DETERMINANTS OF INVESTMENT OF NEPALESE COMMERCIAL BANKS

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CERTIFICATION OF AUTHORSHIP

This dissertation is a presentation of my original research work for fulfillment of Master Degree. Wherever contributions of others are involved, every effort is made to indicate this clearly, with due reference to the literature, and acknowledgements of collaborative research and discussions. The work was done under the guidance of Lecturer, Basu Dev Adhikari, Faculty of Management N.R. College, Nepaltar, Kathmandu.

I certify that the work in this dissertation has not been previously submitted for degree or it has been submitted as part of requirement for a Master Degree of those selected commercial banks except as fully acknowledgement.

I also certify that the dissertation has been written by me. Any help that I have requested during the study and preparation of the work has been acknowledged. In addition, I certify that all the required information sources and literature used are indicated in the bibliography section of a dissertation.

Hari Datta Rawal

Signature:

September, 2022

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Hari Datta Rawal

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ABBREVIATIONS

AEPC	:	Alternative Energy Promotion Center
ATM	:	Automated Teller Machine
ANB	:	Number of Branch
BLB	:	Branchless Banking
CREF	:	Central Renewable Energy Fund
DRS	:	Disaster recovery system
EC	:	European commission
FD	:	Fixed Deposit
GBIME		Global IME Bank limited
GDP	:	Gross Domestic Product
GDPPC		GDP per capita
INFR	:	Inflation rate
IR	:	Interest rate
Log	:	Logarithm
MBS	:	Master of Business Studies
MEGA	:	Mega bank Limited
MGT	:	Management
NIBL	:	Nepal Investment Bank Limited.
MIS	:	Management Information System
NEPSE		Nepal stock exchange
NMB	:	NMB Bank Limited.
PCBL	:	Prime Commercial Bank Limited.
No	:	Number
RBB	:	Rastiya Banijya Bank
Regd	:	Registration
ROA	:	Return on Asset
RS	:	Rupees
T.U	:	Tribhuvan University
USDR	:	USD Rate
STARS	:	Service centric transformational action-oriented result & synergistic
%	:	Percentage
&	:	And

ABSTRACT

The purpose of the study to examine the factors that determinant of investment of Nepalese commercial banks. The study is based on the secondary data which were gathered for 5 commercial banks in Nepal for the period 2011/12 to 2020/21, leading to the total of 50 observations. The secondary data have been obtained from concerned banks annual reports. The descriptive, co-relational and casual comparative research design has been employed. In this study, five commercial banks are taken as sample out of total population of 27. The dependent variable used in this study is investment and independent variables used are deposits, size of the firm and net profit. The correlation analysis is done by using person's correlation coefficient. This correlation matrix, investment is taken as a dependent variable and total deposit, total asset and net profit are taken as an independent variable. Means, standard deviations, and C.V, are used to examine the trends of variables of sample commercial banks which are selected for this research. Descriptive statistics of dependent and independents variables of selected commercial banks for the study period of ten fiscal years. Dependent variables is log of total investment (Ln Inv), and independent variables are log of total deposit (Ln TD), log of total asset (Ln TA). log of net profit (Ln NP).Pearson's correlation model is used to show the relationship among the variables and 2-tailed test is used to measure the significance. The results, all variables have statistically significant because their p-value is less than 0.01 significant level. The regression model reveals that there is positive relationship of investment with deposit and is statistically insignificant. Size of the firm have negative relation with the dependent variable and indicates statistically significant. In the same way profitability has the positive relation with the investment but it is also statistically significant. It states that when the profit of firm increases then the investment will also rise. Deposit has the positive relationship with the investment which indicates that as deposits increases the investment amount get increases and is statistically significant.

KEYWORDS: Investment, Deposit, Size and Profit

CHAPTER – I
INTRODUCTION

1.1 Background of the study

The level of investment in an economy tends to vary by a greater extent than other components of aggragete of demand. This is because the underlying determinants also have a tendency to change. Investment is considered to be one of the main factors in the success of economic development plans through its role in increasing the level of employment, reducing the unemployment rate, increasing the level of production, and achieving high growth rates. Investment also plays an important role in increasing levels of exports and replacement imports, which improves the balance of payments. Moreover, economic decision-makers are aware of the role of fluctuations in investment in the performance of the economy. Therefore, the process of identifying the determinants of investment behavior is an important issue for the economy. The importance of investment induces countries to concentrate on this variable and to improve their environment in order to be attractive to investment. Countries also attempt to reduce or eliminate the obstacles that can affect on the investment spending by reviewing their laws and regulations. In addition, some countries have established institutions that support and encourage investment, such as the investment board Nepal. This is a lead agency for implementing the government's investment promotion policies and activities, in order to enhance the competitiveness of the Nepalese economy, attract investment, facilitate investment success and eliminate bureaucratic constraints.

A commercial bank is financial institution which performs the function of accepting deposit from public and providing loan for investment with the aim of earning profit. Nepal bank limited is the first commercial bank of Nepal. It was established in 1994 kartik 30.

A country's well-organized financial system is critical to its economic success because it moves financial resources from savers to those who require them. Commercial banks, finance businesses, and financial cooperative societies are examples of financial institutions that play an important role in the development of the economy, business, and other productive sectors that contribute to the nation's economic progress. The mobilization of financial resources, the generation of capital, and its effective use are all critical to the country's economic success. Commercial banks, for example, play a critical part in the country's economic development.

Commercial banks invest the public's savings as deposits to provide capital for the development of industry, trade, and business. Customers of commercial banks can take advantage of a variety of services that help them enhance their economic and social lives. The bank plays a critical role in the country's development. As a result, any country's development requires a competitive and reliable banking system.

The term "investment" refers to putting money aside from one's earnings, savings, or other sources of income. Only when there is sufficient savings is it possible to invest. If all of one's earnings are used to meet basic needs, there is no use in investing. As a result, both saving and investing are intertwined. Saving is defined as deferred consumption, whereas investment is defined as real investment that enhances future national output. While it is true that everyone wants to put their money into the most profitable chances for a good return, there is always a risk involved.

Francis (1983), states, "Investing involves making a current commitment of funds in order to obtain an uncertain future return. It is a risky business that demands information. To process information effectively and select the best investment requires goals that are clear cut and realistic. In simple term investment is making a current commitment of funds that is expected to generate additional money in future. Nevertheless, in the broadest sense it means the sacrifice of current rupees for future rupees that take place at present and certain time." Similarly, Sharpe (1986) defines "Investment in the actual sense refers to the sacrifice of current dollars for future dollars". Investment involves two attributes, time and risk. The sacrifice takes place in the present and certain. The reward comes later, if at all and the magnitude of which is uncertain. In some cases, the element of time predominates (for example, call option on common stock). In yet others, both time and risk play a dominant role (for example, share of common stock).

As a result, investment can be defined as the process of managing an investor's wealth. The money to invest comes from previously owned trade assets, borrowed money, and savings or foregone spending. Investors intend to improve their future consumption possibilities by sacrificing expenditure today and investing the savings, i.e. They are investing to grow wealth.

Investors also seek to manage their wealth effectively by obtaining the most profit while protecting it from inflation, taxes and other factors. Thus investment policies are the strategies of finding out the answers of where to invest? How much to invest? When to invest? However, there are no specific rules determinants of investment of a bank and thus it has to keep increasing the safety and liquidity of its resources to meet the potential demand of its customers. Investment promotes economic growth and contributes to a nation's wealth. When people deposit money in the saving account of a bank, the bank may invest by lending the funds to various entrepreneurs' business firms. These firms in return may invest the money in new establishments to enhance their production. In addition to borrowing from banks, most companies issue stocks and bonds that they sell to investors to raise capital needed for business expansion. Government also issues bonds to obtain funds to invest in major projects of national interests, such as the construction of dams, roads, irrigation, educational institutions, etc. Nepal Rastra Bank on behalf of the government of Nepal issues bonds, treasury bills to finance the long-term and short term needs of the government. All such investments by individuals, firms and government involve getting an expected future benefit. As a result of which, investment helps in raising the living status of common citizen of the nation. Describing below our selected banks for the study.

A) Global IME bank ltd.

Global IME bank Ltd. (GBIME) emerged after successful merger of Global bank ltd (an "A" class commercial bank), IME Financial institution (a "C" class finance company) and Lord Buddha Finance ltd. (a "C" class finance company) in year 2012. Two more "B" class development banks (Social Development bank and Gulmi Bikas Bank) merged with Global IME bank ltd in year 2013. Later, in the year 2014, Global IME Bank made another merger with Commerz and Trust bank Nepal ltd. (an "A" class commercial bank). During 2015-16, Global IME bank limited acquired Pacific Development bank limited (a "B" Class Development bank) and Reliable Development bank limited (a "B" Class Development bank). During 2019-20, Global IME bank limited acquired Hathway Finance limited (a "C" class finance company) and merged with Janata bank Nepal limited (an "A" class commercial bank).

Global bank limited (GBL) was established in 2007 as an 'A' class commercial bank in Nepal which provided entire commercial banking services. The bank was established with the largest capital base at the time with paid up capital of NPR 1.0 billion. The paid up capital of the bank has since been increased to NPR 23.79 billion. The bank's shares are publicly traded as an 'A' category company in the Nepal Stock Exchange.

B) NMB bank ltd.

NMB bank limited licensed as “A” class financial institution by Nepal rastra bank in May 2008 has been operating in the Nepalese financial market for over twenty years and is one of the leading commercial banks in the banking industry.

The bank has a joint venture agreement with Nederlandse Financierings-Maatschappij voor Ontwikkelingslanden (FMO), wherein FMO holds 13.69% of the Bank’s shares and is the largest shareholder of the bank. In September 2016, the bank signed a Joint Venture Agreement with Nederlandse Financierings-Maatschappij voor Ontwikkelingslanden (FMO), the Dutch development bank following which FMO became the single largest shareholder of the bank. The alliance with FMO positions NMB Bank in becoming the market leader in managing environmental & social risks and the leading player in renewable energy and agribusiness. NMB bank was awarded **'bank of the year 2017', 'bank of the year 2018', 'bank of the year 2020'**, and **'bank of the year 2021'**. In the same year, for the first time in the history of Nepal, the bank was awarded the title of **'bank of the year 2021 Asia'** by The banker, financial times, and London.

C) Nepal investment bank ltd.

Nepal investment bank ltd. (NIBL), previously Nepal Indosuez bank ltd., was established in 1986 as a joint venture between Nepalese and French partners. The French partner (holding 50% of the capital of NIBL) was credit AgricoleIndosuez, a subsidiary of one of the largest banking group in the world.

Later in 2002, a group of Nepalese companies comprising of bankers, professionals, industrialists and businessmen acquired the 50% shareholding of credit Agricole Indosuez in Nepal Indosuez bank ltd., and accordingly the name of the bank also changed to Nepal investment bank ltd.

D) Prime commercial bank ltd.

Prime commercial bank ltd. was incorporated in September 2007 as the 21st commercial bank in Nepal. We are a category ‘a’ financial institution registered under the “banks and financial institutions act” of Nepal. It has been established by prominent business personnel and professionals from diversified areas with a prime objective of providing 'banking services to everyone' in the country where still large numbers of population are deprived of banking services.

E) Mega bank ltd.

With an authorized capital of NPR 17 billion, issued capital of NPR 16.12 billion and paid-up capital of NPR 16.12 billion, Mega bank Nepal limited is one of the premier financial institution of Nepal consistently living it's service pledge to conduct business by continually creating mutually beneficial relationship with all its stakeholders; customers, shareholders, Regulators, Communities and Staff. The bank realizes that its success is directly correlated with the pace at which it fosters its relationship with its stakeholders, so that in every step of its journey, both party benefit, succeed and grow together.

1.2 Statement of the problem

The primary economic goal of developing countries is to accelerate their current rate of growth. Despite the fact that most developing countries are primarily agricultural, industrial development is critical for their economic development, and investment is the most important factor. However, Nepal's investment rate is quite low. Political instability, low investor trust, a lack of expertise about investment management, a lack of enhanced prospectus for investors, restrictions on Nepal's foreign portfolio investment, a lack of an effective capital market, and a sluggish privatization process are the key causes.

After the restoration of democracy, the first elected government in 1991 adopted liberalized and market-oriented economic policies followed by liberalization in the financial sector and its reforms. As a consequence, many commercial banks, development banks, financial institutions, financial cooperative societies and NGOs operating in micro finance have mushroomed in the country. There are substantial numbers of commercial banks, development banks and other financial institution that is operating to assist the process of economic development of the country.

All commercial banks play vital role in the mobilization of financial resources by accepting deposits from the public and providing loans and advances to industrial and trading organizations, and as such they gear up the development of business in the country. The economic development of the country thus depends on the volume of investments made by the commercial banks. However, due to the growing competitions among the commercial banks themselves and with other financial institutions they seem to be unable to enhance their investments vis-à-vis the large amount of deposits raised from the public. In other words, commercial banks seem to be unable to formulate and implement strategic investment policy to invest their funds. Meanwhile, they are also facing some criticism that these banks serves only richer community of limited urban areas and not the poor communities in the vast rural areas of the country, and thus they do not seem to be able to invest their funds in vast areas of the country. Their investment policies generally seem to be guided by the philosophy of “be less risky and high liquid”. Therefore, all banks and financial institutions tap the same market for their investment of funds, which is really a risky as well as less profitable affair.

Besides, it seems that the most of Nepalese commercial banks have not formulated their investment policy in an organized manner. They simply seem to be relying the instructions and guidelines issued by Nepal rastra bank. It seems that they do not have clear view of their investment policy. Commercial banks seem to have prompted to invest their funds in limited areas for higher profits. This may be regarded as very risky affair, which may lead them to lose profits as well as their investment. Although profit is important, however, the investment must be safe in the first place and then profitability. Therefore, the formulation of an appropriate determinants of investment is a must in all the commercial banks, joint venture and other financial institutions.

Nepal's financial system is still in its early stages of development. Commercial banks and other financial institutions such as development banks, financing firms, cooperatives, and insurance companies make up the small and rapidly growing financial industry. As a result, the growth of financial services in the country is uneven, with commercial banks focusing more on issuing short-term loans against moveable goods. Because they are more safety conscious, they are less interested in investing in long-term projects. As a result, they are to a cautious loan policy based on strong security.

The present study has sought to answer the following research questions about the selected commercial banks:

1. What are the trends of their investment, total deposits, total asset and net profits?
2. Does the investment decision affect the total earning, total asset, and total deposit of the banks?
3. What is the relationship between investment, total deposit, total asset and net profit?

1.3 Objectives of the study

This study aimed to contribute to the debate about the determinants of investment, using panel data on the Nepalese commercial bank over the period from 2011/12 to 2020/21, it is noted that there is an absence of this type of study in the existing literature despite the importance of the studies that take into account individual differences between sectors, and the responsiveness of each sector to variables used. The specific objectives of this study are as follows.

1. To examine the trends of their investment, total deposit, total asset and net profit of sample banks.
2. To evaluate the effect of investment, total assets, total deposit and net profit of commercial banks.
3. To analysis the relationship between investments, total deposit, total asset and net profit of the sample banks.

1.4 Research hypothesis

This study has focused on finding out whether there is determinant of investment on commercial banks in Nepal. The study has based on logarithm ratio of total asset, total deposit and net profit with investment logarithm ratio of Nepalese commercial banks and finding out the relationship among one dependent and two independent variables respectively. The research hypothesis is:

H0: There is no significant relationship between logarithm ratio of total asset, total deposit and net profit with investment logarithm ratio.

H1: There is significant relationship between logarithm ratio of total asset, total deposit and net profit with investment logarithm ratio.

1.5 Significance of the study

A sound investment policy of a bank is such that its funds are distributed on different types of assets with good profitability on the one hand and provide maximum safety and security to the depositors and banks on the other hand. So the investment policy of commercial banks should be in accordance with the spirit of the economic a development of the people and also called it as the life-blood of any financial institution because only deposit collection carries no meaning, there should a proper policy of investment also. It is utilized in a proper investment then only better return and sustainability is possible. Therefore, to this significance on account this study on behalf of the firm's investment policy and its relationship is justified as a specified subject matter.

Nepal is one of the least developed countries with poorest economic condition of the world. As the financial services industry becomes more complex, the financial information is more difficult to understand. Quality governance is impossible without effective analysis and evaluation of financial information. In the context of Nepal, there are less availability of research work, articles and journals in investment policy of commercial banks and their financial institutions. The study will certainly help to the management of the concerned banks to improve their performance and would help them to take corrective actions. Thus, this study lies mainly in filling a research gap on the study of investment policy of commercial banks. The study is basically confined to reviewing the investment policy of commercial banks in the ten years periods.

This study is expected to definitely provide a useful feedback to the policy makers of commercial banks of Nepal and also to the government and the NRB in formulating appropriate strategies for the improvement in the financial performance. This study is also expected to be beneficial for the related persons in the field of investment and institution. And also help to find out the causes of failure and success of the bank by using the various financial and statistical tools. This research reports helps to gain and share some practical knowledge of banking and management of the commercial banks in the perspective of improving financial performance.

Similarly, depositors can take decision to deposit on their money, also useful to more people and organization such as trade creditors, investors, academicians, general public, stockbrokers etc. It will prove to be an important value for the entire individual interested in commerce and banking field.

1.6 Limitations of the study

Determinants of Investment of Nepalese commercial banks is one of the most important topics to research in the Nepalese context. As every study has a limitation due to different factors of institutions, study period, reliability of statistical data, tools, techniques and variances. Following are the major limitations of this study:

1. The scope of the study is limited within the frame work of determinants of investment only.
2. The study includes only 10 years’ data (from 2011/12 to 2020/21) of 5 commercial banks have been taken for the study due to presence of outliers and unavailability of data of the commercial banks.
3. The study has considered only the secondary data. The data collection conducting primary survey has not been taken into consideration. Hence, the result of the study is not broad and flexible. It is limited to the data available in the annual reports of

the sample banks and financial reports published by Nepal Rastra Bank and website of commercial banks.

4. Only five commercial banks are selected for the study, which are GBIME, PCBL, NMB, NIBL and MEGA..
5. Public banks of Nepal: Nepal bank limited, Rastriya banijya bank and Agriculture development bank limited which was government directly involvement has not been considered as the sample for our study. They impose the outliers in data due to consecutive poor performances in the past years.
6. No attempts are made to examine the reliability of the available secondary data since they are officially released by the related banks and Nepal Rastra Bank. Thus, the consistency of finding and conclusions are dependent upon the secondary data and information.
7. This study deals with limited financial and statistical tools. Hence, the drawbacks and weakness of those tools are the limitations of the study as well.
8. Sampling methods.

CHAPTER – II
REVIEW OF LITERATURE

2.1 Introduction

The purpose of this chapter is to review the relevant literature regarding the investment policy of commercial banks in Nepal so as to formulate the appropriate research problem, hypotheses and the research gap between the previous research studies and the present study. Such a review has been made from various sources of literature available in different libraries, documentation centre, Nepal Stock Exchange Ltd., other information bureaucracy and the concerned commercial banks' websites. This chapter first represents the conceptual review, review of articles, research papers and previous research studies relevant to this study, and the concluding Remarks**.**

2.2 Conceptual review

Conceptual review of various different literature provided by different authors, research scholars, practitioners, etc. have been presented in the following sections:

The term 'bank' derives from the Latin 'Bancus', which refers to the bench on which the bankers would receipts money and his records. Some persons trace its origin to the French 'Benqee' or to the Italian 'Benca', which means a bench for keeping lending and exchanging of money or coins in the market place by moneylenders moneychangers. With the gradual development of bank, its functions are also increasing. It only dealt with the exchanges of money in its preliminary phase, but later it started accepting deposits from the public against interest and providing them in the form of loans to the needy persons were the basic functions defined. Today, however, banks cover wide range of activities. The "bank of Venice", the first public banking institution was established in Italy in 1157 A.D. Subsequently, "bank of Barcelona" of Spain, the world's second bank was established in 1401 A.D., and "bank of Geneva" of Switzerland was established in 1407 A.D. "bank of Amsterdam" the Netherlands was set up in 1609 A.D. was among the very popular commercial banks in the world. The Bank of 'Hindustan', regarded as India's first commercial bank, was established in 1770. As so in 1694 A.D., "The bank of England" was established, which changed the process of establishing the banking institutions remarkably. This was a big landmark in the history of banking development. The idea of commercial banks was rapidly spread to all over the world only after the establishment of this bank. (www.wikipedi.history.bank.com.np)

In course of time, banks are among the most important financial institutions in the economy and essential business in thousands of local town and cities. In this context, there is much confusion about exactly what a bank is? Certainly, banks must be identified by the functions they perform in the economy. However, the word bank is generally used to denote a certain kind of trading in money, which mainly consists the exchanging of money, the lending of money, the depositing of money and the transmitting of money.

Due to the rapid modernization and industrialization of the world, banking institutions have been indispensable for the resource mobilization and all round development of the country as they are important to individuals and institutions such as the public, businesses, organizations, government and other institutions. It provides resources for economic development that maintains economic confidence of various segments and expands credit to people. The bank accumulates surplus money form the public, who cannot use the money at the time and lends to those who are in need of that to use for productive purposes. It refers to any institution that deals in money. However, today banks are established for specific purpose such as commercial bank, industrial bank, merchant bank, development bank, rural bank, and so on. When the bank lends the loan to the customers for earning interest, the bank draw the money from institution or individual or people pay the interest amount by the certain interest rate. There are different types of bank focus on different types of service to their customers although the basic principle is same i.e. mobilize idle resources from productive sectors to the growth of trade, industry and commerce. Today, banks in different countries render various different services to the people for strengthening the whole country's economy.

George (1952), has stated that the investment and lending practices and policies of the commercial banking system change relatively slowly. Standards and practices which have proved successful in making loans to finance the production of goods and services or in investing funds in governmental and corporate securities continue to be utilized.

Wasson (1966), has concluded that a great many factors may affect the policies which govern investment management of commercial banks. Investment policy would necessarily be a part of total operational policy and would need to contribute to general objective of the bank operation.

Crosse and Hempel (1980), have found that commercial banks bring into being the most important ingredient of the money supply demand deposits through the creation of credit in the form of loans & investment. Banks are the custodians of the community's money as well as the suppliers of its liquidity, since the study is concerned with the investment activities of commercial in Nepal, we take in to consideration exclusively the sector that are required for & relented to the same.

Commercial banks have been playing a central role in an economy and accelerate economic growth of the nation (Levene, 2005).

Well-developed banking sector make it easier for firms to attract financing for their investment needs which stimulates the economic development (Rajan & Zingales, 2005).

Muhidn M. Batu (2016), in his study It is important to examine the main determinants of private investment. Based on the literature review, this study has identified both dependent and independent variables. It is expected that dependent variable is affected by multiple factors like economic, social, political, institutional, cultural, geographical and etc. This study, however, focuses on macroeconomic factors affecting private investment. Determinants of private investment in Ethiopia concludes that investment is one of the key elements in economic growth and hence improving living standards of nations. A rate of investment is one of the key factors that differentiate developed countries from developing countries. Low investment leads to lower rates of growth and job creation, and fewer opportunities for the poor to improve their livelihoods. The primary objective of this study was to systematically review factors affecting private investment. For this purpose eleven studies were collected from nine African countries.

2.2.1 Concept of investment

The word "investment" brings forth vision of profit, risk speculation and wealth, for the uniformed investing may result in disaster. For the knowledge able, the investment process can be financially rewarding and exciting investment, in its broadest sense, means the sacrifice of current dollars for future dollars

Investment is a present sacrifice for the sake of future benefits. Therefore, investment always involves risk. Present decision about selecting the best alternatives should always take the future risk into consideration. The few alternatives of investment in the past have new expanded into hundreds. Hence, the complexity of investment has also been increasing day by day. To select the best alternative and to construct an efficient portfolio, a wise analysis and decision is required. Before making any decision on investment we must be well informed about the factors, which affect investment. Investment decision related with saving, capital formation, capital market, risk involve with it, return, inflation etc.

Investment banking is a special segment of banking operation that helps individuals or organizations raise capital and provide financial consultancy services to them. They act as intermediaries between security issuers and investors and help new firms to go public. They either buy all the available shares at a price estimated by their experts and resell them to public or sell shares on behalf of the issuer and take commission on each share. Investment banking is among the most complex financial mechanisms in the world. They serve many different purposes and business entities. They provide various types of financial services, such as proprietary trading or trading securities for their own accounts, mergers and acquisitions advisory which involves helping organizations in leveraged finance that involves lending money to firms to purchase assets and settle acquisitions, restructuring that involves improving structures of companies to make a business more efficient and help it make maximum profit, and new issues or IPOs, where these banks help new firms go public.

The banks are such types of institutions, which deal with money and substitute for money. They deal with deposit, credit and credit instruments. Good circulation of credit is very much important for financial institutions and banks. Unsteady and unevenly flow of credit harms the economy and the profitability of the commercial banks. Thus to collect fund and utilize it in good investments is the prime objective of commercial banks. Diverse and safe investment of fund is the question of stability and existence of the bank. Nowadays, the financial institutions are viewed as catalyst in the process of the economic growth. The mobilization of domestic resources is one of the key factors in the economic development of a country.

Generally, investment means to flow cash in different sector with profit motive. In a broad sense, however, investment means to sacrifice current rupee in the present and certain for the future purpose rupees, which comes later and is uncertain. Banking industry has acquired a key position in mobilizing resources for finance and social economic development of the country. No function is more important to the economy and it constitutes than financing. Bank assists both the flow of goods and service from the products to the consumers and financial activities of the government. Banking provides the country with a monetary system of payment and it is important part of the financial system, which makes loans to maintain and increase the level of consumption and production in the economy.

An investment is a financial commitment to one or more assets that will be retained for a future period of time. The term "investment" refers to the process of managing an investor's wealth, which is defined as the sum of current income and the present value of all future revenues. Investing can be broken down into three categories. The definition of investment according to an economist is: Investment in a broader or more general sense, as employed by the average person, and financial investment in the sense in which we will be most concerned. The goal of investment and suggest that risk is proportional to the degree of return. They scribble "The goal of investing is to grow an individual's wealth over time, which is defined as assets minus obligations. The more the desired riches, the greater the amount that must be received. An investor wanting a better rate of return must be willing to take on more risk. The concept of investment and profitability mentioned by different authors in their books and paper are summarized in the paragraphs that follow:

Investment is elucidated and defined as an addition to the stockpile of physical capital. Investment can also mean money dedicated to capital spending, which builds the capacity of an entity to produce whatever goods and services it markets (Smyth, 2019).

The dividend or interest received from the investment is the yield. The return from an investment depends upon the nature of the investment, the maturity period and a host of other factors (Smyth, 2019).

Over the years, investors' investment pattern has witnessed a metamorphic change and the change can be attributed to changing scenario of investment alternatives available. Therefore, the concept of investment could be understood from either the economic viewpoint or the financial view point. From the financial viewpoint, investment means the purchase of a financial product or other items of value with an expectation of favourable future returns (Abey, 2020). It also refers to the concept of deformed consumption, which involves purchasing an asset, giving a loan or keeping funds in a bank account to generate future returns (Abey, 2020). In furtherance, Abey (2020) defines economic investment as the formation of new and productive capital in the form of the new construction and producers of durable instruments such as plants and machinery. The economic and financial concepts of investment are related to each other because investment is a part of the savings of individuals which flow into the capital market either directly or through institutions. Thus, investment decisions and financial decisions interact with each other. The term investment can refer to any mechanism used in generating future income (Chen, 2020).

Abey (2020), pointed that investment is characterized by certain features, they include Return, Risk, Safety and Liquidity. All investments are characterized by the expectation of a return. The return may be received in the form of yield plus capital appreciation. The difference between the sale price and the purchase price is capital appreciation.

The success and prosperity of the banks relies heavily upon the successful investment of collected resource to the productive sectors of economy. Hence, the main significance of this study is to help how to minimize risk on investment and maximize return through portfolio analysis. Similarly, the study of commercial banks on investment trend, risk and return pattern, portfolio management, credit management, structure change in deposit and in investment, effect on investment decision by earning, the internal weakness of the banks and furnish the ideas of improvement. Investment in financial sense is placing of money in the other for their use expecting a return or the participation in expected profits. But for manufacturing and trading firms the terms investment will be long term expenditures that aim at increasing return of efficiency or at building up goodwill thereby producing and increasing return over as period. Investment also seek to manage their wealth effectively obtaining the most from it, while protecting it from inflation, taxes and other risks.

The primary criteria that will determine a bank's determintants of investment objectives are its income and liquidity demands, as well as management's willingness to trade liquidity for better income prospects and vice versa, implying taking greater or lower degrees of risk. The risk that bank management is ready to accept, as well as the risk represented by the securities that make up the investment account, must be considered while forming investment policy. Diversification, a basic and important rule of any investment program, is one of the approved strategies of minimizing risk in the investment portfolio of a commercial bank.

2.2.2 Determinants of investment

The empirical evidence from the work of Gnansounou (2010) that looked at the impact of demand fluctuation, cost of factors and demand uncertainty on the variation of investment in French firms in the Benin Republic revealed that a low level of demand and cost of labor were found to have majorly accounted for the stagnation of investment on the part of private firms in the Republic of Benin. His analysis, which made use of the Cobb–Douglas model, also found that the elasticity of capital in relation to the unit cost of capital utilization to be high, significant and negative. Therefore, cost of capital utilization is considered as one of the key determinants of private investment in the study.

Although the concept of investment has been widely developed in literature, Aysan, **Pang, and Veganzonnes (2011),** opine that little is known, both theoretically and empirically, about what induces private firms to invest in developing countries such as Nigeria.

Radha et-al. (2014), conducted a primary study to try to understand investment behavior of omani households. The study document 25 key factors influencing choice of investment channels in oman. The study finds no significant support for rational decision making among the omani households. Specifically, there is no signigicant relation between choice of investment avenues and the 'rumors’ to be the most influencing while 'government policies’ and 'dependent behavior’ are the least influencin in oman, as far as the retail investment market was concerned.

The decision of whether to invest or not is constrained by numerous factors that must be identified and accorded due consideration to foster investment To avoid the danger of faulty investment decisions or patterns, Durechi and Ojiegbe (2015).

Investment decisions are considered one of the major aspect of finance. However, for an investment decision to be made, the determinants play different influential roles **Barayandema & Ndizeye (2018),** it is necessary to examine or investigate very careful those factors that determine investments in the nepalese economy, to know their impact. This study is aimed at examining the determinant factors are Investment, total deposit, total asset and net profit by commercial bank.

Egan et al. (2018), examined determinants of value creation in the cross-section of US banks by taking 26742 observations for the period 1994 to 2015. Egan et al. showed a positive relation between loan and securities investment. Banks create value through excelling at the gathering of deposits, through excelling at the production of loans and through synergies between loan and deposit production.

Al Balushi et al. (2019), examined the determinants of Islamic financing decision in Oman. The researchers found that while small and medium-scale enterprises (SME) Owner-managers' Islamic financial knowledge and personal characteristics do influence their intention to adopt Islamic finance, firms' characteristics have had no significant influence on Islamic investment decisions. However, their contribution had some limitations in terms of the study's findings generalize ability to large and public firms, as the sample includes owner-managers of SMEs only, thus pointing to the need to investigate other behavioral factors, which were not previously explored in Oman context. Little or no emphasis has been given to behavioral dimensions investment strategy in the MSM, the main thrust of the present study

Elekdag et al. (2020), point out that NPL ratio is another key factor driving banks' overall performance, which is used as a risk management metric. Their analysis focuses on the profitability of the largest euro area banks, and they suggest that the real GDP growth and the nonperforming loan (NPL) ratio are the most robust determinants of bank profitability across large euro area banks. They demonstrate that higher growth would raise profit on average, however, an economic recovery alone may not be enough to solve the long-term profitability challenges faced by many banks. Therefore, they claim that a reduction in NPLs combined with cost efficiency 14 improvements are the most promising strategy for durably raising profitability.

2.2.3 Determinant of investment with deposit

Deposits are the part of income placed in banks and are the main source of bank's liquidity. Mishra defined investment distinguishes three types of deposits: demand deposits which can be withdrawn at any time and on which no interest is paid; time deposits which can be withdrawn after a fixed period of time and on which a higher rate of interest is paid; and saving deposits which can be withdrawn to the limited extent in a given period and on which some interest is paid. According to the permanent income hypothesis (friendman, 1975), deposits (or savings) depend on the permanent income while life-cycle hypothesis (Ando and Modigliani, 1963) suppose that individual's age is the main determinant of deposits in banks.

Mashamba et al. (2014), found positive relationship between deposit interest rate and bank deposits in Zimbabwe. Ostadi and Sarlak (2014), studied that interest rate and money supply positively and significantly impact bank deposits. Eriemo (2014) found that interest rate and previous price level have positive significant impact on bank deposits in Nigeria. In the study of household bank deposits in Slovakia, Pitonakova, R.(2016) found real interest rate boost up deposits.

Siaw and Lawer (2015), investigated the effects of selected macroeconomic and financial level variables on bank deposits in Ghana.

Mushtaq et al.(2017), argued that interest rate can determines savings as well as bank deposits. Similarly, Ferrouhi,(2017) found positive correlation between bank deposit and interest rate in Morocco for the period from 2003 to 2014.

Bikker et al. (2018), found interest rates on deposit products vary not only across, but also within banks (i.e., across account of individual banks) and the positive influence of interest rate on bank deposits. Thus, these empirical studies across countries and within the country of the world conclude positive relationship between rate of interest and bank deposit.

Bista et al. (2020), mention determinants of bank liquidity to micro (NPL, capital, bank size, etc.) and macro factors (GDP (Gross Domestic Product), Inflation, Unemployment, etc.). Similarly, fixed deposit of bank is output of micro and macro variables including NPL, capital, bank size, GDP, Inflation, Unemployment, etc. Its functional relationship is:

FD = f(GDPPC, IR, INFR, USDR, ANB)

Where: FD = Fixed Deposit GDPPC = GDP per capita IR = Interest rate INFR = Inflation rate USDR = USD Rate ANB = Number of Branch

In this functional relationship, FD is dependent variable and GDPPC, IR, INFR, USDR and ANB are independent variables in which GDPPC and INFR are macro variables and IR, USDR and ANB are micro variables. In other words, GDPPC and INFR are external variables and IR, USDR and ANB are internal variables.

Bista et.al. (2022), pointed that, GDP per capita, US exchange rate, interest rate and the branch of the bank are positively and significantly determinants to the time deposit of the commercial bank but inflation rate is negatively and determinant with significance. The internal variables are more determinants than the external variables to the time deposits. It is clear that time deposit is a reliable and long-term source to main the bank liquidity of the commercial bank for their financial stability and performance depends on more the internal variables than the external variables. Therefore, the commercial bank should reform as mentioned in the monetary policy and money market dynamics to improve the competitiveness and smartness of bank policy including interest rate policy and branch of the commercial banks for effective mobilization of the scattered small resources all over the country for higher rate of capital formation, investment, and economic growth.

2.2.4 Determinant of investment with asset

Alalaya and Al Khattab (2015), concluded that assets logarithm of banks had a significant negative relationship with ROA, whereas ROE had a positive and significant relationship, TD/TA had a positive effect, GDP had a negative impact, GDP and per capita inflation rate were found to be negatively signed.

Pradhan et al. (2016), found P/E ratio, earnings, dividends, and size are the major influencing indicators for stock price in commercial banks of Nepal.

Pradhan and Paneru (2017), stated that lagged log fixed deposit, numbers of branches, trend and lagged saving deposit were considered as important variables for deposits in Nepalese banking sector.

Gautam (2018), indicated a direct relation of profitability as measured by return on assets with bank capital, and management efficiency.

Avramidis et al. (2018), stated that bank size on M/B has positive effect for banks with transparent assets. Further, the effect of bank size on M/B is negative for banks with higher earning. However, the results reported the inverse effect with liquidity and quality of bank assets.

Gwacha (2019), observed that asset size and deposits have a positive effect on bank profitability and value. size is found as most prominent factor that affects stock price (Pradhan & Pantha, 2019).

Gautam (2021), studied that return on assets and bank deposit have positive effect on bank value whereas loan has negative explaining power on bank value.

2.2.5 Determinant of investment with net profit

Vătavu (2014), indicated that profitability is negatively influenced by tangibility, business risk, the level of taxation, high levels of liquidity, periods of unstable economic conditions, and the current financial crisis.

Zhang and Daly (2014), found that banks with lower credit risk, which are well capitalized, are more profitable, while banks with higher expense preferences exert a negative impact on bank performance. Their results also suggest that greater economic integration through increased trade and capital flows coincides with an increase in bank profitability.

Căpraru and Ihnatov (2015), found that banks' profitability is negatively influenced by the cost to income ratio, banks' size, and credit risk and market concentration.

Sinha and Sharma (2016), examine the factors affecting the profitability of 42 Indian Banks. Bank-specific variables such as capital to assets ratio, operating efficiency and diversification have been found to be significantly and positively affecting the bank profits. Risk negatively impacts the bank profitability.

Szymańska (2017), the ROE of pork manufacturing companies is determined by the high fragmentation of the industry, limited specialization, and customer confidence. Particularly, the author used the detailed annual financial statements of 86 meat companies in Poland from 2008 to 2012, then calculated the profitability through five different ratios, which are the ROA, ROE, ROS, assets turnover ratio and equity multiplier before making a comparison among the given enterprises.

Onofrei et al (2018), found from their study that inflation has no positive significant impact on banks profitability and found domestic non-governmental credit has positive impact on profitability of CEE region belonging 7 countries used panel data analysis and studied 96 banks.

Islam and Rana (2019), studied the determinants of bank profitability of Bangladesh's commercial bank during 2013-2017 relating fixed effect model for panel data method. They used three identical measures of profitability named ROA, ROE and NIM. Their findings demonstrated that earning variable and assets quality have a significant positive relationship with ROA but capital strength has not. They also found that earning and capital strength have a significant positive relationship with ROE, no significant impact of GDP rate, interest rate and inflation rate on bank's profitability.

Profitability in banking is crucial, because banking is part of the financial system in a country, especially in Europe. The financial system consists of financial intermediaries, markets and market infrastructures, while banks are the largest credit providers in Europe (Fell and Schinasi, 2005). Banks in Germany suffered a significant impact during the period 2019 to 2021, especially during the period of the Covid-19 pandemic, banks in Germany were considered less able to develop during this period. Based on the results of a survey released by S & P Global market intelligence in 2020, German banks were the lowest in terms of return on equity (ROE) until the end of 2019 at -0.2%. The aggregate net profit of the banking sector in Germany was only €8.24 billion, a far cry from France's € 29.48 billion, U.K.'s € 25.62 billion, Spain's € 17.43 and even Italy's € 11.29 billion (Damyanova and Garrido, 2020).

Koroleva et al. (2021), examined the relationship between internal determinants, external determinants, and the profitability of state-owned commercial banks using pooled regression, fixed effect, and random effect models using selected top five Chinese state-owned commercial banks between 2007 and 2019 and proven that macroeconomic factor measured by the natural logarithm of GDP negatively influences banks' profitability.

2.3 Theoretical reviews

William F. Sharp, J. Alexander and Jeffery Bailey Jack Clark Froncishare said in Ins book "Investment analysis and management" that investment in its broadest sense, means that sacrifices of current dollars for future dollars. Two different arbutus are generally involved: Time & Risk. The sacrifice takes place in the present & is certain. The reward comes later of at all and the magnitude is generally uncertain.

1. Real Investment: Generally, it involves some kind of tangible assets such as: land, machinery & factories.
2. Financially Investment: Involves contract has written on piece of paper such as: common stocks & bonds.

Chancy, John M. & Moses, Edulard A. Focuses on the individual investment. They states, it is important that the investor set the appropriate investment objectives & the accompanying investment horizon. In addition, in developing investment strategies to achieve the objectives, the investor must understand the tax conservancies and expected risk & return associated with the various investment alternatives per haves most importantly the investor should recognize that achiving & investment objective involves the creation of a portfolio of assets and not a collection of individual assets. They further states that, individual assets may be very risk. Combining these assets into a portfolio of other assets may actually reduce the risk of the overall risk.

Frank K. Rainy in Ins book “Investment analysis management & portfolio management” has defined the term investment, “Investment is the current commitment of funds for a period of time to obtain a future flow of funds that will compensate the investment unit for the time the funds are committed for the expected rate of inflation & also for the uncertainly involved in the future flow of fund” (Reilly, 1986:136 Investment, Japan: the oryden Press, CBS Publisher Ltd.) Shrestha,

Cross & Hempal (1980), “Commercial banks bring into being the most important ingredient of the money supply demand deposits through the creation of credit in the form of loans & investment. Banks are the custodians of the community's money as well as the suppliers of its liquidity, since the study is concerned with the investment activities of commercial in Nepal, we take in to consideration exclusively the sector that are required for & relented to the same.”

Francis has defined that "Investing involves making a current commitment of funds in to obtain an uncertain future return. It is a risky business that demands information. To process information effectively and select the best investments requires goals that are clear-cut and realistic."(Francis, 1988).

Preeti Singh defined investment in this way "Investment is the employment of funds with the aim of achieving additional income or growth in value. The essential quality of an investment is that it involves "waiting" for a reward. It involves the commitment of resources, which have been saved or put away from current consumption in the hope that some benefits will accrue in future."(Singh, 1991).

Shrestha (1995), has explains Portfolio behavior of commercial banks sector of the economy including agriculture, industry, and commercial & social service sectors. The lending policy of commercial is based on the profit maximizing of the institution as well as the economic enhancement of the country.

Jason Zweing (2003), define The act of successful investment lies first in the choise of those industries that are most likely to grow in the future and then in identifying the most promising companies in these industries.

Alexander (2013), has stated that the investment portfolio is formed as a result of investment operations, which are the activities of the attachment of funds of the bank on a relatively long period of time in securities, real estate, the statutory funds of enterprises, collections, precious metals and other objects of investments, market value of which has the ability to grow and to bring the owner of interest income, dividends, profits from the resale and other direct and indirect revenues.

Zvi Bodie et al. (2014), pointed that an investment is the current commitment of money or other resources in the expectation of reaping future benefits. For example, an individual might purchase shares of stock anticipating that the future proceeds from the shares will justify both the time that her money is tied up as well as the risk of the investment. The time you will spend studying this text (not to mention its cost) also is an investment. You are forgoing either current leisure or the income you could be earning at a job in the expectation that your future career will be sufficiently enhanced to justify this commitment of time and effort.

Charles P.Jones (2017), has defined that "Investment as the commitment of funds to one or more assets that will be held over some future time period. Investment is concerned with the management of an investor's wealth, which is the sum of current income and present value of all income."

Dr. Preeti Singh (2018), Financial Investments are the allocation of monetary resources ranging from risk free to risky investments and with the expectation of a good return that varies with risk. The investor has to aim at a trade-off between risk and return. The investors are the suppliers of 'capital' and in their view, investment is a commitment of a person's funds to derive future income in the form of interest, dividends, rent, premiums, pension benefits or the appreciation of the value of their principal capital. To the financial investor, it is not important whether money is invested for a productive use or for the purchase of secondhand instruments such as existing shares and stocks listed on the stock exchanges. Most investments are considered to be transfers of financial assets from one person to another.

The economist understands the term 'Investment' as net additions to the economy's capital stock which consists of goods and service that are used in the production of other goods and services. For them, the term investment implies the formation of new and productive capital in the form of new construction, new producers' durable equipment such as plant and equipment, including inventories and human capital. The financial and economic meaning of investment cannot be separated because the term draws a relationship with the economists and financial experts. Investment is a part of the savings of individuals which flow into the capital market either directly or through institutions; they may be divided in ‘new’ or ‘secondhand’ capital financing. Investors as ‘suppliers’ and investor as ‘users’ of long-term funds find a meeting place in the market.

Pro. Dr. Nikiforos T. Laopodis (2020), Definied that investment involves several elements worthy of special mention. First, we are spending time and money (or resources in general). Our resources are scarce and thus valuable. Investments deal with the efficient management of our money (or financial wealth) today in hopes of receiving more money (or returns) in the future. This brings us to the next element of investment: uncertainty of the future. In other words, the fact that we can only have an expectation for higher returns in the future means that we are faced with risk.

In this way it is clear that an investment means to trade a known rupee amount today for some expected future stream of payments or benefits that will exceed the current outlay by an amount that will exceed the current outlay by an amount that will compensate the investor for the time the funds are committed for the expected changes of prices during the period and for the uncertainty involved in expected future cash flow. Thus investment is the most important function of banks. It is long-term commitment of banks in the uncertain and risky atmosphere. It is very challenging task for any banks. So a bank has to be take pre-caution while investing their funds in various sectors.

2.4 Emperical review

In this section, attempt has been made to review some relevant articles in different economic and financial journals, the World Bank bulletins, dissertation papers, magazines, newspapers, websites and other related literature.

Charles Agwu (2015), investigated “determinant of investment in Nigeria: an econometrics analysis” with the following objectives; to determine the impact of interest rate volatility on investment decision in Nigeria, to investigate, ascertain and unravel other determinants of investment decision in Nigeria, to investigate the trend profile of investment in Nigeria and to examine different theory of investment. In order to achieve the stated objectives an econometrics model was used Autoregressive

Distributed lag model (ARDL) in estimating the long-run and short-run coefficients of variables. In the long run, it shows that past income level, capital investment, government size and interest rate are the major determinants of domestic investment in Nigeria and these variables have a positive effective on private investment in Nigeria. Exchange rate and inflation have an insignificant effect on private investment in Nigeria and the researcher recommends the need to ensure policy consistence and reduce the level of interest rate so as to attract and improve the level of investment in the country.

Attefah and Enning (2016), analyzed the determinants of private investment using time-series data over the period 1980-2010, with the following objectives; to examine private investment trends in Ghana, to identify the factors that inform private investment decisions in Ghana. This study used a aid of multiple linear regression model to determine the factors that have a significant impact on private investment in Ghana. The main findings of this study are that public investment, credit to the private sector, external debt, the openness of the economy, corporate tax, and democracy have significant impact on investment. In contrast, GDP growth, real interest rate, inflation, and real exchange rate were not found to be statistically significant.

Tesfaye Eresso Gofe (2018), study on the topic "assessments of the determinants of investment activities in nekemte town" with following specific objective; To identify Investments activities mostly involved in the town, To identify the major factors of investment activities in the town and examine how this factors affect the investment. For this study both primary and secondary data were used. Because of the heterogeneity of the activities the researcher was used stratified sampling techniques and the sample size was computed using formula. Some of the main findings of the study were difficulties of finance and lack of credits when they started their business, and low encouragement from the investment offices are the major findings of this study. Finally, investment related problem is not the responsibility of the government alone, but also all investors, the local community, the private business man of the town has to work together with the government so as to attain the desired objectives.

Rashid and Shakoor's (2019), study identified the indicators that explain the behavior of investment in Asian countries over the period 1987–2017. The main objective of this research is to find the impact of various variables like Capital investment, Domestic savings, and Gross domestic product per capita, Trade, Government expenditure, inflation, lending rates and privatization on investment in selected Asian countries. The study used the Autometrics for analysis, which is the third-generation modeling technique and is the latest variant of general to a specific approach, and to identify the indicators in explaining the investment of sample countries. The result shows that Domestic savings, Gross domestic product per capita, Government expenditures have a positive impact and significant effect on domestic investment. Also, the study emphasized the role of these variables in attracting investment and determining its growth.

Bhattarai, B. P. (2019), the study on "Determinants of investment of Nepalese commercial banks." The study is based on the secondary data which were gathered for 10 commercial banks in Nepal for the period 20012/13 to 2016/17, leading to the total of 50 observations. The secondary data have been obtained from concerned banks annual reports. The descriptive, correlation and casual comparative research design has been employed. In this study, ten commercial banks are taken as sample out of total population of 28. The dependent variable used in this study is investment and independent variables used are Deposits, Size of the firm and Net Profit. The regression model reveals that there is positive relationship of Investment with Deposit and is statistically significant. Size of the firm have negative relation with the dependent variable and indicates statistically insignificant. In the same way Profitability has the positive relation with the investment but it is also statistically insignificant. It states that when the Profit of Firm increases then the investment will also rise. Deposit has the positive relationship with the investment which indicates that as deposits increases the investment amount get increases and is statistically significant.

To investigate the impact of foreign direct investment on private investment, **Tung and Thang (2020),** used a sample of 49 developing countries in Asia and Africa during the period 1990–2017. The results confirmed a crowding-in effect of foreign direct investment on private investment, which implies that foreign direct investment induces private investment. In addition, the lag value of private investment has a positive and significant impact on itself in the next period, which reflects the inertia in the trend of private investment in recipient countries. In the full-panel sample, GDP per capita, trade openness, and electricity have a positive and statistically significant impact on private investment.

Githaiga (2020), investigated the impact of foreign remittances on private sector investment and the moderating role of banking sector development in 15 sub-Saharan African countries over the period 1986–2017. The main results of this study were that foreign remittances and banking sector development had a significant and positive impact on private investment in sub-Saharan Africa. Also, banking sector development significantly moderated the relationship between foreign remittances and the private sector investment.

Le and Kim (2020), tested how economic freedom affected firms' investment in Vietnam, with following specific objective; to examine the effect of economic freedom and its major sub-components, such as capital freedom and domestic credit freedom, on firmsinvestment in Vietnam.Whereby the economic freedom, such as capital freedom and domestic credit freedom, allows firms to access external finance more easily, so that their investment depends less on internal cash flow. Le and Kimalsoused unique firm-level data over the period 2006–2016, including data on listed firms on two major stock exchanges and unlisted firms in the unlisted public company market. The findings of this study indicated that capital freedom and domestic credit freedom played an important role in investments for Vietnamese firms. But Le and Kim were unable to find evidence that overall economic freedom relaxed financial constraints on firms.

Ayeni (2020), employed the ARDL co-integration method to analyze a long-run equilibrium model for private investment in Gambia. This study used exchange rate, credit to the private sector, external debts, real interest rate, real exchange rate, and inflation as explanatory variables in its investment model. The main findings of this study show that a high exchange rate increases the real cost of importing capital goods, which makes investment very costly. On the other hand, the financing of huge debts plays a constraining role in private investment in Gambia. Aggregate demand conditions, real interest rate, real exchange rate, and inflation all performed below expectations. Also, credit to the private sector did not induce private investment in Gambia due to insufficient credit.

Obeidat et al. (2021), pointed that on "The performance of banks in a developing country: has covid-19 made any difference?" Purpose- The full implications on COVID-19 is yet to be seen. However, it has become clear that the virus has hit the supply and demand sides of economies, impacted banks and stocks markets, and led to significant decreases in the global flows of capital. Within this context, the purpose of this paper is to report on the performance of Jordanian banks in 2020, and examine the determinants of their performance. Methodology- to realize the objectives of this paper, the performance of all listed Jordanian banks (13) during the period 2010-2020 is examined in terms of return on assets (ROA) and net interest margin (NIM). Using the Seemingly-Unrelated Regression (SUR), the dependent variables (ROA and NIM) are regressed on independent variables that include equity capital, bank expenses, size, income diversification, loan loss provisions, lending to the government, and economic growth. Findings- The 2020 financial statements show that the profits of Jordanian banks (return on assets) have decreased from 1.43 percent in 2019 to 0.74 percent in 2020, or by about 48 percent. As far as the econometric results are concerned, it is interesting to note that while loan loss provisions impact bank profitability in a negative and significant manner, this "cost" is passed-on, at least partly, to bank customers in the form of wider costs of financial intermediation (NIM). The Covid-19 pandemic has had a huge impact on the global economy, including the banking sector. Problems do not only revolve around the demand and supply of banking products, but also have an impact on the financial system as a whole. Especially in terms of financial transactions and international trade.

Demir Ender.et al. (2021), pointed that "Banking sector reactions to COVID-19: The role of bank-specific factors and government policy responses" with purpose to examines the impact of bank-specific factors and variations in the context of stringency of government policy responses on bank stock returns because of the COVID-19 pandemic. A sample of 1,927 publicly listed banks from 110 countries is used for the period of the first major wave of COVID-19, that is, January to May 2020. This study used multiple linear regression models. Our findings indicate that stock returns of banks with higher capitalization and deposits, more diversification, lower non-performing loans, and larger size are more resilient to the pandemic. While banks' environment and governance scores do not have a significant impact, higher social and corporate social responsibility strategy scores intensify the negative stock price reaction to COVID-19. We further observe that the pandemic-induced reduction in bank stock prices is mitigated as the strictness of government policy responses increases, mainly through economic responses such as income support, debt and contract relief, and fiscal measures from governments.

The research results show that in countries with expansionary monetary policy through liquidity support policies for banks, interest rate support policies for borrowers, the share price of the banking industry tends to increase. In contrast, in countries with prudent monetary policy, the share price of the banking sector tends to decline.

Angelin et alt (2021), This study investigated the psychological behaviour of investors in the stock market during the period of COVID-19. The survey was conducted between

April and June 2020, following the lockdown announcement of the Indian Government on 25th March. There were 400 respondents. This paper has attempted to identify the impact on psychological behaviour during the initial stage of COVID-19 in India. The collected data has been used to determine the psychological factors which may have influenced investment decisions. The statistical tools of Cronbach Alpha, factor analysis, descriptive analysis, and multiple regression techniques were applied using the SPSS 21 package. The study has analysed the psychological dimensions of the behaviour when responding to fear, risk perception, risk propensity, investors' anxiety to market volatility, herding and vaccination updates. The results show that the behavioural response to fear, risk perception, herding and vaccination updates have influenced investors' decision-making during the COVID-19 pandemic. also describe, The overall evaluation of the influence of phychological behaviour shows that there is a significnt impact on the investmnet decision making due to hearing, vaccination, updates, fear and risk perception. Howerve, risk propensity and anixiety about market volatility has not had any influence on investment decision making during covid-19.

Habtamu Alebachew Legass et al.(2022), Pointed that "Determinants of Private Investment in Ethiopia: An ARDL Approach" with following specific objective; to investigate determinants of private investment in Ethiopia. The researcher employed a quantitative research approach with an explanatory research design to achieve the objective. Study empirically tests whether Real GDP, inflation rate, real interest rate, foreign direct investment, tax rate, exchange rate, population growth rate, unemployment rate, international trade openness, education affect the growth of private investment in Ethiopia or not. The study focused based on 30 years of secondary data (i.e. from 1991 to 2020) on key variables. Multiple regressions using the ARDL model with appropriate software E-views 9 was applied. The ECM which indicates the speed of adjustment from short run towards long run. The main finding of the study indicated ln real GDP, population growth rate, rate interest, trade openness and unemployment rate was statistically significant at 5% level of significance in the long run and short-run and also exchange rate was a positive and statistically significant effect on private investment in only short-run.

While reviewing the books and articles and past studies, it is found that banks are not just the storehouse of the country's wealth but are the reservoirs of resources necessary for economic development and employment generation. There are still different obstacles in the effective operation of the commercial banks in Nepal. Therefore these obstacles should be eradicated for the economic development of Nepal. The review of above relevant literature helps to better understand the determinants of investment of commercial banks and its main drawbacks and problems. On the basis of feedback derived from the literature review further analysis of the study had been under track.

2.4.1 National and international events and their impact on the bank

The first and the second wave of flaring COVID 19 Pandemic that has nudged and halted the social, economic activities worldwide. Most of the country around the world have been trying to control the spread of the virus taking various preventive measures such as partial or full lock-down, accelerating the vaccination program whereas the developing nations have been facing shortage of vaccine. It is anticipated that there is a chance of delay for developing nations to come out of the pandemic and run their normal economic activities since most of the developed nations have accumulated vaccine more than required. Thus, the pandemic is still not under control and spreading which has already all those preventive mesures are gone in vein as the virus has affected more than 605,104,665 on population worldwide killing more than 6,486,025 people worldwide. As a result, the world economy is headed towards slow growth in the days to come. Moreover, it is witnessed that there is an impact in the developed economy like USA, European Nations and some Asian Nations thus the growth rate has been adversely affected. Besides, the trade war between USA and China has negative impact in the world economy. The world has witnessed deteriorating condition of economic social and other activities brought about by the ongoing global pandamic of COVID- 19, most of the country around the world have been trying to control the spread of the virus taking various preventive measure such as partial or full look down. As a consequence, these is a negative impact on world economy resulted in sluggish growth. Most of the developed countries having dominance over world economy, particularly the united stated of america, European countries, china and india are finding it difficult to attain the desire growith there by the economic growth as a world has observed lethargic growth. Besides, the trade war between USA and China has negative impact in the world ecomony. (https://www.worldometers.info › coronavirus).

According to the International Monetary Fund (IMF), the world economy contracted by 3.2 percent in 2020 and is projected to expand by 6 percent in 2021. The world economy expanded by 2.8 percent in 2019. The advanced economies contracted by 4.6

percent in 2020 and are projected to expand by 5.6 percent in 2021. Similarly, the emerging and developing economies contracted by 2.1 percent in 2020 and are projected to expand by 6.3 percent in 2021. The growth rate of developed economies, and emerging and developing economies stood 1.6 percent and 3.7 percent respectively in 2019. Among neighboring countries, the IMF estimates show that the Chinese economy expanded by 6.0 percent in 2019 and 2.3 percent in 2020. Likewise, the Fund has estimated the Indian economy to contract by 7.3 percent in 2020 compared to the expansion of 4.0 percent in 2019. Economic growth for China and India is projected to remain 8.1 percent and 9.5 percent respectively in 2021. (https://www.nrb.org.np › uploads › 2021/10 › M)

This has resulted in the low growth rate of our soughern neighbour which has direct or indirect impact an the economic growth of Nepal. On the other hand, in later quater of the review period, the pandemic has affected nepal thereby the country has failed to atain the targeted growth rate even after the settlement of political uncertaining and end of transition period with the formation of stable government. However, due to the hike in taxation, some of the politcies declared by the government as well as spread of the COVID-19 and the uncertainty of the its vaccine have affected the investment environment in the country.
The Central Bureau of Statistics (CBS) has estimated the Nepalese economy to grow by 4.01 percent in 2020/21 compared to the contraction of 2.09 percent in 2019/20. However, maintaining this level of growth rate is challenging due to the second wave of the pandemic that reappeared in the fourth quarter of the year. 17. The ratios of gross domestic savings and gross national savings to GDP are estimated at 6.6 percent and 31.4 percent respectively in 2020/21. Such ratios were 6.3 percent and 32.6 percent respectively in the previous year. 18. The ratio of gross fixed capital formation to GDP is estimated at 27.3 percent in 2020/21 compared to 28.4 percent in the previous year.(https://www.nrb.org.np › uploads › 2021/10 › M.)

The COVID-19 pandemic spread global has affected nepal since last chaitra. The threats emerged among the people has directly affected the economy of the country. Thus the year 2019/20 had been tough and challenging year to the overall finacial instutions. Even through the fiscal year. 2019/20 had not been a stounding for the financial institutions of nepal. It remained fairly good for the bank. As mentioned earlier, the pandemic as affected overall ecomony of the country resulted in negative impact on credit disbursement deposit solicitation, earnings realted to remittance human resourec development, expansion of serviced in impact on profitability of the bank management is working on to recover those classified loans.

2.4.2 Determinants of investment Russian-Uukrainian war

Ganegodage et al. (2014), discovered that war in Sri SLanka had a significant negative impact on GDP. Also, they found that high returns on investment of physical capital didn’t bring significant positive externalities.

Dreger C. et al. (2016), found that the Russian currency lost 50% of its value against the U.S. dollar after the 2014 crisis between Russia and Ukraine. Havlik, P. (2014) found that the costs of conflict with Russia from 2014 to 2016 is estimated by about 1% of Russia's GDP due to increased investment risk.

Hoffmann et al. (2017), analyzed the effect of the Russian conflict on Russia and Ukraine stock returns from 21 November 2013 to 29 September 2014.

Bluszcz et al. (2019), assess the short-term causal effect of the War in Donbas on Ukraine's GDP since 1995 till 2017.

Alexey et al. (2021), examine the economic effect of the 2014 Russia-Ukraine conflict as trade exchange still took place between both nations despite the start of the conflict. Very little academic research compilation has been made on the 2022 Russia-Ukraine crisis given that is an ongoing crisis with constantly updated information flooding in via several news outlets. More so, a lot of attention is now given to the impact of the current Russia-Ukraine crisis on Russia and Ukraine.

The prohibition of some Russian banks from using the international payments system SWIFT (BBC, 2022), which is a high securitized network that facilitates international payments between 11,000 financial entities in 200 countries. The United States also prevented banks and the Russian Central Bank as well from the access to their dollar reserves in the U.S. (Fortune, 2022),which means that they cannot make transactions in U.S. dollars. Moreover, The EU also imposed financial sanctions on Russia, targeting 70% of the Russian banking market and main state-owned corporations. The EU banned shares listing of Russian state- owned entities on the EU trading markets and blocked Russian deposits more than customers. (European commission EC 2022). On the other hand, Switzerland and Japan have frozen the assets of some Russian individuals deposited in Swiss and Japanese banks (New York Times, 2022). Japan also banned the issuance and transaction of new Russian sovereign debt in the primary and secondary market (MOFA 2022). Moreover, The United Kingdom also imposed financial sanctions on Russian banks by freezing the asset of Russian oligarchs deposited in UK banks. It also prevented Russian's largest bank 'saber bank from sterling payments in sterling pound (UK gov. 2022).

In Nepalese market **Upthaya (2022),** pointed that While Nepal's direct exposure to the Russian and Ukrainian economies is by and large limited, the secondary impacts of the conflict are nonetheless quite significant. Like in all oil-importing countries our current account too now faces acute pressures as a result of a soaring oil bill. Unlike the richer countries, our economy can ill afford to foot subsidies or force utility price caps.

Prof Dr. Pyakuryal (2022), pointed that Nepal does not have a significant commercial relationship with the countries. Sunflower oil from Ukraine has no substantial influence, but India does a lot of business with these nations and imports a lot of energy like petroleum gas, petroleum liquid, and vegetable oil. And we rely on India to import such things. India accounts for over 60% of our total commerce. As a result, whatever economic challenges India has, Nepal is sure to confront the same problems. As a result, the war has an indirect influence on our country via India.

Shrestha (2022), pointed that in terms of economy and finance, we have been stating our concerns about budgeting plans to the Ministry of Finance. We have been specifically telling the government to revise its plans and budgeting. Our development is already behind; our capital expenditure is at about only 15 - 20%, and we are facing a liquidity crisis. And the war coming into the picture has catalysed the situation, making it worse. In terms of imports, prices have witnessed an increment of 20-30% in all essential and non-essential items. In a nutshell, prices of all aspects to run an industry have increased, and there is no money in the market.

Sapkota (2022), pointed that import of petroleum fuel constitutes about 15% of total imports, the import bill is rising sharply. The import bill of petroleum products in the first eight months of this fiscal year 2021/22 is already higher than the total import of petroleum products for the whole of 2019/20. Despite gradual recovery in exports, the large import bill has increased import bill by 34.5% in the first eight months of this fiscal year. This combined with the deceleration of remittance inflows amidst modest services recovery led by tourism sector widened current account deficit by around 200% in the first eight months of this fiscal. Consequently, Balance of Payments remains in negative territory with a depletion of foreign exchange reserves which are sufficient to cover 6.7 months of import of goods and services. It was 11.3 months in mid-march 2021.

Summery table of empirical review:

Researchers	Methodology	Country	Result
Charles Agwu (2015)	Auto regressive Distributed lag model (ARDL)	Nigeria	This is because at an interest rate of 22% to 30%, it discourages investment. Also there is need to improve government size and income level and this is based on its impact on investment. And lastly there is need to ensure policy consistence in government policies and this is based on its impact on investment.
Attefah and Enning (2016)	multiple linear regression model	Ghana	The main findings of this study are that public investment, credit to the private sector, external debt, the openness of the economy, corporate tax, and democracy have significant impact on investment. In contrast, GDP growth, real interest rate, inflation, and real exchange rate were not found to be statistically significant.
Tesfaye Eresso Gofe (2018)	Stratified sampling techniques	Nekemte town	Difficulties of finance and lack of credits when they started their business, and low encouragement from the investment and investment related problem is not the responsibility of the government alone, but also all investors, the local community, the private business man of the town has to work together with the government so as to attain the desired objectives.

Bhattarai,B.P.(2019)	Descriptive, correlational and causal comparative.	Nepal	Negative relation of investment with size and statistically insignificant. Positive relation of investment with Profitability and statistically insignificant. It states that when the Profit of Firm increases then the investment will also rise. Deposit has the positive relationship with the investment which indicates that as deposits increases the investment amount get increases and is statistically significant.
Tung and Thang (2020)	Regression analysis Method	49 Asia and Africa	The log value of private investment has a positive and significant impact and the trend of private investment in recipient countries. In the full-panel sample, GDP per capita, trade openness, and electricity have a positive and statistically significant impact on private investment.
Ayeni (2020)	Autoregressive Distributed lag model (ARDL)co-integration method.	Gambia.	High exchange rate increases the real cost of importing capital goods, which makes investment very costly. Aggregate demand conditions, real interest rate, real exchange rate, and inflation all performed below expectations. Also, credit to the private sector did not induce private investment in Gambia due to insufficient credit.
Githaiga (2020)	Hierarchical regression analysis method.	15 sub-Saharan African	Foreign remittances and banking sector development had a significant and positive impact on private investment in sub-Saharan Africa. Also, banking sector development significantly moderated the relationship between foreign remittances and the private sector investment.
Le and Kim (2020)	OLS regression	Vietnam	Capital freedom and domestic credit freedom played an important role in investments for Vietnamese firms.

Obeidat et al. (2021).	The Seemingly-Unrelated Regression (SUR)	Jordan.	The 2020 financial statements show that the profits of Jordanian banks (return on assets) have decreased from 1.43 percent in 2019 to 0.74 percent in 2020, or by about 48 percent. As far as the econometric results are concerned, it is interesting to note that while loan loss provisions impact bank profitability in a negative and significant manner, this "cost" is passed on, at least partly, to bank customers in the form of wider costs of financial intermediation (NIM).
Dinner Ender et al. (2021)	Regression analysis Method.	110 countries	The stock returns of banks with higher capitalization and deposits, more diversification, lower non-performing loans, and larger size are more resilient to the pandemic. While banks' environment and governance scores do not have a significant impact, higher social and corporate social responsibility strategy scores intensify the negative stock price reaction to COVID-19.
Angelin et alt (2021),	multiple regression techniques	Indian	The behavioral response to fear, risk perception, herding and vaccination updates have influenced investors' decision-making during the COVID-19 pandemic.
Habtamu Alebachew Legass et al.(2022),	autoregressive distributed lag (ARDL) model	Ethiopia	The main finding of the study indicated ln real GDP, population growth rate, rate interest, trade openness and unemployment rate was statistically significant at 5% level of significance in the long run and short-run and also exchange rate was a positive and statistically significant effect on private investment in only short-run.

2.5 Research gap

Investment in different sectors is made on the basis of the directives and instructions of Nepal Rastra Bank as well as the investment policy and guidelines of the concerned commercial bank itself. Commercial banks should follow these directives and circulars. Furthermore, their own investment guidelines and policies should be in line with NRB directives and circulars. Therefore, the up to date study over the change of time frame has been a major concern for the researcher, concerned organization as well as the banking industry as a whole.

This study covers the more recent financial data, NRB guidelines and instructions than those of studies previously conducted. Determinant of investment is major part of the bank’s inverstment policy. Portfolio management is the major part of the bank's investment policy and it is the major concern of banks manager to know the affect factor of the investment. To evaluate the affaect of investment, total deposit, total asset and net profit of commercial banks, there should be the optimum collection of money from customer trought saving. This study puts its effort to find out the proportion to net profit of the bank disbursed to different sectors of economy and analysis the diversification of its investment.

Not much more research study has been conducted in this topic. A very few study based on only one bank has been conducted before 2011, but this study is based on comparative analysis of five listed commercial banks namely GBIME, PCBL, NMB, NIBL, and MEGA. starting from financial year 2011/12 to 2020/21. So, this research work is very much centered to identify responsible causes, to analyze them and recommend improvement measures for the betterment of the banks under study and to analyze the investment position of the five leading bank.

CHAPTER – III
RESEARCH METHODOLOGY

3.1 Introduction

Research methodology refers to the various sequential steps to be adopted by a researcher in studying a problem with certain objectives in view. In order to achieve the objective of the study, certain method of research has to be used. Research methodology describes the methods and process applied in the entire subject of the study. This chapter is, therefore, devoted to describe the methods used for carrying out the research and attempts to have an insight into the Investments policy adopted by GBIME, PCBL, NMB, NIBL, and MEGA. The following methodology has been followed to conduct the present study.

3.2 Research design

The study is based on the secondary data which were gathered for 5 commercial banks in Nepal for the period 2011/12 to 2020/21, leading to the total of 50 observations. The secondary data have been obtained from concerned banks annual reports. The pooled cross-sectional data analysis has been undertaken in the study. The research design adopted in this study are descriptive, correlational and causal comparative. Table 1 shows the number of commercial banks selected for the study along with the study period and number of observations.

A research design is purely and simply the framework or plan for a study that guides the collection and analysis of data. Research design is the plan, structure and strategy of investigation conceived so as to obtain answer to research question and to control variances. A true research design is basically concerned with various steps to collect the data for analysis and draw a relevant conclusion. It is the arrangement of conditions for collection and analysis of data that aims to combine relevance to the research purpose with economy in procedure. To achieve the objective of the study, descriptive, correlational and causal comparative and analytical research design has been used. Some financial and statistical tools have been applied to examine facts and description techniques have been adopted to evaluate determinant of investments of sample banks.

3.3 Population and sampling procedure

In research terminology the Population can be explain as a comprehensive group of individuals, institutions, objects and so forth with have a common characteristics that are the interest of a researcher. In this dissertation, the population refers to the organization of the same nature on its service and product in general and for this study all 27 commercial bank (until April 2022) including three government banks operating in the Nepal is the total population.

In research terms a sample is a group of people, objects, or items that are taken from a larger population for measurement. The sample should be representative of the population to ensure that we can generalize the findings from the research sample to the population as a whole. Based on the non-probability sampling method, the sample will be drawn from the population. From the aforesaid population five commercial bank 10 years data will be consider for the study.

Since new commercial banks are being incorporated every year, the number of commercial banks in Nepal has been increasing rapidly. Some have already been started and others are in the process of starting their business, Although there are 27 commercial banks operating in Nepal at present, only five banks, have been selected for the study and their data related to investments performance have been comparatively studied.

Table 3.1

List of selected sample commercial banks.

Name of Banks	Period Covered	Observation	Capital in Arba
Global IME Bank Ltd.	2011/12- 2020/21	10	23.79
Prime Commercial Bank Ltd	2011/12- 2020/21	10	18.65
NMB Bank ltd.	2011/12- 2020/21	10	18.3
Nepal Investment Bank Ltd.	2011/12- 2020/21	10	18.3
Mega Bank Ltd.	2011/12- 2020/21	10	16.12

Source: appendix 1

Population size = 27

Sample percentage = 18.52%

Sampling Method: Probability Sampling

3.4 Nature and sources of data collection

Mainly, the study is conducted on the basis of the secondary data. The data required for the analysis are directly obtained from the balance sheet and the P/L account of the concerned bank's annual reports. Supplementary data and information are collected from the number of institutions and regulating authorities like NRB, Economic Survey and national planning commission etc. All the secondary data are compiled, processed and tabulated in the time series as per the need and objectives. Likewise, various data and information are collected from the economic journals, periodicals, bulletins, magazines and other published and unpublished reports and documents from various sources.

1. Annual Report of Global IME Bank Ltd.
2. Annual Report of NMB Bank Ltd.
3. Annual Report of Nepal Investment Bank Ltd.
4. Annual Report of Prime Commercial Bank Ltd.
5. Annual Report of Mega Bank Ltd.
6. Previous Research Studies, Dissertation and Articles on the Subject.
7. Various Text Books.
8. Different Library.
9. Different Website Related to determinant of Investment.

3.5 Instruments of data collection

The data presentation and analysis are focal part of the study. A number of financial and statistical tools are used to analyze the collected data and to achieve the objectives of the study. The analysis of the data has been done according to pattern of data available. Because of limited time and resources, simple analytical statistical tools such as graph, percentage, Karl Pearson's coefficient of correlation, regression analysis and the technique of least square are adopted in this study. In the same way, some useful financial tools such as ratio analysis and trend analysis have also been used for financial analysis. The data extracted from annual reports, financial statements and other available information are processed and tabulated in various tables and charts under.

Financial as well as the statistical tools are used to make the analysis more convenient, reliable and authentic. Their ratios, percentages, t-value, f- value, p- value, standard deviations and coefficients of variations are then calculated and presented in the tables.

To study the relationship between two or more variables, correlation coefficients are also calculated. Likewise, trend analysis is also used to know the trend of various ratios. Following are the brief introductions of the financial and statistical tools used in this study.

3.5.1 Financial tools

Financial ratios have been calculated to ascertain the financial condition of the firm. Financial tools have been used to examine the financial strength and weakness of bank. It is the relationship between financial variables contained in the financial statements (i.e., balance sheet, profit and loss account and income statements). There are several financial to spot out the financial strength and weakness of the firm. There are several financial tools, which could be applied in order to determinants of investment of commercials banks**.**

a. Total investments can be calculated by using the log value of the data.

   A total investment includes investments in government securities, investments in debentures and bonds, share in subsidiary companies, shares in other companies and other investments.

b. Total assect ratio can be calculated by using log value of assets.
c. Total deposit ratio can be calculated by using log value of deposit.
d. Net profit ratio can be calculated by using log vlaue of net profit.

3.5.2 Statistical tools

Statistical tools help to find out the trends of financial position of the bank and to analyze the relationship between variables that helps banks to make appropriate investment policy regarding to profit maximization and deposit collection, fund utilization through providing loan and advances or investment on other companies. In this study, statistical tools such as coefficient of correlation between different variables, trend analysis of important variables have been used for analyzing and interpreting the financial data. The basis of statistical analysis related to this study is discussed below:

3.6 Method of data analysis

3.6.1 Coefficient of correlation analysis (r)

"Correlation it is the statistical tools that we can use to describes the degree to which one variable in linearly related to another." (Richard I Levin and David S. Rubin, Statistics for managements (New Delhi: Prentice Hall of India Pvt. Ltd. 1991; 505). The coefficient of correlation measures the degree of relationship between two sets of sigma. Among the various methods of finding out coefficients of correlation, Karl Pearson's method is applied in the study. The result of co-efficient of correlation is always between +1 or -1. When r = +1, it means there is perfect relationship between two variables and vice versa. When r = 0. It means there is no relationship between two variables

The Pearson's formula is: -

$$r = \frac{\Sigma xy}{\sqrt{\Sigma x2} * \sqrt{\Sigma y}2}$$

3.6.2 Coefficient of determination (r^2)

The coefficient of determination is a measure of the degree of linear association or correlation between two variables one of which happens to be independent and other being dependent variable. In other words coefficient of determination measures the percentage total variation independent variables explained by independent variables. Zero to one is the ranging measurement of this coefficient of multiple determinations. If R^2 is equal to 0.75, which indicates that the independent variables used in, regression model explained 75% of the total variation in the dependent variable. If the regression line is a perfect estimator R^2 will be equal to +1, when there is no correlation the value of R^2 is zero.

3.6.3 Regression analysis

In statistical modeling, regression analysis is a set of statistical processes for estimating the relationships between a dependent variable (often called the 'outcome' or 'response' variable, or a 'label' in machine learning parlance) and one or more independent variables (often called 'predictors', 'covariates', 'explanatory variables' or 'features'). The most common form of regression analysis is linear regression, in which one finds the line (or a more complex linear combination) that most closely fits the data according to a specific mathematical criterion. For example, the method of ordinary least squares computes the unique line (or hyper plane) that minimizes the sum of squared differences between the true data and that line (or hyper plane). For specific mathematical reasons (see linear regression), this allows the researcher to estimate the conditional expectation (or population average value) of the dependent variable when the independent variables take on a given set of values. Less common forms of regression use slightly different procedures to estimate alternative location parameters (e.g., quintile regression or Necessary Condition

Analysis or estimate the conditional expectation across a broader collection of non-linear models (e.g., nonparametric regression). Regression analysis is primarily used for two conceptually distinct purposes. First, regression analysis is widely used for prediction and forecasting, where its use has substantial overlap with the field of machine learning.

Second, in some situations regression analysis can be used to infer causal relationships between the independent and dependent variables. Importantly, regressions by themselves only reveal relationships between a dependent variable and a collection of independent variables in a fixed dataset. To use regressions for prediction or to infer causal relationships, respectively, a researcher must carefully justify why existing relationships have predictive power for a new context or why a relationship between two variables has a causal interpretation. The latter is especially important when researchers hope to estimate causal relationships using observational data.

3.6.4 T- value

The t-test produces two values as its output: t-value and degrees of freedom. The t-value, or t-score, is a ratio of the difference between the mean of the two sample sets and the variation that exists within the sample sets. The numerator value is the difference between the mean of the two sample sets. Generally, any t-value greater than +2 or less than – 2 is acceptable. The higher the t-value, the greater the confidence we have in the coefficient as a predictor. Low t-values are indications of low reliability of the predictive power of that coefficient. Because the t-value is lower than the critical value on the t-table, we fail to reject the null hypothesis that the sample mean and population mean are statistically different at the 0.05 significance level.

3.6.5 ANOVAs table

ANOVA is used to compare differences of means among more than two groups. It does this by looking at variation in the data and where that variation is found (hence its name). Specifically, ANOVA compares the amount of variation between groups with the amount of variation within groups. A one way ANOVA is used to compare two means from two independent (unrelated) groups using the F-distribution. The null hypothesis for the test is that the two means are equal. Therefore, a significant result means that the two means are unequal. When reporting the results of a one-way ANOVA, we always use the following general structure: A brief description of the independent and dependent variable. The overall, F-value of the ANOVA and the corresponding p-value. The results of the post-hoc comparisons (if the p-value was statistically significant).

3.6.6 P- value

The P value is defined as the probability under the assumption of no effect or no difference (null hypothesis), of obtaining a result equal to or more extreme than what was actually observed. The P stands for probability and measures how likely it is that any observed difference between groups is due to chance. The p-value is the stronger the evidence for rejecting the H_0. This leads to the guidelines of $p < 0.001$ indicating very strong evidence against H_0, $p < 0.01$ strong evidence, $p < 0.05$ moderate evidence, $p < 0.1$ weak evidence or a trend, and $p \geq 0.1$ indicating insufficient evidence.

3.6.7 Model specification

The sectoral investment function was estimated as a function of several variables, which were determined from the theories of investment and some applied studies that have dealt with this topic.The study examines the relationship between investment dependent variable and independent variables such as net profit, deposit, and size by estimating regression analysis model. Therefore, the model can be formulated as follows:

$$I = f(TD, TA, NP) \qquad (1)$$

Function (1) was estimated after taking the logarithm:

Log Invit = β0 + β1 Log TDit + β2 Log Sizeit + β3 Log NPit + eit

Where, Log Invit = Log of Total Investment, Log Tdit = Log of Total Deposit, Log Npit = Log of Net Profit, LogTAit = Log of Total Assets, β0 = Constant, β1 to β3 = Coefficient and eit = Error Terms different headings according to their nature.

3.7 Conceptual framework

A conceptual framework is a representation of the relationship we expect to see between our variables, or the characteristics or properties that we want to study. Conceptual framework can be written or visual and are generally developed based on a literature review of existing studies about our topic.

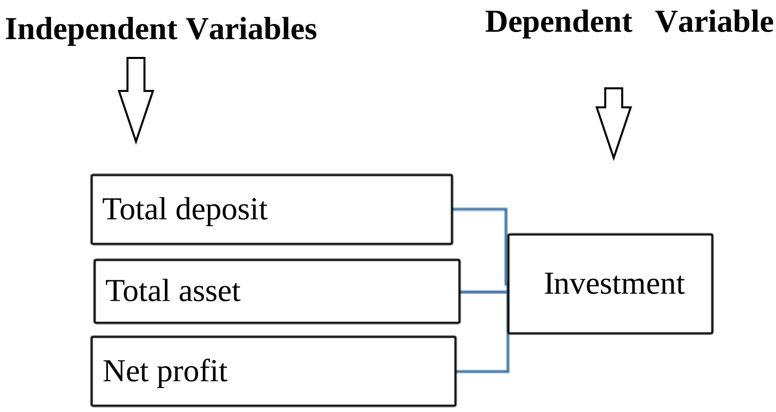

Figure-3.1 Schematic diagram of the theoretical framework

3.8 Variables and definition

A variable in research simply refers to a person, place, thing, or phenomenon that you are trying to measure in some way. The best way to understand the difference between a dependent and independent variable is that the meaning of each is implied by what the words tell us about the variable we are using. Variables are names that are given to the variance we wish to explain. A variable is either a result of some force or is itself the force that causes a change in another variable. In experiments, these are called dependent and independent variables respectively.

3.8.1 Investment

A total investment includes investments in government securities, investments in debentures and bonds, share in subsidiary companies, shares in other companies and other investments. Investment is a special segment of banking operation that helps individuals or organizations raise capital and provide financial consultancy services to them. They act as intermediaries between security issuers and investors and help new firms to go public.

3.8.2 Total deposit

Bank deposits consist of money placed into banking institutions for safekeeping. These deposits are made to deposit accounts such as savings accounts, checking accounts, and money market accounts. The account holder has the right to withdraw deposited funds, as set forth in the terms and conditions governing the account agreement. The deposit itself is a liability owed by the bank to the depositor. Bank deposits refer to this liability rather than to the actual funds that have been deposited. When someone opens a bank account and makes a cash deposit, he surrenders the legal title to the cash, and it becomes an asset of the bank. In turn, the account is a liability to the bank.

3.8.3 Total asset

Total assets refers to the sum of the book values of all assets owned banks. The assets are items that the bank owns. This includes loans, securities, and reserves. Liabilities are items that the bank owes to someone else, including deposits and bank borrowing from other institutions. Assets = Liabilities + Capital.

3.8.4 Net profit

Net banking income measures the balance between bank operating revenues and expenses. More specifically, operating revenues are composed of interest and commissions, excluding interest on doubtful debts but including provisions and recovery of provisions for depreciation of investment securities as weel as gains or losses on securities. It is not a concept of national accountds but rather of business accounts. It cannot be associated with the added value produced by financial enterprises.

CHAPTER – IV

RESULTS AND DISCUSSION

4.1 Introduction

This chapter provides the systematic presentation and analysis of data to deal with various issues associated with determinants of profitability of commercials banks in the context of Nepal. This chapter also presents the results of data analysis obtained by applying the various statistical and financial, econometric tools and methodologies described in chapter three Research methodology**.** The chapter four consists of two segments. The first segment of the chapter deals with presentation and analysis of data collected from various sources while the second part deals with major findings of the study.

4.2 Data presentation

Data presentation is defined as the process of using various graphical formats to visually represent the relationship between two or more data sets so that an informed decision can be made based on them. Readers and markers of our study will expect to see the use of a variety of data presentation techniques which are being used appropriately – not just for the sake of adding different ways of looking at the data. Putting every piece of data we have into a pie chart, histogram or scatter graph is not only boring for the reader and demonstrates a lack of imagination in the researcher and an inappropriate use of techniques, but also shows a lack of understanding of the benefits of using one data presentation technique over another. Table, figure bar charts for example may be appropriate for showing a particular type of data.

4.2.1 Trend of sample bank

Trend studies gather data from a particular population characterized by a specific variable, A trend is an assumed development in the future that will have a long-term and lasting effect on and change something. investment have been analyzed using statistical as well as financial tools with past 10-year data of sample banks. This study shows the investment treand of five commercial banks by analyzing Log investment ratio, log total deposit, log total asset, and log net profit.

i. Trend of investment sample banks.

An investment bank is a financial services company that acts as an intermediary in large and complex financial transactions. Investment is a financial ratio that shows the percentage of investment that a company investing in relation to its overall resources.it can be measured in log investment.

Table 4.1

Log investment

YEAR	GBIME	PCBL	NMB	NIBL	MEGA
2011/2012	9.628088	9.305551	9.417047	9.870586	9.11295385
2012/2013	9.744211	9.68975	9.383097	10.01864	9.12269877
2013/2014	9.938559	9.47122	9.351316	10.05825	9.39922539
2014/2015	10.03008	9.759143	9.622346	10.18706	9.299643
2015/2016	10.25505	9.705025	9.776982	10.33168	9.67272076
2016/2017	10.21044	9.788552	8.080626	10.46578	9.65168211
2017/2018	10.21274	9.925729	8.171879	10.40851	9.84850764
2018/2019	10.11903	10.00613	9.97536	10.1294	10.0605499
2019/2020	10.42163	10.13622	10.01353	10.22977	10.1894031
2020/2021	10.68932	10.36971	10.17606	10.41628	10.1786812
Mean	10.12491	9.815704	9.396824	10.21159	9.65360657
S.D.	0.311642	0.310734	0.726723	0.195626	0.4124329
C.V.	3.077975	3.165685	7.733714	1.915723	4.27231937

Source: appendix 12 (A)

Table 4.1 presents the Log investment ratio of GBIME, PCBL, NMB, NIBL, and MEGA. The highest Lg INV of GBIME is 10.1249142% in fiscal year 2020/21, PCBL is 10.369714% in year 2020/21, NMB is 10.1760552% in fiscal year 2020/21, NIBL is 10.4657807in fiscal year 2016/17, and MEGA is 10.1894% in year 2019/20. The lowest ratio of GBIME is 9.62808839% in year 2012/13, PCBL is 9.30555117% in year 2011/12, NMB is 8.08062649% in fiscal year 2016/17, NIBL is 9.87058569% in fiscal year 2011/12, and MEGA is 9.112954%in year 2011/12. The investment of GBIME, PCBL, NMB, and MEGA have increasing trend in the latest year which indicate that these bank are more efficient in using its assets to generate profit. The ratio of NIBL have decreasing and next to increasing trend that indicates that bank has less efficient and more efficient in using assets to generate profit.

The average mean of Log of investment ratio of GBIME, PCBL, NMB, NIBL, and MEGA are 10.1249142%, 9.81570364%, 9.39682352%, 10.2115948%, and 9.653607% respectively. NIBL has highest investment which indicate the better efficiency as compare to other bank in using assets to generate profit. The S.D and C.V. of GBIME, PCBL, NMB, NIBL, and MEGA are 0.31164232, 0.31073429, 0.72672349, 0.19562591, 0.412433, and 3.07797493, 3.16568528, 7.73371438, 1.91572338, 4.272319 respectively. It shows NMB has greater variability in ratios, and NIBL has consistency in above ratios.

ii. Trend of total deposit of sample banks

Total deposits are the overall money including the primary deposits created by the commercial banks as a process of credit creation through its primary deposit. Total deposit is a financial ratio that shows the percentage of total deposit that a company investing in relation to its overall resources.it can be measured in log total deposit.

Table 4.2

Log total deposit

YEAR	GBIME	PCBL	NMB	NIBL	MEGE
2011/2012	10.42997446	10.38004749	10.10719279	10.70017	9.963436
2012/2013	10.53290038	10.45936275	10.20317739	10.75596	10.09807
2013/2014	10.71843574	10.53205669	10.34606975	10.79539	10.23421
2014/2015	10.7794232	10.61284481	10.41949014	10.86824	10.32491
2015/2016	10.87322127	10.6843257	10.54852998	10.95728	10.48785
2016/2017	11.00821887	10.81859456	10.8024514	11.03594	10.59036
2017/2018	11.02057055	10.86115185	10.86358417	11.09923	10.78578
2018/2019	11.0795012	10.88671669	10.92412864	11.14186	10.89589
2019/2020	11.32698147	11.07715566	10.98516373	11.17433	11.10685
2020/2021	11.42883719	11.18791399	11.11945507	11.22105	11.13638
Mean	10.91980643	10.75001702	10.63192431	10.97494	10.56237
S.D	0.319797826	0.263841219	0.35332646	0.187009	0.412554
C.V	2.928603428	2.454333035	3.323259738	1.703961	3.905883

Source: Appendix: 12 (B)

Table 4.2 presents the Log Total deposit ratio of GBIME, PCBL, NMB, NIBL, and MEGA. The highest Lg TD of GBIME is 11.42884% in fiscal year 2020/21, PCBL is 11.18791% in year 2020/21, NMB is 11.11946% in fiscal year 2020/21, NIBL is 11.2210545 in fiscal year 2020/21, and MEGA is 11.13638% in year 2020/21. The lowest ratio of GBIME is 10.42997% in year 2011/12, PCBL is 10.38005% in year 2011/12, NMB is 10.10719% in fiscal year 2011/12, NIBL is 10.7001681% in fiscal year 2011/12, and MEGA is 9.963436% in year 2011/12. The total deposit of GBIME, PCBL, NMB, and MEGA have increasing trend in the latest year which indicate that nepalese banks are increasing capacity to collect money and able to create harmonious realtionship with customers these bank are more efficient in using its assets to generate profit.

The average mean ratio of GBIME, PCBL, NMB, NIBL, and MEGA are 10.91981%, 10.75002%, 10.63192%, 10.9749442%, and 10.56237% respectively. NIBL has highest investment which indicate the better efficiency as compare to other bank in using assets to generate profit. The S.D and C.V. of GBIME, PCBL, NMB, NIBL, and MEGA are 0.319798, 0.31073429, 0.353326, 0.18700878, 0.412554, and 2.928603, 2.454333, 3.32326, 1.70396114, 3.905883 respectively. It shows Mega has greater variability in ratios, and NIBL has more consistency in above ratios.

iii. Trend of total asset of sample banks

Total assets refers to the total amount of assets owned by a person or entity. Assets are items of economic value, which are expended over time to yield a benefit for the owner. Total asset is a financial ratio that shows the percentage of total asset that a company investing in relation to its overall resources.it can be measured in log total asset.

Table 4.3

Log total asset

YEAR	GBIME	PCBL	NMB	NIBL	MEGA
2011/2012	10.48663041	10.4338974	10.20368615	10.76609	10.0569
2012/2013	10.59127046	10.51066809	10.26786357	10.81794	10.24074
2013/2014	10.77828302	10.58013734	10.40012309	10.86423	10.31326
2014/2015	10.84002129	10.66087394	10.48587525	10.93538	10.39282
2015/2016	10.94300608	10.7355907	10.65492059	11.01847	10.6006
2016/2017	11.06666975	10.89043668	10.89688414	11.11322	10.65937
2017/2018	11.11005631	10.97792461	10.96883035	11.17845	10.89718
2018/2019	11.18085262	11.00968808	11.04773605	11.23526	10.99461
2019/2020	11.43755491	11.18236612	11.13184444	11.26914	11.19158
2020/2021	11.53835158	11.27997982	11.2539481	11.30755	11.25822
Mean	10.99726964	10.82615628	10.73117117	11.05057	10.66053
S.D.	0.339783457	0.287351178	0.378074396	0.197841	0.4141
C.V.	3.089707425	2.654230836	3.523141971	1.790326	3.88442

Source: Appendix 12 (C)

Table 4.3 presents the Log Total asset ratio of GBIME, PCBL, NMB, NIBL, and MEGA. The highest Lg TA of GBIME is 11.53835% in fiscal year 2020/21, PCBL is 11.27998% in year 2020/21, NMB is 11.25395% in fiscal year 2020/21, NIBL is 11.3075472% in fiscal year 2020/21, and MEGA is 11.25822% in year 2020/21. The lowest ratio of GBIME is 10.48663% in year 2011/12, PCBL is 10.4339% in year 2011/12, NMB is 10.20369% in fiscal year 2011/12, NIBL is 10.7660917% in fiscal year 2011/12, and MEGA is 10.0569%in year 2011/12. The total asset of GBIME, PCBL, NMB, and MEGA have increasing trend in the latest year which indicate that nepalese banks are growing overal country to provide service these bank are more efficient in using its assets to generate profit.

The average mean ratio of GBIME, PCBL, NMB, NIBL, and MEGA are 10.99727%, 10.82616%, 10.73117%, 11.0505726%, and 10.66053% respectively. Mega has highest total deposit which indicate the better efficiency as compare to other bank . The S.D and C.V. of GBIME, PCBL, NMB, NIBL, and MEGA are 0.339783, 0.287351, 0.378074, 0.19784123, 0.4141, and 3.089707, 2.654231, 3.523142, 1.79032565, 3.8844 respectively. It shows mega has greater variability in ratios, and NIBL has lowest c.v. so that more consistency in above ratios.

iv. Trend of net profit of sample banks

Net profit, also known as the bottom line, is the money left over after subtracting all expenses from total revenue. Net profit can refer to earnings before or after tax, so some use “net net” to clarify net profit after taxes. Net Profit is a financial ratio that shows the percentage of Net profit that a company investing in relation to its overall resources.it can be measured in log net profit.

Table 4.4

Log net profit

YEAR	GBIME	PCBL	NMB	NIBL	MEGA
2011/2012	8.423763	8.628441	8.559238	9.070644	7.85653642
2012/2013	8.652458	8.679034	7.753868	9.016731	8.24884577
2013/2014	8.988575	8.743076	6.698632	9.282175	8.48506434
2014/2015	8.982546	8.8725	8.612702	9.287715	8.53944761
2015/2016	9.140578	9.244574	8.699829	9.292666	8.74118601
2016/2017	9.302365	9.362559	9.172783	9.406691	8.89927651
2017/2018	9.322501	9.237103	9.268061	9.493337	9.11970176
2018/2019	9.441216	9.342184	9.353585	9.563401	9.21210494
2019/2020	9.463694	9.352468	9.233701	9.521676	9.20036203
2020/2021	9.619631	9.514335	9.433141	9.384387	9.36650322
Mean	9.133733	9.097627	8.678554	9.331942	8.76690286
S.D.	0.377601	0.330215	0.864047	0.181833	0.48494932
C.V.	4.13414	3.629684	9.956121	1.948498	5.53159226

Sources: Appendix 12 (D)

Table 4.4 presents the Log net profit ratio of GBIME, PCBL, NMB, NIBL, and MEGA. The highest LgNP of GBIME is 9.61963084% in fiscal year 2020/21, PCBL is

9.51433529% in year 2020/21, NMB is 9.43314133% in fiscal year 2020/21, NIBL is 9.52167577% in fiscal year 2020/21, and MEGA is 9.366503% in year 2020/21. The lowest ratio of GBIME is 8.42376348% in year 2011/12, PCBL is 8.62844% in year 2011/12, NMB is 6.69863164% in fiscal year 2013/14, NIBL is 9.01673074% in fiscal year 2012/13, and MEGA is 7.856536% in year 2011/12. The net profit of GBIME, PCBL, NMB, and MEGA have increasing trend in the latest year which indicate that these bank are more efficient in using its assets to generate profit.

The average mean ratio of GBIME, PCBL, NMB, NIBL, and MEGA are 9.13373286%, 9.09762733%, 8.67855396%, 9.33194219%, and 8.766903% respectively. NIBL has highest Net Profit which indicate the better efficiency as compare to other bank. The S.D and C.V. of GBIME, PCBL, NMB, NIBL, and MEGA are 0.37760132, 0.33021511, 0.86404731, 0.18183274, 0.484949, and 4.13414016, 3.6296838, 9.95612068, 1.94849836, 5.531592 respectively. It shows NMB has greater variability in ratios, and NIBL has lowest c.v. so that more consistency in above ratios.

4.2.2 The Model

The study examines the relationship between investment dependent variable and independent variables such as net profit, deposit, and size by estimating regression analysis model. The equation to be estimated has been specified as follows.

Log Invit = β0 + β1 Log TDit + β2 Log Sizeit + β3 Log NPit + eit

Where, Log Invit = Log of Total Investment, Log Tdit= Log of Total Deposit, Log Npit= Log of Net Profit, LogTAit = Log of Total Assets, β0= Constant, β1 to β3= Coefficient and eit= Error Terms.

i. Data presentation and analysis of descriptive statistics

Descriptive statistics describe, show, and summarize the basic features of a dataset found in a given study, presented in a summary that describes the data sample and its measurements. It helps analysts to understand the data better.Presents the descriptive statistics of both dependent variable i.e. Total Investment and independent variables which are deposits, size of firm and net profit.

Table 4.5

Descriptive statistics of variables

(This table shows the descriptive statistics of dependent and independent variables of commercial banks for the study period of 2011/12 to 2020/21. Dependent variables is log of total investment (Ln Inv), and independent variables are log of total deposit (Ln TD), log of total asset (Ln TA). log of net profit (Ln NP).

	No of observation	Mean	Standard Deviation	Minimum	Maximum
Log investment	50	9.840529	0.512726282	8.080626	10.68932427
log total deposit	50	10.76781	0.343659422	9.963436	11.42883719
log total asset	50	10.85314	0.352507559	10.0569	11.53835158
log net profit	50	9.001752	0.54117126	6.698632	9.619630838

Source: Appendix 13 { I, II, III & IV)

The result indicates that mean value and standard deviation of Investment are 9.840529 and 0.512726282 respectively with the maximum value of investment is 10.68932427 which was made by Global IME bank in fiscal year 2020/21 and minimum value of investment is 8.080626 which was made by NMB Bank in Fiscal Year 2016/17. Likewise, Total deposits mean value and standard deviation of deposit are 10.76781 and 0.343659422 with the maximum value of deposit is 11.42883719 which was collected by Global IME bank in fiscal year 2020/21 and minimum value of deposits is 9.963436 which was collected by mega bank in fiscal year 2011/12. Mean value and standard deviation of size of firm are 10.85314 and 0.352507559 with the maximum value of Size is 11.53835158 which was of Global IME bank in fiscal year 2020/21 and minimum value of size of firm is 10.0569 which was of mega bank in fiscal year 2011/12.Likewise, mean value and standard deviation of net profit are 9.001752 and 0.54117126 with the maximum value of net profit is 9.619630838 which was of Global IME bank in fiscal year 2020/21 and minimum value of pet profit is 6.698632which was of NMB bank in fiscal year 2013/14. After study of table Global IME bank is able to collect money than other smaple banks and the size of Global IME bank is greater than other sample banks alsothe net profit eraning capability of Global IME bank is higher than other banks. At finaly, Global IME bank is best bank among the smple banks.

ii. Correlation analysis

Presents the correlation of matrix of dependent variable i.e. Total Investment with independent variables which are deposits, size of firm and net profit. The result shows the correlation analysis done by using pearson's correlation coefficients. In this correlation matrix, investment is taken as a dependent variable. Pearson's correlation model is used to show the relationship among the variables and 2-tailed test is used to measure the significance.

Table 4.6
Correlation Matrix of Variables (n=50)

Correlations					
		Log investment	log total deposit	log total asset	log net profit
Log investment	Pearson Correlation	1	.659**	.648**	.527**
	Sig. (2-tailed)		0.000	0.000	0.000
	N	50	50	50	50
log total deposit	Pearson Correlation	.659**	1	.997**	.834**
	Sig. (2-tailed)	0.000		0.000	0.000
	N	50	50	50	50
log total asset	Pearson Correlation	.648**	.997**	1	.836**
	Sig. (2-tailed)	0.000	0.000		0.000
	N	50	50	50	50
log net profit	Pearson Correlation	.527**	.834**	.836**	1
	Sig. (2-tailed)	0.000	0.000	0.000	
	N	50	50	50	50
**. Correlation is significant at the 0.01 level (2-tailed).					

Source: Annual report of sample banks and results are drawn from SPSS – 25 and appendix: 19

The correlation matrix of the chosen variables for the determinants of investment of nepalese commercial banks for the study period 2011/12 to 2020/21. Dependent variables is log of total investment (Ln Inv), and independent variables are log of total deposit (Ln TD), log of total asset (Ln TA) and Log of net profit (Ln NP).

According to the correlation, the range of the output is between -1 to 1. A positive value indicates that the variables are positively related where a negative value indicates that the variables are negatively related.

The table shows the overall correlation between variables. Under this section, the correlation between independent and dependent variable are analyzed. At per correlation analysis the variables are statistically significant at 1 percent or 0.01 significant level. According to the table, the correlation between Log total deposit and Log Investment has 0.659value which means there is positive correlation between Lg TD and Lg Inv. Similarly, the correlation coefficients between Lg TD and Lg Inv have 0.000 correlation value which show variables are statistically significant relationship between LgTD and Lg inv. Again, the correlation between Lg TA and LgInv have 0.648 correlation value which shows positive correlation relationship between Lg NP and Lg Inv. Similarly, the correlation coefficients between Lg TA and Lg Inv have 0.000 correlation value which show variables are statistically significant relationship between LgTA and Lg inv. Again, the correlation Lg NP and Lg Inv have 0.527correlation value which means there is positive relationship betweenLg NP and Lg Inv. Similarly, the correlation coefficients between Lg NP and Lg Inv have 0.000 correlation value which show variables are statistically significant relationship between Lg NP and Lg inv. The result shows that investment is positively correlated with deposit, size and profit but it is statistically significant because their p-value is less than 0.01 level of significant.

The correlation matrix shows the correlation values, which measure the degree of linear relationship between each pair of variables. The correlation values can fall between -1 and +1. If the two variables tend to increase and decrease together, the correlation value is positive. Each cell in the table shows the correlation between two specific variables. The correlation matrix helps to predict the evolution of the relationship between the variables. The correlation matrix allows you to have a global view of the more or less strong relationship between several variables.

iii. Hypothesis Testing

H_0: There is no significant relationship between logarithm ratio of total asset, total deposit and net profit with investment logarithm ratio.

H_1: There is significant relationship between logarithm ratio of total asset, total deposit and net profit with investment logarithm ratio.

Table 4.7

Results of Correlation matrix of Variables

Null Hypothesis	Significant Value	Decision
There is no significant relationship of LgINV and LgTD	0.000	Accepted the null hypothesis
There is no significant relationship of LgINV and LgTA	0.000	Accepted the null hypothesis
There is no significant relationship of LgINV and LgNP	0.000	Accepted the null hypothesis

Source : Annual report of sample banks and results are drawn from SPSS – 25

All variables have statistically significant because their p-value is less than 0.01 significant level.

iv. Regression analysis

Regression Analysis shows the relation between total investment and predictors (deposits, size of firm and net profit). The objective of study is to explore the certain predictors significantly affects the total investment of the banks. Following table shows the result of the Study. The dependent variable is used as investment amount and independent variables used in the model are deposits, profitability and size of the firm. We use the spss softwore to find out the results of our collected data of the research.

Table 4.8

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.674[a]	0.454	0.418	0.391063713364961	1.185

Predictors: (Constant), log net profit, log total deposit, log total asset

Dependent variable: Log investment

Source: The researcher computation through SPSS-25 and appendix: 16

To evaluate the determinants of investment of nepalese commercial banks, the analysis was also done based on statistical criteria by applying the coefficient of determination (R^2) and the F–test. In general, the joint effect of the explanatory variables-independent variables in the model accounts for 0.454 or 45.4% of the variations in the determinants of investment of nepalese commercial banks in Nepal.

The table 4.8also shows, the R-squared statistic and the adjusted R-squared statistics of the model is 45.4% and 41.8% respectively. The result indicates that the changes in the independent variables explain 41.8% of the changes in the dependent variables. That is LogTD, LogTA, and LogNP explain 41.8% of the changes in investment. The remaining 58.2% of changes is explained by other factors, which are not included in the model.

The durbin-watson statisticlies in the range 0to 4. A value of 2 or nearly 2 indicates that there is no first-order autocorrelation. An acceptable range is 1.50 to 2.50. Where successive error differences are small, durbin-watson is low (less than 1.50); this indicates the presence of positive autocorrelation.

The study also used durbin watson (DW) test to check that the residuals of the models were not autocorrelated since independence of the residuals is one of the basic hypotheses of regression analysis. Being that the DW statistic were not close to the prescribed value of 2.0 (1.185) for residual independence, it can be concluded that there was presence of positive auto-correlation.

Table 4.9

ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	5.847	3	1.949	12.744	.000[b]
	Residual	7.035	46	0.153		
	Total	12.882	49			

Dependent Variable: Log investment

Predictors: (constant), log net profit, log total deposit, log total asset

Source: Annual report of sample banks and results are drawn from SPSS – 25 and appendix 17

The table 4.9 indicated that there is significant relationship between dependent variable and independent variable. Investment has significant relationship with all independent variables having significant value of 0.000 which is less than 0.05.

Table 4.10

Coefficients

Model		Un-standardized Coefficients B	Un-standardized Coefficients Std. Error	Standardized Coefficients Beta	t-Value	Sig.
1	(Constant)	-1.436	2.015		-0.713	0.480
	log total deposit	3.839	2.278	2.573	1.685	0.099
	log total asset	-2.731	2.232	-1.877	-1.223	0.227
	log net profit	-0.047	0.188	-0.049	-0.249	0.804

Dependent Variable: Log investment

Source: Annual report of sample banks and results are drawn from SPSS - 25. and appendix: 18

The regression table 4.8, revealed the analysis of the four determinants of investment indicators modeled in this study and their regression coefficients, standard error, t-test statistics, and the probability value of each of the individual regression coefficients. The R, R^2, adjusted R^2, and F-Statistics were also included in the table.

Table 4.10, also helps to explain the relationship with dependent variable with independent variables which says deposit has the positive relationship with the investment which indicates that as 1 percentage increase in deposits leads to 3.839 percentage increase in the investment and is statistically insignificant. Likewise, size has negative relation with the dependent variable which explains, 1 percentage increase in size of firm leads to 2.731 percentage decrease on investment but it is statistically insignificant. In similar way, profitability has the negative relation with the investment and its explains, 1 percentage increase in profit will leads to 0.047 percentage decrease in investment but it is also statistically insignificant.

According to the findings, Lg TD (p = 0.099), Lg TA (p = 0.227) and Lg NP (P=0.804) are insignificant in predicting the profits of the banks since the p values were more than 0.05. As the result specific independent variables Lg TD, Lg TA and Lg NP has insignificant impact on investment. The resulting regression equation was:

LgINV= -1.436+ 3.839Lg TD + (-2.731) Lg TA+(- 0.047)Lg NP

From this regression equation it is reveal that log Total deposit, Log total assect, log net ratio of the bank to a constant zero, determinants of investment of commercial banks would be at -1.436, a unit increase in log total deposit ratio would lead to an increase in determinants of investment of commercial banks by a factor of 3.839, a unit decrease in variable of log of total asset ratio of the banks would lead to decrease in determinants of investment of commercial banks by a factor of 2.731, a unit decrease in log net profit ratio of the banks would lead to decrease in determinants investment of commercial banks by a factor of 0.047.

The positive coefficients have been observed for log total deposit ratio with investment . Thus, the result indicates that log total deposit ratio has positive impact with investment. The beta coefficient is insignificant for log total deposit ratio at 5 percent level of significance.

The negative coefficients for log total asset ratio and log net profit with on investment indicates that log total asset ratio and log net profit has insignificant negative impact on investment. The beta coefficient is insignificance for log total asset ratio and log net profit at 5 percent level of significance.

The value of multiple coefficient of determination (R^2) is (0.454) in commercial bank. The t value of coefficent of total deposit, total asset, net profit are ststistically significant given model at 5% level of significance; therefore the regression equation could provide sttistically significant explanation of variation in the investment due to total deposit, total asset and net profit

4.3 Major Findings

The major findings of this study are as summarized as follows:

1. Investment

The investment of GBIME, PCBL, NMB, and MEGA have increasing trend in the latest year which indicate that these bank are more efficient in using its assets to generate profit. The ratio of NIBL have decreasing and next to incereasing trend that indicates that bank has less efficient and more efficient in using assets to generate profit.

The average mean of Log of investment ratio of GBIME, PCBL, NMB, NIBL, and MEGA are 10.1249142%, 9.81570364%, 9.39682352%, 10.2115948%, and 9.653607% respectively. NIBL has highest investment which indicate the better efficiency as compare to other bank in using assets to generate profit. The S.D and C.V. of GBIME, PCBL, NMB, NIBL, and MEGA are 0.31164232, 0.31073429, 0.72672349, 0.19562591, 0.412433, and 3.07797493, 3.16568528, 7.73371438, 1.91572338, 4.272319 respectively. It shows NMB has greater variability in ratios, and NIBL has consistency in above ratios.

2. Total deposit

The total deposit of GBIME, PCBL, NMB, and MEGA have increasing trend in the latest year which indicate that nepalese banks are increasing capacity to collect money and able to create harmonious realtionship with customers these bank are more efficient in using its assets to generate profit.

The average mean ratio of GBIME, PCBL, NMB, NIBL, and MEGA are 10.91981%, 10.75002%, 10.63192%, 10.9749442%, and 10.56237% respectively. NIBL has highest investment which indicate the better efficiency as compare to other bank in using assets to generate profit. The S.D and C.V. of GBIME, PCBL, NMB, NIBL, and MEGA are 0.319798, 0.31073429, 0.353326, 0.18700878, 0.412554, and 2.928603, 2.454333, 3.32326, 1.70396114, 3.905883 respectively. It shows Mega has greater variability in ratios, and NIBL has more consistency in above ratios.

3. Total asset

The total asset of GBIME, PCBL, NMB, and MEGA have increasing trend in the latest year which indicate that nepalese banks are growing overal country to provide service these bank are more efficient in using its assets to generate profit.

The average mean ratio of GBIME, PCBL, NMB, NIBL, and MEGA are 10.99727%, 10.82616%, 10.73117%, 11.0505726%, and 10.66053% respectively. Mega has highest total deposit which indicate the better efficiency as compare to other bank . The S.D and C.V. of GBIME, PCBL, NMB, NIBL, and MEGA are 0.339783, 0.287351, 0.378074, 0.19784123, 0.4141, and 3.089707, 2.654231, 3.523142, 1.79032565, 3.8844 respectively. It shows mega has greater variability in ratios, and NIBL has lowest c.v. so that more consistency in above ratios.

4. Net profit

The net profit of GBIME, PCBL, NMB, and MEGA have increasing trend in the latest year which indicate that nepalese banking market is incresing day today near with people these bank are more efficient in using its assets to generate profit.

The average mean ratio of GBIME, PCBL, NMB, NIBL, and MEGA are 9.13373286%, 9.09762733%, 8.67855396%, 9.33194219%, and 8.766903% respectively. NIBL has highest Net Profit which indicate the better efficiency as compare to other bank. The

S.D and C.V. of GBIME, PCBL, NMB, NIBL, and MEGA are 0.37760132, 0.33021511, 0.86404731, 0.18183274, 0.484949, and 4.13414016, 3.6296838, 9.95612068, 1.94849836, 5.531592 respectively. It shows NMB has greater variability in ratios, and NIBL has lowest c.v. so that more consistency in above ratios.

5. Descriptive analysis

The result indicates that mean value and standard deviation of investment are 9.840529 and 0.512726282 respectively with the maximum value of investment is 10.68932427 which was made by Global IME bank in fiscal year 2020/21 and minimum value of investment is 8.080626 which was made by NMB bank in fiscal year 2016/17 in 50 observations fiscal years of sample banks.

Total deposits mean value and standard deviation of deposit are 10.76781 and 0.343659422 with the maximum value of deposit is 11.42883719 which was collected by Global IME bank in fiscal year 2020/21 and minimum value of deposits is 9.963436 which was collected by Mega bank in fiscal year 2011/12 in 50 observations fiscal years of sample banks.

Mean value and standard deviation of size of firm are 10.85314 and 0.352507559 with the maximum value of Size is 11.53835158 which was of Global IME bank in fiscal year 2020/21 and minimum value of size of firm is 10.0569 which was of mega bank in fiscal year 2011/12 in 50 observations fiscal years of sample banks.

Mean value and standard deviation of net psrofit are 9.001752 and 0.54117126 with the maximum value of net profit is 9.619630838 which was of Global IME bank in Fiscal Year 2020/21 and minimum value of Net Profit is 6.698632 which was of NMB Bank in Fiscal Year 2013/14 in 50 observations fiscal years of sample banks.

Global IME bank is able to collect money than other smaple banks and the size of Global IME bank is greater than other sample banks also the net profit eraning capability of Global IME bank is higher than other banks. At finaly, Global IME bank is best bank among the smple banks.

6. Correlation Analysis

The correlation between log total deposit and log investment has 0.659 value which means there is positive correlation between total deposits with investment.

The correlation between Lg TA and LgInv have 0.648 correlation value which shows positive correlation relationship between net profit and investment.

The correlation Lg NP and Lg Inv have 0.527correlation value which means there is positive relationship between net profit and investment.

The correlation coefficients between dependent variable investment with total deposit, total asset, and net profit are statistically significant because their p-value is less than 0.01 level of significant. The result shows that Investment is positively correlated with deposit, size and profit but it is statistically significant.

7. Regression Analysis

The result indicates that the changes in the independent variables explain 41.8% of the changes in the dependent variables. That is Log TD, Log TA, and Log NP explain 41.8% of the changes in investment. The remaining 58.2% of changes is explained by other factors, which are not included in the model.

The study also used durbin watson (DW) test to check that the residuals of the models were not auto correlated since independence of the residuals is one of the basic hypotheses of regression analysis. Being that the DW statistic were close to the prescribed value of 2.0 (1.185) for residual independence, it can be concluded that there was no autocorrelation.

The positive coefficients have been observed for log total deposit ratio with investment. Thus, the result indicates that log total deposit ratio has positive impact with investment. The beta coefficient is insignificant for log total deposit ratio at 5 percent level of significance.

The negative coefficients for log total asset ratio and log net profit with on investment indicates that log total asset ratio and log net profit has insignificant negative impact on investment. The beta coefficient is insignificance for log total asset ratio and log net

4.4 Discussion

Regression analysis is a powerful statistical method that available us to examine the relationship between two or more variables of interest. While there are many types of regression analysis, at their core they all examine the influence of one or more independent variables on a dependent variable.The secondary data have been obtained from concerned banks's annual reports. The pooled cross-sectional data analysis has been undertaken in the study. The research design adopted in this study are descriptive, correlational and causal comparative. Table 1 shows the number of commercial banks selected for the study along with the study period and number of observations.

The results of regression analysis model indicate that there are positive relation with the investment which indicates that 1 percentage increase in deposit leads to 3.839 percentage increase in the investment and is statistically insignificant. Likewise bank size leads to 2.731 percentage decrese on investment but it is statistically insignificant. In similar way, profitability has the negative relation with investmrnt and its explains, 1 percentage increase in net profit will lead to 0.047 percentage decrease in investment but it is aslo statistically insignificant.

The table 4.8 also shows, the R-squared statistic and the adjusted R-squared statistics of the model is 45.4% and 41.8% respectively. The result indicates that the changes in the independent variables explain 41.8% of the changes in the dependent variables. That is Log TD, Log TA, and Log NP explain 41.8% of the changes in investment. The remaining 58.2% of changes is explained by other factors, which are not included in the model.

The result shows that Investment is positively correlated with deposit, size and profit but it is statistically significant because their p-value is less than 0.01 level of significant. The correlation values can fall between -1 and +1. If the two variables tend to increase and decrease together, the correlation value is positive. Each cell in the table shows the correlation between two specific variables. The correlation matrix helps to predict the evolution of the relationship between the variables. The correlation matrix allows you to have a global view of the more or less strong relationship between several variables.

CHAPTER-V

SUMMERY AND CONCLUSION

5.1 Introduction

This chapter presents the study summery, conclusions and implications drawn from the study findings. The purpose of this study was to determinants of investment of nepalese commercial banks. This chapter shows a summery as presented in the previous chapter and dedicated to provide conclusions after comparative analysis of the determinants of investment position of ten fiscal years and five commercial banks. It also tries to provide some implications to the concerned banks from the conclusion derived from the study.

5.2 Summery

Bank is an institution whose main function is to accept deposit and invest it. Bank collects money from public by providing attractive sound interest and can earn profit by lending it on mainly in business organization, industrial, agricultural sectors etc. So, we can say the main task of commercial bank is to mobilize idle resources in productive areas by collecting it from scattered sources and generating profit. Banking plays significant role in the economic development of country. Banks role as intermediaries channeling between saving and investment and fulfill the credit needs of customer as well as investment requirement of savers. It is clear that efficient and stable banking systems are crucial for an orderly economic growth. The pace development of country largely depends on the level of financial development. In the In the context of Nepal commercial banks are the only financial institutions, which can play very important role in the resource mobilization for the economic development in the country. Commercial bank occupies greater role in the economic development by generating the saving towards the desired sectors from one place to another, communicating with its branches and agencies in different parts of the country. The investment operation of commercial bank is risky affair. It is the most important factor for the shareholders and bank management. For this, commercial bank has to pay due consideration while formulating their investing policy. A healthy development of any commercial depends upon its investment policy. The objective of the study was to examine the existing investment position and its predictors of commercial banks in Nepal. This study to analysis the relationship between investment position and its predictors of commercial banks in Nepal. This study to evaluates the factors affecting investment of commercial banks in Nepal. To achieve the objective of the study, descriptive and casual comparative research design has been employed. In this study, ten commercial banks are taken as sample out of total population of 27. The study period covered ten fiscal years from F/Y 2011/12 to F/Y 2020/21 which was based on secondary data. The data had been obtained from annual reports and financial statement of respective banks websites. The dependent variable used in this study is investment and independent variables used are deposits, size of the firm and net profit.

5.3 Conclusion

The objective of this study has been to find out the main factors that are important in determining of investment in the Nepalese commercial banks. For this purpose, the study used panel data for four variables over the period 2011/12–2020/2021. The regression model was carried out to identify the relationship between dependent and independent variables. A number of conclusions can be drawn from research analysis, which are summarized as follows:

The regression model reveals that there is positive relationship of investment with deposit and is statistically significant. Size of the firm have negative relation with the dependent variable and indicates statistically significant. In the same way profitability has the positive relation with the investment but it is also statistically significant. It states that when the profits of firm increase then the investment will also rise. Deposit has the positive relationship with the investment which indicates that as deposits increases the investment amount get increases and is statistically significant.

Maximum value of investment is 10.68932427 which was made by Global IME bank in fiscal year 2020/21 and minimum value of investment is 8.080626 which was made by NMB bank in fiscal year 2016/17. The maximum value of deposit is 11.42883719 which was collected by Global IME bank in fiscal year 2020/21 and minimum value of deposits is 9.963436 which was collected by Mega bank in fiscal year 2011/12. The maximum value of Size is 11.53835158 which was of Global IME bank in fiscal year 2020/21 and minimum value of size of firm is 10.0569 which was of mega bank in fiscal year 2011/12. The maximum value of net profit is 9.619630838 which was of Global IME bank in fiscal year 2020/21 and minimum value of net profit is 6.698632 which was of NMB bank in fiscal year 2014/15 in 50 observations fiscal years of sample banks. After study of descriptive analysis Global IME bank is best in the bank of the samples banks.

The estimation of the multiple regression model shows that the adjusted -R squared statistics of the model is the R-squared statistic and the adjusted R-squared statistics of the model is 45.4% and 41.8% respectively. The result indicates that the changes in the independent variables explain 41.8% of the changes in the dependent variables. That is LogTD, LogTA, and Log NPexplains 41.8% of the changes in investment. The remaining 58.2% of changes is explained by other factors, which are not included in the model.

Yet our results suffer from lack of data. We believe that the field is going to benefit for further research on the topic to confirm the findings. This can be achieved through effective and appropriate appendix hat are made in the subsequent section.

5.4 Implications

1. Implications for government: Based on the empirical results reported in this investigation, determinants of investment is affecting by various factors. The government is needed to put in action such as macroeconomic approaches and systems that are fit for controlling dramatic changes in investment policy and investment system. The government may consider those approaches and systems which help and facilitate the financial exercises in the country.
2. Implications for bank managers: Banks may increase their deposits, net profit because it is the economical funding source for banking businesses, and this is argued that increased deposit liabilities provide credit opportunities and other profitable investments. During rising economic growth rates, banks may boost their profitable investment opportunities by utilizing their surplus funds.
3. Implications for investors: The results also assist people or investing class in perceiving productivity indicators and making the pertinent investigation of fiscal summaries to settle on educated and valued equity investing choices. Every invester have to study the profile of companies more than two currently fical year.
4. Implications for researchers and academicians: This study acts as a guide for more research works regarding the interior and macro-economic indicators influencing the financial performance of the institutions.

BIBLIOGRAPHY

Books

Agrawal, G.R. (2002). *Dynamics of business environment in Nepal*. Kathmandu: M.K .Publishers and Distributors.

Alexander, Y. (2013). *Portfolio investment specifics of commercial banks*, Chair of Banking,

Dr. Preeti Singh (2018). "*Fundamentals of investment*" Mrs. Meena Pandey for Himalaya Publishing House Pvt. Ltd., "Ramdoot", Dr. Bhalerao Marg, Girgaon, Mumbai - 400 004. Phone: 022-23860170, 23863863; Fax: 022-23877178 E-mail: himpub@vsnl.com; Website: www.himpub.com

Charles P.Jones (2017. *Investment and concepts* 13th edition John wiley and sons Inc.

Crosse, H. and Hempel, G. (1980). *Management policies of commercial banks*. 3rd ed., new jersey: englewood cliffs, prentice hall inc.

Francis, J.C. (1988). *Management of investments.* New York: McGraw Hill Series.

Jason Zweing (2003). *The intelligent investor*, A book of practical counsel revised edition benjamin graham updated with new commentary by Jason Zweing, Harper collins publishers, inc.

Greene, W. (1952). *Econometric analysis*. (7th ed.). London: pearson. gujarati, d., & porter, d. basic econometrics. (5th ed.). New York:McGraw-hill

Levene, R. (2005). *Finance and growth: theory and evidence.* Handbook of economic growth, 1, 865–934.

Pro. Dr. Nikiforos T. Laopodis (2020). *Understanding investment theories and strategic*, taylor and francis group, London and New York 2020

Saumitra N. Bhaduri (2005). *The theory of economic development*, Cambridge: Harvard University Press.

Shrestha, S. (1995). *Portfolio behavior of commercial banks in Nepal*. Kathmandu: Mandala book point.

ZVI Bodie, Alan j.Marcus, Alex Kane (2014). *Investments*, tenth edition published by McGraw-Hill education, 2 penn plaza, New York, NY 10121. 2014.

Journal and Articles

Alalaya, M. and Al Khattab, S.A. (2015). *A case study in business market: banks' profitability*: evidence from Jordanian commercial banks (2002-2015), international journal of business management and economic research (ijbmer), 6 (4), pp. 204-213. available at: www.ijbmer.com.

Al Balushi, Y., Locke, S., and Boulanour, Z. (2019). *Determinants of the decision to adopt Islamic Finance*: *Evidence from Oman* ISRA international journal of islamic finance 2 (1), pp 6-26.

Anatolijs Prohorovs (2022). *Russia's war in Ukraine: consequences for European countries' businesses and economies* j. risk financial manag. 2022, 15, 295. https://doi.org/10.3390/jrfm15070295 https: //www .mdpi. com /journal /jrfm

Angelin s. kiruba and Dr.s. vasantha. (2021). *Determinants of investment behavior during the covid-19 pandemic*, school of management studies vets institute of science technology and advance studies

Ang, J., B. (2009). *Private investment and financial sector policies in India and Malaysia*. world development , 37(7), 1261–1273,.

Attefah, E., & Enning, D. (2016). *An ols approach to modelling the determinants of private investment in Ghana*. international journal of academic research in business and social sciences, 6(4), 201–226. http:// dx.doi.org /10. 6007 /i ja rbss/v6-i4/2090

Avramidis, P., Cabolis, C., & Serfes, K. (2018). *Bank size and market value: role of direct monitoring and delegation constraints*. journal of banking & finance, 93, 127-138.

Ayeni, R. (2020). *Determinants of private sector investment in a less developed country:a case of the Gambia*. *cogent economics and finance*, 8(1), 1–11. https: //doi.org/10.1080/23322039.20 20.1794279

Aykut, Dilek, Sayek, Selin. *The role of the sectoral composition of foreign direct investment on growth, international economics and foreign trade politics*,2(3), 33-64, 2007.

Baral, K. J. (2005). *Health check-up of commercial banks in the framework of CAMEL: A case study of joint venture banks in Nepal.* Journal of Nepalese Business Studies, 2(1), 41-55.

BBC News. (2022). *The western economy is slowing down because of Russia's w3ar with Ukraine*. and this is just the beginning. available online: https://www.bbc.com/russian/news-61275658 (accessed on 28 may 2022).

Bhattarai, Y. R. (2014). *Determinants of share price of Nepalese commercial banks.* economic journal of development issues, 17 & 18 (1-2), 187-198.

Bhattarai (2019). *Determinants of investment of nepalese commercial banks,* International Journal of Management and Economics Invention ISSN: 2395-7220 DOI: 10.31142/ijmei/v5i7.01 Volume: 05 Page no.-2083-2087

Bista. R, Basnet. P. (2022). *Measuring determinants of time deposit in the commercial banks in Nepal.* Arrus Journal of social sciences and humanities, vol. 2, no. 1 (2022) https://doi.org/10.35877/soshum713

Boyd, J. H., & Runkle. D. E. (1993). *Size and performance of banking firms: testing the predictions of theory*. Journal of monetary economics, 31(1), 47 – 67.

Damyanova, V., and Francis, G. (2020). *Pandemic to polong German banks' struggle with low profitability.* S&P global market intelligence.

De Nicolo, G. (2001). *Size, charter value and risk in banking: An international perspective.* IFC discussion paper no. 689. board of governors of the federal reserve: Washington DC.

Demir, E., & Danisman, G. O. (2021). *Banking sector reactions to COVID-19: The role of bankspecific factors and government policy responses.* research in international business and finance, 58, 101508. https://doi. org/ 10.1016 /j.ribaf.2021.101508

Elekdag, S., Malik, S., & Mitra, S. (2020). *Breaking the bank? A Probabilistic Assessment of Euro Area Bank Profitability,* Journal of banking & finance, vol. 120, available online: https://doi.org/10.1016/j.jbankfin.2020.105949 [accessed 2 november 2021]

Eagan, M., Lewellen, S., & Sunderam, A. (2018). *The cross-section of bank value*.(Working Paper No. 23291 revised). National bureau of economic research.

Gautam, M.,(2021). *Determinants of bank value: Evidence from Nepalese commercial banks*. International Research Journal of management science print - issn 2542-2510 e-issn 2717-4867 vol.6, issue 1 -dec 2021.

Gautam, R. (2018). *Determinants of financial performance: An evidence from Nepalese commercial banks*. Amity Journal of strategic management, 1(2), 7-13.

Githaiga, P. (2020). *Foreign remittances, banking sector development and private sector investment*. The Journal of business economics and environmental studies, 10(1), 7–18. https://doi.org/10.13106/jbees.2020.vol10.no1.7

Gnansounou, S. U. (2010). *The determinants of private investment in Benin: A panel data analysis.* Paper presented at the african economic research consortium (AERC) research paper 209. Nairobi: AERC

Gwachha, K. P. (2019). *Bank-specific and macro-economic determinants of banking Profitability in Nepal*. SEBON Journal, VII, 120-129

Habtamu Alebachew Legass, Solomon Adamu Derese, Anwar Adem Shikur (2022). *Determinants of private investment in Ethiopia: an ARDL approach.* International Journal of finance and banking research. vol. 8, no. 3, 2022, pp. 95-104. doi: 10.11648/j.ijfbr.20220803.12 received: april 20, 2022; accepted: june 7, 2022; published: june 21, 2022

Koroleva, E., Jigeer, S., Miao, A., and Skhvediani, A. (2021). *determinants affecting profitability of state-owned commercial banks: case study of china. risks*, 9(8), 150. https://doi.org/10.3390/risks9080150.

Le, A., & Kim, T. (2020). *The effects of economic freedom on firm investment in Vietnam.* Journal of Asian finance, economics and business, 7(3), 9–15. https://doi.org/10.13106/ jafeb.2020.vol7.no3.9

Li, X., Feng, H., Zhao, S., & Carter, D. A. (2021). *The effect of revenue diversification on bank profitability and risk during the COVID-19 pandemic*.Finance research letters, 43, 101957. https://doi.org/10.1016/j. frl. 2021 .1 0 1957

Muhdin Muhammedhussen Batu, (2016). *Determinants of private investment: A systematic review*. international journal of economics, finance and management sciences. vol. 4, no. 2, 2016, pp. 52-56. doi: 10.11648/j.ijefm.20160402.1

Munteanu, I., (2012). *Bank liquidity and its determinants in Romania. procedia economics and finance*, 3:993-998

Mushtaq, S. and Siddiqui, D.A. (2017). *Effect of interest rate on bank deposits: evidences from Islamic and non-Islamic economies*. Business journal, 3(2017): 1-8.

Nathanael, O., & Eriemo, O. (2014). *Macroeconomic determinants of bank deposits in Nigeria*. Journal of economic and sustainabledevelopment,5(2014).

Obeidat, M., Mohammad, K., Ghassan, O., and Ahmad, T. (2021). The *performance of banks in a developing country: Has covid-19 made any difference*. press academia 8(2):102–8. doi: 10.17261/ press academia.2021.1395.

Onofrei, Mihaela, Bostan,I., Roman, A., Firtescu, B. N, (2018). *The determinants of commercial bank profitability in CEE countries*, Romanian statistical review, vol.2, pp. 33–46, 2018

Pradhan, R. S., & Dahal, S. (2016). *Factors affecting the share price: evidence from Nepalese commercial banks*. Retrieved http: //dx.doi.org /10.2139 /ssrn.2793 469.

Pradhan, R. S., & Gajurel, D. P. (2010). *Structure-performance relation in Nepalese banking industry*. Paper presented at the proceedings of 21st international business research conference on economics, business and management, Manila, Philippines.

Pradhan, R. S., & Paneru, D. (2017). *Macro-economic determinants of bank deposit of Nepalese commercial banks.* Retrieved from https://ssrn.com. Pradhan, R. S., & Pantha, B. (2019). Ownership structure, risk and performance in Nepale se banking sector. SEBON journal, VII, 1-16.

Prof. Dr .B. Pyakuryal et al (2022). *Impact of Russian-Ukraine war on Global Nepali Economy*.on Business $360^{0.}$. https://b360nepal.com/impact-of-russia-ukraine-war-on-global-nepali-economy/April 28- 2022

Radha, K. S., Goyal, R. and Sharma, A. (2014). *Study of factors influencing investment decision of households in Oman.Conferencepaper.* at 2nd international conference on technological and management in the new age economy. An industry prospective 1st march 2014 at mangalmay institute, greater Noida, India. Conference paper at 2nd international conference on 'technological and management advances in the new age economy: an industry perspective' 1st march 2014 at mangalmay institute, greater Noida, India.

Rajan, R., & Zingales, L. (2005). *Financial dependence and growth. American Economic.* Review, 88, 559–587

Rashid, M., & Shakoor, U. (2019). *Revisiting determinants of investment through g-to-s approach for Asian countries.* International transaction journal of engineering, management, and applied sciences and technologies, 11(4), 1–7. https://doi.org/10.14456/itjemast.2020.66

Salahuddin, M., Islam, M., & Salim, S. (2009). *Determinants of investment in muslim developing countries: an empirical investigation.* International journal of economics and management, 3(1), 100–129

Shafiqul Islam, S., Rana,M. S, (2019). *Determinants of bank profitability: evidence from commercial banks of Bangladesh.*Journal of Asian business strategy, asian economic and social society, vol. 9(2), pages 174-183, 2019.

Siaw, O.L. and Lawer, P.A. (2015). *Determinants of bank deposits in ghana: a cointegration approach.*Asian Journal of Economics and Empirical Research. 2 (1), 1-7..

Sinha, P. and Sharma, S. (2016). *Determinants of bank profits and its persistence in Indian banks*: A study in a dynamic panel data framework. international journal of systems assurance engineering & management, 7, 35-46.https :// doi.org/10.1007/s13198-015-0388-9.

Szymanska, E. J. (2017). *The determinants of profitability of enterprises of meat industry in Poland*. Acta Scientiarum Polonorum, Oeconomia, 16(3), 83-91. DOI: 10 .226 30/ASPE.2017.16.3.36.

Thirumalai K.S. & Uthaya C. (2014). *Investment policy by commercial banks*.Global journal for research analysis, 3(11), 80-83.

Tung, L., & Thang, P. (2020). *Impact of fdi on private investment in the Asian and African developing countries*: A Panel Data Approach. Journal of Asian Fin - ance, Economics and Business, 7(3), 295–302. https: //doi.org /10. 13 106 /jafeb.2020. vol7.no3.295

Wasson, H.C. (1966). *Some investment policies for commercial banks*, Financial analysis journal, 83.

Websites

www.bing.com

www.Google.com

www.https://globalimebank.com.np

www.https://nibl.com.np

www.https://.nmb.com.np

www.http://nrb.com.np

www.https://megabanknepal.com.np

www.https://.primebank.com.np

www.http://.rajournals.in

www.https://scholar.google.co.in

www.wekipidea.com

APPENDIXES

APPENDIX……. 1

S.No.	Name	Operation Date	Head Office
1	Nepal Bank Ltd.	1937/11/15	Dharmapath
2	Agriculture Development Bank Ltd.	1968/01/21	Ramshahpath
3	Nabil Bank Ltd.	1984/07/12	Beena Marg
4	Nepal Investment Bank Ltd.	1986/03/09	Durbarmarg
5	Standard Chartered Bank NepalLtd.	1987/02/28	Nayabaneshwor
6	Himalayan Bank Ltd.	1993/01/18	Kamaladi
7	Nepal SBI Bank Ltd.	1993/07/07	Kesharmahal
8	Nepal Bangladesh Bank Ltd.	1994/06/06	Kamaladi
9	Everest Bank Ltd.	1994/10/18	Lazimpat
10	Kumari Bank Ltd.	2001/04/03	Durbarmarg
11	Laxmi Bank Ltd.	2002/04/03	Hattisar
12	Citizens Bank International Ltd.	2007/04/20	Narayanhitipath
13	Prime Commercial Bank Ltd.	2007/09/24	Kamalpokhari
14	Sunrise Bank Ltd.	2007/10/12	Gairidhara
15	Century Commercial Bank Ltd.	2011/03/10	Putalisadak
16	Sanima Bank Ltd.	2012/02/15	Nagpokhari
17	Machhapuchchhre Bank Ltd.*	2012/7/9	Lazimpat
18	NIC Asia Bank Ltd.*	2013/6/30	Thapathali
19	Global IME Bank Ltd.*	2014/4/9	Panipokhari
20	NMB Bank Ltd.*	2015/10/18	Babarmahal
21	Prabhu Bank Ltd.*	2016/2/12	Babarmahal
22	Siddhartha Bank Ltd.*	2016/7/21	Hattisar
23	Bank of Kathmandu Ltd.*	2016/7/14	Kamaladi
24	Civil Bank Ltd.*	2016/10/17	Kamaladi
25	Nepal Credit and Commerce Bank Ltd.*	2017/01/01	Bagbazar
26	Rastriya Banijya Bank Ltd.*	2018/05/02	Singhadurbar Plaza
27	Mega Bank Nepal Ltd.*	2018/05/13	Kamaladi

(Sources: NRB)

*Joint operation date after merger

Appendix: 2 Amount of Variable of Global IME bank Ltd.

Source: annual report of Global IME bank

Year	Investment	Total Deposit	Total Assets	Log Assets	Net Profit
2011/2012	4,247,059,978	26,913,765,174	30,664,113,427	10.4866304	265,316,025
2012/2013	5,548,946,217	34,111,465,761	39,018,489,785	10.5912705	449,218,454
2013/2014	8,680,784,385	52,292,058,154	60,018,207,850	10.778283	974,037,010
2014/2015	10,717,061,403	60,175,983,690	69,186,488,883	10.8400213	960,608,067
2015/2016	17,990,717,999	74,682,917,216	87,701,310,349	10.9430061	1,382,223,998
2016/2017	16,234,602,545	101,910,484,607	116,592,269,147	11.0666698	2,006,159,460
2017/2018	16,320,652,832	104,850,510,393	128,841,659,143	11.1100563	2,101,363,149
2018/2019	13,153,151,992	120,088,440,064	151,653,562,387	11.1808526	2,761,953,667
2019/2020	26,401,401,393	212,315,385,060	273,876,591,053	11.4375549	2,908,664,367
2020/2021	48,901,734,964	268,433,791,603	345,423,260,183	11.5383516	4,165,151,840

Appendix 3 log value of variables

Year	Log investment	Log Deposit	Log Assets	Log Net Profit
2011/2012	9.62808839	10.429974	10.4866304	8.423763482
2012/2013	9.74421052	10.5329	10.5912705	8.652457589
2013/2014	9.93855897	10.718436	10.778283	8.988575459
2014/2015	10.0300757	10.779423	10.8400213	8.982546229
2015/2016	10.2550485	10.873221	10.9430061	9.140578429
2016/2017	10.2104417	11.008219	11.0666698	9.30236545
2017/2018	10.2127375	11.020571	11.1100563	9.322501112
2018/2019	10.1190298	11.079501	11.1808526	9.441216389
2019/2020	10.421627	11.326981	11.4375549	9.463693611
2020/2021	10.6893243	11.428837	11.5383516	9.619630838

Source: appendix of 2

Appendix: 4 amount of variables of NMB bank.

Year	Investment	Total Deposit	Total Assets	Net Profit
2011/2012	2612446359	12799493788	15,984,025,007	362441797
2012/2013	2416002621	15965311135	18529494417	56737188
2013/2014	2245514155	22185526928	25125984566	4996106
2014/2015	4,191,269,443	26,271,818,899	30,610,840,237	409,922,982
2015/2016	5,983,872,284	35,361,443,165	45,177,332,581	500,989,608
2016/2017	120,400,000	63,452,888,272	78,864,969,215	1,488,617,090
2017/2018	148,552,000	73,043,937,056	93,074,422,511	1,853,792,753
2018/2019	9,448,446,725	83,970,867,219	111,618,466,905	2,257,276,026
2019/2020	10,316,351,016	96,641,515,712	135,470,409,573	1,712,776,521
2020/2021	14,998,756,047	131,660,368,354	179,451,914,903	2,711,073,708

Source: annual report of Global IME bank.

Appendix: 5 log of investment

Year	Log investment	log deposit	log assets	log net profit
2011/2012	9.417047382	10.10719279	10.20369	8.559238275
2012/2013	9.383097401	10.20317739	10.26786	7.753867808
2013/2014	9.351315797	10.34606975	10.40012	6.698631644
2014/2015	9.622345581	10.41949014	10.48588	8.612702267
2015/2016	9.776982316	10.54852998	10.65492	8.699828717
2016/2017	8.080626487	10.8024514	10.89688	9.172783001
2017/2018	8.171878503	10.86358417	10.96883	9.26806118
2018/2019	9.975360419	10.92412864	11.04774	9.353584669
2019/2020	10.01352611	10.98516373	11.13184	9.233700701
2020/2021	10.17605524	11.11945507	11.25395	9.433141325

Source: appendix 4

Appendix: 6 Amount of variables of Nepal investment Bank

Year	Investment	Total Deposit	Total Assets	Net Profit
2011/2012	7,423,106,525	50,138,122,242	58,356,827,501	1,176,641,031
2012/2013	10,438,487,115	57,010,603,789	65,756,231,954	1,039,275,613
2013/2014	11,435,268,171	62,428,845,372	73,152,154,761	1,915,027,932
2014/2015	15,383,529,110	73,831,375,915	86,173,927,574	1,939,612,344
2015/2016	21,462,587,744	90,631,486,765	104,345,436,413	1,961,852,380
2016/2017	29,226,761,943	108,626,641,994	129,782,705,314	2,550,883,563
2017/2018	25,615,645,263	125,669,354,732	150,818,033,554	3,114,131,140
2018/2019	13,471,067,824	138,632,476,893	171,893,546,611	3,659,322,725
2019/2020	16,973,474,794	149,392,281,905	185,841,988,230	3,324,112,936
2020/2021	26,078,436,529	166,362,126,293	203,023,897,140	2,423,186,059

Source: annual report of Nepal investment bank

Appendix: 7 log value of variables

Year	log investment	log deposit	log assets	log Net profit
2011/2012	9.87059	10.70017	10.76609	9.070643989
2012/2013	10.01864	10.75596	10.81794	9.016730737
2013/2014	10.05825	10.79539	10.86423	9.282175113
2014/2015	10.18706	10.86824	10.93538	9.287714939
2015/2016	10.33168	10.95728	11.01847	9.292666326
2016/2017	10.46578	11.03594	11.11322	9.406690635
2017/2018	10.40851	11.09923	11.17845	9.493336897
2018/2029	10.12940	11.14186	11.23526	9.563400713
2019/2020	10.22977	11.17433	11.26914	9.52167577
2020/2021	10.41628	11.22105	11.30755	9.384386762

Source: appendix 6

Appendix: 8 Amount of variables of prime commercial bank

Year	Investment	Total Deposit	Total Assets	Net Profit
2011/2012	2020929541	23990952632	27157976208	425050989
2012/2013	4894964319	28798028030	32409183518	477566263
2013/2014	2959513103	34045262660	38030964159	553447114
2014/2015	5743061578	41005754566	45800892475	745589121
2015/2016	5070194361	48342121058	54398972985	1756201579
2016/2017	6145430804	65855880385	77702801847	2304403764
2017/2018	8,428,082,790	72,635,987,983	95,043,979,017	1,726,246,109
2018/2019	10,142,156,518	77,040,074,374	102,255,829,620	2,198,792,243
2019/2020	13,684,280,290	119,441,613,623	152,182,993,975	2,251,478,300
2020/2022	23,426,854,321	154,139,514,074	190,537,218,732	3,268,400,687

Source: annual report of prime commercial bank

Appendix: 9 log value of variables

Year	log investment	log deposit	log asset	log net profit
2011/2012	9.305551172	10.38004749	10.4338974	8.628441031
2012/2013	9.68974953	10.45936275	10.51066809	8.679033639
2013/2014	9.471220267	10.53205669	10.58013734	8.743076127
2014/2015	9.759143473	10.61284481	10.66087394	8.872499563
2015/2016	9.705024608	10.6843257	10.7355907	9.244574363
2016/2017	9.788552333	10.81859456	10.89043668	9.362558576
2017/2018	9.925728793	10.86115185	10.97792461	9.237102713
2018/2019	10.00613031	10.88671669	11.00968808	9.342184196
2019/2020	10.13622196	11.07715566	11.18236612	9.352467766
2020/2021	10.36971398	11.18791399	11.27997982	9.514335293

Source: appendix 8

Appendix: 10 Amount of Variables of Mega bank

Year	Investment	Total Deposit	Total Assets	Net Profit
2011/2012	1297041448	9192557197	11399779922	71868143
2012/2013	1326474084	12533458567	17407739027	177355953
2013/2014	2507410200	17147848851	20571237930	305537370
2014/2015	1993622844	21130675125	24707202910	346296108
2015/2016	4706745934	30750072236	39866132419	551043663
2016/2017	4484170379	38936864812	45642802386	793006074
2017/2018	7,055,172,552	61,062,937,735	78,919,221,476	1,317,351,773
2018/2019	11,496,082,343	78,684,859,077	98,765,757,549	1,629,689,787
2019/2020	15,466,894,740	127,894,614,502	155,445,996,782	1,586,214,922
2020/2021	15,089,720,821	136,893,588,406	181,225,084,435	2,325,429,726

Source: annual report of mega bank

Appendix: 11 log of variables

Year	log investment	log deposit	log asset	log net profit
2011/2012	9.112953855	9.963436341	10.05689647	7.856536423
2012/2013	9.122698769	10.09807093	10.24074237	8.24884577
2013/2014	9.399225388	10.23420965	10.31326043	8.485064336
2014/2015	9.299643001	10.32491337	10.39282358	8.539447611
2015/2016	9.672720756	10.48784614	10.6006041	8.741186012
2016/2017	9.651682106	10.59036098	10.6593723	8.899276514
2017/2018	9.84850764	10.78577769	10.89718279	9.11970176
2018/2019	10.06054987	10.89589117	10.9946064	9.212104944
2019/2020	10.18940313	11.10685226	11.19157954	9.200362031
2020/2021	10.1786812	11.13638311	11.25821831	9.36650322

Source: appendix 12

Appendix 12 calculations MEAN, STD, C.V of dependent and independent variables

A. Investment

log of investment

Year	GBIME	PCBL	NMB	NIBL	MEGA
2011/2012	9.628088	9.305551	9.417047	9.870586	9.11295385
2012/2013	9.744211	9.68975	9.383097	10.01864	9.12269877
2013/2014	9.938559	9.47122	9.351316	10.05825	9.39922539
2014/2015	10.03008	9.759143	9.622346	10.18706	9.299643
2015/2016	10.25505	9.705025	9.776982	10.33168	9.67272076
2016/2017	10.21044	9.788552	8.080626	10.46578	9.65168211
2017/2018	10.21274	9.925729	8.171879	10.40851	9.84850764
2018/2019	10.11903	10.00613	9.97536	10.1294	10.0605499
2019/2020	10.42163	10.13622	10.01353	10.22977	10.1894031
2020/2021	10.68932	10.36971	10.17606	10.41628	10.1786812
Mean	10.12491	9.815704	9.396824	10.21159	9.65360657
S.D.	0.311642	0.310734	0.726723	0.195626	0.4124329
C.V.	3.077975	3.165685	7.733714	1.915723	4.27231937

Source: from appendix of 3, 5, 7, 9 & 11

B. Total Deposit

log of total deposit

Year	GBIME	PCBL	NMB	NIBL	Mege
2011/2012	10.42997446	10.38004749	10.10719279	10.70017	9.963436
2012/2013	10.53290038	10.45936275	10.20317739	10.75596	10.09807
2013/2014	10.71843574	10.53205669	10.34606975	10.79539	10.23421
2014/2015	10.7794232	10.61284481	10.41949014	10.86824	10.32491
2015/2016	10.87322127	10.6843257	10.54852998	10.95728	10.48785
2016/2017	11.00821887	10.81859456	10.8024514	11.03594	10.59036
2017/2018	11.02057055	10.86115185	10.86358417	11.09923	10.78578
2018/2019	11.0795012	10.88671669	10.92412864	11.14186	10.89589
2019/2020	11.32698147	11.07715566	10.98516373	11.17433	11.10685
2020/2021	11.42883719	11.18791399	11.11945507	11.22105	11.13638
Mean	10.91980643	10.75001702	10.63192431	10.97494	10.56237
S.D	0.319797826	0.263841219	0.35332646	0.187009	0.412554
C.V	2.928603428	2.454333035	3.323259738	1.703961	3.905883

Source: from appendix of 3, 5, 7, 9 & 11

C. Total asset

log of total asset

YEAR	GBIME	PCBL	NMB	NIBL	Mega
2011/2012	10.48663041	10.4338974	10.20368615	10.76609	10.0569
2012/2013	10.59127046	10.51066809	10.26786357	10.81794	10.24074
2013/2014	10.77828302	10.58013734	10.40012309	10.86423	10.31326
2014/2015	10.84002129	10.66087394	10.48587525	10.93538	10.39282
2015/2016	10.94300608	10.7355907	10.65492059	11.01847	10.6006
2016/2017	11.06666975	10.89043668	10.89688414	11.11322	10.65937
2017/2018	11.11005631	10.97792461	10.96883035	11.17845	10.89718
2018/2019	11.18085262	11.00968808	11.04773605	11.23526	10.99461
2019/2020	11.43755491	11.18236612	11.13184444	11.26914	11.19158
2020/2021	11.53835158	11.27997982	11.2539481	11.30755	11.25822
Mean	10.99726964	10.82615628	10.73117117	11.05057	10.66053
S.D.	0.339783457	0.287351178	0.378074396	0.197841	0.4141
C.V.	3.089707425	2.654230836	3.523141971	1.790326	3.88442

Source: from appendix of 3, 5, 7, 9 & 11

D. Net profit

log of net profit

Year	GBIME	PCBL	NMB	NIBL	Mega
2011/2012	8.423763	8.628441	8.559238	9.070644	7.85653642
2012/2013	8.652458	8.679034	7.753868	9.016731	8.24884577
2013/2014	8.988575	8.743076	6.698632	9.282175	8.48506434
2014/2015	8.982546	8.8725	8.612702	9.287715	8.53944761
2015/2016	9.140578	9.244574	8.699829	9.292666	8.74118601
2016/2017	9.302365	9.362559	9.172783	9.406691	8.89927651
2017/2018	9.322501	9.237103	9.268061	9.493337	9.11970176
2018/2019	9.441216	9.342184	9.353585	9.563401	9.21210494
2019/2020	9.463694	9.352468	9.233701	9.521676	9.20036203
2020/2021	9.619631	9.514335	9.433141	9.384387	9.36650322
Mean	9.133733	9.097627	8.678554	9.331942	8.76690286
S.D.	0.377601	0.330215	0.864047	0.181833	0.48494932
C.V.	4.13414	3.629684	9.956121	1.948498	5.53159226

Source: from appendix of 3, 5, 7, 9 & 11

Appendix: 13 calculation of Maximum and Minimum value of Descriptive statistics

i) Investment

Log investment	
Mean	9.84
Standard Error	0.07
Median	9.96
Mode	#N/A
Standard Deviation	0.51
Sample Variance	0.26
Kurtosis	3.34
Skewness	(1.49)
Range	2.61
Minimum	8.08
Maximum	10.69
Sum	492.03
Count	50.00
Largest(1)	10.69
Smallest(1)	8.08

Source: Author calculation on excel.

ii) Total deposit

log total deposit	
Mean	10.76781
Standard Error	0.048601
Median	10.81052
Mode	#N/A
Standard Deviation	0.343659
Sample Variance	0.118102
Kurtosis	-0.47576
Skewness	-0.41015
Range	1.465401
Minimum	9.963436
Maximum	11.42884
Sum	538.3907
Count	50
Largest(1)	11.42884
Smallest(1)	9.963436

Source: Author calculation on excel.

iii) Total Asset

log total asset	
Mean	10.85314
Standard Error	0.049852
Median	10.89703
Mode	#N/A
Standard Deviation	0.352508
Sample Variance	0.124262
Kurtosis	-0.6607
Skewness	-0.32206
Range	1.481455
Minimum	10.0569
Maximum	11.53835
Sum	542.657
Count	50
Largest(1)	11.53835
Smallest(1)	10.0569

Source: Author calculation on excel.

iv) Net profit

log net profit	
Mean	9.00175184
Standard Error	0.07653317
Median	9.20623349
Mode	#N/A
Standard Deviation	0.54117126
Sample Variance	0.29286633
Kurtosis	5.87166186
Skewness	-2.04245825
Range	2.92099919
Minimum	6.69863164
Maximum	9.61963084
Sum	450.087592
Count	50
Largest(1)	9.61963084
Smallest(1)	6.69863164

Source: Author calculation on excel.

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REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA
/CRITERIA=PIN (.05) POUT (.10)
/NOORIGIN
/DEPENDENT Log investment
/METHOD=ENTER log total deposit log total asset log net profit
/RESIDUALS DURBIN.

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Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	log net profit, log total deposit, log total asset[b]	.	Enter

a. Dependent Variable: Log investment

b. All requested variables entered.

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Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.674[a]	0.454	0.418	0.391063713364961
a. Predictors: (Constant), log net profit, log total deposit, log total asset				

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ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	5.847	3	1.949	12.744	.000[b]
	Residual	7.035	46	0.153		
	Total	12.882	49			
a. Dependent Variable: Log investment						
b. Predictors: (Constant), log net profit, log total deposit, log total assect						

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Model		Un -standardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1.436	2.015		-0.713	0.480
	log total deposit	3.839	2.278	2.573	1.685	0.099
	log total asset	-2.731	2.232	-1.877	-1.223	0.227
	log net profit	-0.047	0.188	-0.049	-0.249	0.804

a. Dependent Variable: Log investment

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Correlations

		Log investment	log total deposit	log total asset	log net profit
Log investment	Pearson Correlation	1	.659**	.648**	.527**
	Sig. (2-tailed)		0.000	0.000	0.000
	N	50	50	50	50
log total deposit	Pearson Correlation	.659**	1	.997**	.834**
	Sig. (2-tailed)	0.000		0.000	0.000
	N	50	50	50	50
log total assect	Pearson Correlation	.648**	.997**	1	.836**
	Sig. (2-tailed)	0.000	0.000		0.000
	N	50	50	50	50
log net profit	Pearson Correlation	.527**	.834**	.836**	1
	Sig. (2-tailed)	0.000	0.000	0.000	
	N	50	50	50	50

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

DETERMINANTS OF INVESTMENT OF NEPALESE COMMERCIAL BANKS

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

By:

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Exam Symbol No.: 7104/18

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N.R College

Nepaltar, Kathmandu

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1.1 Background of study

Francis (1983) states, investing involve making a current commitment of funds in order to obtain an uncertain future return. It is a risky business that demands information. To process information effectively and select the best investment requires goals that are clear cut and realistic. In simple term investment is making a current commitment of funds that is expected to generate additional money in future. Nevertheless, in the broadest sense it means the sacrifice of current rupees for future rupees that take place at present and certain time. Similarly, Sharpe (1986) defines “Investment in the actual sense refers to the sacrifice of current dollars for future dollars". Investment involves two attributes, time and risk. The sacrifice takes place in the present and is certain. The reward comes later, if at all and the magnitude of which is uncertain. In some cases, the element of time predominates (for example, call option on common stock). In yet others, both time and risk play a dominant role (for example, share of common stock).

Investors also seek to manage their wealth effectively by obtaining the most profit while protecting it from inflation, taxes and other factors. Thus, investment policies are the strategies of finding out the answers of where to invest? How much to invest? When to invest? However, there are no specific rules regarding investment policy of a bank and thus it has to keep increasing the safety and liquidity of its resources to meet the potential demand of its customers. Since the objective of profitability conflicts with those of safety and liquidity, the wise investment policy is to strike a judicious balance between them. Therefore, a bank has to lay down its investment policy in such a manner to ensure the safety and liquidity of its funds and at the same time maximizing its profits.

Investment promotes economic growth and contributes to a nation's wealth. When people deposit money in the saving account of a bank, the bank may invest by lending the funds to various entrepreneurs’ business firms. These firms in return may invest the money in new establishments to enhance their production. In addition to borrowing from banks, most companies issue stocks and bonds that they sell to investors to raise capital needed for business expansion. Government also issues bonds to obtain funds to invest in major projects of national interests, such as the construction of dams, roads, irrigation, educational institutions, etc. Nepal Rastra bank on behalf of the Government of Nepal issues bonds, treasury bills to finance the long-term and short term needs of the government. All such investments by individuals, firms and government involve getting an expected future benefit. As, a result of which, investment helps in raising the living status of common citizen of the nation. Describing below our selected banks for the study:

F) Global IME bank ltd.

Global IME bank ltd. (GBIME) emerged after successful merger of Global bank ltd (an “A” class commercial bank), IME Financial Institution (a “C” class finance company) and Lord Buddha finance ltd. (a “C” class finance company) in year 2012. Two more “B” class development banks (Social development bank and Gulmi bikas Bank) merged with Global IME bank Ltd in year 2013. Later, in the year 2014, Global IME Bank made another merger with commerz and trust bank Nepal ltd. (an “A” class commercial bank). During 2015-16, Global IME bank limited acquired pacific development bank limited (a "B" Class development bank) and reliable development bank limited (a "B" Class development bank). During 2019-20, Global IME Bank Limited acquired Hathway Finance Limited (a “C” class finance company) and merged with Janata Bank Nepal Limited (an “A” class commercial bank).

Global bank limited (GBL) was established in 2007 as an ‘A’ class commercial bank in Nepal which provided entire commercial banking services. The bank was established with the largest capital base at the time with paid up capital of NPR 1.0 billion. The paid up capital of the bank has since been increased to NPR 23.79 billion. The bank's shares are publicly traded as an 'A' category company in the Nepal stock exchange.

G) NMB bank ltd.

NMB bank limited licensed as “A” class financial institution by Nepal rastra bank in May 2008 has been operating in the Nepalese financial market for over twenty years and is one of the leading commercial banks in the banking industry.

The bank has a join agreement with Nederlandse Financierings Maatschappijvoor Ontwikkelingslanden (FMO), where in FMO holds 13.69% of the bank’s shares and is the largest shareholder of the Bank. In September 2016, the bank NMB had been signed a Joint venture agreement with Nederlandse Financierings- Maatschappijvoor Ontwikkelingslanden (FMO), the Dutch development bank following which FMO became the single largest shareholder of the bank. The alliance with FMO positions NMB bank in becoming the market leader in managing environmental &

social risks and the leading player in renewable energy and agribusiness. NMB bank was awarded **'bank of the year 2017', 'bank of the year 2018', 'bank of the year 2020'**, and **'bank of the year 2021'**. In the same year, for the first time in the history of Nepal, the bank was awarded the title of **'bank of the year 2021 Asia'** by the banker, financial times, and London.

H) Nepal investment bank ltd.

Nepal investment bank ltd. (NIBL), previously Nepal Indosuez bank ltd., was established in 1986 as a joint venture between Nepalese and French partners. The French partner (holding 50% of the capital of NIBL) was credit AgricoleIndosuez, a subsidiary of one of the largest banking group in the world.

Later in 2002, a group of Nepalese companies comprising of bankers, professionals, industrialists and businessmen acquired the 50% shareholding of credit Agricole Indosuez in Nepal Indosuez bank ltd., and accordingly the name of the bank also changed to Nepal investment bank ltd.

I) Prime commercial bank ltd.

Prime commercial bank ltd. was incorporated in September 2007 as the 21st commercial bank in Nepal. We are a category ‘a’ financial institution registered under the “banks and financial institutions act” of Nepal. It has been established by prominent business personnel and professionals from diversified areas with a prime objective of providing 'banking services to everyone' in the country where still large numbers of population are deprived of banking services.

J) Mega bank ltd.

With an authorized capital of NPR 17 billion, issued capital of NPR 16.12 billion and paid-up capital of NPR 16.12 billion, Mega bank Nepal limited is one of the premier financial Institution of Nepal consistently living it's service pledge to conduct business by continually creating mutually beneficial relationship with all its stakeholders; customers, shareholders, regulators, communities and staff. The Bank realizes that its success is directly correlated with the pace at which it fosters its relationship with its stakeholders, so that in every step of its journey, both party benefits, succeed and grow together.

1.2 Statement of the problem

The main economic goal of developing countries is to accelerate the present growth rate. Although most of the developing countries are predominantly agricultural; industrial development is crying need of these countries for their economic development and investment is the dominant factor for it. But rate of investment in Nepal is very low. The main cause behind it is political instability, low investor confidences, lack of knowledge on Investment management, lack of improved prospectus to investors, restriction on foreign portfolio investment of Nepal, lack of efficient capital market and slow privatization process.

After the restoration of democracy, the first elected government in 1991 adopted liberalized and market-oriented economic policies followed by liberalization in the financial sector and its reforms. As a consequence, many commercial banks, development banks, financial institutions, financial cooperative societies and operating in micro finance have mushroomed in the country. There are substantial numbers of commercial banks, development banks and other financial institution that is operating to assist the process of economic development of the country.

Financial system of Nepal is still in its preliminary stage of development. Small and fast-growing financial sector comprises of commercial banks and other financial institutions like development banks, finance companies, cooperatives, insurance etc. So, for development of financial services in the country is uneven commercial bank are more emphasized to be making loan in short term basis against movable merchandise. There is less interest to invest on long-term project because they are much more safety minded.

Therefore, they follow conservative loan policy, which is based on strong security. The present study has sought to answer the following research questions about the selected commercial banks:

4. What are the trends of their investment, total deposits, total asset and net profits?
5. Does the investment decision affect the total earning, total asset, and total deposit of the banks?
6. What is the relationship between investment, total deposit, total asset and net profit?

1.3 Objectives of the study

The main objective of this study is to assess the determinant investment of commercial bank. The specific objectives of this study are as follows:

4. To examine the trends of their investment, total deposit, total asset and net profit of sample banks.
5. To evaluate the affect of investment, total assets, total deposit and net profit of commercial banks.
6. To analysis the relationship between investment, total deposit, total asset and net profit of the sample banks.

1.4 Research hypothesis

This study has focused on finding out whether there is determinant of investment on commercial banks in Nepal. The study has based on logarithm ratio of total asset, total deposit and net profit with investment logarithm ratio of Nepalese commercial banks and finding out the relationship among one dependent and two independent variables respectively. The research hypothesis is:

H0: There is no significant relationship between logarithm ratio of total asset, total deposit and net profit with investment logarithm ratio.

H1: There is significant relationship between logarithm ratio of total asset, total deposit and net profit with investment logarithm ratio.

1.5 Significance of the study

The significance of our research is the reason for conducting the study. The significance answer should the need for conducting the said research. It is a very important part of our publication as it justifies the significance and novelty of the study. That is why it is also referred to it justification of the study. This study focuses on the investment policy analysis of Nepalese commercial banks.

Determinant of investment of a bank is such that its funds are distributed on different types of assets with good profitability on the one hand and provide maximum safety and security to the depositors and banks on the other hand. So the determinant of investment of commercial banks should be in accordance with the spirit of the economic advancement of the people and also called it as the life-blood of any financial institution because only deposit collection carries no meaning, there should a proper policy of investment also. It is utilized in a proper investment then only better return and sustainability is possible. Therefore, to this significance on account this study on behalf of the firm's investment policy and its relationship is justified as a specified subject matter.

The study will certainly help to the management of the concerned banks to improve their performance and would help them to take corrective actions. Thus, this study lies mainly in filling a research gap on the study of investment policy of commercial banks. The study is basically confined to reviewing the determinant of investment of commercial banks in the ten years periods.

1.6 Limitations of the study

Determinant of investment of Nepalese commercial banks is one of the most important topics to research in the Nepalese context. As every study has a limitation due to different factors of institutions, study period, reliability of statistical data, tools, techniques and variances. Following are the major limitations of this study:

1. The scope of the study is limited within the frame work of determinant of investment only.
2. The study includes only 10 years' data (from 2012/13 to 2021/22) of 5 commercial banks have been taken for the study due to presence of outliers and unavailability of data of the commercial banks.
3. The study has considered only the secondary data. The data collection conducting primary survey has not been taken into consideration. Hence, the result of the study is not broad and flexible. It is limited to the data available in the annual reports of the sample banks and financial reports published by Nepal Rastra Bank.
4. Only five larger capital structure banks are selected for the study, which are GBIME, PCBL, NMB, NIBL, and MEGA.
5. Public banks of Nepal: Nepal bank limited, Rastriya Banijya Bank and Agriculture Development bank limited which was government directly involvement has not been considered as the sample for our study. They impose the outliers in data due to consecutive poor performances in the past years.
6. No attempts are made to examine the reliability of the available secondary data since they are officially released by the related banks and Nepal Rastra Bank. Thus, the consistency of finding and conclusions are dependent upon the secondary data and information.
7. This study deals with limited financial and statistical tools. Hence, the drawbacks and weakness of those tools are the limitations of the study as well.
8. Sampling method.

1.7 Brief review of the literature

Conceptual review of various different literature provided by different authors, research scholars, practitioners, etc. have been presented in the following sections:

The term ‘bank’ derives from the Latin ‘Bancus’, which refers to the bench on which the bankers would receipts money and his records. Some persons trace its origin to the French 'Benqee' or to the Italian 'Benca’, which means a bench for keeping lending and exchanging of money or coins in the market place by moneylenders money changers. With the gradual development of bank, its functions are also increasing. It only dealt with the exchanges of money in its preliminary phase, but later it started accepting deposits from the public against interest and providing them in the form of loans to the needy persons were the basic functions defined. Today, however, banks cover wide range of activities. The Bank of Venice", the first public banking institution was established in Italy in 1157 A.D. Subsequently, “Bank of Barcelona" of Spain, the world’s second bank was established in 1401 A.D., and “Bank of Geneva" of Switzerland was established in 1407 A.D. “bank of Amsterdam” the Netherlands was set up in 1609 A.D. was among the very popular commercial banks in the world. The bank of 'Hindustan', regarded as India’s first commercial bank, was established in 1770. As so in 1694 A.D., "The bank of England" was established, which changed the process of establishing the banking institutions remarkably. This was a big landmark in the history of banking development. The idea of commercial banks was rapidly spread to all over the world only after the establishment of this bank. (www.wikipedi.history.bank.com.np)

1.7.1 Review of literature related topic

Investment decision related with saving, capital formation, capital market, risk involve with it, return, inflation etc.

McKinnon and Shaw (1973), showed that there is a positive relationship between real interest rates and the size and quality of investment in financially-repressed economies through the role of real interest rates in generating an incentive to accumulate savings and providing the funds needed to implement any investment project. Therefore, an increase in the real interest rate leads to an increase in savings and then investment. The effect of the interest rate is not confined to its impact on the size of investment; many economic models have dealt with the role of the responsiveness of investment to the interest rate in the efficiency of fiscal and monetary policy, whereby the responsiveness of investment to the interest rate can increase or decrease the efficiency of economic policies in achieving economic targets.

Attefah and Enning (2016), analyzed the determinants of private investment using time-series data over the period 1980-2010. This study used an aid of multiple linear regression model to determine the factors that have a significant impact on private investment in Ghana. The main findings of this study are that public investment, credit to the private sector, external debt, the openness of the economy, corporate tax, and democracy have significant impact on investment. In contrast, GDP growth, real interest rate, inflation, and real exchange rate were not found to be statistically significant.

Rashid and Shakoor's (2019), study identified the indicators that explain the behavior of investment in Asian countries over the period 1987–2017. The results showed that domestic savings, GDP per capita, and government expenditure have a positive and significant impact on domestic investment. Also, the study emphasized the role of these variables in attracting investment and determining its growth.

Githaiga (2020), investigated the impact of foreign remittances on private sector investment and the moderating role of banking sector development in 15 sub-Saharan African countries over the period 1986–2017. The main results of this study were that foreign remittances and banking sector development had a significant and positive impact on private investment in sub-Saharan Africa. Also, banking sector development significantly moderated the relationship between foreign remittances and the private sector investment.

Le and Kim (2020), tested how economic freedom affected firms' investment in Vietnam, whereby the economic freedom, such as capital freedom and domestic credit freedom, allows firms to access external finance more easily, so that their investment depends less on internal cash flow.

1.7.2 Research gap

The purpose of this study is to be seeing what new contribution can be made and receive some ideas knowledge's and suggestions to determinants of investment of commercial banks. However, the previous studies cannot be ignored because they provide the foundation for the present study. The review represents only a preliminary survey of the relevant issues. It can be concluded that still there are some unsolved research issue on the determinants of investment of the Nepalese commercial banks which is special selected for this dissertation.

1.8 Research methodology

The research methodology is systematic way of solving research problem. Research methodology refers to the overall research process, which a researcher conducts during their study. Research can be conducted on the basis of primary and secondary data. Here in the study all the data and observed data are analyzed with using appropriate financial tools. To evaluate, analyze and interpret on every subject and discipline a detailed research plan is required. Without gathering detailed data and without applying different analytical tool it is impossible to confess anything about the related subject. "Research methodology refers to the various sequential steps to be adopted by a researcher in studying a problem with certain objectives is view" (Kothari,1994:19).

1.8.1 Research design

A research design is purely and simply the framework or plan for a study that guides the collection and analysis of data. Research design is the plan, structure and strategy of investigation conceived so as to obtain answer to research question and to control variances. A true research design is basically concerned with various steps to collect the data for analysis and draw a relevant conclusion. It is the arrangement of conditions for collection and analysis of data that aims to combine relevance to the research purpose with economy in procedure. To achieve the objective of the study, descriptive, correlational and causal comparative and analytical research design has been used. Some financial and statistical tools have been applied to examine facts and description techniques have been adopted to evaluate determinant of investments of commercial bank. The study followed descriptive, cross-sectional, quantitative, regression analysis, correlation analysis and other statistical as well as financial tools and techniques, which will be estimated by the linear method, by applying the statistical program (SPSS) on the panel data related to the indicators of determinant of investments of sample banks.

1.8.2 Population and sampling procedure

In research terminology the population can be explain as a comprehensive group of individuals, institutions, objects and so forth with have a common characteristics that are the interest of a researcher. In this dissertation, the population refers to the organization of the same nature on its service and product in general and for this study all 27 commercial bank (until April 2022) including three government banks operating in the Nepal is the total population. In research terms a sample is a group of people, objects, or items that are taken from a larger population for measurement. The sample should be representative of the population to ensure that we can generalize the findings from the research sample to the population as a whole. Based on the non-probability sampling method, the sample will be drawn from the population. From the aforesaid population five commercial bank 10 years data will be consider for the study.

Table 2.1

List of selected sample commercial banks.

Name of Banks	Period Covered	Observation	Capital in Arab
Global IME Bank Ltd.	2011/12- 2020/21	10	23.79
Prime Commercial Bank Ltd	2011/12- 2020/21	10	18.65
NMB Bank ltd.	2011/12- 2020/21	10	18.3
Nepal Investment Bank Ltd.	2011/12- 2020/21	10	18.3
Mega Bank Ltd.	2011/12- 2020/21	10	16.12

Source: Annual report of NRB

1.8.3 Nature and source of data collection

The nature of the data is different so the data collection procedure also varies. The secondary data are collected from published materials are viewed in various spots like books, report, journals, websites, online library etc. The relevant data will be instructed in meaningful tables and figures. It helps to find out the conclusion from the available data with the help of various statistical as well as financial tools

Mainly, the study is conducted on the basis of the secondary data. The data required for the analysis are directly obtained from the balance sheet and the P/L account of the concerned bank's annual reports. Supplementary data and information are collected from the number of institutions and regulating authorities like NRB, Economic survey and national planning commission etc. All the secondary data are compiled, processed and tabulated in the time series as per the need and objectives. Likewise, various data and information are collected from the economic journals, periodicals, bulletins, magazines and other published and unpublished reports and documents from various sources.

1.8.4 Conceptual framework

A conceptual framework is a representation of the relationship we expect to see between our variables, or the characteristics or properties that we want to study. Conceptual framework can be written or visual and are generally developed based on a literature review of existing studies about our topic.

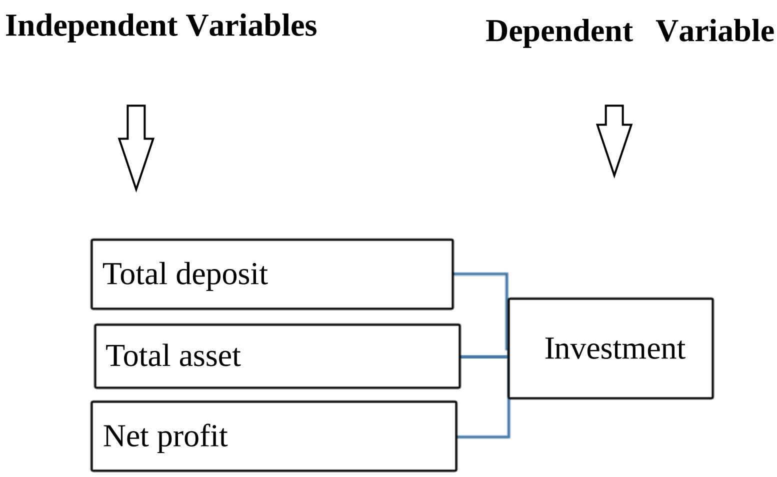

Figure: 3.1 Schematic diagram of the theoretical framework

1.8.5 Variables and definition

A variable in research simply refers to a person, place, thing, or phenomenon that we are trying to measure in some way. The best way to understand the difference between a dependent and independent variable is that the meaning of each is implied by what the words tell us about the variable we are using. Variables are names that are given to the variance we wish to explain. A variable is either a result of some force or is itself the force that causes a change in another variable. In experiments, these are called dependent and independent variables respectively.

1 Investment

A total investment includes investments in government securities, investments in debentures and bonds, share in subsidiary companies, shares in other companies and other investments. Investment is a special segment of banking operation that helps individuals or organizations raise capital and provide financial consultancy services to them. They act as intermediaries between security issuers and investors and help new firms to go public.

2 Total deposits

Bank deposits consist of money placed into banking institutions for safekeeping. These deposits are made to deposit accounts such as savings accounts, checking accounts, and money market accounts. The account holder has the right to withdraw deposited funds, as set forth in the terms and conditions governing the account agreement. The deposit itself is a liability owed by the bank to the depositor. Bank deposits refer to this liability rather than to the actual funds that have been deposited. When someone opens a bank account and makes cash deposit, he surrenders the legal title to the cash, and it becomes an asset of the bank. In turn, the account is a liability to the bank.

3 Total assets

Total assets refer to the sum of the book values of all assets owned banks. The assets are items that the bank owns. This includes loans, securities, and reserves. Liabilities are items that the bank owes to someone else, including deposits and bank borrowing from other institutions. Assets = Liabilities + Capital.

4 Net profits

Net banking income measures the balance between bank operating revenues and expenses. More specifically, operating revenues are composed of interest and commissions, excluding interest on doubtful debts but including provisions and recovery of provisions for depreciation of investment securities as well as gains or losses on securities. It is not a concept of national accounts but rather of business accounts. It cannot be associated with the added value produced by financial enterprises.

1.8.6 Method of data analysis

The collected data will analyze with the statistical as well as financial tools and techniques, which will be estimated by the linear method, by applying the statistical program (SPSS) on the panel data related to the indicators of determinants of investments of sample banks.

I. Financial tools

A. Total Investments can be calculated by using the log value of Investment data.

A total investment includes investments in government securities, investments in debentures and bonds, share in subsidiary companies, shares in other companies and other investments.

B. Total asset ratio can be calculated by using log value of Total assets.
C. Total deposit ratio can be calculated by using log value of Total deposit.
D. Net profit ratio can be calculated by using log value of Net profit.

II. Statistical tools

Statistical tools help to find out the trends of financial position of the bank and to analyze the relationship between variables that helps banks to determinant of investment regarding total asset, total deposit and net profit on the commercial bank. Tools are the measures or the instruments to analyze the collected data from the different sources. In statistics, there are numerous statistical tools to analyze the data of various natures. In this study, mainly statistical tools such as Mean, SD, C.V, descriptive statistics, Coefficient of correlation(r), Regression analysis, f-test, P-value and ANOVA has been used keeping into consideration the key tools required for the study.

III. Model specification

The Model, investment function was estimated as a function of several variables, which were determined from the theories of investment and some applied studies that have dealt with this topic. The study examines the relationship between investment dependent variable and independent variables such as net profit, deposit, and size by estimation regression analysis model. Therefore, the model can be formulated as follows:

$$I = f(TD, TA, NP) \qquad (1)$$

Function (1) was estimated after taking the logarithm:

$$\text{Log Inv}_{it} = \beta 0 + \beta 1 \text{ Log TD}_{it} + \beta 2 \text{ Log Size}_{it} + \beta 3 \text{ Log NP}_{it} + e_{it}$$

Where, Log Invit = Log of total investment, Log TDit = Log of total deposit, Log NPit = Log of net profit, LogTAit = Log of total assets, β0 = constant, β1 to β3= coefficient and eit = Error Terms.

Bibliography

Books

Agrawal, G.R. (2002). *Dynamics of business environment in Nepal*. Kathmandu: M.K. Publishers and Distributors.

Francis, J.C. (1998). *Management of investments*: Harper Collins publishers, New York.

Kothari, C.R. (1994). *Quantitative techniques*. New Delhi: Vikash Publishing House Private Limited

McKinnon, R. (1973). Money and capital in economic development, Washington, DC: The Brookings Institution.

Shaw, E. (1973). Financial deepening in economic development. Oxford, UK: Oxford University Press.

Journals and articles

Attefah, E., & Enning, D. (2016). An ols approach to modeling the determinants of private investment in Ghana. International journal of academic research in business and social sciences, 6(4), 201–226. http://dx.doi.org/10.6007/ ijarbss/v6-i4/2090

Githaiga, P. (2020). Foreign remittances, banking sector development and private sector investment. The journal of business economics and environmental studies, 10(1), 7–18. https://doi.org/10.13106/jbees.2020.vol10.no1.7

Le, A., & Kim, T. (2020). The effects of economic freedom on firm investment in Vietnam. Journal of Asian finance, economics and business, 7(3), 9–15. https://doi.org/10.13106/ jafeb.2020.vol7.no3.9

Rashid, M., & Shakoor, U. (2019). Revisiting determinants of investment through g-to-s approach for Asian countries. International transaction journal of engineering, management, and applied sciences and technologies, 11(4), 1–7. https://doi.org/10.14456/itjemast.2020.66

Websites

https://globalimebank.com.np

https://www.nmb.com.np

https://www.nibl.com.np

https://www.primebank.com.np

https://megabanknepal.com.np

www.google.com

www.weikepidia.com