

# **ROLE OF COMMERCIAL BANKS IN THE ECONOMIC GROWTH OF NEPAL**

**A Thesis**

**Submitted to the Central Department of Economics**

**Faculty of Humanities and Social Sciences,**

**Tribhuvan University**

**In Partial Fulfillment of the requirements**

**For The Degree of**

**Master of Arts (M.A.)**

**In**

**Economics**

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**January, 2015**

## **LETTER OF RECOMMENDATION**

This thesis entitled “ROLE OF COMMERCIAL BANKS IN THE ECONOMIC GROWTH OF NEPAL” has been prepared by Mr. Balkrishna Thapa under my supervision. I hereby recommended this thesis for examination by the thesis committee as a partial fulfillment of the requirements for the Degree of MASTER OF ARTS in ECONOMICS.

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Date: January 4, 2015

## **APPROVAL LETTER**

This is certify that the thesis entitled “ROLE OF COMMERCIAL BANKS IN THE ECONOMIC GROWTH OF NEPAL” submitted by Mr. Balkrishna Thapa to the Central Department of Economics, Faculty of Humanities and Social Sciences, Tribhuvan University, in partial fulfillment of the requirements for the Degree of MASTER OF ARTS in ECONOMICS has been found satisfactory in scope and quality. Therefore, we accept this thesis as a part of the said degree.

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## **ACKNOWLEDGEMENTS**

I would like to express my sincere gratitude to Associate Professor Tara Prasad Bhusal, Central Department of Economics, Tribhuvan University, Kirtipur for his scholarly guidance, valuable suggestions and encouragement.

Likewise, I would like to thank Dr. Ram Prasad Gyanwaly, Head of the Central Department of Economics, Tribhuvan University, Kirtipur. Similarly, I would like to express my sincere gratitude to the Central Department of Economics, Kirtipur and family.

The completion of this thesis would have been impossible without wholehearted support of my parents. I am always indebted to my parents for complete study.

Lastly, I extend thanks to my friends Rajan Parajuli, Dinesh Thapa and Reshem Acharaya.

I am alone responsible for any mistakes and error occurred in preparing this thesis.

**Balkirshna Thapa**  
**Bijulee -1, Pyuthan**

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## **ABBREVIATIONS/ACRONYMS**

A	Assert of Commercial Banks
AD	Anno Domini
CB	Commercial Bank
CBS	Central Bureau of Statistics
Cr	Credit
FY	Fiscal Year
GDP	Gross Domestic Product
Ltd.	Limited
MOF	Ministry of Finance
NRB	Nepal Rastra Bank
NIDC	Nepal Industrial Development Bank
OLS	Ordinary Least Square
PCI	Per Capita Income
RBB	Rastriya Banijaya Bank
RBI	Reserve Bank of India
R <sup>2</sup>	Coefficient of Determination
TU	Tribhuvan University
USA	United State of America
UK	United Kingdom
WDR	World Development Report
WB	World Bank
WTO	World Trade Organization

## ***Abstract***

*This study investigates the role of commercial banks in the economic growth of Nepal over the period 1975 to 2012. The main objective of this study was to examine the trend and pattern of GDP and credit of the commercial banks, to explore the relationship between Gross Domestic Product (GDP) and credit among increased number of commercial banks and to study and analyzed total deposit collection and deposit utilization of commercial banks in Nepal.*

*Banks play vital role in the economic growth of a country. They accumulate the idle saving of the different of the people and make them available for investment. They also create new demand deposits in the process of granting loans and purchasing investment securities. Commercial banks play an important and active role in the economic growth of a country; if banking system in a country effective, efficient and disciplined, it brings a rapid growth in a various sector of economy.*

*This study employed the regression analysis. The independent variables includes credit ( $C_t$ ) made by commercial banks and one period lagged GDP ( $GDP_{t-1}$ ). The dependent variable includes nominal GDP in producer's price, which measured of nation's economic performance as economic growth. The major findings of this study have focused on contribution of commercial banks credit to the GDP and economic growth of Nepal. The empirical result shows that the value of lagged GDP and value of credit of commercial banks have positive effects on economic growth of Nepal represented by the GDP. This result test on F test in both 5 percent and 1 percent level of significance, which is statistically significant. Therefore, it recommended that the policy maker should make policies to enhance and establish banking system in every part of economy because banking sector is significantly contributing in the economic growth of Nepal.*

# **CHAPTER-I**

## **INTRODUCTION**

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

Economic growth is one of the major objectives of macroeconomic policy. It is crucial mean of uplifting living standards as well as achieving economic development. Economic growth is increased in the national income or level of production of goods and services by a country over a certain period of time. Similarly, economic development is a sustainable increase in living standards that encompass material consumption, education, health and environment protection. But economic growth is not easy process, it can be achieved by the proper development of the banking and financial institution. There was important role of financial institution for sustainable growth of the developed countries. Thus, development of the financial sector is the prerequisites to achieve the high growth and stability. For the success of economic progress of any nation, financial institution should be established in every parts of the economy. Similarly, the flexible economy leads to economic prosperity with establishment of well developed capital and money market. Among the bank and financial institution, Commercial Banks are one of them; their activities can contribute in the upliftment of the economy of the nations (Joshi, 2008).

Capital formation and investment are highly needed for the healthy economic growth of the every country; Commercial Banks can act as financial intermediaries between surplus and deficit units. Mainly Commercial Banks are financing the development of trade, commerce, industry and agriculture, and make business loans, provide financial resources for the growth of industrialization and also influence the direction in which these resources are to be utilized (Joshi, 2010).

Credit is the aggregate amount of funds provided by Commercial Banks to individual's business organization and government for consumption and investment purposes. Credit is considered as a key to the economic growth especially in developing countries as it lubricates the economy. Therefore, the role of bank credit in economic growth has been accepted by many researchers as various economic agents are able to invest in various investment opportunities. Economic growth has been one of the major

macroeconomic objectives of the government of Nepal. Nepal Rastra Bank considers the monetary policy which also support growth rate of Nepal. NRB always directs Commercial Banks to creation their credit to productive sector (Timsina, 2014).

Nepal is less developed country, lies within the two big economy's i.e. India and China in the world. It has been well known that trade; commerce and industry are the sign of the healthy economic growth of every country. So, to overcome these things, investment is necessary. Such investment is available only in bank and financial institution but the trend of economic development of Nepal is still in grass root level. In UK, firstly they established banking sector and starts industrial revolution but in USA, they developed industrial sector at the first and to continue it, they established financial institutions (Thapa,2014).

The history of banking in Nepal is believed to be started from the time of Prime Minister Ranoddip Shigh in 1877 A.D. He established Tejaratha Adda and its basic purpose was to provide credit facilities to the general public at a very concessional interest rate. The Tejaratha Adda disbursed credit to the people on the basis of collateral of gold and silver. All the employees of government were also eligible for this type of loan which was settled by deducting from their salary. Similarly, Tejaratha Adda accepts deposit form the public (Sharma, 2012).

Modern banking system in Nepal was established in 1937 A.D. as Nepal Bank Limited. It was first Commercial Bank in Nepal. It was the established as a semi-government bank with the authorize capital of Rs.10 million and the paid up capital of Rs.892 thousand.Nepal Bank Ltd. remained the only financial institution of the country until the foundation of Nepal Rastra Bank in 1956 A.D. Due to the absence of the central bank, Nepal Bank has to play the role of central bank and operate the function of central bank. Hence, the Nepal Rastra Bank Act 1955 was formulated which was approved by Nepal's government and Nepal Rastra Bank was established in 1956 A.D. as the central bank of Nepal. Nepal Rastra Bank makes various guidelines for the banking sector of the country (NBL, 2014).

A sound banking system is important for smooth development of banking system. It can play a key role in the economy. It gathers savings from all over the country and provides liquidity for industry and trade. In 1957 A.D. Industrial Development Bank

was established to promote the industrialization in Nepal, which was later converted into Nepal Industrial Development Corporation (NIDC) in 1959 A.D. After sometime, to expand trade and commerce, government set up Rastriya Banijya Bank (RBB) in 1965A.D. Nepal is agriculture based country but our farming system is traditional one to consume more cost and less yield. To rid of this problem, scientific agriculture is imperative which requires more finance. To meet this end, Agricultural Development Bank was established in 1968 A.D (NIDC, 2014).

Economic growth is a major indicator for sustainable development and poverty alleviation of a country, financial institution plays an important role in the improvement of the economy by mobilizing resources to finance business and development projects (Jha & Hui, 2012). After worldwide liberalization process, Government of Nepal has followed the liberalization policies in the several sector of the economy and among them, financial liberalization is one, in the mid eighty's decade, joint venture and private bank were established. Therefore, the financial liberalization policy is helpful to expand bank and financial institution which help in the capital formation and investment of the Nepalese economy. In mid July 2014, the total number of bank and financial institutions stood at 204 which include 30 commercial banks, 84 development banks, 53 finance companies and 37 microfinance institutions (NRB, 2014).

The main role of Commercial Banks in developing economy are; Capital formation. It is one of the important determinant of economic development. Capital formation process requires the three steps: saving, mobilizing saving and investment. Banks play an important role in all the steps. Therefore, availability of Commercial Banks across the country is important for the economic development of developing countries. Commercial Banks help in the development of trade and industry of a country. They provide the credit transaction facilities to the traders. The use of cheque, draft and bill of exchange makes the business easier and promotes internal and external trade which, in turn, encourages the industrialization of the country.

In the lack of Commercial Banks, it is difficult to handle the business for a long period of time and skill people are also unable to establish the new business. Establishment of Commercial Banks encourages the skill people to invest in new ventures. Similarly, monetization of economy is essential for accelerating trade and economic activities. Commercial Banks have the power of credit and they advances loans to the investors.

They convert the non monetization sectors of the economy into monetization sectors. The monetization of economy raises the size of market for goods and services. Similarly, Commercial Banks help to implementation of monetary policy. Monetary policy is an effective tool to regulate the economy under the liberalization policy frame. A well developed banking system is essential for the effective implementation of the monetary policy. Therefore, Commercial Banks play an important role for the economic development in developing economy (Paudyal, 2011).

## **1.2. Statement of the Problem**

This study analyzed role of Commercial Banks in the economic growth of Nepal with the help of secondary data time period 1975 to 2012. This study simply evaluates whether Commercial Banks contributes or not to the economic growth with the regression analysis. After liberalization policy of Nepal, number of Commercial Banks and other financial institutions have been increasing. But most of the Commercial Banks and its branches are centered in urban areas. In the development of whole Nepalese economy, bank and financial institution should be established equally in rural as well as urban areas. The increase number of Commercial Banks increase resource mobilization share in the whole financial system and finally contribute the development of trade, commerce, industry and agriculture. This can be possible when there is establishment of banks and financial institutions in each and every part of the economy. Specifically, the study has been aimed to answer the following research questions:

- i) What is the trend and pattern of credit among increasing number of Commercial Banks in Nepal?
- ii) What is the impact of increasing Commercial Banks in the contribution in GDP Nepalese economy?
- iii) Do the Commercial Banks invest in productive sector of the economy?

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

The general objective of the study is to review the role of Commercial Banks in the Nepalese economy and the specific objectives are as follows:

- i) To examine the trend and pattern of GDP and credit of the Commercial Banks in Nepal.
- ii) To explore the relationship between GDP and credit among increased number of Commercial Banks in Nepal.
- iii) To study and analyze the total deposit collection and utilization of Commercial Banks in Nepal.

### **1.4. Significance of the Study**

Nepalese economy is fragmented economy i.e. not interlink between various sector of the economy. To overcome, interlink of different sectors of the economy, Commercial Banks plays vital role. Similarly, Commercial Banks have indispensable role to uplift trade, commerce and agriculture of the Nepalese economy. Hence the role of Commercial Banks in the Nepalese economy should be assessed with the help of certain statistical tools with quantifiable variables as well as descriptive analysis. This study helps to find out the role of Commercial Banks of Nepalese economy. This study shows the credit of Commercial Banks into the gross domestic product (GDP) and it is expected that this study is also useful for policymakers and for further studies.

### **1.5. Hypothesis of the Study**

The following hypothesis set out to test the regression in this study:

- i)  $H_0$ : There is no significant relationship between the growth of GDP and credit of Commercial Banks in Nepal.
- ii)  $H_1$ : There is significant relationship between the growth of GDP and credit of Commercial Banks in Nepal.

## **1.6. Limitation of the Study**

This study is based on the officially published data within some limitations. So the study is not free from weakness because of time and resource constraints. This study has following limitations:

Reliability of study depends upon the reliability of published data and genuineness of the respondents. This study has covered only the Commercial Banks of Nepal even though many financial institutions contribute in the economic growth of Nepal. This study covers empirical analysis the data FY 1975 to 2012 of the Commercial Banks of different selected variables. This study is based on the secondary source of data.

## **1.7. Organization of the Study**

This thesis is divided into five different chapters which are as follows: The first chapter consists of background of the study, statement of the problem, significance of the study, objective of the study, hypothesis and limitation of the study. The second chapter includes review of literature both national and international studies. Review of international literature includes international research related to financial sector and economic growth and review of national literature includes research in Nepalese context related to the financial sector development and economic growth of Nepal. Basically, review is based on economic journals, articles, websites, various publications of NRB, MOF and other relevant materials. The third chapter includes research methodology which includes; research design, nature of data, population and sampling of the study, data collection and processing techniques, analysis of tools. The fourth chapter attempts to analyze and evaluate data with the help of analytical tools and interpret all the results in to the units of empirical findings and results. The fifth chapter includes the results and findings and recommendations and suggestions.

# CHAPTER - II

## REVIEW OF LITERATURE

Review of literature is an important part of the research study. It is the process of reading and evaluating the existing materials in the area of interest. When the researcher studies the existing literature, it helps to increase the knowledge of the researcher in the area of interest. By means of literature review, the researcher can identify what has been studied in the past, what type of conclusion has been derived in the past, and so on. Depending upon the past study, the researcher can design his study. He always tries to study that thing which has not been studied in the past. Review of literature also helps the researcher to select a particular methodology of the study (Bhattra,2010).

### 2.1. Review of International Studies

Saini & Sindhu (2014) had conducted a research topic on ' role of Commercial Banks in the economic development of India'. The main objective of this study is to find out how the Commercial Banks are helpful in credit, employment generations in rural areas and how it contribute in development of Indian economy. The research of this study is based upon descriptive analysis and it is an empirical research on the secondary data analyzing stated objectives.

Banks play a vital role in the economic development of a country. They accumulate the idle saving of the people and make them available for investment. They also create new demand deposits in the process of granting loans and purchasing investment securities. They facilitate trade both inside and outside the country by accepting and discounting of bills of exchange. Banks also increase the mobility of capital. All Commercial Banks in India excluding regional rural banks and local area banks have become base II compliant as on March 31, 2009. In a country like India which is still in the initial stage of economic development. A well organized banking system is the need of the day. Commercial Banks are the most effective way to generate the credit on money markets. There is acute shortage of capital of India. The banks can play an important role in promoting capital formation, in controlling speculation in maintaining a balance between requirements and availabilities and in direct physical

resources into desired channels. Commercial Banks play an important and active role in the economic development of a country, if the banking system in a country is effective, efficient and disciplined; it brings about a rapid growth in the various sectors of the economy.

This research finding and policy implications are RBI and government are taking their full steps in modifying the present conditions of the agriculture sector in India. There is a sigh of relief for the rural poor from the dreaded clutches of money lenders. This study reveal that 66 percent people are still not able to fulfill the loan amount of banks. Commercial Banks providing credit to the poor farmers but this is not free from the other problems. Commercial Banks are providing 43.1 percent of total agriculture credit. This study concludes and recommended that, Indian agriculture suffers mainly because of expensive credit, a distorted market, intermediaries, controlled prices and poor infrastructure. It has also suffered because of poor irrigation facilities, use of traditional technology and practices, farmer's poor economic status, fragmented landholdings, lack of post harvest infrastructure and lack of farm extension. Banks should consider these facts to harvest more in infrastructure facilities like irrigation facilities, processing, storage and marketing activities. Such agricultural infrastructure can be improved by banks, as there are ample prospects for banks to invest in the above activities. This study also shows that Commercial Banks are helpful in development of country and in comparison between rural and urban area urban area are more developed. This is because of low credit and less contribution of agriculture sector in GDP of India. Finally this study recommends that to improve agriculture sector of India.

Guruge (2012) had examined a research topic on 'Does financial development cause economic growth? as a Srilankan experience'. Main objective of this research was a causal relationship between economic growth and financial development in Srilanka during the period from 1971 to 2010. Financial development is measured by a constructing a single index using three variables namely (a) consolidated broad money supply as a percentage of nominal GDP, (b) Commercial Banks assets as a percentage of Commercial Banks assets plus central bank assets and (c) domestic credit to private sector divided by nominal GDP.

This research shows the empirical results reveals that financial development is the cause for economic growth in terms of short term dynamics, while economic growth sustain financial development in the long run. The findings are conciliatory to the contradictory evidence in many previous empirical studies with regard to whether economic growth leads financial development or financial development precedes economic growth. The study construes that it is necessary to launch the financial sector reforms to improve the efficiency in the financial system which results in positive reinforcement between economic growth and financial development.

The empirical findings of this study suggest that financial liberalization policies implemented by Srilankan government have contributed towards the enlargement of financial system of the country and accordingly and as a result, the financial development index has steady growth over the last four decades. Further financial repression policies have negative effect on financial development in the long run. This empirical result of the study shows that financial development has a significant positive impact on economic growth in Srilanka even though featured with short term effects.

Oman Khan (2012) had demonstrated a research topic on ' the role of banks in capital formation and economic growth: the case of Nigeria'. The central objective of this study was to empirically investigate the role of Nigerian banks in capital formation and economic growth. The specific objective was to analyze the impact of banks deposit mobilization on capital formation and economic growth in Nigeria. Similarly, next objective was to investigate the impact of other banks performance indicators such as credits to the economy and banks investment on Nigeria's economic growth. It is known fact that banks play several vital roles in any economy and these roles are aimed at ensuring sound financial system and economic stability. It is incontrovertible that the banking system is the engine of growth in any economy, given its function of financial intermediation. Through this function, bank facilitates capital formation, lubricate the production engine turbines and promote economic growth.

This study explains with the help of regression analysis. The explanatory variables employed include Commercial Banks deposit liability (BDL), maximum lending rate (MLR), Commercial Banks credit (CBC) and investment by banks in Nigeria (BINV). The dependent variables are gross fixed capital formation (GFCF), gross domestic

product (GDP) which is measure of a nation's economic performance. The OLS regression analysis carried out the Commercial Banks have significant role to play in capital formation in the Nigerian economy. This implies that Commercial Banks have the potential to increase the nation's capital formation through their activities. Those Commercial Banks also have also had vital roles to play in the nation's economic growth. The implication of this is that country with a sound and effective banking sector stands the change of experiencing rapid economic growth through the bank's business activity.

This study recommended that monetary authorities should effectively manage the bank's maximum lending. This policy thrust most likely result into increased investment activities which enhance capital formation in Nigeria needed for its real sector investments and industrial growth. Another policy recommendation is there should optimally increase the level of capital formation in Nigeria, the monetary authorities have to maintain a sound banking sector. It is not possible capital formation and national productivity level without maintaining a sound banking system. The researcher also recommended that adequate efforts be made by banks to increase their level deposits as that help in increasing the nation's capital formation. Similarly, banks should also be made to increase their investment portfolio within the country as that equally help in increasing the nation's capital formation and economic growth. Finally, the further research should be carried out to investigate the non conformity of the coefficient investment by Commercial Banks to the priori expectation of having a positive relationship with capital formation.

Aurangzeb (2012) observed the research on topic ' Contribution of banking sector in economic growth: a case study of Pakistan'. The main objective was to find the contribution of banking sector in the economic growth of Pakistan. Researcher uses multiple regression analysis to find the long run relation between the variables. This study used six variables namely, gross domestic product, deposits, investments, advances, profitability and interest earning.

This study investigates the contributions of banking sector in economic growth of Pakistan. Regression results indicate that deposits, investments, advances, profitability and interest earnings have significant positive impact on economic growth of Pakistan. On the other side researcher found unidirectional causal relationship of investments

and interest earnings with economic growth runs from investments and interest earnings to economic growth. It is recommended that the policy makers should make policies to enhance the banking sector in Pakistan because banking sector is significantly contributing in the economic growth of Pakistan.

Mabvure & et al., (2012) had conducted a research topic on 'multinational bank's role in Zimbabwe's economic development'. The main objective of this study is to analysis the role of multinational banks in sustainable economic development. The researcher aimed to explain with the help of regression analysis to the growth of bank in a particular year relative to the growth of the total banking system credit in the country in that year. Zimbabwe's economy consistently shrunk since 2000; in an atmosphere of political turmoil, capital flight and mismanagement. The economy largely hailed for its robust and sophisticated financial system suffered a slump in rating as a result of a volatile macroeconomic environment that culminated in hyperinflation, foreign currency shortage, high unemployment levels, high interest rates and other economic problems. The banking system widely viewed as a barometer and epicenter of economic activity took the hardest knock during 2003/2004 banking crisis. As a result, some local banks were curatorship and ultimately closed. However, some of these banks were granted operating licenses in 2009 to resume operations, with the exception of Barbican that is yet to commence operations. Royal Bank of Zimbabwe found the going tough and surrendered its license and closed on 27<sup>th</sup> July 2012. All multinational banks operating in Zimbabwe were not affected, further proving that they upheld the principles of corporate governance, and had sound risk management policies.

The economic meltdown of 2008, sought intervention of MNBs as most local financial institutions had collapsed. Multinational banking institutions were expected to play a pivotal role in supporting economic revival and growth of the country by providing the much needed financial resources to boost capacity utilization, bring about price stability, gross domestic product growth, employment creation in the country's productive sectors and credit/liquidity generation within the economy. Foreign owned banks were expected to lead in facilitating recapitalization of the various recovering sectors of the economy.

This study concludes that domestic banks have significantly increased their credit market share while foreign owned banks have adopted a cautious approach. This

research shows that home country conditions matters for foreign bank growth, as there is a significant and negative relation between home country economic growth and host country credit by banks. It was noted that foreign owned banks were not actively supporting growth of the domestic economy. The low levels of overall loans to deposit ratios at those banks were a development which was constraining economy's recovery. The credit market share of foreign owned banks since the introduction of multicurrency system had been decline, which was a major concern to an economy which was desperately in need of liquidity support. Despite the challenging macroeconomic environment characterized by market illiquidity, low saving and volatile deposits the current stable economic environment brought by a multicurrency system deserves to be supported and given a chance. Banks have been found to play a major role in sustainable economic development.

This study recommended that the central bank should resume the lender of last resort function in order to instill confidence in the money markets. As liquidity improves, banks are expected to increase long term lending to the productive sectors of the economy. Such long term financing is critical to the revival of domestic industries which need to re equip, refurbish as well as replace obsolete machinery. Similarly, this study focus that Zimbabwe does not have a credit bureau; hence it is important for government to facilitate the establishment of a credit bureau as a tentative move to addressing problems related to credit. And multinational banks should revise their policies on lending in line with the changing market condition, more loan products should made available to the economy, and should benefit all productive sectors of the economy and households. Long term development loans and infrastructure development loans should be made available to the key sector of the economy which includes mining, agriculture, manufacturing and tourism. This lending will lead to sustainable economic development in the country of Zimbabwe.

Sable (2012) had examined a research topic on ' economic growth and financial sector development a case study of interrelationship in the Indian context'. The main objective of this research is to explore the causality between the financial deepening and economic growth in the light of Indian economy. For this study, use annual time series data and run unit root test. This study shows that for a wide range of financial variables, financial deepening does indeed cause economic growth. However, the

causality is not unidirectional: in a feedback relationship; economic growth too causes financial sector deepening.

The study supports that the PCI leads to financial sector development in following financial variables: all Indian scheduled Commercial Banks offices, all scheduled commercial offices and all Commercial Banks offices. But study support claim of PCI growth leads to financial deepening only in the ratio of all Commercial Banks assets to total financial sector assets.

Bhurtel (2010) had observed a thesis on 'relationship between financial sector development and economic growth and development an empirical study from cross section and panel data for selected countries'. The central objective of this thesis is to examine financial development causal effects on economic growth of the selected countries under consideration in the sample. This study, the approach of standard growth regressions including the cross country regression and panel regressions and panel regression are undertaken. The data series include 58 countries and time period from 1980 to 2000. Basically, selected countries are high income, middle income and low income countries.

The result of this thesis indicates a positive and statistically significant relation between financial sector development and economic growth for all different financial indicators. The result of study supports the existence of a strong bi-directional causality between two variables under consideration. The result also indicates that human capital, investment share, and international trade have positive impact on economic growth while government spending exhibits a negative effect on economic growth. Inflation as an indicator of macroeconomic stability is statistically insignificant. It is found that financial sector development causes economic growth in return economic development also causes financial sector development in long run. Similarly, the empirical evidences showed that there is strong negative relationship between financial sector development and inflation.

This study recommends that the empirical study has been found that there is the positive relationship between the financial sector development and economic growth in general. So, it is strongly recommended to develop the well functioning financial system in general. For this purpose, financial sector reform may be a useful and

possible option. Likewise, global competitiveness index, the indicator of measuring the global competitiveness situation administered by world economic forum suggests financial market sophistication and soundness of banking system are necessary prerequisites for economic growth. So, it is recommended to develop the financial market sophistication and soundness of banking system. The empirical evidences have been shown that there is strong negative relationship between financial sector development and inflation. Therefore, it is recommended that inflation containments measures should be applied for the smooth financial sector development which ultimately contributes to economic growth in long run. Similarly, researcher strongly recommends in investing the nature of financial sector development and its impact on economic growth in case of Nepal particularly.

Furqani & Mulyany (2009) conducted a research topic on ' Islamic banking and economic growth: empirical evidence from Malaysia'. The main objective was to examine the dynamic interaction between Islamic banking and economic growth of Malaysia. A well developed Islamic financial system and a tremendous economic growth at the same time pull attention to examine whether or not the Islamic banking system that currently applied in Malaysia really contribute in the long run to the economic growth of Malaysia.

This paper results generally show that in the long run, Islamic bank financing is positively and significantly correlated with economic growth and capital accumulation of Malaysia. In this regard, Islamic banking has effectively played its main role as financial intermediaries that facilitate the transmission of saving from surplus households to deficit households. Thus, this research paper argues that the current policies by bank Negara Malaysia to develop a comprehensive Islamic financial system in Malaysia is considered as effective since financial development economic growth are strongly linked. Furthermore, this finding also shows the reliability and contribution of Islamic banking to the real economic sector of Malaysia especially economic growth and investment. This result also indicates that improvement of the Islamic financial infrastructure in Malaysia may benefit economic development and it is important in the long run for economic welfare.

This research suggests that in the long run there is no co-integration of Islamic bank financing and international trade activities. This might be due to the share of Islamic

bank financing to international trade activities is relatively small and not significant to boost international trade.

Ailkaeli (2008) had conducted a research paper on ' Commercial Banks efficiency in Tanzania'. The central objective of this study is to determine efficiency status of Commercial Banks in Tanzania and to investigate the reason why x-inefficiency might exist. Banks contribute to economic growth through their financial intermediation role. Banking sector in Tanzania had experienced fundamental change over last decade and other financial institutions reforms starting from the early 1990s.

This study's methodology is bank efficiency applied for empirical descriptive analysis. The study looks into different contests of bank inefficiency; hence both parametric and non parametric methods are employed in the analysis depending upon usefulness of the respective techniques on specific types of inefficiency being analyzed. The remarkable comment from the findings of this study is that efficiency status of Commercial Banks in Tanzania is not disappointing financial sector reforms because scores turned out to be fairly high. In terms of technical efficiency, foreign banks ranked the highest, followed by small banks and then large domestic banks; while regarding scale efficiency, small banks ranked the highest followed by international banks and then large domestic banks. Evidences from the findings indicate the x-inefficiency in banks was the outcome of inadequate fixed capital, poor labour compensation, less management, capacity as bank expanded and overwhelming accumulation of excess liquid assets.

Following the major conclusions drawn from the empirical analysis, next are crucial policy implications that practitioners, policymakers, and other stakeholders may take into consideration. Because the average cost curve of Commercial Banks was eventually turning up, enhanced competition in the existing banks should be of the prime emphasis rather than speeding up to the establishment of many more new banks. It is important to encourage international banking. The critical challenge is on the aspect of capital flight from the economy through foreign banks, which may not have compensating effect if banks in the country do not equally rise up for outreach to other economies.

Capital inadequacy is among the critical impediments to x-efficiency. Banks may want to optimize productivity through rearrangement of their capital labor balance. From the estimates of the source of x-inefficiency, poor labor compensation is among the source of uninspired work effort in banks. It implies that banks should offer competitive compensations to their employees to reactive workers exuberance in order to raise productivity. Moreover, the central bank has to ensure that bank managers have enough professional competence and experience in order to guarantee mandatory skills in management of the banking business.

Kunt & Levine (2008) examined research paper 'finance, financial sector policies and long run growth'. The central objective of this paper is to review the relation between finance and growth and policy and institutional determinants of financial development. This paper claims that government plays a central role in shaping operation of financial systems and the degree to which large segments of the economy have access to financial services. Whether financial system affects or not to the economic growth, economists are arguing different views. Some economists disagree about the impact of finance on growth but many development economists accept that financial system help growth of a country. A collection of essays by the pioneers of development economics including three winners of Noble prize in economics does not discuss finance (Meier and Seers, 1984) and leading textbooks on economic growth also ignore the financial sector (Jones, 2001 and Weil, 2004). At the other extreme, Noble Laureate Merton Miller holds that "... that financial markets contribute to economic growth is a proposition almost too obvious for serious discussion." Similarly, Noble Laureate Robert Lucas (1988) holds that the role of finance in economic growth has been "over stressed". In this paper reviews the relation between finance and growth. Theory provides ambiguous predictions concerning the question of whether financial development exerts a positive, causative impact on long run economic growth. Theoretical models show that financial instruments, markets, and institutions may arise to mitigate the effects of information and transaction costs.

This study concludes that countries with better development financial system tend to grow faster. Specially, both financial intermediaries and markets matter for growth. The size of banking system and the liquidity of stock market each positive linked with economic growth. Simultaneity bias does not seem to be cause of this result. Better

functioning financial systems ease the external financial constraints that impede firm and industrial expansion. Thus, one channel through which financial development matters for growth is by easing the ability of constrained industries and firms to access external capital and expand. Similarly, this study subject to even greater qualifications, some lessons can also be drawn about policy foundation of financial development. Well functioning financial systems need stable macroeconomic policies and strong legal and information systems. Making infrastructure improvement a priority is a must. Government has an important role to play as regulators. But empirical evidence suggests the best approach to regulation is one which empowers the markets, rather than creating all powerful regulators who may be subject to corruption and political and industry capture. Empowering the market entails enforcing accurate and timely information disclosure and providing the right incentives for market participants to make sure they remain vigilant monitors. Similarly, governments also have important role to play in facilitating broad financial services, i.e.in expanding the availability of the range of financial services to a broader set of households, firms and sectors in the economy. Government policies should focus on building good institutions and encouraging competition including foreign entry and good prudential regulation to provide the private sector with appropriate incentive structure and broaden access. Government can facilitate the development of an enabling financial infrastructure and encourage adoption of new technologies, but attempts at direct intervention. Finally, while the general message will be similar, the priorities and the extent to which the financial sector need improvement in each country will depend on initial conditions, with the reforms being the most challenging for low income countries. Good policymaking complements research with practitioner experience and tailors advice to individual country circumstances.

Oxford University (2006) demonstrated a research topic on ' financial development and economic growth a critical view'. Basically this research is descriptive analysis of whatever financial development help economic growth or not. This research claims that long term sustainable economic growth depends on the ability to raise the rate of accumulation of physical and human capital, to use resulting productive assets more efficiency and to ensure the access of the whole population to their assets. Financial intermediation supports this investment process by mobilizing households and foreign savings for investment by firms; ensuring that these funds are allocated to the most

productive use, and spreading risk and providing liquidity. So that firms can operate the new capacity efficiency.

Financial development, this involves the establishment and expansion of institution, instruments and markets that support this investment and growth process. Financial development and economic growth are thus clearly related, and this relationship has occupied the minds of economists from Smith and Schumpeter; although the channels and even the direction of causality have remained unresolved in both theory and empirics. Moreover, the wide range of organizational forms involved precluded any financial institutions might maximize economic growth.

This paper made following conclusions: the potential contribution of financial development to economic growth is considerable but can't be taken for granted depends on the construction of the appropriate institutional structure. Conventional measure of financial depth and financial development are not associated with higher rate of economic growth. Similarly, financial liberalization leads to more efficient and liquid financial intermediation, but does not appear to rise of domestic savings of investment in the aggregate. The efficiency gains from the standard model of financial liberalization in terms of investment allocated and corporate governance can be outweighed by news of instability from short term foreign creations.

This paper recommend that it is necessary to reappraise the role of Commercial Banks in developing countries which have been the traditional intermediaries between saving households and investing firms, but have more recently moved into asset management and fee based services. The move away from the financing of productive investment in general, and SMEs in particular, has been encouraged by regulators concerned for bank liquidity. Public intervention is still needed to correct the market failure although this could take the form of risk insurance, support for debt securitization and market making rather than traditional bank credit. Similarly, there is relaxation of regulatory restrictions without adequate institutional provision can engender serious financial crises and create systemic risks. Greater rather than less public intervention is thus needed in emerging markets, geared to raising levels of productive investment and thus growth. The development of a long term bond term market should be a priority, as this would not only provide long term capital for growth at reasonable real cost but also

stabilize exchange rate expectations and enable the monetary authorities to intervene effectively to damp macroeconomic cycles caused by external shocks.

Crouzillie, Nys & Sauviat (2005) conducted a research topic on 'contribution of rural banks to regional economic development: evidence from the Philippines'. The main objective of this research is to find out the link between banking and economic development at the regional level in the Philippines and also focuses on the role played by rural banks on economic activity. This study takes the sixteen regions of the Philippines. Quite significant disparities in the level of economic and banking development across the sixteen regions raise interesting issues on the finance-growth nexus and the specific influence of local banks. This study conducts an empirical investigation over the period 1993 to 2005 using an ordinal set of regional banking data. This study takes the rank order correlation test and regression analysis to fulfill the above objectives.

This study concludes that to contribute to the finance/growth literature by analyzing the specific effect of local banks on regional economic performance. More precisely it focuses on the influence of rural banks, which are mainly dedicated to foster expansion of rural areas, on economic development in the sixteen regions of the Philippines. When examining the relationship between banking and economic development using indicators built at the regional banking industry level, there is no clear-cut evidence of a banking-led economic development. But focusing on the specific effect of rural banks' presence, a positive impact is found on economic development for the intermediate and less developed regions, with a stronger impact for intermediate regions. The Philippines experience shows that the presence of rural banks which have an expertise in financing micro-entrepreneurs and poor households should be supported in order to stimulate economic activity especially in the rural areas of developing countries. The results suggest a comparative advantage of rural banking in building a closer relationship in the lending segment of the market favoring therefore the financing of projects that Commercial Banks would not have done. Further research using individual bank data could consist in analyzing the threshold effect and in explaining the comparative advantage by assessing the characteristics of customers and the efficiency of rural banks.

## **2.2. Review of Nepalese Studies**

Timsina (2014) had conducted a research topic on ' impact of bank credit on economic growth in Nepal'. The main objective of this study is to examine the effects of Commercial Banks credit to private sector on economic growth from supply side perspective as well as to suggest ways of improving bank credit to the private sector so as to achieve better economic growth in Nepal. The research of this study methodology was co-integration approach error correlation model measurement of relationship between the private sector credit and economic growth.

This research papers concludes credit is an important link in monetary transmission as it finances production, consumption and capital formation which in turn affect economic growth. Especially in developing countries like Nepal, it caters resources need for economic growth. NRB and government have adopted many policies and programs to increase economic growth through the use of bank credit. However, the relationship between private sector and economic growth has not yet assessed properly in the Nepalese context.

This study found that the banks credit to private sector has positive impact on economic growth only in the long run. Nonetheless the short run equilibrium effects are more induced by the feedback effects of GDP growth to the private sector lending, not from the private sector lending to GDP growth, which is against the proposed hypothesis. The empirical results imply that, policy makers should focus attention on long run policies to promote economic growth such as development of modern banking sector, efficient financial market, infrastructures so as to increase private sector credit which is instrumental to promote growth in the long run.

Thivuong (2013) examined his research paper on ' relationship between financial development and economy: a case of Nepal'. The central objective of this study is to investigate the relationship between banking industry performance and economy in Nepal over the period of 1994 to 2011. The empirically methodology is based on regression analysis.

This study found that the deposit ratio is better influence in the economy of Nepal. Similarly, credit ratio, investment ratio and term deposit ratio has not found as driver of Nepalese economy. In the contrast of other findings, it is found that current deposit

ratio has negative influence on Nepalese economy. One possible explanation may be why other financial development indicator is not stimulating the economy that for the financial development it is essential that expansion of the financial system be accompanied by allocating creation of funds towards investment activities. So, this paper suggests that countries should promote economic growth in order to encourage and thus benefit from financial development. The study concludes that Nepal should expand and improve their credit and investment system through appropriate regulatory and policy reforms in order to supporting higher economy growth. Besides this, other implication for policy is that effort geared towards promoting domestic investment.

Jha & Hui (2012) argued a research topic on ' Commercial Banksing performance and economic growth in Nepal'. The main objective of this research was to empirically examine the relationship between Commercial Banks performance and economic growth of Nepal. This study observe relationship between Commercial Banks performance and economic growth of Nepal, econometric model multivariate regression analysis was used to estimate the impact of Deposit/GDP, Credit/GDP and investment/GDP on economic growth nominal gross domestic product and real gross domestic product for the period 1997 to 2010.

This study finds the deposit/GDP and investment/GDP ratios were significant while credit/GDP ratio did not have any considerable effect on economic growth in Nepal. All they consider variables deposit/GDP; credit/GDP and investment/GDP were positively significant effect on the real gross domestic product (RGDP). Commercial Banks total credit better explain economic growth indicator in real term rather than in nominal terms. The results align well with the apriority expectation and confirm the better performing Commercial Banksing sector in now helping Nepal to achieve higher growth rates. Therefore, need to provide a suitable operating environment for the banking sector to perform its services in Nepal.

Kharel & Pokhrel (2012) have conducted a research topic on,' brief overview structure of Nepalese economy & financial system'. The main objective of this study is to investigate the relative merits of banking sector verses capital market in promoting economic growth of Nepal. This paper specify a general Cob- Douglas production function which states that output is the function of labor and capital. This paper concludes the financial structure matters for economic growth of Nepal. Nepal adopts

liberalization policy in mid 1980s. Nepalese economy witnessed a significant transformation particularly in 1990s. The share of agriculture to GDP comes down from 69 percent in 1975, 50 percent in 1995 and 35 percent 2011. This result show that the share of agriculture decreasing and non agriculture sector dominance Nepal's GDP. Nepalese financial system is highly dominated by banking sector, particularly Commercial Banks.

This paper focuses on the long standing debate regarding the relative merits of bank verses capital market based financial system in promoting economic growth and examines this particular issue in the Nepalese context. This paper concludes that financial structure matters for economic growth in Nepal. Particularly, this research empirical result suggests that Nepalese banking sector is more growth enhancing relative to capital market.

The main implication of this research finding is that the policy should focus on banking sector development by enhancing products and service quality along with the expansion of its outreach. The policy should focus on banking sector development as it better promotes economic growth compared to capital market. The banking sector development does not necessarily mean the increment of number of banks and financial institutions, but it is the expansion in the outreach of their financial services and product in terms of quality as well as quantity. The insignificant impact of capital market on growth may be attributed to its size and poor linkage with the real sector implying that capital market should be further expanded to real economic activities so as to channelize its impact on growth.

The conclusion of this paper, however, should be analyzed cautiously as we are working on a small sample size. We may obtain a different result while working with a large sample size or when the real sector dominates the capital market in future. Further, the study can be extended by incorporating the data of other financial institution like provident fund and insurance companies, which have been excluded in this study.

NRB (2009) conducted a research topic on 'financial sector development and economic growth of Nepal'. The main objective of this research is to estimate the impact of the growth of domestic financial services on Nepal's economic growth. More

specially, this study uses OLS techniques of estimation with dependent variable as economic growth and financial development as independent variables. This study claims that the growth of financial services sector is theoretically important to economic growth. Its importance to economic growth emanates from its critical role in facilitating financial intermediation and enhancing trade related payments. The efficacy of financial system to reduce information and transaction costs plays an important role in determining the rate of savings, investment decisions, technological innovation and hence the economic growth. This hypothesis has been supported by number of studies such as Mckinnon (1973), Shaw (1973), Greenwood & Jovanovic (1990) and Levine (1997). These studies share the common view that financial development is prerequisite for the economic growth of nation. Further, Levine (1997) state that the level of financial development is a good predictor of future rate of economic growth, capital accumulation, and technological change. He also concludes that countries with larger banks and more active stock markets grow faster over subsequent decades even after controlling for many other factors underlying economic growth.

Nepalese financial system has witnessed a rapid growth both in terms of quantitative and qualitative aspects. Growing share of total credit, total assets and other measures of financial development indicators can prove this fact. Notwithstanding this fact, there are mixed empirical findings about the role of financial development indicators on economic growth; this study tried to determine the relationship with economic growth of Nepalese economy over the period FY 1975 to 2007. For this purpose the study selected per capita real GDP as a measure of growth and four proxies of financial development indicators.

Using simple OLS techniques and then utilizing the CVs for robustness of the results, the study showed that not all the measured of financial development indicators affect the economic growth. The one variable that affects economic growth is the ratio of liquid liability to nominal GDP. The positive effect of such indicator in one period lag from suggests that the government should proactively guide the domestic financial environment and thereby develop a master plan in this regard.

However, the conclusion from this study are subject to the methodology used, the quality of data especially on real sector side. Hence, there are many potential areas for

future study. For example, this study was aimed to focus on the impact of financial development on economic growth with the narrow definition of financial development limiting to Commercial Banks based statistics only due to data availability. Therefore, future exercise can be extended covering to all banks and financial institutions, insurance companies, stock exchange, provident fund and citizen investment trust. Likewise, the issue of separating total private sector credit into productive credit and non productive credit is not covered in this study. Finally, the methodology that this study can be extended into more sophisticated from to get more refined and fine tuned aspect of analysis.

Koirala (2009) had conducted a study on 'development banking in Nepal'. This study's main objective was to find out causal relationship between growth and position of the banking and non banking sector of Nepal. Basically this study is explanatorily type and discuss about history of development bank worldwide as well as Nepalese context.

Similarly, this study focuses on scope and role & prospects and challenges of development banking in Nepal. This study argues that constantly widening trade deficit together with very slow industrial growth indicate the need of specialized bank to cater to the need of industrial sector of the country. Given the under and unemployment problem of in the country, there is no choice but to make industrialization process successful. In order to achieve sustainable economic development, greater portion of GDP should be directed to investment. Also, in order to maximize benefit from investment, it is necessary that the share of private sector investment should be increased. Sustainable economic growth will be attained only if the productive activities are enhanced and exportable surplus is generated. The scarcity of fund for the development for cottage and small scale industry is a major problem. Thus, for sustainable economic growth, more specialized bank for the development of industrial sector is need of the economy.

This study's conclusion and recommendation were development banking is supposed to serve the cause of development. A development bank therefore must safeguard its economic and financial viability without this; it cannot play a development role. It cannot long operate as a bank since its resources would soon be depleted and its responsibility completely lost. This study preserve its integrity as a development bank, it must assign the highest priority to depending and promoting its own viability.

Consequently, it must be exigent in observing all the rules of financial prudence and professional behavior. Its credit system must be kept inviolate and free from undue interference. All the dictates of business discipline and institution decision making must be scrupulously followed.

Nepal's financial sector faces serious problems. This sector is predominantly owned and controlled by the state. Large parts of the system operate with very serious governance problems. Several of the key institutions are technically insolvent, and in some cases, have been maintained liquid by capital injections from the budget. The financial system acts as yet one more drag upon overall economic growth in Nepal. The government is committed to private sector led growth in Nepal. It is also committed to greater private sector ownership and operation within the financial sector. Turning this into reality involves an ambitious agenda which focuses first and foremost upon strengthening the central bank and reforming the two largest Commercial Banks. Strong government commitment and willingness to take politically difficult action will be required to deal with these two key areas. However, if steps are taken now, and existing commitments are acted upon, the financial sector could look healthier. Failure to do so will result in more lost years of development to the detriment of most Nepali's and most likely to additional financial losses, which would make problems even more intractable than what they are at present.

The globalization and internationalization of financial market, the complex financial systems within the country and the emerging needs for better and quality service require NRB to be innovative, dynamic and effective. The ongoing financial sector reform program and the NRB's efforts towards developing long term strategic plan for the financial sector development are vital steps for the development of a sound financial sector. It is also important that the reform should be continuous process built in into its system and processes, in its structure and people.

Significant process has been made in the task of developing a sound financial sector in Nepal through establishing procedures for opening banks and financial institution, establishing minimum qualification requirements for promoters interested in opening banks and financial institution, introducing regulations at par with international norm and standards, ensuring transparency and disclosure through establishing reporting mechanism and ensuring corporate government in the financial sector through

establishing code of conduct and defining roles and responsibilities and Board, CEO and employees. However, the way ahead is quite challenging. The globalization of financial markets demands congruence with rest of the world on regulatory, supervisory and corporate governance issues. This calls the need for support and cooperation from all players in the financial sector. All institution in the financial sector should move towards achieving a common goal of making the financial sector sound, prudent, efficient and effective. The NRB needs to be committed in its work of leading the financial sector development with the object of creating a sound, healthy and competitive environment in which the bank will be able to compete in this globalized market.

Panta (2009) had conducted a research topic on ' Nepalese financial system: policy development and challenge'. The main objective of this study is to examine the policy developments pertaining to Nepal's financial system and to delineate some challenges of the country's financial system. Based on descriptive analysis, he analyzed Nepal's financial system: policy development and its challenges.

This study concludes financial market build in many ways the backbone of an economy. A well regulated financial sector leads to an efficient transformation of saving to investment, ensuring that resources are deployed where they earn the highest returns. A strong and resilient financial system and the orderly evolution of financial markets are the major prerequisites for financial stability and economic progress. A healthy financial system is the one that effectively fosters resource mobilization for capital accumulation and determines efficient allocation of resources. It is important to remember that success of any financial system, in its resource mobilization and allocation functions, depends on its ability to offer the public a variety of assets ( money as a medium of exchange, earning assets, pension funds, etc) corresponding to the various needs and preferences of economic agents. A clear understanding and recognition of this fact is very important to formulate appropriate policies to enable the financial system to function properly and efficiently. The test of the strength of a country's financial sector is its capability to make available the appropriate types of institutions and financial instruments that can support economic growth. The NRB's challenge is to build up a financial system that is supportive of growth, and dynamic enough to change and fulfill the evolving economy.

Bhatta (2008) conducted a thesis topic on ' financial sector development and economic growth of Nepal'. The main objective was to examine the relationship between financial sector development and economic growth, and to examine the relationship development and poverty reduction. For that researcher research methodology were descriptive analysis based on conventionally used models. The ratio of broad money ( $M_2$ ) to GDP as the indicator of financial development has been used. Similarly, this thesis includes the subjective judgment on historical development of financial sector in Nepal. Graph, ratio, percentage and tables are used to explain this relationship.

This research finds a strong and stable financial sector is necessary for economic development of the country. Nepalese financial system has witnessed a significant change over the last two decades. Not only has the number of financial intermediaries increased remarkable achievement been attained on the financial deepening front as well. One of the salient features of the Nepalese financial development is the considerable participation of the private sector which is necessary to enhance the efficiency and competition. Over the year, the expanded financial sector has contributed significantly in promoting financial deepening. Access to the formal financial system has increased.

Viewing the challenges that can emanate from the increasing number of financial intermediaries a number of reforms initiatives under the financial sector reform program have been introduced over the years. Though the measures adopted under the financial reforms program are aimed at addressing the issues of financial stability, infrastructure development and capacity building, emerging challenge is to widen the financial outreach in the backward regions of the country.

Finally, recommendation of this research was to develop a sound financial system, prudential regulation and effective supervision is crucial. Prudential regulations comprising of capital adequacy requirement, corporate governance and market discipline. It can be acquired through improve in transparency and improved information system. A competitive integrated, efficient and properly regulated and supervised banking system would mobilized and allocate resources to support the growth of private sector. Similarly, another recommendation was in the context of Nepal's membership with WTO, it is crucial in strengthening existing financial

institutions and enhances their efficiency in financial intermediation. Increase competitions in the financial system also enhance efficiency in financial intermediation and reduction of cost of funds.

Ghimire (2008) conducted a thesis topic on 'role of development banks in economic development of Nepal'. The main objective of this research was to examine the pattern of contribution of credit from the development banks upon the GDP and to analyze the resource mobilization and utilization of development banks. This study shows relationship between credit from development banks upon the GDP, research methodology was regression analysis. Similarly, descriptive analysis also used to focus on resource mobilization and utilization of development banks.

This research found that the growth in the number of development banks is remarkable and the share of its assets in the whole financial system is growing persistently. The share was 1.7 percent in 2001 and stood 3.89 percent in 2007. There is continuous growth in the ratio between total asset of development banks and gross domestic product in Nepal, this ratio was 5.52 percent in 1993 and stood 10.31 percent in 2007. Similarly, the share of deposit of development bank in whole financial system has grown up reached to 3.93 percent in 2007 which was 2.30 percent in 2000.

Role of development bank in Nepalese economy the result of regression analysis justified that the credit made by development bank has positive effects on the economic growth of the country represented by the GDP. This study compare the role of development bank, the result of descriptive analysis shows that the share of development bank in the total assets of the whole financial system is increasing every year. So this research concludes the contribution of the development bank in mobilizing and utilizing the financial resources for economic development is significant.

This research recommended that there is significant contribution of the development banks in Nepalese economy but the concentration of bank and financial institution including the development banks in the urban areas leads to possibility of creating defaulters chain which can ruin the whole banking industry. Similarly, to increase the outreach of the banking services even by the development bank it requires minimum

infrastructure throughout the country by which the development bank will also encourage expanding its network in the semi-urban areas and gradually in remote areas. Therefore, the researcher suggest that the government to prioritize their fiscal policy towards the development of infrastructure in the rural areas.

Paudel (2005) had conducted a research topic on 'financial system and economic development'. The main objective of this study was to deal with problem and challenges, corrective action, policy option and future agenda of Nepalese financial system and economic development of Nepal. This study is use to explain ordinary least square method. Similarly, this study point out that, a well developed financial system promotes investment by identifying and financing lucrative business opportunities, mobilizing savings, efficiently allocating resources, helping diversify risks and facilitating the exchange of goods and services. Economists have generally reached a consensus on the central role of the financial system in economic development. Among the economic problems experienced by the developing countries, lack of access to financial resources is the major one. Financial system plays vital role in meeting financial needs of the productive units through generating saving from the surplus generating units of the economy. A formal financial intermediary can be more efficient in allocating financial resources in productive ways. It is, therefore argue that an effective and efficient financial system is more important for nation's economic development process.

However, the level of financial and economic development is not easily measurable and the link between the two may not be always easy to establish. A number of indicators or proxies have been introduced to link financial development with growth. M1 to GDP ratio, M2 to GDP ratio, bank credit and credit to private sector are some of the widely used financial deepening indicators which can be used to measure their effects. On economic development as measured by growth indicators such as GDP, GNP &PCI. A strong correlation between these indicators can imply that the development of financial sector leads to economic development.

## **CHAPTER - III**

### **RESEARCH METHODOLOGY**

Research methodology is the process of getting solution of the problem through planned and systematic dealing with the collection, analysis and interpretation of the study area. It includes research design, sources of data, method of data collection, sampling methods, instruments of data collection and techniques of data analysis.

#### **3.1. Research Design**

This present study has been divided into both quantitative and qualitative analysis. In the qualitative research design, descriptive analysis is used to show the trend and pattern of credit of Commercial Banks and GDP. On the basis of secondary data, trend and pattern of credit and GDP is clearly analyzed in table as well as figure and also evaluate how the fluctuation made the increasing tendency of Commercial Banks and GDP. Similarly, this study analyzes descriptively the resource mobilization and utilization of Commercial Banks. This study describes the financial development of Nepalese economy and especially the role of Commercial Banks in economic growth of Nepalese economy.

Similarly, the quantitative research design has been done based on regression analysis. In this research design, we evaluate the relationship between GDP and credit of Commercial Banks. The research design, nature of data, population and sample of the study, variables, data analysis techniques, model specification, coefficient of determination are explained in detail:

#### **3.2. Nature and Source of Data**

The data has been taken from the secondary sources. The sources of data have been taken from the publication of Nepal Rastra Bank various issues, economic survey published by Ministry of finance (MOF), Central Bureau of Statistics (CBS), World Bank reports, Commercial Banks various issues and publications and related websites.

### **3.3. Population and Sample of the Study**

Population of this study is the whole financial institution of Nepalese economy. Financial institutions are intermediaries between surplus and deficit unites. Commercial Banks are the player of the financial system; hence all Commercial Banks are selected as sample of this study. This study is primarily related with the macroeconomic variable; like nominal GDP, total assets, deposit and credit of Commercial Banks. The sample period has been chosen from FY1975 to 2012. After liberalization, Nepal adopted free market economy and started to open private sector banks and finance institutions which are indirectly contributing in the economic growth of Nepalese economy. Before liberalization, only government banks provided banking services but after the liberalization, private banks got permission to open which are indirectly helping in Nepalese economy. So the sample period has been chosen from 1975 to 2012.

### **3.4. Variables**

This study is based on quantitative and qualitative in nature. So the idea of dependent and independent variables is made here to simplify the analysis. The variable are explain as below:

#### **3.4.1. Dependent Variables**

The dependent variable is the variable whose value is determined by other variables. Based upon the model specification for regression analysis; the nominal gross domestic product at producer's price is considered as the dependent variables in this study. This is because GDP depend upon various factors, here in this research we assumed GDP depends upon Commercial Bank credit and previous period of GDP.

GDP is defined as the market value of currently produced final goods and services within boundary of the economy. It means GDP is the unduplicated monetary value of all final goods and services produced within the geographical boundary of the economy during the specified time of one year. So, GDP is a better indicator of economic performance because higher GDP means higher employment opportunities. GDP includes all the market value of production, to the improvement of higher level of

GDP, there are many factors, among them Commercial Banks credit is one. Commercial Banks provide credit in to different sector of the economy which is contributing in the productive sector of the economy. So to explain with regression analysis, nominal GDP is dependent variable.

### **3.4.2. Independent Variables**

The variable, which influences the other variable, is called independent variable. The followings are the independent variables based on model explanation in this study:

(i) Credit (Cr): Credit by Commercial Banks (Cr) is considered as an independent variable. Credit needs all people, business holder, industries, and investors etc, so Commercial Banks utilize financial resources in scattered sectors which can be channelized in the productive as well as business loan. It also increases aggregate demand in the economy through multiplier effect case of growth of gross domestic product.

(ii) One period lagged GDP ( $GDP_{t-1}$ ): One period lagged GDP is considered as an independent variable due to  $GDP_{t-1}$  is based on current GDP. The current period of GDP figure comes to the particular amount only with the basis of one period lagged GDP. Similarly, next reason is as a whole economic growth of Nepalese economy is not depended only in credit by Commercial Banks. There are some other factors to the economic growth of Nepal which includes in  $GDP_{t-1}$  so we assumed it independent variable.

### **3.5. Data Analysis Techniques**

This study includes the statistical tools to analyze the data in order to reach the conclusion of the research. In order to get the concrete results from this research, statistical data have been regressed in the log linear functional form. The statistical data test in computer by using Microsoft Excel and the result drawn from the regression analysis has interpreted in this study. In this study both descriptive and empirical methods have been used to analyze the results and data. In qualitative results on secondary data, the analysis is done with the help of table and graph.

### 3.6. Model Specification

This study specifies a model to explain the relationship between GDP and credit of Commercial Banks with the help of regression analysis. In this model, GDP is the function of credit (Cr) of the Commercial Banks and one period lagged GDP ( $GDP_{t-1}$ ). Mainly, to show the role of credit to economic growth we take credit made by Commercial Banks as an independent variable and one period lagged GDP represents the rest of the credit helping factor of economic growth. And also lagged period GDP is the foundation of current period of GDP.

Symbolically,

$$Y = f(Cr, GDP_{t-1})$$

Where,

$Y$  = Nominal GDP

$Cr$  = Total credit of Commercial Banks

$GDP_{t-1}$  = one period lagged GDP

Symbolically,

$$\log GDP_t = \alpha + \beta_1 \log GDP_{t-1} + \beta_2 \log Cr_t + \varepsilon$$

Where,

$GDP_t$  = Gross Domestic Product of 't' period. It signifies that the all currently produced monetary value of final goods and services at that accounting period of one year. GDP depends upon various factors but in this model we assumed GDP depends upon credit of Commercial Banks 't' period and previous period of GDP.

$\alpha$  = Intercept. It represents intercept term which signifies that when GDP at lagged period ( $GDP_{t-1}$ ) and credit at time period 't' are simultaneously zero, there is some value of GDP at 't' period. Hence,  $\alpha$  also represents natural value of GDP.

$\beta_1$  = Coefficient. It represents the regression parameter between current GDP and one period lagged GDP. It represents the contribution of  $GDP_{t-1}$  on  $GDP_t$  where keeping credit of Commercial Banks ( $Cr$ ) is constant.

$GDP_{t-1}$  = GDP of previous year. It is considered as an independent variable in this model. This variable is taken into account due to it is not guaranteed that only credit help to economic growth of Nepal. Except credit, rests of the other variable which are helpful in economic growth of Nepal.

$\beta_2$  = Coefficient. It is also regression parameter between credit at 't' period and GDP at 't' period which signifies that the contribution of credit on  $GDP_t$  where keeping  $GDP_{t-1}$  is constant. It means certain changes in current credit also changes the current GDP where as other factors keeping constant.

$Cr_t$  = Credit of 't' period. It represents total credit of 't' period of Commercial Banks. Here,  $Cr_t$  consider independent variable which means total GDP depends on credit made by Commercial Banks in this model.

$\varepsilon$  = Error term. It represents the error term. It signifies that GDP is affected by rest of the other variables which are not considered in this model.

After regression analysis, the goodness of fit is checked through  $R^2$ .  $R^2$  is a statistical number computed from the sample data which exhibits the percentage of total variation of the dependent variable being explained by the change in the independent variable.

Similarly, F- test is used to test the overall significance of regression model at a given level of statistical significance. It attempts to show whether the movement in the dependent variable is significantly explained or not with the change in independent variables.

# CHAPTER - IV

## PRESENTATION AND ANALYSIS OF DATA

### 4.1. Trend and Pattern of GDP and Credit of Commercial Banks

This topic deals with the trend and pattern of Gross Domestic Product (GDP) and credit of whole Commercial Banks in Nepal. We take data from FY1975 to 2012 and analysis is done into two parts. The first part of this analysis is before the restoration of democracy (1975-1990) and the second part of this study is after the restoration of democracy (1990-2012). Before the restoration of democracy there were limited numbers of Commercial Banks. Basically to compare trend and pattern of GDP and credit of Commercial Banks, before restoration of democracy and after restoration of democracy.

Gross Domestic Product (GDP) is defined as the market value of currently produced final goods and services within boundary of the economy during the specified time of one year. GDP is one of the major indicators gauge of the health of a country's economy. GDP is considered a better indicator of economic performance because higher GDP means higher employment opportunities and to run economy into prosperity. So, here, we analyzed the trend and pattern of Nepal's GDP.

Commercial Banks perform all kinds of banking business. They accept deposits from different sectors of the economy and make business loans and offer related services. Capital formation and investment are highly needed for a healthy economic growth of any country, so mainly Commercial Banks provide loan (credit) into various sectors of the economy which indirectly helps to growth of GDP and finally helps to the economic growth of the nation. The total volume of money in the economy should be adequate to facilitate the various types of economic activities such as production, distribution, consumption etc. The process of credit begins with banks lending money out of primary deposit. Here, credit is taken into study due to Commercial Banks share is larger in Nepalese banking system and they provide loan into different sectors of the economy which helps to increase GDP volume and ultimately helps in the economic growth of Nepal. The trend and pattern of GDP and credit from Commercial Banks explained with the help of following table.

**Table 4.1:** Trend and Pattern of GDP and Credit of Commercial Banks

(Rs. in million)

Fiscal Year	Total GDP at producer's Price	Credit of Commercial Banks
1975	17394	1322
1976	17280.3	1310.9
1977	19727	1691.4
1978	26128	2077.2
1979	23351	2582.7
1980	27307	3169.2
1981	30988	3928
1982	33821	4223.3
1983	39290	5152.4
1984	46587.0	5770.5
1985	55734.3	7507.2
1986	63864.5	8997.6
1987	76906.1	10730.1
1988	89269.6	13523.5
1989	103415.8	17264.5
1990	120370.3	18917.1
1991	149487.1	24410.5
1992	171473.9	32158.7
1993	199272.0	36642.7
1994	219175.0	43236.3
1995	248913.0	56182.5
1996	280513.0	69014.4
1997	300845.0	78511.7
1998	342036.0	93797.7
1999	379488.0	111968.8
2000	441518.5	136184.8
2001	459442.6	160919.4

2002	492230.8	173319.2
2003	536749.1	201822.5
2004	589411.7	228234.9
2005	654084.1	260867.3
2006	727827.0	307583.9
2007	815658.2	340354.9
2008	988272.0	420242.6
2009	1192774.0	520634.6
2010	1366953.0	595563.1
2011	1527344.0	673111.2
2012	1692642.0	787747.7

Source: Economic Survey, 2008/09 and 2013/14

Table 4.1 shows the trend of nominal GDP and credit of Commercial Banks. Here, all the data of this study and every fiscal year include two years because of fiscal year in Nepal begins from Sharwan. So every FY year takes two year like in FY 1975, it includes 1975/76, we take single year data for our easiness but it includes two year 1975 to 2012, i.e. it includes 1975/76 to 2012/13. Firstly, we explain the GDP figure. Before restoration of democracy in 1975, total GDP is 17394 million.

The trend analysis covers long period so we analyzed trend after five year to five year. In FY 1980 i.e. before the restoration of democracy, total GDP reached Rs 27307 million. The trend of GDP is increasing, GDP increased 56.99 percent in comparison to FY 1975. In FY 1985, total GDP increased 104.10 percent against FY 1980. After the restoration of democracy, Nepal adopted multiparty system and practiced more stabilized political situation. Similarly, in mid eighty decade, Nepal adopted liberalization policy then private banks and financial institutions started to open which indirectly helped to increase GDP figure. In FY 1995 i.e. after the restoration of democracy, total GDP reached Rs 248913 million which was 106.78 percent increased against FY 1990. We can analyze that the trends of Nepalese GDP is increasing tendency.

In FY 2005, GDP growth increased 48.14 percent i.e. reached upto Rs 654084.1 million. This figure also shows that the trend of GDP is increasing way. In FY 2010,

the trend of GDP growth was rapidly increasing, in this fiscal year, GDP growth is 108.98 percent more than FY 2005. Total size of GDP reached Rs 1366953 million and the composition on total GDP. In FY 2012, total GDP reached Rs 1692642 million where as its growth 23.82 percent than FY 2010.

The financial sector of Nepal was encouragingly progressive after fiscal liberalization in mid eighty decade. Here we analyzed the trend of credit since 1975, before liberalization; there were only two Commercial Banks. But after the liberalization, new banks and finance companies operate the economy hence the credit start increasing. In FY 1975, total credit of Commercial Banks was only Rs 1322 million. The total credit disaggregates into agriculture, industry, trade, consumption goods and service sector. In this fiscal year two Commercial Banks are operating (appendix-2), but after the liberalization the numbers of Commercial Banks were increased. In FY 1980, the growing ratio of Commercial Banks credit increased 139.72 percent. This means the credit reached Rs 3169.2 million.

In mid eighty decade, Nepal adopted liberalization policy and private banks and financial institution started to open. In FY 1985, total credit from Commercial Banks reached Rs 7507.2 million. The trend of credit is increasing tendency i.e. 136.87 percent growth in the credit from Commercial Banks. In this fiscal year number of Commercial Banks reached four(appendix-2), so the ratio of credit increased. Similarly, in FY 1990, total credit reached Rs 18917.1 million, which is increasing trend. Number of Commercial Banks reached five, hence the credit also increased. In this situation, banking system and banking habit started in creeping way, increasing rate of credit indirectly helped in the growth of Nepalese GDP. In this FY total GDP reached Rs 120370.3 million, which was positive effecte in increasing trends of credit of Commercial Banks.

Similarly, in FY 1995, total credit of Commercial Banks stood Rs 56182.5 million which is higher Rs 37265.4 million than FY 1990. The ratio of increasing credit is 196.99 percent than FY 1990, the reason behind in increasing number of Commercial Banks i.e. Commercial Banks reached 10. In FY 2000, the total number of Commercial Banks reached 13 and credit amount reached Rs 136184.8 million. In this way the trend of credit is increasing tendency that is the ratio of the credit is 142.39 percent.

This ratio shows the dramatic progress of Commercial Banks providing loans into different sectors of the economy which was positive in the whole economy.

In FY 2005, total credit of Commercial Banks reached Rs 260867.3 million which is high amount Rs 124682.9 million than FY 2000. In this fiscal year total number of Commercial Banks reached 17. The trend of credit is increasing in every fiscal year; the growing number of the Commercial Banks is main reason of the increasing way of credit. Similarly, in FY 2010, the total credit of Commercial Banks reached Rs 595563.1 million. This figure shows the ratio of credit in increased 128.30 percent against the fiscal year 2005. In this fiscal year total number of Commercial Banks reached 27 which were 25 more to fiscal year 1975. The main cause of increasing trend of credit is increased number of Commercial Banks, increased number of Commercial Banks obviously provide more loans hence it helps in the growth of Nepalese economy. In FY 2012, total credit reached Rs 787747.7 million which was increased 32.26 percent than that of FY 2010. This figure shows that the trends of credit from Commercial Banks increasing tendency and also the number of Commercial Banks also increase i.e. the number of Commercial Banks reached 32 in this fiscal year(see appendix-2).

We evaluated the role of Commercial Banks in credit from FY 1975 to 2012, in the initial state of our study, there were only 2 Commercial Banks operating Nepalese economy. In FY 1975, there was only Rs 1322 million credits provided from the Commercial Banks. But after the liberalization, new private Commercial Banks started to open. In FY 1990, number of Commercial Banks reached 5 and trends of credit also increased. In the FY 2005, total number of Commercial Banks reached 17 and credit reached Rs 260897.3 million. Similarly in FY 2102, total credit reached Rs 787747.7 million and number of Commercial Banks reached 32. Thus, we can say that the trend of credit is in increasing tendency and it indirectly contributes in GDP and finally contribute in the economic growth of Nepalese economy.

The annual growth rate of GDP and credit of Commercial Banks is shown the following table.

**Table 4.2: Annual Growth Rate of GDP and Credit**

(Rs. in percent)

Fiscal Year	Growth rate of total GDP	Growth rate of credit
1975	-	-
1976	-0.65	-0.83
1977	13.91	29.02
1978	32.44	22.08
1979	-10.62	24.33
1980	16.94	22.70
1981	13.48	23.94
1982	9.14	7.51
1983	16.17	21.99
1984	18.57	11.99
1985	19.63	30.09
1986	14.58	19.85
1987	20.42	19.25
1988	16.07	26.03
1989	15.84	27.66
1990	16.39	9.57
1991	24.18	29.03
1992	14.70	31.74
1993	16.21	13.94
1994	9.98	17.99
1995	13.56	29.94
1996	12.69	22.83
1997	7.24	13.76
1998	13.69	19.46
1999	10.94	19.37
2000	16.34	21.62
2001	4.05	18.16
2002	7.13	7.70
2003	9.04	16.44

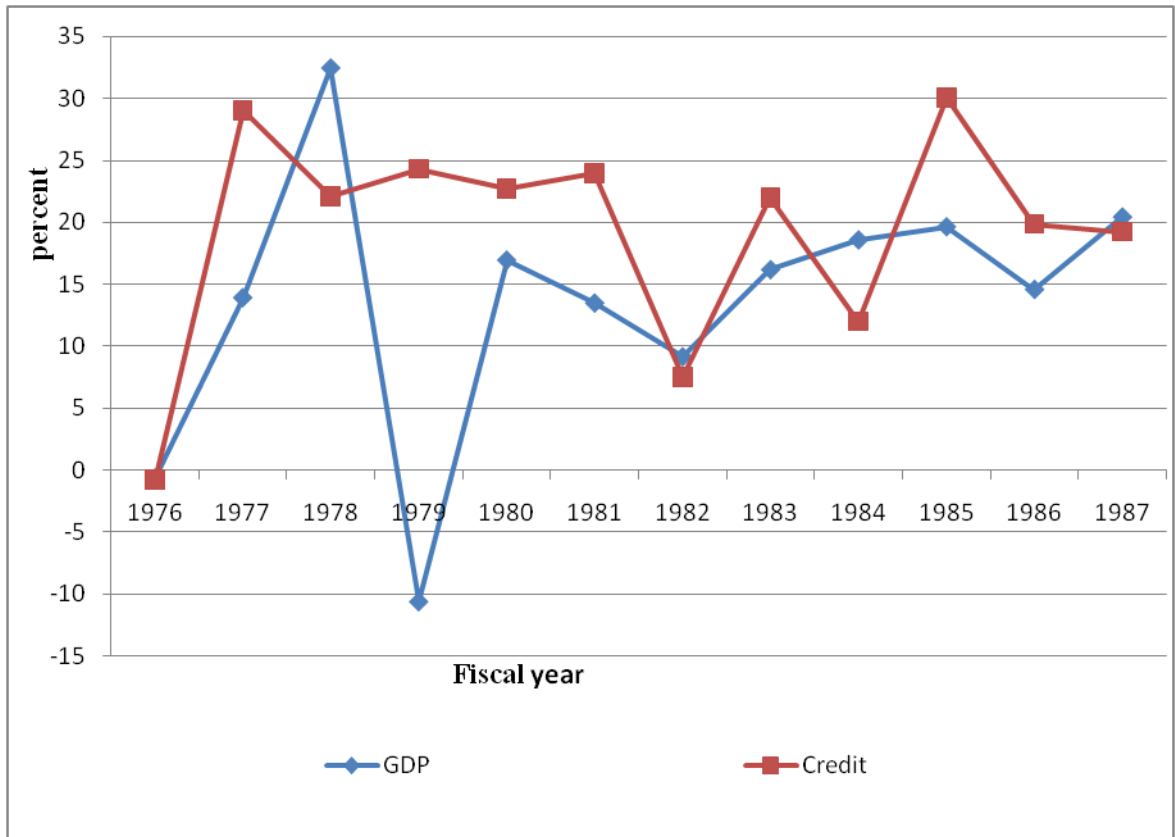
2004	9.81	13.08
2005	10.97	14.29
2006	11.27	17.90
2007	12.06	10.65
2008	21.16	23.47
2009	20.69	23.88
2010	14.60	14.39
2011	11.73	13.02
2012	10.82	17.03

Source: From Table 4.1.

In the above table 4.2, we analyzed the annual growth rate of GDP and credit of Commercial Banks. In FY 1976, total GDP and credit is negative than FY 1975. Similarly, in FY 1979 total GDP growth is negative and remaining other FY, GDP and credit from Commercial Banks annual growth is fluctuating year to year. Here, the data covers long period i.e. 37 years so long data does not show clear graph so we divided graph into three parts. The first part includes 1976 to 1987, second part includes 1988 to 1999 and third part includes 2000 to 2012.

First we show the annual growth of GDP and credit from Commercial Banks, the time period is FY 1976 to 1987.

**Fig. 4.1:** Annual Growth of GDP and Credit of Commercial Banks (1976-1987)

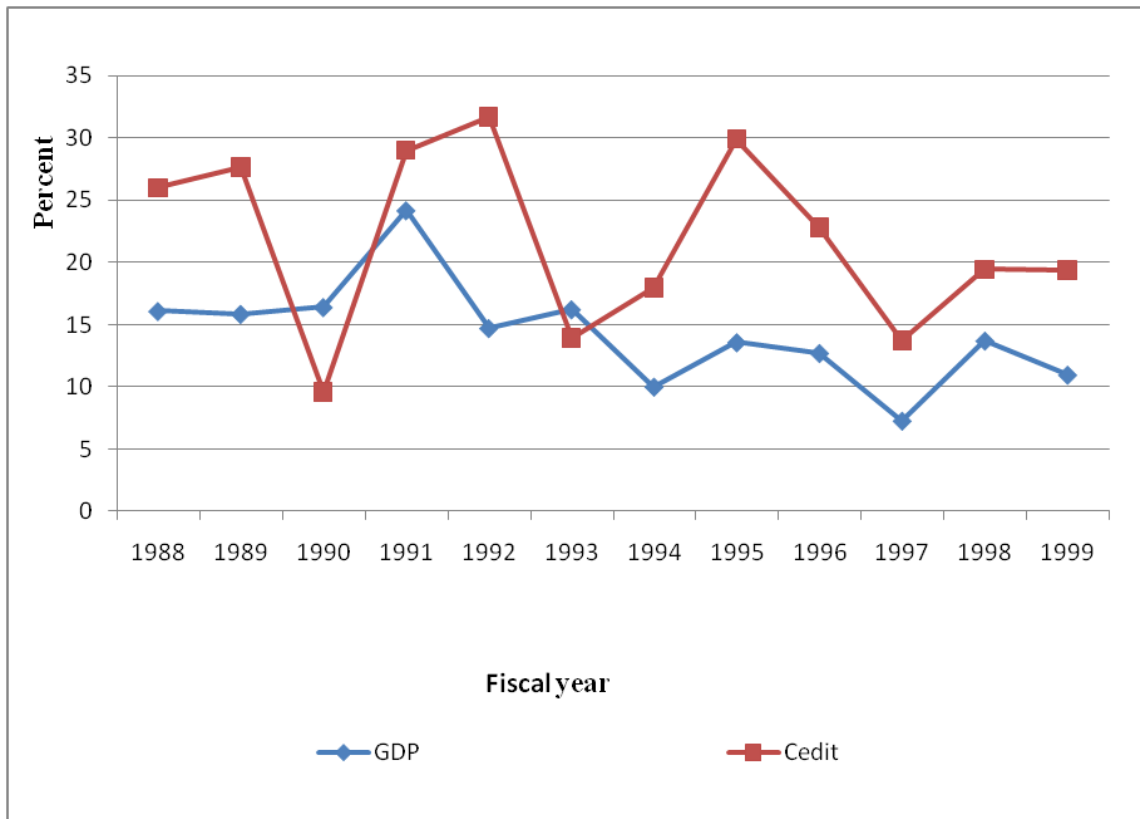


Source: From Table 4.1.

Figure 4.1 shows the annual growth rate of GDP and credit from Commercial Banks. In FY 1976, both GDP and credit are negative than the growth rate of previous period i.e. in 1976 GDP growth rate is negative as 0.65 percent and credit is also negative as 0.83 percent. In 1977 both GDP and credit growth rate increased, but in FY 1979 GDP growth rate is negative, this means GDP is negative as 10.62 percent. The growth rate of credit is fluctuating form year to year. Similarly, GDP growth rate is also fluctuating tendency in positive rate which is clearly visible in above figure 4.1 .

Secondly, we examined the FY 1988 to 1999, growth rate of GDP and credit of Commercial Banks. This is shown in the following figure.

**Fig.4. 2:** Annual Growth of GDP and Credit of Commercial Banks (1988-1999)

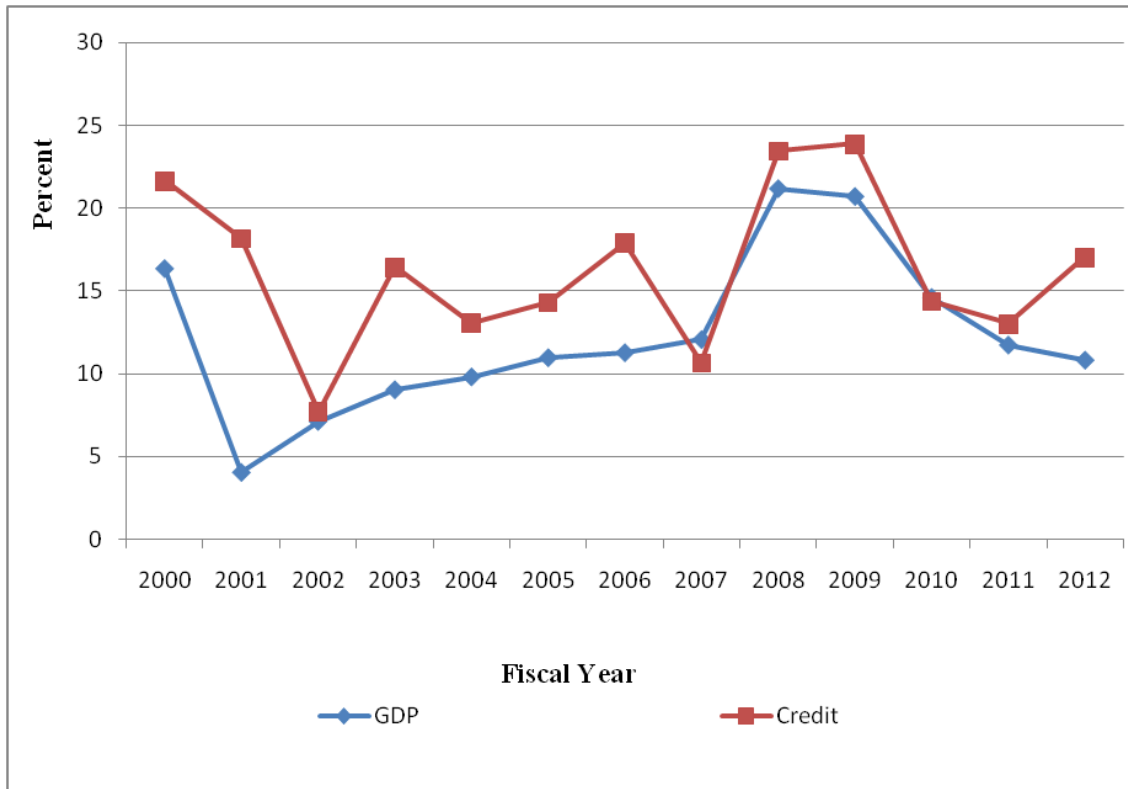


Source: From Table 4.1.

In FY 1988, GDP growth rate increased by 16.07 percent where as credit increased by 26.03 percent. In FY 1989, GDP growth declined but the credit increased more than one percent in comparison to the credit of previous year. In FY 1990, credit declined but GDP slightly increased. In the fig. 4. 2, GDP is like constantly ups and downs but credit is largely ups and downs.

Thirdly, we examine the growth rate of FY 2000 to 2012 of GDP and credit of Commercial Banks. This fig. is shown as below:

**Fig.4. 3:** Annual growth of GDP and credit from Commercial Banks (2000-2012)



Source: From Table 4.1.

In FY 2000, GDP increased by 16.34 percent but in FY 2001 GDP declined than FY 2000. In FY 2000, GDP increased only 4.05 percent and after this fiscal year GDP increased in slow motion which is clearly shown in fig. 4.3.3. In FY 2008, GDP increased 21.16 percent. After 2008, growth rate of GDP is a declined. Similarly, in FY 2000, growth rate of credit of Commercial Banks increased 21.62 percent. After 2000, credit gradually declined up to FY 2002 and slowly increased and again in FY 2008 its growth rate increased till FY 2009 and again started declining tendency.

## **4.2. Relationship Between GDP and Credit of Commercial Banks**

This present study analyzes the data empirically about the role of Commercial Banks in the economic growth of Nepal. Here, Commercial Banks provide loan and advances which is called credit, it contribute economic activities of a country hence increased GDP growth and finally contribute in the whole economic growth of a country. The empirical study is made with the help of regression analysis; this study shows the relationship between credit of Commercial Banks and GDP. Here, these two variables are taken into analysis of economic growth of Nepal; GDP is main indicator of

economic indicator of any nation and high level of investment is needed to the rapid economic growth so Commercial Banks provide credit into different sectors of the economy which indirectly helps to increase in the volume of GDP and finally contribute the growth rate.

In the regression analysis, GDP is the dependent variable whereas GDP at one period lagged and credit of Commercial Banks are independent variable. It means we assumed that the GDP at current period is depended upon one period lagged GDP and credit of Commercial Banks. The calculation of regression result has been made with the help of Microsoft Excel. The regression equation is as follows:

$$\log \text{GDP}_t = \alpha + \beta_1 \log \text{GDP}_{t-1} + \beta_2 \log \text{Cr}_t + \varepsilon$$

Where,

$\alpha$  = intercept term

$\beta_1, \beta_2$  = regression parameter

$\text{Cr}_t$  = Commercial Banks credit t period

$\varepsilon$  = error term

**Table 4.3:** Data for regression analysis

(Rs. in million)

FY	GDP <sub>t</sub>	Log GDP <sub>t</sub>	GDP <sub>t-1</sub>	log GDP <sub>t-1</sub>	Cr <sub>t</sub>	Log Cr <sub>t</sub>
1975	17394	4.2403	0	0	1322	3.1212
1976	17280.3	4.2375	17394	4.2403	1310.9	3.1175
1977	19727	4.2950	17280.3	4.2375	1691.4	3.2282
1978	26128	4.4171	19927	4.2950	2077.2	3.3174
1979	23351	4.3683	26128	4.4171	2582.7	3.4120
1980	27307	4.4362	23351	4.3683	3169.2	3.5009
1981	30988	4.4911	27307	4.4362	3928	3.5941
1982	33821	4.5291	30988	4.4911	4223.3	3.6256
1983	39290	4.5942	33821	4.5291	5152.4	3.7120
1984	46587	4.6682	39290	4.5942	5770.5	3.7612
1985	55734.3	4.7461	46587	4.6682	7507.2	3.8754
1986	63864.5	4.8052	55734.3	4.7461	8997.6	3.9541

1987	76906.1	4.8859	63864.5	4.8052	10730.1	4.0306
1988	89269.6	4.9507	76906.1	4.8859	13523.5	4.1310
1989	103415.8	5.0145	89269.6	4.9507	17264.5	4.2371
1990	120370.3	5.0805	103415.8	5.0145	18917.1	4.2768
1991	149487.1	5.1746	120370.3	5.0805	24410.5	4.3875
1992	171473.9	5.2341	149487.1	5.1746	32158.7	4.5072
1993	199272	5.2994	171473.9	5.2341	36642.7	4.5639
1994	219175	5.3407	199272	5.2994	43236.3	4.6358
1995	248913	5.3960	219175	5.3407	56182.5	4.7496
1996	280513	5.4479	248913	5.3960	69014.4	4.8389
1997	300845	5.4783	280513	5.4479	78511.7	4.8949
1998	342036	5.5340	300845	5.4783	93797.7	4.9721
1999	379488	5.5791	342036	5.5340	111968.8	5.0490
2000	441518.5	5.6449	379488	5.5791	136184.8	5.1341
2001	459442.6	5.6622	441518.5	5.6449	160919.4	5.2066
2002	492230.8	5.6921	459442.6	5.6622	173319.2	5.2388
2003	536749.1	5.7297	492230.8	5.6921	201822.5	5.3049
2004	589411.7	5.7704	536749.1	5.7297	228234.9	5.3583
2005	654084.1	5.8156	589411.7	5.7704	260867.3	5.4164
2006	727827	5.8620	654084.1	5.8156	307583.9	5.4879
2007	815658.2	5.9115	727827	5.8620	340354.9	5.5319
2008	988272	5.9948	815658.2	5.9115	420242.6	5.6235
2009	1192744	6.0765	988272	5.9948	520634.6	5.7165
2010	1366953	6.1357	1192744	6.0765	595563.1	5.7749
2011	1527344	6.1839	1366953	6.1357	673111.23	5.8280
2012	1692642	6.2285	1527344	6.1839	787747.7	5.8963

Source: NRB Government Finance Statistics, 2014

**Table 4.4:** Regression result of the equation

Regression Statistics	
R Square	0.998145
Adjusted R Square	0.998036
Standard Error	0.026644
Value of F	9147.104
Observations	37

Source: From Table 4.3.

In the above table 4.4, the value of R square is higher in this model, which shows that the explanatory power of the equation is 0.9980. It means 0.9981 percent variation in the GDP is explained by the lagged GDP and credit of commercial banks. Similarly, adjusted R square is also high in this model which shows that 0.9980 percent of total variation is explained by the fitted regression analysis. Similarly, the value of standard error is 0.0266, shows that there is lower scatterness of points around the regression line. F value equals to 9147.104, indicates that the estimated parameters are statistically significant. In this research, there was 37 years data interpreted.

**Table 4.5:** Regression Result

	Coefficients	Standard Error	P-value	Upper 95%
Intercept( $\alpha$ )	0.659734	0.257402	0.014972	1.182838
$\beta_1(\log \text{GDP}_{t-1})$	0.685998	0.132973	1.07E-05	0.956233
$\beta_2(\log \text{Cr}_t)$	0.224223	0.095191	0.024405	0.417674

Source: From Table 4.3.

In above table 4.5, intercept ( $\alpha$ ) seemed to be significant. If lagged GDP and credit of Commercial Banks are assumed zero, there is positive GDP at 't' period. It implies that average GDP is 0.6597 units when lagged period GDP and credit of Commercial Banks are simultaneously zero. Similarly, standard error and p-value of intercept shows 0.2574 and 0.0149 respectively, which is significant in this model. The regression coefficient of independent variables show that there is positive relationship between GDP with lagged GDP and credit of commercial banks. The value of lagged period GDP ( $\text{GDP}_{t-1}$ ) shows 0.6859, which implies that one percent change in lagged period GDP may result 0.6859 percent change in the GDP on an average.

Similarly, standard error and p-value of lagged GDP shows 0.1329 and 1.07E-05 respectively, which is significant in this model. The value of credit of commercial banks ( $C_r$ ) shows 0.2242, which implies that one percent change in credit of Commercial Banks result in 0.2242 percent change in GDP on an average. Similarly, standard error and p-value of credit shows 0.0951 and 0.0244 respectively, which is significant in this model.

The regression model and result are as below.

$$\log GDP_t = \alpha + \beta_1 \log GDP_{t-1} + \beta_2 \log Cr_t + \varepsilon$$

$$\log GDP_t = 0.6597 + 0.6859 \log GDP_{t-1} + 0.2242 \log Cr_t \dots\dots\dots (1)$$

In this model, we took the data from 1975 to 2012 but we empirically studied the data from 1976. This is because in the model, we specify lagged GDP as an independent variable of current period of GDP so we regressed data from 1976 to 2012. Similarly, we took data up to 2012 due to unavailable data after this date.

The regression coefficients of independent variable shows that there is positive relationship between GDP with credit of Commercial Banks and lagged period of GDP.  $\alpha$  is the slope of regression made by the regression line. As  $\alpha$  is equal to 0.6597, it implies that average GDP is 0.6597 units on an average when lagged period GDP and credit of Commercial Banks are simultaneously zero.

$\beta_1$  is the partial regression coefficients or partial slope coefficient,  $\beta_1$  measures the rate of change in GDP to the unit change in lagged period GDP holding credit of Commercial Banks constant. The value of  $\beta_1$  is 0.6859 indicates that one percent change in lagged period GDP may result 0.6859 percent change in the GDP on an average. Similarly,  $\beta_2$  measures the rate of change of average GDP to the unit change in credit of Commercial Banks holding lagged period GDP constant. The value of  $\beta_2$  is equal to 0.2242 indicates that one percent change in credit of Commercial Banks result in 0.2242 percent change in GDP on an average.

From the regression result, the value of coefficient of determination ( $R^2$ ) is higher in this model, which shows that the explanatory power of the equation is 99.81 percent that is 99.81 percent variation in the GDP explained by the credit of Commercial Banks and lagged period GDP. Thus, we can say that lagged period GDP ( $GDP_{t-1}$ ) and credit of Commercial Banks ( $Cr_t$ ) can affect the volume of GDP significantly.

The calculated p-value of the regression coefficient of lagged period GDP and credit of Commercial Banks are greater than its tabulated value at 5 percent and 1 percent levels of significance. Hence, the null hypothesis, there is no significance relationship between growth of GDP and credit of Commercial Banks is rejected and alternative hypothesis is accepted. That means it is concluded that there is significant relationship between growth of GDP and credit of Commercial Banks. Again, the calculated F value is also greater than its tabulated value at 5 percent and 1 percent level of significance. So null hypothesis is rejected and concluded that the regression equation is statistically significant.

### 4.3. Total Deposit Collection and Utilization of Commercial Banks

Basically, deposit is the main source of Commercial Banks; they collect deposit from different sectors of the economy and utilized it in the medium of credit to different sectors of the economy. The deposit collection and utilization of Commercial Banks, data taken from 1975 to 2012.

**Table 4.6:** Deposit Collection of Commercial Banks

(Rs.in Million)

FY	Current deposit	Saving deposit	Fixed deposit	Margin deposit	Total deposit
1975	4446.4	172.7	517.4	37.5	1174
1980	875.4	571.2	1814.9	90.1	3351.6
1985	1691.9	1776.2	5632.5	296.7	8560.1
1990	4351.2	5218.2	14382.6	851	21942.5
1995	12133	22765.9	30157.1	1949.2	61164.1
2000	20638.1	65703.6	73488.8	2097.6	154940.8
2005	34663.1	130018.6	99475.4	2480.9	251008
2010	81048.7	237492.6	298925	5041.8	617466.3
2012	94608.5	304712.3	297625.7	6579.8	703526.3
Average	28272.92	8538.1	91335.48	2158.33	202570.41

Source: NRB, 2012

The above table shows that in FY 1975 total deposit collection of Commercial Banks was Rs 1174 million, at that time there were only two Commercial Banks. This fiscal year, the share of current deposit is higher than other deposits like fixed, saving and margin deposit. In FY 1980, total deposit collection reached Rs. 3351.6 million and the share of fixed deposit is higher than other deposit, where as fixed deposit was Rs 1814.9 million. The deposit ratio increased by 185.48 percent in comparison to FY 1975.

Similarly, in FY 1985, total deposit reached Rs 8560.1 million, this figure shows that the deposit collection ratio is increasing tendency which shows the Nepalese economy move slowly to monetization. In this fiscal year, ratio of fixed deposit is higher than other deposit ratio. In FY 1990, total deposit collection of Commercial Banks reached Rs 21942.5 million. The ratio of deposit collection increased 156.33 percent in comparison FY 1985, in this fiscal year total number of Commercial Banks reached five.

In FY 1995, total deposit collection reached Rs 61164.1 million and the share of fixed deposit dominated other deposits, i.e. share of fixed deposit was 30157.1 million. The deposit collection of Commercial Banks was increasing tendency. At that fiscal year, total number of Commercial Banks reached 10. Similarly, in fiscal year 2000 total deposit collection reached Rs 154940.8 million and the number of Commercial Banks reached 13. In FY 2005, total deposit collection reached Rs 251008 million, this shows that the ratio of deposit collection increased 62 percent in comparison to FY 2000, at that fiscal year total number of Commercial Banks reached 17. The main reason of the increasing deposit collection is increasing number of Commercial Banks.

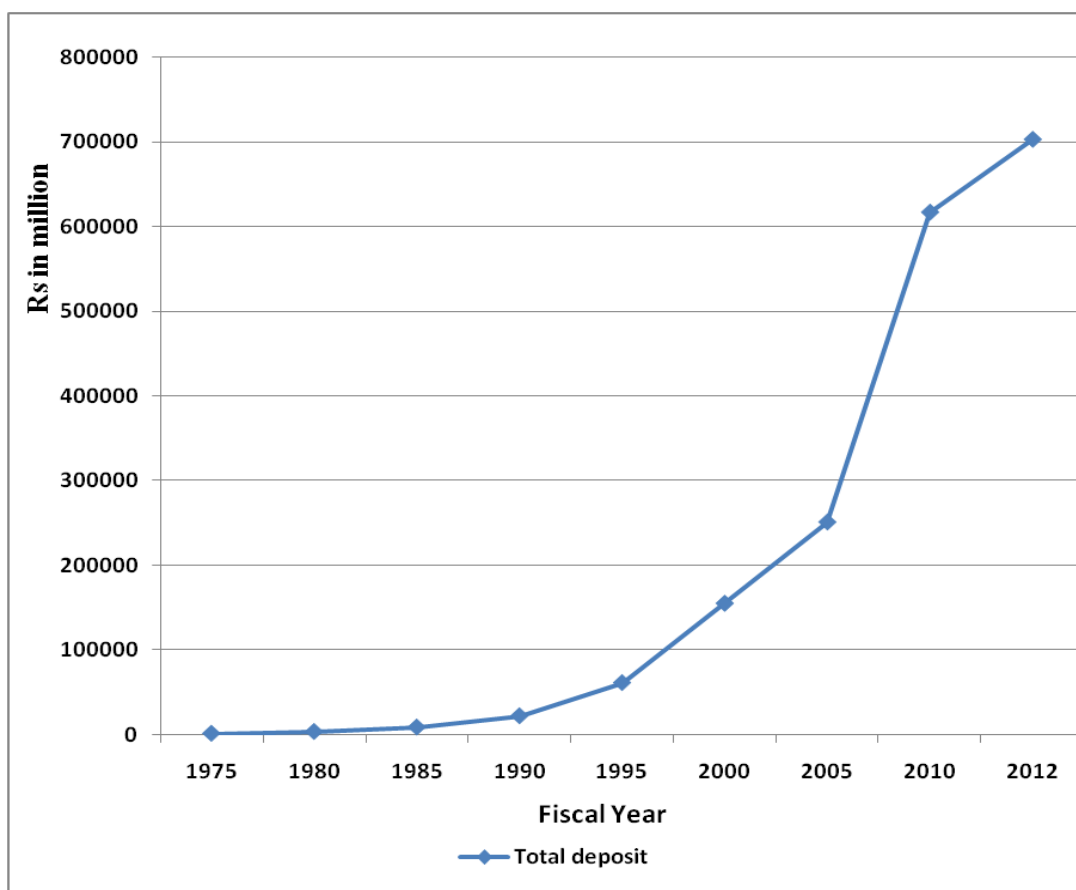
In FY 2010, growth rate of deposit collection increased 146 percent i.e. total deposit reached Rs. 617466.3 million. We can analyze that the banking habit of Nepalese people was increasing and the volume of deposit collection was increasing tendency. In FY 2012, total volume of deposit reached Rs 703526.3 million and this period total number of Commercial Banks were 32( see appendix- 2).

Thus, we summarized the deposit collection of Commercial Banks from 1795 to 2012. In the initial stage, there were only 2 Commercial Banks and total volume of deposit collection was Rs 1174 million only. When Nepal adopted liberalization policy then

private banks and financial institutions were established and then number of Commercial Banks also increased resulted in the increased ratio of deposit collection which was positive for economy and hence indirectly helped in GDP growth of Nepalese economy.

The deposit situation of Commercial Banks is shown in the following graph.

**Fig. 4.4:** Total Deposit Collection of Commercial Banks



Source: From Table 4.6.

Figure 4.4 shows the trend of deposit collection of Commercial Banks since FY 1975 to 2012. The trend analysis in every five year years; this is because of the easiness of the study. Here, in FY 1975 total deposit was only Rs 1174 million and in FY 1980, total deposit reached Rs 3351.6 million that means in five year total deposit increased only Rs 2177.6 million. Similarly, in FY 1985, total deposit of Commercial Banks reached Rs 8560.1 million and in FY 1990, total deposit reached Rs 21942.5 million which is 156.33 percent more than FY 1985. In FY 1995, the trend of deposit collection is increasing tendency and reached Rs 61164.1 million. In FY 2000, total

deposit was reached Rs 154940.8 million, which is clearly shown the above graph. In FY 2005, deposit collection of Commercial Banks reached Rs 251008 million and in 2010 it jumped and reached Rs 617466.3 million which was 145.99 percent more in comparison to FY 2005. In FY 2012, total deposit collection reached Rs 703526.3 million.

Commercial Banks utilized their resources into various sectors, here in this study; we examined the sector wise resource utilization of Commercial Banks. The data has been taken from FY 1984 to 2012 due to unavailable of previous data of sector wise utilization of Commercial Banks. The main purpose of this topic is to find out resource utilization of Commercial Banks. Here, firstly we showed the data of resource utilization FY 1984 to 2001 and second part we analyzed resource utilization of Commercial Banks is classified into new format after 2001.

**Table 4.7:** Sector wise Resource Utilization of Commercial Banks

(Rs. in million)

Fiscal Year	Sector				
	Agriculture	Industry	Trade	Consumption goods	Service sectors
1984	119.8	475.1	1652.4	1223.6	55.1
1985	145.6	851.1	1997.8	1361.2	176.4
1986	148.9	1736.8	2334.8	1517.3	236.4
1987	153.2	2042.0	2476.8	1698.5	571.0
1988	553.2	2575.2	2512.0	2190.1	333.8
1989	1157.8	3134.7	2829.8	2733.2	501.2
1990	1531.6	3817.6	3371.7	2785.3	292.5
1991	1850.3	4545.6	4150	3132.7	330.4
1992	2432.1	5389.3	6801.8	3629.3	545.1
1993	3144.2	6621.1	7235.2	3741.0	735.5
1994	3395.6	11046.9	9508.1	4116.7	1271.8
1995	4923.8	15877.6	13305.7	4785.5	1697.7
1996	3972.8	24212.6	17010.3	4749.7	2674.4
1997	5102.9	26393.8	20401.0	5651.9	2927.0

1998	6095.9	31775.2	23963.9	5970.1	3439.1
1999	7868.5	38062.1	27654.9	6256.1	4240.9
2000	8863.7	44885.3	32753.3	7232.9	5713.6
2001	9999.4	51008.9	36200.2	8049.0	7603.2

Source: Economic Survey, 2057/58

Mainly in FY 1984 to 2001, Commercial Banks utilized their resource into agriculture, industry, trade, consumption of goods and service sector. In FY 1984, they utilized agriculture sector Rs 119.8 million, industry sector Rs 475.1 million, trade Rs 1652.4 million, consumption of goods Rs 1223.6 million and service sector Rs 55.1 million. This amount clearly shows in this fiscal year Commercial Banks utilized more resources in trade sector than other sector. The share of resource utilization in trade sector is more dominant till FY 1987. In FY 1988 resource utilization in industry sector was 2575.2 million, agriculture sector was 553.2 million, trade sector was 2512 million, consumption of good was 2190.1 million and service sector was 333.8 million. Similarly, share of resource utilization in industry sector dominated till FY 1991, in this fiscal year, Commercial Banks used their resource to industry sector was Rs 4545.6 million. In FY 1992, again trade sector dominated the total resource utilization which was highest in comparison to other sectors like agriculture, industry, consumption goods and service sector. In FY 1993, trade sector was more dominant share in comparison to other sector i.e. in this FY trade sector resource utilization was Rs 7235.2 million. After FY 1993 to 2001 Commercial Banks resource utilization share was higher in industry sector than other sectors. This means Commercial Banks mostly utilized their resource into industry and trade sectors.

This table shows that Commercial Banks mostly utilized their resource industry and trade sector than agriculture, consumption goods and service sector. The trend of resource utilization into agriculture, consumption goods and service sector was slow motion in comparison to industry and trade sector.

Similarly, in FY 2002, Commercial Banks resource utilization classified into new format which is shown the following table.

**Table 4.8: New Format of Sector Wise Resource Utilization**

(Rs. In million)

Sector	Fiscal Year										
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Agriculture	3734.5	4901.9	4415.5	4572	13882	13880	13376.3	14290.9	14192	234073	151756
Mines	399.4	336.6	520.3	477.7	1315	1955	1709.4	2019.8	2205	23587	21388
Production	42910.5	47181.5	53744.2	56475	62370	74889.8	87878	94713.7	115186	1439722	1139248
Construction	2729.2	4986.7	8723	13428	19770	32368.8	44867	49568	51591	613122	519638
Metal <sup>1</sup> ,	1430.1	0.0	1797.5	1590.9	2919	5069.4	6534.6	5877.8	6419	84016	74431
Transportation <sup>2</sup>	1359.8	2776.7	3156.3	2658.7	3243	4340.2	6977.7	10546.4	12014	127840	127251
Communication <sup>3</sup>	6523.4	7963.6	8997.2	11694.5	13130	16129	18432.8	22276	19812	251747	206495
Wholesalers <sup>4</sup>	27555.3	31728.9	34412.7	35103.3	45636	55732	68808.3	88584.1	109212	1292491	1000622
Finance <sup>5</sup>	4250.3	4857	6391	10024	13918	24913.5	38882.7	54093.3	57934	621848	573477
Service <sup>6</sup>	1221.5	14216.9	14984.8	14163	18367	21163.3	23357.8	29605.4	36505	458110	340498
Consumable	3364.6	4400	3588	5848	8120	9437.1	14716.2	22694.9	22360	270475	244097
Local <sup>7</sup>	1.5	2.3	0.1	0.0	0.0	0.0	1972.4	3087.7	1107	12717	47774
Others	14283.5	12278.1	18592.6	20543	29173	46656	74264.8	71973.9	77711	795628	688121

Source: Economy Survey, 2008/09, 2013/14

Metal<sup>1</sup>= production, Machinery and Electrical and Fitting

Transportation<sup>2</sup> = equipment production and Fitting

Communication<sup>3</sup> = and public services

Wholesalers<sup>4</sup> = and Retailers

Finance<sup>5</sup>= Insurance and fixed assets

Service<sup>6</sup> = industries

Local<sup>7</sup>= Government

In the above table 4.6. shows the sector wise resource utilization of the Commercial Banks in new format. Here, in FY 2002 and onward fiscal year Commercial Banks utilized their resources into 13 different sectors like, agriculture, mines, productions, construction, metal production machinery electrical tools and fittings, transportation equipment production and fittings, communications and public services, wholesalers and retailers, finance insurance and fixed assets, service industries, consumable, local government, others. The main motto of this topic carried on to find out which sectors Commercial Banks utilized their resources.

In fiscal year 2002, the share of agriculture sector was 3734.5 million, mines was Rs 399.4 million, production was Rs 42910.5 million, construction was Rs 2729.2 million,

metal was Rs 1430.1, transportation was 1359.8 million, communication was Rs 6523.4 million, wholesalers was Rs 27555.3 million, finance was Rs 4250.3 million, service was Rs 1221.5 million, consumable was Rs 3364.6 million, local was Rs 1.5 million and other was Rs 14283.5 million. Similarly, remaining fiscal year Commercial Banks utilized resource into 13 sectors except FY 2005, 2006 and 2007 in local government.

## **CHAPTER - V**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.1. Summary and Findings**

Commercial Banks play a vital role in the economic growth of a country. They accumulate the idle saving of the people and make them available funds for investment; the most important function of Commercial Banks is credit creation. Commercial Banks facilitate trade both inside and outside the country by accepting and discounting of bills of exchange. For high level of economic development and growth of a country, a well organized banking system is mandatory to channelize the investment. Commercial Banks can play important role in promoting capital formulation, in controlling speculation in maintaining a balance between requirements and availabilities and indirect physical resources into desired channels. If the banking system in a country is effective, efficient and disciplined; it brings about rapid growth in a various sector of the economy.

The banking history of Nepal started in ancient time but modern banking system of Nepal began in 1937 AD as the name of Nepal bank limited. Then after Nepal Bank Limited, Nepal Rastra bank established in 1956 AD as a central bank of Nepal. In present situation of Nepal, mid July 2014, total banks and financial institutions reached at 204 which include 30 Commercial Banks, 84 development banks, 53 finance companies and 37 micro finance institutions. This figure shows that Nepalese banking system is increasing tendency.

This study examines that the trend and pattern of credit of the Commercial Banks and GDP on the basis of secondary data during FY 1975 to 2012. The empirical result shows that the trend of GDP is increasing tendency with some fluctuation occur in time and again. The data shows that the GDP growth rate is positive except FY 1976 and 1979. In other fiscal year the growing rate of GDP is low in comparison to necessity for the rapid economic growth of Nepal. Similarly, the trend of credit of Commercial Banks also increasing tendency but in FY 1976 its growth rate was negative. This research empirically shows that bank credit contribute Nepal's GDP. Empirically result shows that one percent increased credit of Commercial Banks 0.2242 percent increased

total GDP on an average. Thus, we can say that Commercial Banks credit contribute to increase Nepal's GDP and ultimately positive effects in the economic growth of Nepal.

This study tries to explore the relationship between GDP and credit with increased number of Commercial Banks with the help of regression analysis using time series data for the period of FY 1975 to 2012. GDP is the main indicator of the economic activities of a country, increasing GDP means increasing growth rate of a country. In this analysis, GDP is the dependent variable whereas lagged period GDP and credit from Commercial Banks are independent variables. The empirical result shows the positive effect on current GDP with lagged period GDP and credit. This means current period of GDP has functional relation with lagged period GDP and credit of Commercial Banks. Empirically, regression result shows that one percent increase in lagged period GDP, 0.6859 percent increased in current GDP on an average which means there is positive and significant relationship between lagged period GDP and current GDP. Similarly, one percent increased credit of Commercial Banks 0.2242 percent increased total GDP on an average. These both results show positive relationship between GDP with lagged period of GDP and credit of Commercial Banks. Thus, this result find out Commercial Banks have most important role in the economic growth of Nepal.

This study also focuses on the deposit collection and utilization of Commercial Banks. The empirical result shows deposit collection of Commercial Banks has been increasing tendency. The number of Commercial Banks also increased in time period (see appendix 2) and deposit collection was also increasing, mainly deposit is collected in the name of current, saving, fixed and margin deposit. Similarly, we try to find out sector wise resources utilization of Commercial Banks. The data shows that before FY 2002, Commercial Banks utilized resources into agriculture, industry, trade, consumption goods and service sectors. In FY 2002, they made new format of resource utilization into 13 different sectors. We found that Commercial Banks utilized their resources into agriculture, mines, production, construction, metal, machinery, electrical and fitting, transportation, communications and public services, finance, insurance, and fixed assets, services, industries, consumable, local government and others.

## 5.2. Conclusion

This study concludes based on objective set out while assessing the role of Commercial Banks in Nepalese economy. The result of regression has justified that credit of Commercial Banks have positive effects on the economic growth of a country represented by the GDP. Basically, this study investigates the contribution of Commercial Banks in Nepal's GDP which ultimately contributes the economic growth of Nepal. The regression analysis of 1976 to 2012 concludes that lagged period GDP and credit of Commercial Banks have positive impact in Nepal's GDP. Similarly, the trend of GDP and credit of Commercial Banks is increasing tendency and the volume of Commercial Banks increasing way (appendix 2), which has positive effect on Nepal's GDP and ultimately increased economic growth of Nepal. Thus, this research concludes that increasing of  $GDP_{t-1}$  volume and credit volume helps the economic growth of Nepal.

## 5.2. Recommendations

Based on the present study, the following are the recommendations for the policy maker as well as the researcher in the field of this topic.

- i) Number Commercial Banks are increasing way which are shown appendix 2. The increasing number of Commercial Banks creates problem to regularities and supervisory authority to enhance its efficiency and effectiveness. So, Nepal Rastra Bank (NRB) should facilitate merger policy in those Commercial Banks that have no proper capital ratio. Similarly, NRB must think new licensing of financial institutions of their capabilities otherwise Nepal's banking system leads to crisis.
- ii) Mostly Commercial Banks of Nepal established in urban areas, according population census 2011, 83 percent Nepali live in rural areas. In such situation the distribution of population and establishment of Commercial Banks are not balancing way so that Nepal Rastra Bank must focus on the establishment of Commercial Banks on rural areas which help to monetize the economy as a whole.
- iii) Commercial Banks utilized their resources into different sources mostly they utilized profit oriented sector (Table 4.7 and 4.8) but Nepal is agricultural based

economy, one third percent of total GDP depends on agriculture sector. So in this condition, NRB make a strong policy where Commercial Banks focus utilization some percent must utilized in agriculture sector.

- iv) Similarly, Nepal is rich in hydro electricity but always lack of sufficient investment on hydro electricity and most of cities of Nepal face load shedding problem. In this situation, Commercial Banks must invest certain percentage of their funds into hydro electricity projects. Commercial Banks only present in big industrialist and mega investors but not on small industries so it should present on small farmers, small and cottage industries. It helps small investors to upgrade their business and banks too.

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# Appendix-1

## Formula of Coefficient of Determination

Coefficient of determination,  $R^2$ , is a statistical number computed from the sample data which exhibits the percentage of total variation of the dependent variable being explained by the change on the independent variables. The coefficient of determination is calculated in order to test the explanatory power of the model. The coefficient of determination is calculated in terms of the following formula:

$$R^2 = 1 - \frac{\sum e^2}{\sum y^2}$$

Where,

$$e = Y - \tilde{Y}$$

Formula of F test

F test is computed as follows:

Null Hypothesis ( $H_0$ ):  $\beta_1 = \beta_2 = 0$  i.e. all slope coefficients are simultaneously zero.

Alternative Hypothesis ( $H_1$ ):  $\beta_1 \beta_2 \neq 0$  i.e. not all slope coefficients are simultaneously zero.

We need to compute

$$F = \frac{ESS/df}{(RSS/df)}$$

$$F = \frac{R^2}{k-1} \times \frac{1-R^2}{n-k}$$

Where,

$R^2$  = Coefficient of determination

k = number of estimated parameters

n = number of observations

## Appendix -2

### Growth of Commercial Banks and Financial Institutions

Types of banks and financial institutions	Mid July 1980	Mid July 1985	Mid July 1990	Mid July 1995	Mid July 2000	Mid July 2005	Mid July 2010	Mid July 2012
Commercial banks	2	3	5	10	13	17	27	32
Development banks	2	2	2	3	7	26	79	88
Finance companies	0	0	0	30	47	60	79	70
Micro credit dev. banks	0	0	0	4	7	11	18	24
NRB licensed co operative	0	0	0	9	35	20	16	16
NRB licensed NGO's	0	0	0	13	30	46	45	36
Total	4	5	7	69	139	180	264	266