend value of SCBNL	Trend value of NABIL	Trend value of NBL
2016/017	3726.11	6723.84	3961.79
2017/018	5861.13	9104.2	5350.29
2018/019	7996.15	11484.6	6738.78
2019/020	10131.2	13864.9	8127.27
2020/021	12266.2	16245.3	9515.77
2021/022	14401.2	18625.6	10904.3
2022/023	16536.2	21006	12292.8
2023/024	18671.3	23386.3	13681.2
2024/025	20806.3	25766.7	15069.7
2025/026	22941.3	28147.1	16458.2

(Source: Appendix III)

SCBNL's loan and advances position is lower than NABIL and better than NBL, with 22941.30 > 16458.20 < 28147.10 million, respectively. SCBNL and NBL may apply the competence to the second choice of secured loans, which is highly commendable. NABIL prefers secured loans since they carry less risk due to their clients' adequate collateral.

4.4.3 Trend Analysis of Total Investment

In this topic, an effort has been made to compute the trend values of total investment from mid-July 2016/017 to 2020/021, with a prediction starting in July 2025/026. Table 4.15 illustrates the trend values of total investment by SCBNL, NABIL, and NBL from mid-2021/022 to 2025/026.

Table: 4.15

Trend Values of Total Investment of SCBNL, NABIL and NBL

(Rs. In Million)

Fiscal Year	Trend value of SCBNL	Trend value of NABIL	Trend value of NBL
2016/017	1348.87	5880.09	1034.91
2017/018	2185.64	6369.45	1892.87
2018/019	3022.41	6858.81	2750.83
2019/020	3859.18	7348.18	3608.78
2020/021	4695.95	7837.54	4466.74
2021/022	5532.71	8326.9	5324.7
2022/023	6369.48	8816.26	6182.66
2023/024	7206.25	9305.62	7040.61
2024/025	8043.02	9794.98	7898.57
2025/026	8879.79	10284.3	8756.53

(Source: Appendix III)

The total investments of SCBNL, NABIL, and NBL are expanding in value. In mid-July 2025/026, NBL's total investment will be 8756.53 million, which is lower than SCBNL and NABIL's investments of 8879.79 million and 10284.30 million, respectively. The overall investment pattern of NABIL is satisfactory between the two banks. According to the preceding research, NBL has not maintained adequate investment, whereas SCBNL and NABIL are expected to have a positive overall investment trend until 2025/026.

4.4.4 Trend Analysis of Net Performance

Under this topic, an effort was made to examine the net performance of SCBNL, NABIL, and NBL from mid-July 2016/017 to 2020/021, with a prognosis from 2021/022 to 2025/026. Table 4.25 displays the trend values of SCBNL, NABIL, and NBL's net performance during the last 10 years, from mid-July 2016/017 to 2025/026, respectively.

Table: 4.16

Trend Value Net Performance of SCBNL, NABIL and NBL

(Rs. In Million)

Fiscal Year	Trend value of SCBNL	Trend value of NABIL	Trend value of NBL
2016/017	82.31	297.52	58.38
2017/018	133.5	431.42	104.37
2018/019	184.68	565.32	150.36
2019/020	235.87	699.22	196.35
2020/021	287.06	833.12	242.34
2021/022	338.25	967.02	288.33
2022/023	389.43	1100.92	334.33
2023/024	440.62	1234.82	380.32
2024/025	491.81	1368.71	426.31
2025/026	543.0	1502.61	472.3

(Source: Appendix III)

Table 4.17 reveals that all three banks' net performance values are increasing. SCBNL's net performance will be 543 million in mid-July 2025/026. Similarly, NABIL's net performance will be the greatest of the three banks, at 1502.61 million. NBL's net performance will be 472.30 million, the lowest figure among the three banks during the research period. According to this trend study, SCBNL's net performance is in the median range among banks, with 1502.61>543>472.30 million in 2022/023. The estimated trend values for all three banks are fitted into the trend line.

4.4.5 Coefficient of Correlation Analysis

Under this topic, the Karl Pearson coefficient of correlation (Direct Method) is employed to determine the relationship between deposits, loans, and advances. Deposits, total investments, outside assets, net performance, and so on.

4.4.6 Client of Correlation between outside Asset and Net Performance

It assesses the degree of association between two variables. Outside assets (x) are independent variables, while net Performance is the dependent variable (y). The goal of

calculating the coefficient of correlation between outside assets and net performance is to determine whether net performance is strongly connected with total assets or not. Table 4.26 displays the values of 'r', r2, P.Er, and 6P.Er between outside assets and net performance for SCBNL, NABIL, and NBL.

Table: 4.17

Coefficient of Correlation between outside Asset and Net Performance

Banks	**Evaluation criterions**			
	R	**r2**	**P.Er**	**6P.Er**
SCBNL	0.991132	0.98234334	0.004862	0.029172
NABIL	0.703899	0.4954735	0.138928	0.833569
NBL	0.931841	0.868326862	0.036258	0.217548

(Source: Appendix IV)

Table 4.17 shows the r, r2, P.Er, 6P.Er values between deposits and loans and advances of SCBNL compared to NABIL and NBL during the study period 2014/015 to 2020/021. From this table, it is noticed that the correlation coefficient between the total external variable i.e. independent variable and the dependent variable of net performance is 0.991132 in case of SCBNL. It shows a positive relationship between these variables. Considering the value of the coefficient of determination (r2), i.e. 0.98234334, this shows that 98.23% of the variation of the dependent variable is explained by the independent variable. Similarly, considering the value of r is greater than the value of 6P.Er, this shows that SCBNL can gain net profit by mobilizing total external assets. Similarly, the correlation coefficient between total external assets and net performance in case of NABIL and NBL is 0.703899 and 0.931841. Again, when we consider the value that determines the coefficient (r2), i.e. 0.4954735 and 0.868326862, it means that 49.54% and 86.83% respectively in the dependent variable are explained by independent variable. Based on the comparison between the value of "r" and 6P.Er, there is no significant correlation between the two variables because the value of "r" i.e. 0.703899 and 0.931841, is lower than the value of 6P. Er, that is. 0.833569 and 0.217548. The above analysis makes this clear; "r" value in case of SCBNL is the significant correlation between fundraising and performance. However, in the case of NABIL and NBL, the 'r'

value is much lower than that of 6P.Er so both banks do not have a significant correlation between capital mobilization and profitability.

Coefficient of Correlation between Deposit and Net Performance

The coefficient of correlation between deposit and net performance quantifies the strength of the association between these two variables. Deposit (X) is an independent variable, whereas net Performance (Y) is the dependent variable. The goal of computing between these two variables is to see whether net Performance is strongly connected with deposits or not. Table 4.18 displays the values of 'r', r2, P.Er, and 6P.Er between deposit and net performance at SCBNL, NABIL, and NBL for the specified period.

Table: 4.18

Coefficient of Correlation between Deposit and Net Performance

Banks	**Evaluation criterions**			
	R	**r2**	**P.Er**	**6P.Er**
SCBNL	0.992623	0.985300	0.004048	0.024286
NABIL	0.453762	0.2058996	0.218666	1.311997
NBL	0.941281	0.886009909	0.031389	0.188332

(Source: Appendix, IV)

The correlation coefficient between deposits and net performance in case of NABIL is 0.453762, indicating a positive relationship between deposits and net performance. The value of (r2) is 0.2058996, indicating that 20.58% of the variation in the dependent variable was explained by the independent variables. The value of "r" is greater than the value of 6P.Er. This indicates that there is a significant relationship between these variables. Similarly, for NBL, the correlation coefficient between these variables is 0.941281, indicating a positive relationship. The value of 6P is less than the value of r. 0.188332 < 0 >0.88600 > 0.2058996. The improvement in net performance in case of NABIL is due to effective mobilization of deposits and other factors do not play much role in improving net performance. NABIL has not been as successful as SCBNL in mobilizing deposits. From Table 4.18, the correlation coefficient between total deposits and net performance for SCBNL is 0.992623, which shows the positional relationship between these variables. The coefficient of determination (r2) was 0.985300, meaning

that 98.53% of the variation in the dependent variable was explained by the independent variable. Similarly, the value of 6P is less than the value of r. 0.024286.

Coefficient of Correlation between Deposit and Interest Earned

The coefficient of correlation between deposits and interest earned assesses the link between the two variables. Deposits are the independent variable (X), while interest earned is the dependent variable (Y). The goals of calculating r between two variables are to determine whether a deposit is significantly used to earn interest or not. Table 4.19 shows the values of 'r', r2, P.Er, and 6P.Er for SCBNL, NABIL, and NBL across the study period.

Table: 4.19

Coefficient of Correlation between Deposit and Interest Earned

Banks	**Evaluation criterions**			
	R	**r2**	**P.Er**	**6P.Er**
SCBNL	0.988856	0.977836244	0.006103	0.036619
NABIL	0.887261	0.78723161	0.058589	0.351532
NBL	0.973789	0.948264	0.014246	0.085476

(Source: Appendix, IV)

The correlation coefficient ‘r’ between deposits and interest income in case of SCBNL is 0.988856 indicating a positive relationship between these variables. If your deposits increase, your interest income will also increase, but if your deposits decrease, your interest income will also decrease. The coefficient of determination (r2) was 0.977836244, indicating that 97.78% of the variation in the dependent variable was explained by the independent variables. Similarly, when we pay attention to the value of 'r' and compare it with 6P.Er, it was finding that the value of r is greater than the value of 6P.Er. This shows that there is a significant relationship between deposits and interest. The correlation coefficient “r” between the two variables was 0.887261 and 0973789 for NABIL and NBL, indicating that 88.72% and 97.37% of the variation in the dependent variable was explained by the independent variable, respectively. For NABIL, the value of r is greater than 6P.Er. It states that there is a significant relationship between deposits and interest income. The value of r for NABIL is less than 6P.Er. 0.887261>0351532.

This shows that there is no significant relationship between deposits and interest. From the above analysis, it can be concluded that in case of SCBNL, the relationship between deposits and interest income is very important and its dependence is higher. There is effective deposit mobilization, which plays an important role in profitability. Meanwhile, other factors play a role in his NABIL results.

Coefficient of Correlation between Loan and Advances and Interest Paid

It assesses the correlations between these variables. Loans and advances are independent variables (X), whereas interest paid is a dependent variable (Y). The goal of calculating 'r' between these variables is to determine whether a rise in loan and advances has had any effect on lowering interest expenses. Table 4.20 displays the values of 'r', r2, P.Er, and 6P.Er for SCBNL, NABIL, and NBL across the study period.

Table: 4.20

Coefficient of Correlation between Loan and Advances and Interest Paid

Banks	**Evaluation criterions**			
	R	**r2**	**P.Er**	**6P.Er**
SCBNL	0.913502	0.83448	0.045577	0.273461
NABIL	-0.38218	0.146060	0.235144	1.410862
NBL	-0.02945	0.0008671	0.275125	1.650748

(Source: Appendix, IV)

The correlation coefficient between loans and advances and interest paid in case of SCBNL is 0913502. This indicates a positive relationship between the two variables. In the case of SCBNL, the coefficient of determination (r2) shows a higher degree of dependence than that of NABIL, and a lower degree of dependence than that of NBL. In the case of SCBNL, the value of r is greater than the value of 6P.Er, and there is a significant relationship between loans and advances and interest paid. Similarly, the correlation coefficient between loans and advances and interest paid in case of NABIL and NBL is -0.38218 and -0.02945. These indicate a negative relationship between these variables. The values of the coefficient of determination (r2) are 0.146060 and 0.0008671, which means that 14.60% and 0.086% of the variation in the dependent variable is explained by the independent variable. Let's look at the value of r again and

compare it with 6P.Er. In both cases, this is less than 6P.Er, indicating that this value does not represent a significant relationship between the two variables.

Coefficient of Correlation between Total Working Fund and Net Performance

The coefficient of correlation between total working capital and net performance indicates the degree of relationship between the two. The independent variable (X) represents total working capital, while the dependent variable (Y) is net performance. The primary goal of calculating 'r' is to demonstrate where total working capital is considerably used to generate earnings, or if these variables are significantly associated or not. Table 4.30 displays the values of 'r', r2, P.Er, and 6P.Er for these two variables: SCBNL, NABIL, and NBL.

Table: 4.21

Coefficient of Correlation between Total Working Fund and Net Performance

Banks	**Evaluation criterions**			
	R	**r2**	**P.Er**	**6P.Er**
SCBNL	0.991184	0.982448	0.004834	0.029004
NABIL	0.611661	0.374128	0.172342	1.034053
NBL	0.955852	0.913653499	0.023777	0.14266

(Source: Appendix, IV)

The correlation coefficient 'r' between total working funds and net performance in the case of SCBNL is 0.991184, indicating a positive association between these variables. The coefficient of determination (r2) is 0.982448, meaning that the independent variable explains 98.24% of the variation in the dependent variable. Similarly, taking the value of 'r' 0.991184 and comparing it to 6P.Er 0.029004, the value of 'r' is greater than the value of 6P.Er, indicating a substantial relationship between these variables. Similarly, the value of 'r' between these variables in the instance of NBL is 0.955852, indicating a positive correlation. In the instance of NABIL, its value is 0.611661, indicating a significant association between these variables.

4.5 Regression Analysis

Regression of Networking Capital and Net Performance

Regression is a statistical tool for determining the statistical relationship between two or more variables and then estimating one variable based on the other. The regression line provides the best estimate of one variable for each given value of the other variable. The regression line of Y on X predicts the most likely values of Y for given X.

X is an independent variable; Y is the dependent variable.

The regression equation of Y on X, given as Y = a + bx

Where, a and b are the line's parameters.

To determine the exact link between different variables, simple regression analysis was performed, and the findings were presented in a table.

Table: 4.22

Calculation of Regression Equation between Net Performance s on Total Working Fund

Banks	Regression equation	Value (a) constant	Regression coefficient (b)
SCBNL	Y= -20.85 + 0.0161822X	a = -20.85	b = 0.0161822
NABIL	Y = 272.50495 + 0.0390619X	a = 272.50495	b = 0.0390619
NBL	Y = 128.40 + 0.027048X	a = 128.40	b = 0.027048

(Source: Appendix V)

The table displays the regression equations for net performance and net working funds for SCBNL, NABIL, and NBL. The table regression equation for SCBNL's net performance on net working fund, Y= -20.85+0.0161822X, is negative. The regression coefficient is positive (0.0161822), indicating that there is a positive association between net performance and net working funds. In other words, a one million increase in net working funds results in an average of 0.0161822 million rise in net performance. The value of constant (a) is fairly low. The figure of (a) indicates that if net working fund is zero, net performance is -20.85 million.

Table: 4.23

Calculation of Regression Equation between Net Performance s on Total Deposit

Banks	Regression equation	Value (a) constant	Regression coefficient (b)
SCBNL	Y = 17.129 + 0.0185X	a = 17.129987	b = 0.0185577
NABIL	Y = 31.68 +0.0299X	a = 31.681826	b = 0.0299269
NBL	Y = 136.08 + 0.0322X	a = 136.08	b = 0.0322197

(Source: Appendix, V)

The table 4.23 displays the primary results of a basic regression analysis of net performance on total deposit. In SCBNL, the regression equation of net Performance (Y) dependent variable on total deposit (X) independent variable Y = 17.129987 = 0.0185577 is positive, i.e. 0.0185577, indicating that there is a positive relationship between net Performance and total deposit, or that one million increase in total deposit results in an average 0.0185577 million increase in net Performance.

4.6 Major Findings of the Study

- SCBNL has a greater mean return on loans and advances ratio than NBL, but lower than NABIL. The mean ratio is 2.25%, with a coefficient of variation of 7.85%, indicating that the ratios are less varied.
- The average ratio of 2.25% indicates a reasonable earning capacity for the bank's loans and advances. Throughout the study period, the return on total working fund ratios fluctuated. The ratio fluctuates between 1.17% and 1.49%.
- SCBNL has a mean ratio of 1.37% with a C.V. of 8.55%, which falls between NABIL and NBL. This suggests that the ratios are less varied and constant than those of the other banks studied.
- NABIL has the lowest average interest-to-outside-assets ratio. NABIL's total interest generated to total outside assets ratio is less variable than that of SCBNL and NBL. Its lowest C.V. implies that the ratios remained good throughout the study period.
- The analysis found a decrease in total interest paid to working fund ratios over time. SCBNL's mean ratio of total interest paid to total working fund is average, lower than

NABIL and NBL, indicating that it has paid average interest. The total interest paid to working fund ratios is less than the total interest collected on the total fund ratio.

- The bank is in a performance ability position, generating more than its interest cost.
- Credit risk ratios of banks fluctuate. The mean ratio of SCBNL is 63.66%, which is greater than NABIL but lower than NBL. Similarly, its C.V is 7.18%, which is lower than other banks. It shows that their credit policy is more consistent than other banks.
- To remedy this scenario, they should be accessible to rural communities and offer loans and advances on deposits. So customers are benefiting from deposit borrowing and other services.
- Banks' liquidity risk ratios are dropping. SCBNL has the greatest mean liquidity risk ratio of any bank, as well as the lowest C.V when compared to others. As a result, SCBNL's ratio is less changeable than NABIL and NBL.
- SCBNL's capital risk ratio is within the range of comparable banks. The SCBNL ratio is less volatile, indicating a steady capital risk ratio.
- The analysis of the growth ratio of total deposits, total loans and advances, total investments, and net performance of SCBNL in comparison to NABIL and NBL over the study period reveals that the bank's total deposits are expanding, with a net growth rate of 24.72%.
- Maintained the greatest growth rate among comparison banks, this shows that SCBNL's deposit collection performance improves year after year when compared to other banks.
- Commercial banks have to strengthen their economic structure in order to achieve sustained overall growth. They must take a unique approach to banking there, introducing professionalism to their business. By following these guidelines, they can improve their access to modern, competitive banking markets.
- SCBNL's growth rate exceeds those of NABIL and NBL. It has maintained a growth rate of 26.67%, whereas NABIL and NBL have 10.82% and 11.96%, respectively.
- As a result, SCBNL's success in granting loans and advances compares to other banks year after year.

- SCBNL and NBL's total deposits are increasing, whereas NABIL's is dropping. Based on trend research, SCBNL's total deposit in 2017/18 is expected to be Rs. 31296 million.
- Similarly, NABIL and NBL's total deposits will be 38274.4 and 24276.2 million in the third quarter of July 2010, respectively. NABIL collects deposits more efficiently than SCBNL and NBL.

CHAPTER-V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

The bank's income and performance are determined by its lending procedures, lending policies, and the investment of its funds in various securities. Commercial banks are able to properly utilize their deposits, such as by giving loans and advances or funding for a performance-based project, due to a lack of sound investment policies. The primary goal of this study is to assess the performance measurement policies implemented by SCBNL, NABIL, and NBL. The study is entirely dependent on secondary data, and the necessary data was gathered from a variety of public and unpublished sources.

There are 20 commercial banks operating in Nepal, which are considered the study's population, and three of them, namely SCBNL, NABIL, and NBL, were chosen as a sample for the study, and the collected data were analyzed using various financial and statistical tools such as ratio analysis, correlation coefficient, regression equation, and so on.

Regarding commercial banks' performance assessment criteria, there are five fundamental factors that the bank follows when making loans: liquidity, performance ability, security, and suitability diversity. The study employs a variety of processes for making investment decisions, including established investing procedure, security analysis, portfolio design, revision, and performance evaluation. The data for the evaluation were acquired from the involved banks' annual reports, as well as financial records from the previous six years.

5.2 Conclusions

SCBNL has the lowest return on loan and advances ratio, as well as return on assets. The ratio implies that the bank's loan and advances have a reasonable earning capacity. The bank's return on assets is good on average, indicating that its assets have a high earning capability and are well utilized. The entire interest paid to the working fund ratio is less than the interest earned on the whole working fund ratio. So it is a performance position since it generates a larger return than the interest expense. The level of risk on SCBNL is

average. The credit risk ratio is larger than in other banks. However, the lowest C.V. of credit ratio and the average C.V. of liquidity risk ratio and capital ratio across the study period ensure that the degree of risk is consistent. SCBNL has demonstrated good performance by expanding total deposits, loans, and advances, as well as investing in performance-oriented industries that generate interest revenues by lending to clients. SCBNL outperforms NABIL and NBL in terms of total investment, total deposit, loan and advances, and net performance.

SCBNL exhibits a comparatively lower Return on Loan and Advances Ratio, suggesting that its loans and advances possess a reasonable earning capacity. Despite this, the bank's Return on Assets is favorable on average, indicating that its assets are effectively utilized and have a high earning potential. Additionally, the Total Interest Earned to Total Working Fund Ratio exceeds the Total Interest Paid to Total Working Fund Ratio, indicating a positive performance position as it generates a larger return than its interest expense. In terms of risk, SCBNL maintains an average level of risk. While its Credit Risk Ratio is larger than other banks, the lowest Coefficient of Variation (C.V.) of the credit ratio, along with average C.V.s of liquidity risk and capital ratio across the study period ensures consistent risk management.

SCBNL's performance is further underscored by its expansion in total deposits, loans, and advances, as well as investments in performance-oriented industries, leading to increased interest revenues from lending activities. Compared to NABIL and NBL, SCBNL demonstrates superior performance metrics in total investment, total deposits, loans and advances, and overall net performance. This performance can be attributed to strategic investments in sectors with high potential returns and effective management of lending activities. Overall, SCBNL's prudent financial management and strategic investments have contributed to its favorable performance and position in the banking industry.

5.3 Recommendations

Based on the study's findings, the following recommendations can be made. The liquidity position of commercial banks influences both external and internal elements such as saving for investment opportunities, central bank requirements, leading policy

management capabilities, and so on. In this study, it should aim to reduce current liabilities in order to strengthen its liquidity situation.

The current ratios of all three banks are not sufficient. It is below the usual rate of 2:1. So banks are advised to strengthen their current assets. SCBNL has a larger ratio of cash and bank balances to total deposits and current assets than NABIL and NBL. It signifies that SCBNL has a greater cash and bank balance, which reduces the bank's performance; therefore, it is necessary to mobilize cash and bank balance in the form of loans and advances. The liquidity position of commercial banks influences both external and internal elements such as saving for investment opportunities, central bank requirements, leading policy management capabilities, and so on. In this study, it should aim to reduce current liabilities in order to strengthen its liquidity situation. The current ratios of all three banks are not sufficient. It is below the normal rate. Bank performance measurement ratios are unsatisfactory; if resources are idle, the bank will incur additional costs, resulting in a poorer performance margin. Therefore, a bank's portfolio should be reviewed on a regular basis. It should use its risky assets and shareholder money, minimizes its express, and strives to gather cheaper funds that are more performance-able.

NABIL, one of Nepal's leading commercial banks, has accepted a modest credit risk. It must also be interesting, as SCBNL does. It should strengthen and revitalize its marketing function, as it is an effective tool for attracting and retaining customers. The bank should take a more "innovative approach to bank marketing" and develop new ideas to provide customers with more convenient services. As previously said, SCBNL's investment policy is great in every manner; yet, the aforementioned investment sectors' consistency is in sync. Banks have been shown to focus too much emphasis on one industry while disregarding another. As a result, it is recommended that all sectors be touched and balanced in order for the bank to perform optimally. It was analysis of the growth ratio of total deposits, total loans and advances, total investments, and net performance of SCBNL. It has maintained the highest growth rate among comparable institutions. This shows that SCBNL's deposit collection performance improves year after year when compared to other banks.

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APPENDICES

Appendix I

Return on Loan & Advances Ratio In (000)

Bank	Fiscal Year					Mean	S.D	C.V.
	2016/017	2017/018	2018/019	2019/020	2020/021			
SCBNL	2.16	1.92	2.44	2.24	2.42	**2.25**	**0.1765**	**7.85**
NABIL	3.65	5.37	5.56	4.90	4.92	**4.70**	**0.7353**	**15.66**
NBL	0.20	1.81	2.26	2.36	2.79	**1.83**	**0.8274**	**45.13**

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

SCBNL= 2.25

NABIL= 4.70

NBL= 1.83

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

SCBNL= 0.1765

NABIL= 0.7353

NBL= 0.8274

$$C.V. = \frac{S.D.}{Mean} \times 100\%$$

SCBNL= 7.85

NABIL= 15.66

NBL= 45.13

Return on Total Working Fund Ratio

Bank	Fiscal Year					**Mean**	**S.D**	**C.V.**
	2016/017	2017/018	2018/019	2019/020	2020/021			
SCBNL	1.29	1.17	1.49	1.45	1.49	**1.37**	**0.1172**	**8.55**
NABIL	1.55	2.51	2.72	3.02	2.85	**2.38**	**0.5773**	**24.24**
NBL	0.15	1.10	1.34	1.42	1.65	**1.12**	**0.4771**	**42.66**

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

SCBNL= 1.37

NABIL= 2.38

NBL= 1.12

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

SCBNL= 0.1172

NABIL= 0.5773

NBL= 0.4771

$$C.V. = \frac{S.D.}{Mean} \times 100\%$$

SCBNL= 8.55

NABIL= 24.24

NBL= 42.66

Total Interest Earned to Total outside Assets Ratio

	Fiscal Year	**Mean**	**S.D**	**C.V.**

Bank	2016/017	2017/018	2018/019	2019/020	2020/021			
SCBNL	7.87	7.93	7.81	7.38	6.45	**7.88**	**1.0152**	**12.88**
NABIL	7.17	7.38	7.14	7.20	6.86	**7.33**	**0.4235**	**5.78**
NBL	8.96	7.81	6.98	7.13	6.75	**7.98**	**1.2441**	**15.60**

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

SCBNL= 7.88

NABIL= 7.33

NBL= 7.98

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

SCBNL= 1.0152

NABIL= 0.4235

NBL= 1.2441

$$C.V. = \frac{S.D.}{Mean} \times 100\%$$

SCBNL= 12.88

NABIL= 5.78

NBL= 15.60

Total Interest Earned to Total Working Fund Ratio

Bank	Fiscal Year					**Mean**	**S.D**	**C.V.**
	2016/017	2017/018	2018/019	2019/020	2020/021			

SCBNL	6.71	6.46	6.84	6.10	5.66	**6.53**	**0.5526**	**8.46**
NABIL	6.39	6.15	5.98	6.22	5.87	**6.29**	**0.4108**	**6.53**
NBL	7.45	6.67	5.97	6.16	5.85	**6.60**	**0.6696**	**10.15**

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

SCBNL= 6.53

NABIL= 6.29

NBL= 6.60

$$SD\,(\sigma) = \sqrt{\frac{\sum \left(X - \overline{X}\right)^2}{N}}$$

SCBNL= 0.5526

NABIL= 0.4108

NBL= 0.6696

$$C.V. = \frac{S.D.}{Mean} \times 100\,\%$$

SCBNL= 8.46

NABIL= 6.53

NBL= 10.15

Total Interest Paid to Total Working Fund Ratio

Bank	Fiscal Year					**Mean**	**S.D**	**C.V.**
	2016/017	2017/018	2018/019	2019/020	2020/021			
SCBNL	3.88	3.82	3.29	2.54	2.52	**3.43**	**0.7333**	**21.37**
NABIL	2.64	1.92	1.69	1.42	1.60	**2.09**	**0.6488**	**31.09**
NBL	4.48	3.72	3.01	2.45	2.51	**3.53**	**0.9666**	**27.38**

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

SCBNL= 3.43

NABIL= 2.09

NBL= 3.53

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

SCBNL= 0.7333

NABIL= 0.6488

NBL= 0.9666

$$C.V. = \frac{S.D.}{Mean} \times 100\%$$

SCBNL= 21.37

NABIL= 31.09

NBL= 27.38

Credit Risk Ratio

Bank	Fiscal Year					**Mean**	**S.D**	**C.V.**
	2016/017	2017/018	2018/019	2019/020	2020/021			
SCBNL	62.09	62.63	62.60	73.60	61.50	**63.66**	**4.5691**	**7.18**
NABIL	55.87	55.93	57.50	70.71	56.96	**59.29**	**5.2014**	**8.77**
NBL	74.51	62.88	60.30	63.51	63.13	**65.04**	**4.5383**	**6.98**

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

SCBNL= 63.66

NABIL= 59.29

NBL= 65.04

$$SD(\sigma) = \sqrt{\frac{\sum \left(X - \overline{X}\right)^2}{N}}$$

SCBNL= 4.5691

NABIL= 5.2014

NBL= 4.5383

$$C.V. = \frac{S.D.}{Mean} \times 100\,\%$$

SCBNL= 7.18

NABIL= 8.77

NBL= 6.98

Liquidity Risk Ratio

Bank	Fiscal Year					**Mean**	**S.D**	**C.V.**
	2016/017	2017/018	2018/019	2019/020	2020/021			
SCBNL	11.03	17.02	7.84	10.39	11.25	**12.63**	**3.7256**	**29.50**
NABIL	6.78	8.51	6.87	3.83	3.26	**5.73**	**1.8349**	**32.02**
NBL	11.95	11.23	10.11	8.28	6.95	**11.37**	**4.0842**	**35.93**

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

SCBNL= 12.63

NABIL= 5.37

NBL= 11.37

$$SD(\sigma) = \sqrt{\frac{\sum \left(X - \overline{X}\right)^2}{N}}$$

SCBNL= 3.7256

NABIL= 1.8349

NBL= 4.0842

$$C.V. = \frac{S.D.}{Mean} \times 100\,\%$$

SCBNL= 29.50

NABIL= 32.02

NBL= 35.93

Capital Risk Ratio

Bank	Fiscal Year					**Mean**	**S.D**	**C.V.**
	2016/017	2017/018	2018/019	2019/020	2020/021			
SCBNL	13.73	10.74	9.82	8.37	6.82	**10.02**	**2.1470**	**21.43**
NABIL	4.99	11.78	12.48	11.68	9.76	**11.07**	**3.2495**	**29.35**
NBL	10.25	10.60	10.32	10.41	9.50	**9.80**	**1.0022**	**10.23**

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

SCBNL= 10.02

NABIL= 11.07

NBL= 9.80

$$SD(\sigma) = \sqrt{\frac{\sum \left(X - \overline{X}\right)^2}{N}}$$

SCBNL= 2.1470

NABIL= 3.2495

NBL= 1.0022

$$C.V. = \frac{S.D.}{Mean} \times 100\,\%$$

SCBNL= 21.43

NABIL= 29.35

NBL= 10.23

Appendix II

Calculation of Growth Ratio

Let,

D_n = Variable in the n^{th} year

D_0 = Variable in the initial year

n = no of period study

g = Growth rate

Total deposit growth ratio of SCBNL

$$D_n = D_0(1+g)^{n-1}$$

$$13802.44 = 4574.51\ (1+g)^{6-1}$$

$$1 + g = \left(13802.44 / 4574.51\right)^{1/5}$$

g = 24.72%

Total deposit growth ratio of NABIL

$$D_n = D_0(1+g)^{n-1}$$

$$19347.4 = 15839\,(1+g)^{6-1}$$

$$1 + g = \left(19347.4 / 15839\right)^{1/5}$$

g = 4.08%

Total deposit growth ratio of NBL

$$D_n = D_0(1+g)^{n-1}$$

$$10485 = 5713.49\,(1+g)^{6-1}$$

$$1 + g = \left(10485 / 5713.49\right)^{1/5}$$

g = 12.91%

Total Loans and advances growth rate of SCBNL

$$D_n = D_0(1+g)^{n-1}$$

$$9801.31 = 3005.76\,(1+g)^{6-1}$$

$$1 + g = \left(9801.31 / 3005.76\right)^{1/5}$$

g = 26.67%

Total Loans and advances growth rate of NABIL

$$D_n = D_0(1+g)^{n-1}$$

$$12922.5 = 7732.64\,(1+g)^{6-1}$$

$$1 + g = \left(12922.5 / 7732.64\right)^{1/5}$$

g = 10.82%

Total Loans and advances growth rate of NBL

$$D_n = D_0(1+g)^{n-1}$$

$$7259.08 = 4127.05\,(1+g)^{6-1}$$

$$1 + g = \left(7259.08 / 4127.05\right)^{1/5}$$

g = 11.96%

Total investment growth ratio of SCBNL

$$D_n = D_0(1+g)^{n-1}$$

$$4200.52 = 901.72\,(1+g)^{6-1}$$

$$1 + g = \left(4200.52 / 901.72\right)^{1/5}$$

g = 36.03%

Total investment growth ratio of NABIL

$$D_n = D_0(1+g)^{n-1}$$

$$6178.53 = 7704(1+g)^{6-1}$$

$$1 + g = \left(6178.53 \big/ 7704\right)^{1/5}$$

$$g = -4.31\%$$

Total net profit growth ratio of NABIL

$$D_n = D_0(1+g)^{n-1}$$

$$635.3 = 291.38(1+g)^{6-1}$$

$$1 + g = \left(635.3 \big/ 291.38\right)^{1/5}$$

$$g = 16.87\%$$

Total net profit growth ratio of NBL

$$D_n = D_0(1+g)^{n-1}$$

$$202.44 = 65.36(1+g)^{6-1}$$

$$1 + g = \left(202.44 \big/ 65.36\right)^{1/5}$$

$$g = 25.37\%$$

Total investment growth ratio of NBL

$$D_n = D_0(1+g)^{n-1}$$

$$3378.13 = 419.82(1+g)^{6-1}$$

$$1 + g = \left(3378.13 / 419.82\right)^{1/5}$$

$$g = 51.74\%$$

Total net profit growth ratio of SCBNL

$$D_n = D_0(1+g)^{n-1}$$

$$237.38 = 69.70(1+g)^{6-1}$$

$$1 + g = \left(237.38 / 69.70\right)^{1/5}$$

$$g = 27.77\%$$

Appendix: III

Trend analysis of total deposit of SCBNL In (000)

Fiscal Year(t)	Total Deposit (Y)	X = t-2003	X^2	XY	$Y_c = a + bx$
2016/017	5466.60	-1	1	-5466.60	5219.26
2017/018	6694.96	0	0	0.00	8116.68
2018/019	8063.90	1	1	8063.90	11014.10
2019/020	10097.69	2	4	20195.38	13911.52
2020/021	13802.44	3	9	41407.32	16808.94
Total	48700.10		19	55050.98	

$$a = \frac{\sum y}{n} = \frac{48700.1}{6} = 8116.68 \qquad b = \frac{\sum xy}{\sum x^2} = \frac{55050.98}{19} = 2897.42$$

Trend analysis of total deposit of NABIL

Fiscal Year(t)	Total Deposit (Y)	X = t-2003	X^2	XY	$Y_c = a + bx$
2016/017	15506.43	-1	1	-15506.43	12624.354
2017/018	13447.66	0	0	0.00	15474.36
2018/019	14119.03	1	1	14119.03	18324.366
2019/020	14586.66	2	4	29173.32	21174.372
2020/021	19347.40	3	9	58042.20	24024.378
Total	92846.18		19	54150.12	

$$a = \frac{\sum y}{n} = \frac{92846.18}{6} = 15474.36 \qquad b = \frac{\sum xy}{\sum x^2} = \frac{54150.12}{19} = 2850.006$$

Trend analysis of total deposit of NBL

Fiscal Year(t)	Total Deposit (Y)	X = t-2003	X^2	XY	$Y_c = a + bx$
2016/017	5723.29	-1	1	-5723.29	5361.137
2017/018	6170.71	0	0	0.00	7462.815
2018/019	7741.65	1	1	7741.65	9564.493
2019/020	8942.75	2	4	17885.50	11666.171
2020/021	10485	3	9	31455	13767.849
Total	44776.89		19	39931.88	

$$a = \frac{\sum y}{n} = \frac{44776.89}{6} = 7462.815 \qquad b = \frac{\sum xy}{\sum x^2} = \frac{39931.88}{19} = 2101.678$$

Trend analysis of Loan and advances of SCBNL

Fiscal Year(t)	Loan & advances(Y)	X = t-2003	X^2	XY	$Y_c = a + bx$
2016/017	3948.48	-1	1	-3948.48	3726.113
2017/018	4908.46	0	0	0	5861.133
2018/019	5884.12	1	1	5884.12	7996.153
2019/020	7618.67	2	4	15237.34	10131.173
2020/021	9801.31	3	9	29403.921	12266.193
Total	35166.797		19	40565.381	

$$a = \frac{\sum y}{n} = \frac{35166.797}{6} = 5861.133 \quad b = \frac{\sum xy}{\sum x^2} = \frac{40565.381}{19} = 2135.02$$

Trend analysis of Loan and advances of NABIL

Fiscal Year(t)	Loan & advances (Y)	X = t-2003	X^2	XY	$Y_c = a + bx$
2016/017	7437.89	-1	1	-7437.89	6723.84
2017/018	7755.95	0	0	0	9104.197
2018/019	8189.99	1	1	8189.99	11484.554
2019/020	10586.17	2	4	21172.34	13864.911
2020/021	12922.5	3	9	38767.62	16245.268
Total	54625.18		19	45226.78	

$$a = \frac{\sum y}{n} = \frac{54625.18}{6} = 19104.197 \qquad b = \frac{\sum xy}{\sum x^2} = \frac{45226.78}{19} = 2380.357$$

Trend analysis of Loan and advances of NBL

Fiscal Year(t)	Loan & advances (Y)	X = t-2003	X^2	XY	$Y_c = a + bx$
2016/017	4613.61	-1	1	-4613.61	3961.791
2017/018	4542.70	0	0	0.00	5350.285
2018/019	5646.69	1	1	5646.69	6738.779
2019/020	5912.58	2	4	11825.16	8127.273
2020/021	7259.08	3	9	21777.246	9515.767
Total	32101.712		19	26381.386	

$$a = \frac{\sum y}{n} = \frac{32101.712}{6} = 5350.285 \qquad b = \frac{\sum xy}{\sum x^2} = \frac{26381.386}{19} = 1388.494$$

Trend analysis of total investment of SCBNL

Fiscal Year(t)	Total investment (Y)	X = t-2003	X^2	XY	$Y_c = a + bx$
2016/017	1693.03	-1	1	-1693.03	1348.8741
2017/018	1653.98	0	0	0	2185.642
2018/019	2535.7	1	1	2535.7	3022.4099
2019/020	2128.9	2	4	4257.8	3859.1778
2020/021	4200.52	3	9	12601.56	4695.9457
Total	13113.85		19	15898.59	

$$a = \frac{\sum y}{n} = \frac{1311385}{6} = 2185.642 \quad b = \frac{\sum xy}{\sum x^2} = \frac{15898.59}{19} = 836.7679$$

Trend analysis of total investment of NABIL

Fiscal Year(t)	Total investment (Y)	X = t-2003	X^2	XY	$Y_c = a + bx$
2016/017	8199.51	-1	1	-8199.51	5880.0904
2017/018	6031.18	0	0	0	6369.452
2018/019	5835.95	1	1	5835.95	6858.8136
2019/020	4267.23	2	4	8534.46	7348.1752
2020/021	6178.53	3	9	18535.59	7837.5368
Total	38216.71		19	9297.87	

$$a = \frac{\sum y}{n} = \frac{38216.71}{6} = 6369.452 \quad b = \frac{\sum xy}{\sum x^2} = \frac{9297.87}{19} = 489.3616$$

Trend analysis of total investment of NBL

Fiscal Year(t)	Total investment (Y)	X = t-2003	X^2	XY	$Y_c = a + bx$
2016/017	667.46	-1	1	-667.46	1034.91
2017/018	1816.15	0	0	0	1892.87
2018/019	2477.4	1	1	2477.4	2750.83
2019/020	2598.25	2	4	5196.5	3608.78
2020/021	3378.13	3	9	10134.39	4466.74
Total	11357.21		19	16301.19	

$$a = \frac{\sum y}{n} = \frac{11357.21}{6} = 1892.868 \quad b = \frac{\sum xy}{\sum x^2} = \frac{16301.19}{19} = 857.9574$$

Trend analysis of net profit of SCBNL

Fiscal Year(t)	Net profit (Y)	X = t-2003	X^2	XY	$Y_c = a + bx$
2016/017	85.35	-1	1	-85.35	82.31
2017/018	94.18	0	0	0	133.50
2018/019	143.57	1	1	143.57	184.68
2019/020	170.8	2	4	341.6	235.87
2020/021	237.38	3	9	712.14	287.06
Total	800.98		19	972.56	

$$a = \frac{\sum y}{n} = \frac{800.98}{6} = 133.4967 \qquad b = \frac{\sum xy}{\sum x^2} = \frac{972.56}{19} = 51.18737$$

Trend analysis of net profit of NABIL

Fiscal Year(t)	Net profit (Y)	X = t-2003	X^2	XY	$Y_c = a + bx$
2016/017	291.38	-2	4	-582.76	163.62
2017/018	271.64	-1	1	-271.64	297.52
2018/019	416.24	0	0	0	431.42
2019/020	455.31	1	1	455.31	565.32
2020/021	518.64	2	4	1037.28	699.22
	635.3	3	9	1905.9	833.12
Total	2588.51		19	2544.09	

$$a = \frac{\sum y}{n} = \frac{2588.51}{6} = 431.4183 \qquad b = \frac{\sum xy}{\sum x^2} = \frac{2544.09}{19} = 133.8995$$

Trend analysis of net profit of NBL

Fiscal Year(t)	Net profit (Y)	X = t-2003	X^2	XY	$Y_c = a + bx$
2016/017	9.28	-1	1	-9.28	58.38
2017/018	82.13	0	0	0	104.37
2018/019	127.48	1	1	127.48	150.36
2019/020	139.52	2	4	279.04	196.35
2020/021	202.44	3	9	607.32	242.34
Total	626.21		19	873.84	

$$a = \frac{\sum y}{n} = \frac{626.21}{6} = 104.3683 \qquad b = \frac{\sum xy}{\sum x^2} = \frac{873.84}{19} = 45.99158$$

Appendix: IV

Coefficient of correlation between deposit between and loan and advances of SCBNL

Years	Deposit (x)	Loan & Advances (y)	$X = x - \bar{x}$	$\mathbf{X^2}$	$Y = y - \bar{y}$	$\mathbf{Y^2}$	XY
2016/017	5466.60	3948.48	-2650.08	7022941.66	-1912.65	3658241.50	5068689.83
2017/018	6694.96	4908.46	-1421.72	2021297.23	-952.67	907585.84	1354437.43
2018/019	8063.90	5884.12	-52.78	2786.07993	22.99	528.40	-1213.33
2019/020	10097.69	7618.67	1981.00	3924387.43	1757.54	3088936.31	3481692.52
2020/021	13802.44	9801.31	5685.76	32327828.90	3940.18	15524971.20	22402870.60
Total	48700.10	35166.80	0.00	57846233.20	0.00	31333418.17	42420703.14
Mean	8116.68	5861.13					

Coefficient of Correlation (r):

$$r = \frac{n\sum xy - \sum x \sum y}{\sqrt{n\sum x^2 - \left(\sum x\right)^2}\sqrt{n\sum y^2 - \left(\sum y\right)^2}} = \frac{(6\times) - (\times)}{\sqrt{(6\times) - (\ )^2}\sqrt{(6\times) - (\ )^2}} = 0.996406$$

Coefficient of Determination (r^2) = 0.996406 × 0.996406 = 0.99282537

$$\Pr obable(P.Er) = 0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.6745 \times \frac{1 - 0.99282537}{\sqrt{\ }} = 0.001976$$

6 (P.Er) = 0.011854

Coefficient of correlation between deposit between and loan and advances of NABIL

Years	Deposit (x)	Loan & Advances (y)	$X = x - \bar{x}$	$\mathbf{X^2}$	$Y = y - \bar{y}$	$\mathbf{Y^2}$	XY
2016/017	15506.43	7437.89	32.07	1028.27	-1666.31	2776579.02	-53432.97
2017/018	13447.66	7755.95	-2026.70	4107526.27	-1348.25	1817769.97	2732496.64
2018/019	14119.03	8189.99	-1355.33	1836928.35	-914.21	835774.44	1239055.19
2019/020	14586.66	10586.17	-887.70	788017.15	1481.97	2196243.97	-1315552.32
2020/021	19347.40	12922.50	3873.04	15000413.30	3818.34	14579743.30	14788582.60
Total	92846.18	54625.18	0.00	21866873.24	0.00	24087279.27	16891029.10
Mean	15474.36	9104.20					

Coefficient of Correlation (r)

$$r = \frac{n\sum xy - \sum x \sum y}{\sqrt{n\sum x^2 - \left(\sum x\right)^2}\sqrt{n\sum y^2 - \left(\sum y\right)^2}} = \frac{(6\times) - (\times)}{\sqrt{(6\times) - (\ )^2}\sqrt{(6\times) - (\ )^2}} = 0.735985$$

Coefficient of Determination (r^2) =0.735985 × 0.735985 = 0.54167374

$$\Pr obable(P.Er) = 0.6745 \times \frac{1-r^2}{\sqrt{n}} = 0.6745 \times \frac{1-0.54167374}{\sqrt{6}} = 0.126206$$

6 (P.Er) = 0.757238

Coincident of correlation between deposit between and loan and advances of NBL

Years	**Deposit(x)**	**Loan & Advances (y)**	$X = x - \bar{x}$	$\mathbf{X^2}$	$Y = y - \bar{y}$	$\mathbf{Y^2}$	**XY**
2016/017	5723.29	4613.61	-1739.52	3025947.23	-736.67	542690.05	1281464.58
2017/018	6170.71	4542.7	-1292.11	1669535.33	-807.58	652193.53	1043484.62
2018/019	7741.65	5646.69	278.84	77748.96	296.40	87855.92	82648.09
2019/020	8942.75	5912.58	1479.94	2190207.60	562.29	316175.67	832160.05
2020/021	10485	7259.08	3022.19	9133602.17	1908.80	3643505.99	5768737.66
Total	44776.89	32101.71	0.00	19157179.25	0.00	6738725.03	11148330.56
Mean	7462.81	5350.28					

Coefficient of Correlation (r):

$$r = \frac{n\sum xy - \sum x \sum y}{\sqrt{n\sum x^2 - \left(\sum x\right)^2}\sqrt{n\sum y^2 - \left(\sum y\right)^2}} = \frac{(6\times) - (\times)}{\sqrt{(6\times) - (\ )^2}\sqrt{(6\times) - (\ )^2}} = 0.981195$$

Coefficient of Determination (r^2) = 0.981195 × 0.981195 = 0.96274302

$$\Pr obable(P.Er) = 0.6745 \times \frac{1-r^2}{\sqrt{n}} = 0.6745 \times \frac{1-0.96274302}{\sqrt{6}} = 0.010259$$

6 (P.Er) = 0.061555

Coefficient of correlation between total deposit between and total investment of SCBNL

Years	Deposit (x)	Total investment (y)	$X = x - \bar{x}$	X^2	$Y = y - \bar{y}$	Y^2	XY
2016/017	5466.60	1693.03	-2650.08	7022941.66	-492.61	242666.58	1305462.85
2017/018	6694.96	1653.98	-1421.72	2021297.23	-531.66	282664.48	755876.27
2018/019	8063.90	2535.70	-52.78	2786.07	350.05	122540.60	-18477.23
2019/020	10097.69	2128.90	1981.00	3924387.43	-56.74	3219.65	-112406.28
2020/021	13802.44	4200.52	5685.76	32327828.90	2014.88	4059733.35	11456106.00
Total	48700.10	13113.85	0.00	57846233.20	0.00	6359280.38	17934435.90
Mean	8116.68	2185.64					

Coefficient of Correlation (r):

$$r = \frac{n\sum xy - \sum x \sum y}{\sqrt{n\sum x^2 - \left(\sum x\right)^2}\sqrt{n\sum y^2 - \left(\sum y\right)^2}} = \frac{(6\times) - (\times)}{\sqrt{(6\times) - (\ )^2}\sqrt{(6\times) - (\ )^2}} = 0.935074$$

Coefficient of Determination (r^2) = 0.935074 × 0.935074 = 0.87436424

$$\Pr obable(P.Er) = 0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.6745 \times \frac{1 - 0.87436424}{\sqrt{6}} = 0.03459$$

6 (P.Er) = 0.207573

Coefficient of correlation between deposit between and total investment of NABIL

Years	Deposit (x)	Total investment (y)	$X = x - \bar{x}$	X^2	$Y = y - \bar{y}$	Y^2	XY
2016/017	15506.43	8199.51	32.06	1028.27	1830.05	3349112.28	58683.92
2017/018	13447.66	6031.18	-2026.70	4107526.27	-338.27	114427.95	685576.98
2018/019	14119.03	5835.95	-1355.33	1836928.35	-533.50	284624.38	723073.02
2019/020	14586.66	4267.23	-887.70	788017.15	-2102.22	4419337.34	1866149.41
2020/021	19347.4	6178.53	3873.04	15000413.30	-190.92	36451.21	-739447.91
Total	92846.18	38216.71	0.00	21866873.24	0.00	9985799.04	3080773.64
Mean	15474.36	6369.45					

Coefficient of Correlation (r):

$$r = \frac{n\sum xy - \sum x \sum y}{\sqrt{n\sum x^2 - \left(\sum x\right)^2}\sqrt{n\sum y^2 - \left(\sum y\right)^2}} = \frac{(6\times) - (\times)}{\sqrt{(6\times) - (\ )^2}\sqrt{(6\times) - (\ )^2}} = 0.208485$$

Coefficient of Determination (r^2) = 0.208485 × 0.208485 = 0.04346604

$$\Pr obable(P.Er) = 0.6745 \times \frac{1-r^2}{\sqrt{n}} = 0.6745 \times \frac{1-0.04346604}{\sqrt{6}} = 0.263395$$

6 (P.Er) = 1.580367

Coefficient of correlation between deposit between and total investment of NBL

Years	**Deposit (x)**	**Total investment (y)**	$X = x - \bar{x}$	**X²**	$Y = y - \bar{y}$	**Y²**	**XY**
2016/017	5723.29	667.46	-1739.52	3025947.23	-1225.41	1501624.77	3820067.10
2017/018	6170.71	1816.15	-1292.10	1669535.33	-76.718	5885.65	11206935.00
2018/019	7741.65	2477.4	278.83	77748.96	584.53	341677.66	19179164.00
2019/020	8942.75	2598.25	1479.93	2190207.60	705.38	497563.76	23235500.00
2020/021	10485.00	3378.13	3022.18	9133602.17	1485.26	2206003.21	35419693.00
Total	44776.89	11357.21	0.00	19157179.25	0.00	6722625.46	508540543.00
Mean	7462.815	1892.87					

Coefficient of Correlation (r):

$$r = \frac{n\sum xy - \sum x \sum y}{\sqrt{n\sum x^2 - \left(\sum x\right)^2}\sqrt{n\sum y^2 - \left(\sum y\right)^2}} = \frac{(6\times) - (\times)}{\sqrt{(6\times) - (\ )^2}\sqrt{(6\times) - (\ )^2}} = 0.925525$$

Coefficient of Determination (r^2) = 0.925525 × 0.925525 = 0.856596

$$\Pr obable(P.Er) = 0.6745 \times \frac{1-r^2}{\sqrt{n}} = 0.6745 \times \frac{1-0.856596}{\sqrt{6}} = 0.039488$$

6 (P.Er) = 0.236929

Coefficient of correlation between outside assets and net profit of SCBNL

Years	**Outside assets (x)**	**Net profit (y)**	$X = x - \bar{x}$	**X²**	$Y = y - \bar{y}$	**Y²**	**XY**
2016/017	5641.51	85.35	-2405.26	5785291.54	-48.15	2318.10	115805.49
2017/018	6562.44	94.18	-1484.33	2203245.35	-39.37	1545.80	58359.08
2018/019	8419.82	143.57	373.05	139163.84	10.07	101.47	3757.81
2019/020	9747.57	170.80	1700.79	2892709.41	37.30	1391.54	63445.32
2020/021	14001.82	237.38	5955.05	35462581.20	103.88	10791.74	618629.90
Total	48280.64	800.98	0.00	63616740.37	0.00	20218.67	1124070.87
Mean	8046.77	133.50					

Coefficient of Correlation (r):

$$r = \frac{n\sum xy - \sum x \sum y}{\sqrt{n\sum x^2 - \left(\sum x\right)^2}\sqrt{n\sum y^2 - \left(\sum y\right)^2}} = \frac{(6\times) - (\times)}{\sqrt{(6\times) - (\ )^2}\sqrt{(6\times) - (\ )^2}} = 0.991132$$

Coefficient of Determination (r^2) = 0.991132 × 0.991132 = 0.98234334

$$\Pr obable(P.Er) = 0.6745 \times \frac{1-r^2}{\sqrt{n}} = 0.6745 \times \frac{1-0.98234334}{\sqrt{6}} = 0.004862$$

6 (P.Er) = 0.029172

Coefficient of correlation between outside assets and net profit of NABIL

Years	**Outside assets (x)**	**Net profit (y)**	$X = x - \bar{x}$	$\mathbf{X^2}$	$Y = y - \bar{y}$	$\mathbf{Y^2}$	**XY**
2016/017	1563.74	271.64	-11564.3	133733034.5	-159.778	25529.1052	1847724.19
2017/018	13787.13	416.24	659.09	434399.6281	-15.178	230.380791	-10003.86
2018/019	14025.94	455.31	897.9	806224.41	23.8917	570.813329	21452.3574
2019/020	14853.4	518.64	1725.36	2976867.13	87.2217	7607.62495	150488.832
2020/021	19101.08	635.3	5973.04	35677206.84	203.8817	41567.7476	1217793.55
Total	78768.24	2588.51	0.00	178958797.89	0.00	95116.40	2904119.24
Mean	13128.04	431.4183					

Coefficient of Correlation (r):

$$r = \frac{n\sum xy - \sum x \sum y}{\sqrt{n\sum x^2 - \left(\sum x\right)^2}\sqrt{n\sum y^2 - \left(\sum y\right)^2}} = \frac{(6\times) - (\times)}{\sqrt{(6\times) - (\ )^2}\sqrt{(6\times) - (\ )^2}} = 0.703899$$

Coefficient of Determination (r^2) = 0.703899 × 0.703899 = 0.495473511

$$\Pr obable(P.Er) = 0.6745 \times \frac{1-r^2}{\sqrt{n}} = 0.6745 \times \frac{1-0.495473511}{\sqrt{6}} = 0.138928$$

6 (P.Er) = 0.833569

Coefficient of correlation between outside assets and net profit of NBL

Years	**Outside assets (x)**	**Net profit (y)**	$X = x - \bar{x}$	$\mathbf{X^2}$	$Y = y - \bar{y}$	$\mathbf{Y^2}$	**XY**
2016/017	5281.07	9.28	-1961.51	3847541.09	-95.09	9041.78	186517.13
2017/018	6358.85	82.13	-883.73	780987.55	-22.24	494.54	19652.76
2018/019	8124.09	127.48	881.50	777051.06	23.11	534.15	20373.08
2019/020	8510.83	139.52	1268.24	1608445.38	35.15	1235.64	44580.97
2020/021	10633.8	202.44	3391.21	11500339.18	98.07	9618.06	332582.22
Total	43455.51	626.21	0.00	25781243.63	0.00	22445.83	708861.42
Mean	7242.58	104.37					

Coefficient of Correlation (r):

$$r = \frac{n\sum xy - \sum x \sum y}{\sqrt{n\sum x^2 - \left(\sum x\right)^2}\sqrt{n\sum y^2 - \left(\sum y\right)^2}} = \frac{(6\times) - (\times)}{\sqrt{(6\times) - (\ )^2}\sqrt{(6\times) - (\ )^2}} = 0.931841$$

Coefficient of Determination (r^2) = 0.931841 × 0.931841 = 0.868326862

$$\Pr obable(P.Er) = 0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.6745 \times \frac{1 - 0.868326862}{\sqrt{6}} = 0.036258$$

6 (P.Er) = 0.217548

Coefficient of correlation between total deposit and Net profit of SCBNL

Years	**Deposit (x)**	**Net profit (y)**	$X = x - \bar{x}$	**X²**	$Y = y - \bar{y}$	**Y²**	**XY**
2016/017	5466.60	85.35	-2650.08	7022941.50	-48.15	2318.10	127592.77
2017/018	6694.96	94.18	-1421.72	2021297.14	-39.32	1545.80	55897.47
2018/019	8063.90	143.57	-52.78	2786.077	10.07	101.47	-531.70
2019/020	10097.69	170.80	1981.01	3924387.54	37.30	1391.54	73898.09
2020/021	13802.44	237.38	5685.76	32327829.25	103.88	10791.74	590655.17
Total	48700.10	800.98	0.00	57846233.20	0.00	20218.67	1073490.76
Mean	8116.68	133.49					

Coefficient of Correlation (r):

$$r = \frac{n\sum xy - \sum x \sum y}{\sqrt{n\sum x^2 - \left(\sum x\right)^2}\sqrt{n\sum y^2 - \left(\sum y\right)^2}} = \frac{(6\times) - (\times)}{\sqrt{(6\times) - (\ )^2}\sqrt{(6\times) - (\ )^2}} = 0.992623$$

Coefficient of Determination (r^2) = 0.992623 × 0.992623 = 0.985300858

$$\Pr obable(P.Er) = 0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.6745 \times \frac{1 - 0.985300858}{\sqrt{6}} = 0.004048$$

6 (P.Er) = 0.024286

Coefficient of correlation between deposit and net profit of NABIL

Years	Deposit(x)	Net profit (y)	$X = x - \bar{x}$	X^2	$Y = y - \bar{y}$	Y^2	XY
2016/017	15506.43	271.64	32.07	1028.27	-159.78	25529.10	-5123.56
2017/018	13447.66	416.24	-2026.70	4107526.27	-15.18	230.38	30761.91
2018/019	14119.03	455.31	-1355.33	1836928.35	23.89	570.81	-32381.22
2019/020	14586.66	518.64	-887.70	788017.15	87.22	7607.62	-77426.99
2020/021	19347.40	635.30	3873.04	15000413.28	203.88	41567.75	789641.30
Total	92846.18	2588.51	0.00	21866873.24	0.00	95116.40	654408.34
Mean	15474.36	431.42					

Coefficient of Correlation (r):

$$r = \frac{n\sum xy - \sum x \sum y}{\sqrt{n\sum x^2 - \left(\sum x\right)^2}\sqrt{n\sum y^2 - \left(\sum y\right)^2}} = \frac{(6\times) - (\times)}{\sqrt{(6\times) - (\ )^2}\sqrt{(6\times) - (\ )^2}} = 0.453762$$

Coefficient of Determination (r^2) = 0.453762 × 0.453762 = 0.205899635

$$\Pr obable(P.Er) = 0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.6745 \times \frac{1 - 0.205899635}{\sqrt{6}} = 0.218666$$

6 (P.Er) = 1.311997

Coefficient of correlation between total deposit and net profit of NBL

Years	Deposit(x)	Net profit (y)	$X = x - \bar{x}$	X^2	$Y = y - \bar{y}$	Y^2	XY
2016/017	5723.29	9.28	-1739.52	3025947.23	-95.01	9041.78	165408.47
2017/018	6170.71	82.13	-1292.10	1669535.33	-22.24	494.54	28734.22
2018/019	7741.65	127.48	278.83	77748.96	23.11	534.15	6444.35
2019/020	8942.75	139.52	1479.93	2190207.60	35.15	1235.64	52022.23
2020/021	10485.00	202.44	3022.18	9133602.17	98.07	9618.05	296390.82
Total	44776.89	626.21	0.00	19157179.25	0.00	22445.83	617238.29
Mean	7462.81	104.37					

Coefficient of Correlation (r):

$$r = \frac{n\sum xy - \sum x \sum y}{\sqrt{n\sum x^2 - \left(\sum x\right)^2}\sqrt{n\sum y^2 - \left(\sum y\right)^2}} = \frac{(6\times) - (\times)}{\sqrt{(6\times) - (\ )^2}\sqrt{(6\times) - (\ )^2}} = 0.941281$$

Coefficient of Determination (r^2) = 0.941281 × 0.941281 = 0.886009909

$$\Pr obable(P.Er) = 0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.6745 \times \frac{1 - 0.886009909}{\sqrt{6}} = 0.031389$$

6 (P.Er) = 0.188332

Coefficient of correlation between total deposit and interest earned of SCBNL

Years	Total deposit (x)	Interest earned (y)	$X = x - \bar{x}$	X^2	$Y = y - \bar{y}$	Y^2	XY
2016/017	5466.60	443.82	-2650.08	7022941.66	-160.96	25907.57	426552.91
2017/018	6694.96	520.17	-1421.72	2021297.23	-84.61	7158.56	120289.59
2018/019	8063.90	657.25	-52.78	2786.08	52.47	2753.28	-2769.63
2019/020	10097.69	719.3	1981.01	3924387.43	114.52	13115.22	226868.25
2020/021	13802.44	903.11	5685.76	32327828.91	298.33	89001.80	1696241.45
Total	48700.10	3628.67	0.00	57846233.20	0.00	186230.15	3245604.56
Mean	8116.68	604.78					

Coefficient of Correlation (r):

$$r = \frac{n\sum xy - \sum x \sum y}{\sqrt{n\sum x^2 - \left(\sum x\right)^2}\sqrt{n\sum y^2 - \left(\sum y\right)^2}} = \frac{(6\times) - (\times)}{\sqrt{(6\times) - (\ )^2}\sqrt{(6\times) - (\ )^2}} = 0.988856$$

Coefficient of Determination (r^2) = 0.988856 × 0.988856 = 0.977836244

$$\Pr obable(P.Er) = 0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.6745 \times \frac{1 - 0.977836244}{\sqrt{6}} = 0.006103$$

6 (P.Er) = 0.036619

Coefficient of correlation between total deposit and interest earned of NABIL

Years	Total deposit (x)	Interest earned (y)	$X = x - \bar{x}$	X^2	$Y = y - \bar{y}$	Y^2	XY
2016/017	15506.43	1120.70	32.07	1028.29	-10.24	104.82	-328.30
2017/018	13447.66	1017.87	-2026.70	4107525.05	-113.07	12784.37	229155.25
2018/019	14119.03	1001.61	-1355.33	1836927.54	-129.33	16725.73	175282.50
2019/020	14586.66	1068.75	-887.70	788016.62	-62.19	3867.35	55204.47
2020/021	19347.40	1310.00	3873.04	15000415.60	179.06	32063.19	693513.75
Total	92846.18	6785.63	0.00	21866873.24	0.00	83976.79	1202331.53
Mean	15474.36	1130.94					

Coefficient of Correlation (r):

$$r = \frac{n\sum xy - \sum x \sum y}{\sqrt{n\sum x^2 - \left(\sum x\right)^2}\sqrt{n\sum y^2 - \left(\sum y\right)^2}} = \frac{(6\times) - (\times)}{\sqrt{(6\times) - (\ )^2}\sqrt{(6\times) - (\ )^2}} = 0.887261$$

Coefficient of Determination (r^2) = 0.887261 × 0.887261 = 0.78723161

$$\Pr obable(P.Er) = 0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.6745 \times \frac{1 - 0.78723161}{\sqrt{6}} = 0.058589$$

6 (P.Er) = 0.351532

Coefficient of correlation between total deposit and interest earned of NBL

Years	**Total deposit (x)**	**Interest earned (y)**	$X = x - \bar{x}$	$\mathbf{X^2}$	$Y = y - \bar{y}$	$\mathbf{Y^2}$	**XY**
2016/017	5723.29	5281.07	-1739.52	3025947.22	-1961.52	3847541.10	3412104.38
2017/018	6170.71	6358.85	-1292.10	1669535.33	-883.73	780987.55	1141878.41
2018/019	7741.65	8124.09	278.83	77748.96	881.50	777051.06	245794.47
2019/020	8942.75	8510.83	1479.93	2190207.60	1268.24	1608445.38	1876920.16
2020/021	10485.00	10633.80	3022.18	9133602.17	3391.21	11500339.20	10248879.10
Total	44776.89	43455.51	0.00	19157179.25	0.00	25781243.63	21641258.15
Mean	7462.81	7242.58					

Coefficient of Correlation (r):

$$r = \frac{n\sum xy - \sum x \sum y}{\sqrt{n\sum x^2 - \left(\sum x\right)^2}\sqrt{n\sum y^2 - \left(\sum y\right)^2}} = \frac{(6\times) - (\times)}{\sqrt{(6\times) - (\ )^2}\sqrt{(6\times) - (\ )^2}} = 0.973789$$

Coefficient of Determination (r^2) =0.973789 ×0. 973789 = 0.948264704

$$\Pr obable(P.Er) = 0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.6745 \times \frac{1 - 0.948264704}{\sqrt{6}} = 0.014246$$

6 (P.Er) = 0.085476

Coefficient of correlation between loan and advances to interest paid of SCBNL

Years	**Loan and advances(x)**	**Interest paid (y)**	$X = x - \bar{x}$	$\mathbf{X^2}$	$Y = y - \bar{y}$	$\mathbf{Y^2}$	**XY**
2016/017	3948.48	257.05	-1912.65	3658240.85	-45.975	2113.70	87934.22
2017/018	4908.46	307.63	-952.67	907585.52	4.605	21.20	-4387.05
2018/019	5884.12	316.37	22.99	528.40	13.345	178.08	306.76
2019/020	7618.67	299.56	1757.54	3088936.90	-3.465	12.00	-6089.87
2020/021	9801.30	401.4	3940.17	15524972.49	98.375	9677.64	387614.63
Total	35166.80	1818.15	0.00	31333418.17	0.00	16476.25	656360.30
Mean	5861.13	303.02					

Coefficient of Correlation (r):

$$r = \frac{n\sum xy - \sum x \sum y}{\sqrt{n\sum x^2 - \left(\sum x\right)^2}\sqrt{n\sum y^2 - \left(\sum y\right)^2}} = \frac{(6\times) - (\times)}{\sqrt{(6\times) - (\ )^2}\sqrt{(6\times) - (\ )^2}} = 0.913502$$

Coefficient of Determination (r^2) = 0.913502 × 0.913502 = 0.834485072

$$\Pr obable(P.Er) = 0.6745 \times \frac{1-r^2}{\sqrt{n}} = 0.6745 \times \frac{1-0.834485072}{\sqrt{6}} = 0.045577$$

6 (P.Er) = 0.273461

Coefficient of correlation between loan and advances to interest paid of NABIL

Years	**Loan and advances (x)**	**Interest paid (y)**	$X = x - \bar{x}$	$\mathbf{X^2}$	$Y = y - \bar{y}$	$\mathbf{Y^2}$	**XY**
2016/017	7437.89	462.08	-1666.31	2776577.92	88.50	7832.25	-147468.1
2017/018	7755.95	317.35	-1348.25	1817769.08	-56.23	3161.81	75811.91
2018/019	8189.99	282.95	-914.21	835773.84	-90.63	8213.80	82854.55
2019/020	10586.17	243.54	1481.97	2196244.95	-130.04	16910.40	-192715.8
2020/021	12922.54	357.20	3818.34	14579745.79	-16.38	268.30	-62544.46
Total	54625.18	2241.48	0.00	24087279.2	0.00	78321.41	-524929.3
Mean	9104.19667	373.58					

Coefficient of Correlation (r):

$$r = \frac{n\sum xy - \sum x \sum y}{\sqrt{n\sum x^2 - \left(\sum x\right)^2}\sqrt{n\sum y^2 - \left(\sum y\right)^2}} = \frac{(6\times) - (\times)}{\sqrt{(6\times) - (\ )^2}\sqrt{(6\times) - (\ )^2}} = -0.38218$$

Coefficient of Determination (r^2) = -0.38218 × -0.38218 = 0.146060711

$$\Pr obable(P.Er) = 0.6745 \times \frac{1-r^2}{\sqrt{n}} = 0.6745 \times \frac{1-0.146060711}{\sqrt{6}} = 0.235144$$

6 (P.Er) = 1.410862

Coefficient of correlation between loan and advances to interest paid of NBL

Years	**Loan and advances(x)**	**Interest paid (y)**	$X = x - \bar{x}$	$\mathbf{X^2}$	$Y = y - \bar{y}$	$\mathbf{Y^2}$	**XY**
2016/017	4613.61	285	-736.68	542690.54	0.29	0.08	-211.20
2017/018	4542.7	276.71	-807.59	652194.07	-8.00	64.05	6463.35
2018/019	5646.69	286.3	296.40	87855.73	1.59	2.52	470.31
2019/020	5912.58	241.64	562.29	316175.30	-43.07	1855.31	-24219.89
2020/021	7259.082	308.15	1908.80	3643504.73	23.44	549.28	44735.89
Total	32101.71	1708.28	0.00	6738725.03	0.00	3135.16	-4280.28
Mean	5350.28	284.71					

Coefficient of Correlation (r):

$$r = \frac{n\sum xy - \sum x \sum y}{\sqrt{n\sum x^2 - \left(\sum x\right)^2}\sqrt{n\sum y^2 - \left(\sum y\right)^2}} = \frac{(6\times) - (\times)}{\sqrt{(6\times) - (\ )^2}\sqrt{(6\times) - (\ )^2}} = -0.02945$$

Coefficient of Determination (r^2) = -0.02945 × -0.02945 = 0.000867175

$$\Pr obable(P.Er) = 0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.6745 \times \frac{1 - 0.000867175}{\sqrt{6}} = 0.275125$$

6 (P.Er) = 1.650748

Coefficient of correlation between total working fund and net profit of SCBNL

Years	**Working fund (x)**	**Net profit (y)**	$X = x - \bar{x}$	**X²**	$Y = y - \bar{y}$	**Y²**	**XY**
2016/017	6616.89	85.35	-2921.72	8536418.54	-48.15	2318.10	140670.94
2017/018	8052.2	94.18	-1486.41	2209399.82	-39.32	1545.80	58440.54
2018/019	9608.56	143.57	69.95	4893.70	10.07	101.47	704.68
2019/020	11792.12	170.8	2253.52	5078329.86	37.30	1391.54	84063.55
2020/021	15959.28	237.38	6420.68	41225067.46	103.88	10791.74	667000.91
Total	57231.63	800.98	0.00	75855222.18	0.00	20218.67	1227504.69
Mean	9538.605	133.4967					

Coefficient of Correlation (r):

$$r = \frac{n\sum xy - \sum x \sum y}{\sqrt{n\sum x^2 - \left(\sum x\right)^2}\sqrt{n\sum y^2 - \left(\sum y\right)^2}} = \frac{(6\times) - (\times)}{\sqrt{(6\times) - (\ )^2}\sqrt{(6\times) - (\ )^2}} = 0.991184$$

Coefficient of Determination (r^2) = 991184 × 991184 = 0.982444814

$$\Pr obable(P.Er) = 0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.6745 \times \frac{1 - 0.982444814}{\sqrt{6}} = 0.004834$$

6 (P.Er) = 0.029004

Coefficient of correlation between total working fund and net profit of NABIL

Years	Working fund (x)	Net profit (y)	$X = x - \bar{x}$	X^2	$Y = y - \bar{y}$	Y^2	XY
2016/017	17529.25	271.64	-491.47	241539.52	-159.78	25529.11	78525.71
2017/018	16562.62	416.24	-1458.10	2126045.99	-15.18	230.38	22131.43
2018/019	16745.48	455.31	-1275.24	1626228.64	23.89	570.81	-30467.57
2019/020	17186.33	518.64	-834.39	696201.17	87.22	7607.62	-72776.63
2020/021	22329.97	635.3	4309.25	18569664.00	203.88	41567.75	878577.89
Total	108124.30	2588.51	0.00	23322212.67	0.00	95116.40	911009.75
Mean	18020.7167	431.4183					

Coefficient of Correlation (r):

$$r = \frac{n\sum xy - \sum x \sum y}{\sqrt{n\sum x^2 - \left(\sum x\right)^2}\sqrt{n\sum y^2 - \left(\sum y\right)^2}} = \frac{(6\times) - (\times)}{\sqrt{(6\times) - (\ )^2}\sqrt{(6\times) - (\ )^2}} = 0.611661$$

Coefficient of Determination (r^2) = 0.611661 × 0.611661 = 0.374128596

$$\Pr obable(P.Er) = 0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.6745 \times \frac{1 - 0.374128596}{\sqrt{6}} = 0.172342$$

6 (P.Er) = 1.034053

Coefficient of correlation between total working fund and net profit of NBL

Years	Working fund (x)	Net profit (y)	$X = x - \bar{x}$	X^2	$Y = y - \bar{y}$	Y^2	XY
2016/017	6356.65	9.28	-2249.22	5058975.63	-95.09	9041.78	213874.19
2017/018	7444.82	82.13	-1161.05	1348029.37	-22.24	494.54	25819.70
2018/019	9496.34	127.48	890.47	792942.75	23.11	534.15	20580.35
2019/020	9857.13	139.52	1251.26	1565659.92	35.15	1235.64	43984.03
2020/021	12278.33	202.44	3672.46	13486986.91	98.07	9618.06	360164.72
Total	51635.20	626.21	0.00	28031506.09	0.00	22445.83	758196.48
Mean	8605.87	104.37					

Coefficient of Correlation (r):

$$r = \frac{n\sum xy - \sum x \sum y}{\sqrt{n\sum x^2 - \left(\sum x\right)^2}\sqrt{n\sum y^2 - \left(\sum y\right)^2}} = \frac{(6\times) - (\times)}{\sqrt{(6\times) - (\ )^2}\sqrt{(6\times) - (\ )^2}} = 0.955852$$

Coefficient of Determination (r^2) = 0.955852 × 0.955852 = 0.913653499

$$\Pr obable(P.Er) = 0.6745 \times \frac{1-r^2}{\sqrt{n}} = 0.6745 \times \frac{1-0.913653499}{\sqrt{6}} = 0.023777$$

6 (P.Er) = 0.14266

Appendix V

Regression equation between net profit on total working fund of SCBNL

Year	Working fund (X)	Net profit (Y)	X^2	Y^2	XY
2016/017	6616.89	85.35	43783233.27	7284.62	564751.56
2017/018	8052.20	94.18	64837924.84	8869.87	758356.20
2018/019	9608.56	143.57	92324425.27	20612.34	1379500.96
2019/020	11792.12	170.80	139054094.09	29172.64	2014094.10
2020/021	15959.28	237.38	254698618.12	56349.26	3788413.89
Total	57231.63	800.98	621765134.25	127146.83	8867736.53

X= independent variable

Y= dependent variable

Regression equation between net profits on total working fund of NABIL

Year	Working fund X	Net profit Y	X^2	Y^2	XY
2016/017	17529.3	271.64	307274605.56	73788.29	4761645.47
2017/018	16562.6	416.24	274320381.26	173255.74	6894024.95
2018/019	16745.5	455.31	280411100.43	207307.20	7624384.50
2019/020	17186.3	518.64	295369938.87	268987.45	8913518.19
2020/021	22330	635.3	498627560.20	403606.09	14186229.94
Total	108124.30	2588.51	1971799587.75	1211847.07	47557815.05

X= independent variable

Y= dependent variable

Regression equation between net profits on total working fund of NBL

Year	Working fund X	Net profit Y	X^2	Y^2	XY
2016/017	6356.65	9.28	40406999.22	86.12	58989.71
2017/018	7444.82	82.13	55425344.83	6745.34	611443.07
2018/019	9496.34	127.48	90180473.40	16251.15	1210593.42
2019/020	9857.13	139.52	97163011.84	19465.83	1375266.78
2020/021	12278.33	202.44	150757387.59	40981.95	2485625.13
Total	51635.20	626.21	472397152.60	87802.32	6147276.25

X= independent variable

Y= dependent variable

Regression equation between net profits on total deposit of SCBNL

Year	Total deposit X	Net profit Y	X^2	Y^2	XY
2016/017	5466.6	85.35	29883715.56	7284.62	466574.31
2017/018	6694.96	94.18	44822489.40	8869.87	630531.33
2018/019	8063.9	143.57	65026483.21	20612.34	1157734.12
2019/020	10097.69	170.8	101963343.34	29172.64	1724685.45
2020/021	13802.44	237.38	190507349.95	56349.26	3276423.21
Total	48700.10	800.98	453129523.20	127146.83	7574791.77

X= independent variable

Y= dependent variable

Regression equation between net profits on total deposit of NABIL

Year	Total deposit X	Net profit Y	X^2	Y^2	XY
2016/017	15506.43	271.64	240449371.34	73788.29	4212166.65
2017/018	13447.66	416.24	180839559.48	173255.74	5597454.00
2018/019	14119.03	455.31	199347008.14	207307.20	6428535.55
2019/020	14586.66	518.64	212770649.96	268987.45	7565225.34
2020/021	19347.4	635.3	374321886.76	403606.09	12291403.22
Total	92846.18	2588.51	1458602396.68	1211847.07	40709952.58

X= independent variable

Y= dependent variable

Regression equation between net profit on total deposit of NBL

Year	**Total deposit X**	**Net profit Y**	**X^2**	**Y^2**	**XY**
2016/017	6170.71	82.13	38077661.90	6745.34	506800.41
2017/018	7741.65	127.48	59933144.72	16251.15	986905.54
2018/019	8942.75	139.52	79972777.56	19465.83	1247692.48
2019/020	10485	202.44	109935225.00	40981.95	2122583.40
2020/021	44776.89	626.21	353318825.59	87802.32	5290527.67

X= independent variable

Y= dependent variable