CHAPTER - I

INTRODUCTION

1.1 Background of the Study

Financial institutions in the economy play a crucial role in the process of economic growth of the country. Financial institution is relating to financing industrial institution is relating to financing industrial institutions dealing with monetary transaction. An institution which deals with money and money matter can so be called as bank. The sources of finance are must essential element for the establishment and operation of any profit and non profit institutions. Profit oriented institution usually obtain these sources through ownership capital, public capital through the issues of shares and through financial institutions such as banks, in the from of loans overdrafts etc. It is during these stages for the establishment and operations of any organization, the role of banks came into effect in providing these sources, in the form of loan, overdrafts and other related services. Such task of a bank is considered to be a vital role in the development of national economy.

The Bank condition is judged by the financial analysis, in the financial analysis, a ratio is used as a bench mark for the evaluating the financial position and performance of the firm. The problems of the finance have an impact as the management. The finance of development banks has indirect or direct relationship with the development of finance of the economy as a whole and that the state of management efficiency of the post has a vital behaving on the long term prospect of development of economy.

1.2 Introduction of Bank

Deprosc Development bank is a microfinance bank working in the central and western region of Nepal. The bank was registered on January 2001 under Company Registration Act 1997 (now Bank and Financial Ordinance, 2005) and Nepal Rastra Bank Provided Operating license on July 3, 2001 under Development Bank Act, 1996. The bank has been promoted with the equity participation of DEPROSC Nepal (an NGO), Agricultural Development Bank (an agricultural bank), Nabil Bank Ltd (a joint venture commercial bank), Lumbini Finance and Leasing Company, CEAPRED (an NGO) and former bankers having 15-20 years experience.

The bank has been established to provide a competent and sustainable microfinance services to poorest of the poor, poor and non-poor vulnerable group. Access to financial services helps the rural people escape from poverty. Credit would create employment and generate disposable income which could will them to have better access of Food, Shelter, Clothing, Health and Education. The bank is also working for the growth of micro finance industry in Nepal.

On February 2008, the bank program has been lunch in 24 branches in 15 districts (Sarlahi, Rautahat, Bara, Parsa, Makwanpur, Chitwan, Nawalparasi, Tanahu, Kaski, Kabreplanchok, Lalitpur, Nuwakot, Dhading, Gorkha, Lamjung) serving over 20000 clients. (Approximately 100000 population)

The bank has Rs.23.2 million authorized and Rs. 11.6 million paid up capital. In the equity share structure, Participating banks and financial institution have 48.4%, DEPROSC and CEAPRED (two NGOs) Contributed 15.8% share and individual microfinance practitioners have 5.8% and 30% share has been allocated for public share issue.

The microfinance model has been designed by incorporating strength of Garmen model, Small Farmers Development Program and Experiences of the other microfinance programs implemented in Nepal. The basic idea is to provide demand driven, locally adaptable, diversified and financially sustainable microfinance services. The bank believes the participation of the private sector is essential or increasing outreach and providing quality services. The bank has been able to generate profit right from the inception and its share has been listed in stock exchange market.

1.2.1 Activities

The ultimate objective of the bank program is to ensure sustainable financial services to poor families to increase their disposable income so that the income would be utilized for the welfare and overall development of the family members, particularly women and their family, to escape from poverty. The bank program has been effective changing the social-economic life of the poor, particularly in increasing nutritional intake, increasing school enrolment, increasing family expenses in health, improving sanitation condition and increasing women access and control over resources there by increasing women participation in the decision making within house and in the community.

- The core activity of the bank will be microfinance and all other activities of the bank will be co-related directly or indirectly to increase the outreach, improve quality, ensure financial viability and sustainability of the microfinance program.
- The bank believes on following themes in microfinance program:
  - Increase outreach by scaling up the program and focusing exclusively on rural women,
  - Reaching bottom poor and vulnerable groups,
  - Ensure financial viability and sustainability of the program,
  - Changes lives of the poor,

- The bank will provide financial services directly as retail lenders where banking branches are feasible and make partnership with community based saving and credit organizations by providing wholesale credit to reach in the remote areas and high hills.
- Solidarity homogenous groups will be basis of the program supported by center peer support and center peer pressure to ensure credit discipline.
- The entire bank client's will be exclusively poor women living at risk.
- The bank believes that poor are good savers. The bank will design client's friendly and cost effective savings products in order to provide savings services to poor and generate internal resources for lending.

1.2.2 Affiliation

The bank has affiliated with Nepal Microfinance Bankers Association, Micro-credit Summit Campaign and CGAP/MIX and working in collaboration with Plan International, the central bank of Nepal, commercial banks and IDA, and Winrock International

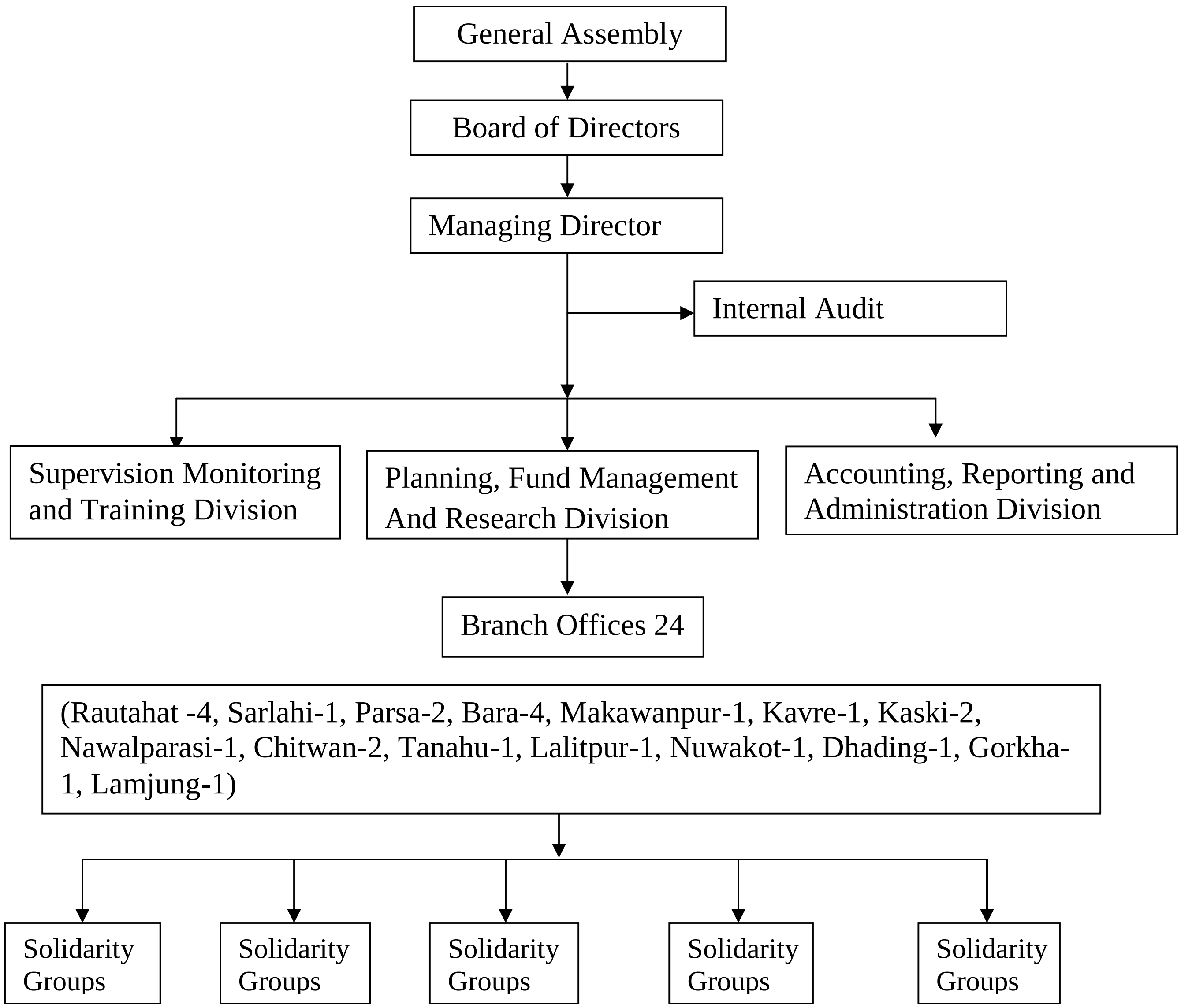
1.2.3 Organizational Structure

The general assembly of the shareholders elects "Board of Directors (Consisting 9 members)" for the implementation of the bank program. The Board of Directors appoints Chief Executive Officer (CEO) for the execution of the daily activities. The bank head office is situated at Narayangadh, Chitwan, There are 24 branches in 15 districts. The bank head office has its supervision and monitoring unit at Birganj and liaison office at Thapathali, Kathmandu for co-ordinating and collaborating with other government and non-government agencies. The head office plans the bank program annually, provides technical services, manages resources, monitors the bank branches, prepares report and creates linkage with other stakeholders. There are 84 staff working in DD bank, 74 in the branches and 10 in the head office. The staff are well experienced, trained and have sound academic background having 2 to 20 years experience in microfinance field. The bank gives priority to local cadre while recruiting field staff. Every candidate should take 6 months rigorous field level training to be eligible for appointment.

DD Bank has been managed and operated by a group of farmer bankers having over two decades' experiences in rural finance. The board of directors has appointed a Managing Director to execute the bank program. The managing director has been executing the program through five divisions.

- Planning
- Monitoring
- Internal Auditing
- Account and Administration
- Training and Research

Organizational Chart



1.3 Focus of the Study

This study is mainly focused on financial performance of Deprosc Development bank. It is also judged by the financial condition of the bank. Financial performance plays a vital role to increase the profitability by analyzing past performance and efficiency of a bank. The profit earned by the bank is the main financial indicator of financial institution. Profit is essential for a bank to survive, grow and to maintain capital adequacy through profit retention. The profit can't solely predict the financial performance of a bank. Thus, financial analysis is the starting point for making plans before using any sophisticated forecasting and budgeting procedure. So that, this study is basically concentrated towards the financial stability, liquidity, profitability and the quality of management of the bank.

1.4 Significance of the Study

The importance of the study is:

- This study helps in providing various information regarding financial positions of bank to those who are thinking and planning to investment in DD Bank (Micro finance Institution).
- The objective, function, rules and procedure used by the DD Bank can be known by studying the report.
- The study would communicate with the general public about how bank is contributing for the economic development of the nation, which would be beneficial for DD Bank (Micro finance Institution).
- With the help of this report, the management can have corrective measures for the improvement of the bank's performance.
- Lastly, after the completion, this report will be kept in library of the college, which will play the role of reference to students for making similar study in future.

1.5 Statement of the Problem

Poverty is the major problem of every country and Nepal also lies under it. In Nepal 38% people are under poverty line without uplift of poverty line, no country assumes its development. Deprosc Development Bank has been established to cater a competent and sustainable financial services to those excluded from the formal financial institutions. The bank performs activities necessary for the growth of micro finance industry in Nepal. The bank is a female lending micro finance institution. The bank provide financial services to low income groups by a financially viable technically competent and sustainable institution which could attract private sector by commercialization of the services to increase disposable family income and improve socio- economic condition of the participation families. Access to financial services could help poor to come out of poverty by creating opportunity for the implementation of income generation program for better food, sound health, good education, hygienic shelter and clothing. The bank tries to uplift socio-economic status of the low income group. To solve these problems, this research is focused on following research questions.

- To find the financial performance of DD bank is better or not.
- To see the trend of profitability & liquidity of DD bank is satisfied or not.
- To identify the financial stability of the DD bank.
- To identify the quality of management of DD bank is good or not.

1.6 Objectives of the Study

The primary objective of this study is to evaluate the financial performance of DD Bank. As the financial aspect of the bank is the key indicator, evaluation of performance analysis has always been the concern of its stakeholders like depositors, shareholders, employee general public, management & other related authority bodies, so, the specific objectives are:

- To analyze the financial performance through the use of appropriate financial and statistical tools.
- To justify the trend of profitability & liquidity of this bank for the period of six years.
- To identify the financial stability of the bank.
- To see the quality of management of the bank.

1.7 Limitation of the Study

Some financial institution has not disclosed the information despite the legal provisions of obtaining information regarding their financial position. The limitations of the study are as follows:

- This study has analyzed and evaluated the data for limited data.
- This study is mostly based on secondary data.
- This study has to analysis of financial performance only from 2058/059 to 2063/064.
- This is an academic research designed as partial fulfillment of the requirement of the course. The findings of this research may not always represent the actual picture of similar bank located in other areas of the country.
- Resources and time was limited for the detail study

1.8 Organization of the Study

This study comprises of five chapters, each devoted to some aspects of financial analysis of a bank. The titles of each of these chapters are summarized and the contents of each of these chapters of this study are briefly mentioned here.

Chapter - I	:	Introduction
Chapter - II	:	Review of Literature
Chapter - III	:	Research Methodology
Chapter - IV	:	Data Presentation and Analysis
Chapter - V	:	Summary, Conclusion & Recommendations

The first chapter deals with the subject matter consisting introduction, a brief profile of the DD Bank, identification of the problem, significance of the study, objectives, limitations and chapter scheme of the study.

The Second chapter concerns with literature review that includes a discussion on the conceptual framework on financial aspects.

The third chapter describes the research methodology adopted in carrying out the present research. It deals with research design, sources of data, data processing procedures, population and sample, period of the study, method of analysis and financial and statistical tools.

The fourth chapter is concerned with analytical framework. It includes the analysis of financial indicators.

The fifth and the final chapter are concerned with the suggestive framework that consists with the overall findings, conclusions and recommendation of the study.

The bibliography and appendices are incorporated at the end of the study.

CHAPTER - II

REVIEW OF LITERATURE

This Chapter sheds light on the conceptual frame work of financial performance of micro finance. Institution among 20 microfinance institution operating in Nepal, this study mainly focused on financial performance of Deproc Development Bank. This Chapter provides insight into the findings of earlier studies through the review of books, publications and previous studies.

In other words we can say that review of literature is basically a stock falling of available literature in the field of research. It supports the researcher to explore the relevant and true facts for the reporting purpose in the field of study. In the course of research, review of existing literature would help the researcher to find out what studies have been conducted and what remaining to go with.

Financial performance decision plays a vital role to increase the profitability by analysing past performance and efficiency of a firm accounting data and financial statements. The profit earned by the firm is the main financial performance indicator of business enterprises. Profit is essential for an enterprise to survive, grow and to maintain capital adequacy through profit retention. The profit can not safely predict the financial performance of a firm. Thus, financial analysis is the starting point for making plans before using any sophisticated forecasting and budgeting procedure.

When we go through the paint, this chapter is categorized under three major heading which are discussed as below.

a. Conceptual framework
b. Review of Journal and Articles
c. Review of Previous Thesis (Published, Unpublished)

2.1 Conceptual / Theoretical Review of Books

It is difficult to find a universal definition of micro finance due to its variation on the basis of implementing location, institution and program. In simplest term micro finance is defined as the financial service provided to the deprived group of people and small entrepreneurs to help them in developing their entire economic, social and political status, self employment opportunities and income generation activities, small size loan, compulsory saving, small scale entrepreneurs, diversified utilization and simple and Neaible term and conditions are the determining characteristics of its definition. Micro finance comprises of three C. Character, Capital and Capacity. Micro finance as a program serves large number of clients focusing on women and whole world from the very grass roots level with financial sustainability (Shrestha, 2058: 23).

First of all potential characters (Women, Poor Back Warded Communities) are involved in group of fight against the poverty through MFSs. In the Second step various employment, self reliance related, skills are presented to the group to create capacity for the betterment of own self, in third step, they are provided micro capital to utilize their capacity and to generate income. After completing this fires step of three Cs, Mf adopted group are passed through next five steps of second phase which are information, participation, partnership, ownership, agreement, The first step of second phase is information where MFSs adopted group get information about raw material, production, technology, market and complementary services through MFIs. After that they are forced to participate on education, health, sanitation, water supply and personally building. Then after they realize the whole network is for own shake and want to work in group which creates their partnership concept, such activities which are conducted in communities. Such activities become valuable for them and they think the entire effort as their own properly and the concept of ownership takes place. Similarly, they realize their progress and MFIs effort to make them self dependent and agree to give continuity in such activities again and again, which is the foundation of women and back worded communities for their empowerment and poverty reduction (Dangal, 2063:4).

Micro Credit refers to small scale credit (upto Rs. 30,000.00) targeted toward only rural poor people to increase their income level by fully utilizing their internal resource and skill. Generally it is short term credit and small in amount. Small scale financial services basically credit and saving along with essential social and community development activities are indicated by MFSs. Generally it is provided to targeted people who invest the small amount for productive service motive projects like form of fisher heard or small grocery vender, marketing of agricultural products and inputs and such other types project meeting the needs of local people. Overall, MFSs can help people having lower income, increase risk improve management, raise productivity, obtain higher return or investment increase their incomes and increase the quality of their lives and those of their dependents (Thakur, 2058:52-53).

"The Financial Statements are the means of presentation of a firm's financial condition and basically consist of two types of statements – The Balance Sheet & Income Statement. These are prepared to report the overall business activities as well as financial status of the firm for a specified period to its stakeholders. These contain summary of information regarding financial affairs that is organized systematically. The top management is responsible for preparing these statements. The basic objective of financial statements is to assist in decision making. The analysis and interpretation of financial statements depend on the nature and type of information available there in" (Pannay, 2004: 31).

Balance Sheet is one of the basic financial statements of an enterprise. It is also called the fundamental accounting report. As the name suggests, the balance sheet provide information about financial standing or a position of a firm at a particular point of time usually end of the financial year. It can be visualized as a snapshot of the financial status of company" (Khan and Jain, 1993:13).

"Financial Analysis is the process of determining financial strengths and weaknesses of a company by establishing strategic relationship between the components of a balance sheet and profit and loss statement and other operative data" (Pandey, 1999:96).

"Financial Statement Analysis involves the use o f various financial statements. These statements perform several things. First, the balance sheet summarizes the assets, liabilities and owner's equity of a business at a moment in time, usually the end of a year or a quarter. Next, the income statement summarizes the revenues and expenses of the firm over a particular period of time, again usually a year or quarter, While the balance sheet represents a snapshot of the firm's financial position at a moment in time, the income statement depicts summary of the firm's profitability over time. From these two statements certain derivate statements can be produced, such as statements of retained earnings, a sources and uses of funds statements and a statements of cash flows etc (Horne, 1998:56).

"Financial Analysis is the process of identifying the financial strengths and weaknesses of the firm by properly establishing relationship between the items of the balance sheet and profit and loss account (Pandey, 2004:560). Analyzing financial statements is a process of evaluating relationship between component parts of financial statements to obtain a better understanding of a firm's position and performance" (Metcalf, 1976:157).

"Financial Statement Analysis allows managers, investors and creditors as well as potential investors and creditors to teach conclusion about the recent and current status of a corporation" The checking of financial performance in a business deserves much attention in carrying out the financial position. It also requires to retrospective analysis for the purpose of evaluating the wisdom and efficiency of financial planning. Analyzing of what has happened should be of great value in improving the standards, techniques and procedures of financial control involved in carrying out finance function" (Kuchhal, 1982: 183).

The four basic statements contained in the annual report are the balance sheet, the income statement the statement of the retained earnings and the statement of cash flows. Investors use the information contained in these statements to form expectations about the future levels of earnings and dividends and about the risks of these expected values. Financial statement analysis generally begins with the calculation of a set of a financial ratios designed to reveal the relative strength and weakness of a company as compared to other companies in the same industry, and to show whether the firm's position has been improving or deterioration over time. Financial analysis is that sort of calculation which is done with the help of annual report. And the annual report would contain the essentials for such analysis. So the data retrieved from the annual report is indispensable for the financial analysis (Weston,1996:306).

It is both an analytical and judgmental process that helps answer questions that have been properly posed. Therefore, it is means to end. Apart from the specific analytical answer, the solutions to financial problems and issues depend significantly on the views of the parties involved, the related importance of the issue and on the nature and reliability of the information available" (Helfert, 1992:2).

"Financial appraisal is a scientific evaluation of profitability and financial strength of any business concern. Financial appraisal is the proof of scientifically making a proper, critical and comparative evaluation of the profitability and financial health of a given concern through the application of the techniques of financial statement analysis. A complete financial and interpretation of financial statement involves the assessment of past business performance, and evaluation of the present condition of the business and the predictions about the future potential for achieving expected or desired results" (Jain, 1996:36-37).

"Financial statement analysis involves a comparison of firm's performance with that of other firms in the same line of business which often is identified by the firm's industry classification, Generally speaking, the analysis is used to determine the firm's financial position in order to identify its current strengths and weakness and to suggest actions that might enable the firm to take advantage f the strengths and correct its weaknesses" (Fred, 1996:78).

"Financial Performance Analysis is used primarily to gain insight into operation and financial problems confronting the firms with respect to these problems. We must be careful to distinguish between the cause of problem and symptom of it. It is thus an attempt to direct the financial statements into their components on the basis of purpose in the one hand and establish relationships between these components and between individual components and totals of these items on the other. Along with this, a study of various important factors over the past several years is also undertaken to have clear understanding of changing profitability and financial condition of the business organization" (Hampton, 1998: 99).

Much can be learnt about business performance and financial position through appraisal of financial statements, the appraisal or analysis of financial statements spotlights the significant facts and relationship concerning managerial performance, corporate efficiency, financial strength and weakness and credit worthiness that would have otherwise been buried in a maze of details (Jain: 1996:37).

The need for the Analysis of Financial statement arises in order to address the following questions (Pradhan, 2000: 47-48).

"Such Analysis leads management of an enterprise to take crucial decisions regarding operative policies, investment value of the firm, internal financial control system and bargaining strategy for funds from external sources" (Agrawal, 1993:582).

"The parties that are benefited by the results or conclusion drawn from the analysis of financial performance can be numerated as" (Srivastava, 1993:58-59)

"The nature of financial Analysis differs according to the purpose of the analyst a distinction may be drawn between various types of financial analysis either on the basis of material used for the same or according to the modus operandi of the analysis" (Man Mohan, 1997:356).

2.2 Review of Journal and Articles

Some of the journals and articles published by management experts in financial aspects have been reviewed in this section:

“In Nepal over half a dozen MFIs have been in operating since the early 1990s. These institutions new serve a total 2, 23,521 poor household with the total cumulative loan disbursement of Rs 6.69 billion”(Staff Reporter, 2000).

In the financial sector, the focus of ADB support is on improving the legal and regulatory framework and the sustainability of the non-bank and MF sector. At the some time WB is providing support in the commercial banking reform while the MFI is supporting the government’s efforts to improve the overall regulatory and supervision environment and strengthens the capacity of the NRB. Inside corporate and financial sector reform undoubtedly represent a great challenge is the task of improving the quality of life of the millions of people who remain in poverty. According to a commonly used definition of poverty those who live on less than US & 1 a day" (Vokes, 2000:27).

The MF sector is gaining ground in the rural areas of Nepal as a situation to the economic problems of the rural masses." Highlighting the importance of MF, he further says- "MF is the key to poverty alleviation and lot of opportunities are open to the rural masses because of proper resource mobilization under this concept" (Rawal, 2000: 10-16).

The success of MF sector depends very much on the management of money. The extremely low saving rates in South Asian region are because of the presence of a large number of money lenders" (Furtherford, 2000: 10-16).

MF is based on the concept that the poor can save are creative, resourceful and disciplined and also participation in development. The repayment rate is over 95% of attendance at weekly center meetings is near about 100%. At these meeting borrowers receive through education on the necessity of repaying the borrowed funds (Prof Ritusmeikan: Asia Pacific University).

It is true that the poor were just like the rich but with less money; the global situation would be vastly easier than it is. As it happens, the poor live in different ecological zones, face different health conditions and must overcome agronomic limitations that are very different those of rich countries. Those differences in deed are often fundamental causes of persistent poverty (Sachs, 1999:17).

It has been proved in many countries that investments in rural development have been successful and has enriched the country in due course of time. The economy and prosperity of country side are developed properly: what we call rural finance the country's economy would surely receive a boost (Adhikari, 2003:29).

Finance specialist says, there has been uneasiness among promoters of MF about failure to reach the poorest defined as those in the bottom half below the poverty line. The core issue is weather it is realistic to export that MF can be provided to the poorest on a sustainable and large scale basis (Fernan, 2004:12).

Micro credit summit of 1997 set he goal to reach 100 million poorest families with micro credit campaign show that by the end of 2001 more than 59 million families around the world have benefited from micro credit of this number 268million are among poorest (Grameen Trust: 2003).

Micro credit programmers which began in Nepal in 1975, has become a powerful tool for poverty alleviation. Micro Finance has enabled the poor to utilize opportunities, generate self employment and be enterprising. It enhanced self –confidence and self –esteem and purchasing power. It empowered the poor people economically and socially. It contributes at overall economic growth (Roy, 2004)

Financial Management Practices in Nepal" has studied about the major feature of financial management practices in Nepal. To address his issue, distributing a multiple questionnaire, which contained questions on various aspects of financial management practices in Nepal, carried out a survey of 78 enterprises. He found the among the several finance functions, the most important finance function appeared to be working capital management. While the least important one appeared to be maintain good relations which stockholders. The finding reveals that banks and retained earnings are the two most widely used financing sources. Most enterprise do not borrow from one bank only and they do switch between banks to whichever offers best interest rates and covenants. He further found that among the bank loans, bank loan less than one year are more popular in public sector where as bank loans of 1-5 years are more popular in private sector. In periods tight money, the majority of private sector enterprise fills that bank will treat all firms equally while public sector does not feel so. Similarly, be concluded that the majority of enterprises in trade sector find that the same is one higher side. (Dr.Pradhan:1994)

"Ratio Stability and Corporate Failure" tried to know the stability of all financial ratios overtime, as well as the level of there ratios as explanation variables in the derivation of a discriminate function. The data were collected from 68 firms half of them failed and half of them did not fail. The following ratios were used in the analysis of the study Profitability ratio, Activity and turnover ratio, Liquidity ratio, indebtness ratio. The major findings of Standard deviation of ratios over times approaches to be the strongest measure of ratio stability. The ratios of net profit to sales, net profit to total assets, fixed assets to net worth, funded debt to net working capital, total debt to net working capital and fixed assets to net worth have shown to be relevant in predicting corporate failure (Dambolena and Khoury, 1990).

2.3 Review of Thesis

S. Bhatt (2001), states that NGBL has been able to gain a higher market share in case of deposits compare to HBL. NGBL has more of the current deposit funds as a result its loans and advances to total deposit ratios are significantly lower than that of HBL. The comparative performances of both banks are liquidity ratio of NGBL is 38.35% and HBL is 44.27%. Activity ratio of NGBL is 59.95% and HBL is 61.63%. Capital adequacy ratio of NGBL is 15.01 and HBL is 8.47. Leverage ratio of NGBL is 35.37% and HBL is 38.12%. Profitability ratio of NGBL is 19.74% and HBL is 22.48%. EPS and DPS of NGBL is 108.09* and HBL is 66.12*. The comparative performance quite clear that HBL's performance is better from the point of view of liquidity activity and profitability. NGBL is better in case of capital adequacy and EPS and DPS.

The main statement of the problem of his research is NGBL and HBL have been operating well since their establishment. Their experience on international banking, promote and computerized services, professional attitude are the factors for their rapid progress. They have been gaining from weakness and inefficiency of domestic commercial banks. These banks have succeeded to capture a remarkable market share of Nepalese banking sector and financial services industry. Despite of better performance, they are facing many external and internal problems. Increased number of different commercial banks has brought them in the neck to neck competition. They are not making enough profit as expected. A big share of their profit is derived from the foreign currency fluctuation gain which may have adverse effect on future profitability. A comparative analysis of financial performance of the banks would be highly beneficial for pointing out their strength and weaknesses. So the researcher is interested to find out the causes that effect the difference performance of concerned bank.

B. Tripathi (2002), found that his study the Soaltee hotel limited has not been better policy to keep sound liquidity position. Current ratio is always below the conventional standard of 2:1 and quick ratio assets were not sufficient to meet their obligations. Debtor’s collection period of SHL seems to quite longer. Financial leverage of SHL is decreasing year by year which is more than 60% by net worth in its total assets. Total assets turnover ratio is not satisfactory and fixed assets turnover should be said all night. A net sale to net worth turnover is gradually increased. Return on shareholders equity has been increased substaintially. The ratio of net to sales is in increasing trend. There is highly positive correlation between “Earning per Share” and “Dividend per Share” as well as between “Sales” and “Net Profit.”

The main statement of problem of his study has many challenges in its business environment where his study is concerned with the basic question like. Does the hotel have given a minimum level of satisfaction to its vested interest groups? Like: investors, employees, supplies, customers and government. How is the future of the hotel? To what extent Hotel is utilizing its resources. How is the financial performance of the Soaltee Hotel Limited and its financial strategy in the competitive market situation? What is the main deviation on its dividend on its dividend policy and practices? Is it attractive for investors?

C. Poudal (2003), found that the current ratio of Bottlers Nepal Limited is 1.70 which is satisfactory level. Quick asset of the company is also sufficient to meet its quick obligations. Its average quick ratio is 1.064. The average inventory turnover is 3.41 times. The average investment in total assets is 65.65% through net worth. The average investment in net fixed assets of the company is 37.18% through net worth. The average ratio of total debt to net worth is 52.80% which is more than 50% where there is a lower debt (liabilities). There is no more different between total debt to net worth and net worth to total assets. BNL has a lower utilization ratio is regard to the fixed assets turnover, total assets turnover, current assets turnover and net sales to net worth turnover. It is mainly due to the high investment made in assets. Sales seem in normal increasing trend. The investment in total capital to earn profit is increasing year by year but the net profit is not followed the similar increment. Capital employed ratio is lower in balance of increment in net profit and total capital. Utilization of fund seems quite unbalance to generate profit. Net profit to net worth ratio shows that the return on shareholders equity is satisfactory. Net profit margin ratio is also in irregular trend due to irregular tendency of generating net profit. The cash flow trend is increasing in first two years and decrease in another three years. Sales trend, expenses trend and net profit to BNL is increase.

The main statement of problem of his research Bottlers Nepal Limited (BNL) is established in Nepal with a view to supply beverages of various qualities and taste in the Nepalese market. Now the beverages market seems competitive. The company which does not assess and estimate its financial requirement would not survive its growth and expands the operation in the desired region. Although the profit situation of the BNL for the last five years is in increasing trend there is substantial gap in the earning pattern of the BNL. Earning pattern of the BNL does not follow the same pattern each year. The expense trend to BNL is as compared to its revenue does not follow the same pattern, though the both heads are increasing.

.

B Dahal (2004), states that the liquidity ratio measures the ability of a firm to meet its short – term obligations and select the short – term financial solvency of a firm. NBBL is better short – term solvency position as compared with HBL. Current ratio shows that the ratios of NBBL are always above than normal standard and HBL's ratio is always below than normal standard. Cash and bank balance to deposit ratio is higher than that of HBL(i.e 39.o9% > 11.85% in an average). Cash and bank balance to current deposit ratio of NBBL is found higher than that of HBL (i.e 165.95% > 63.16% in an average). Fixed deposit to total deposit ratio of NBBL is better than that of HBL. The activity turnover of NBBL in term of loan and advance to total deposit ratio is better than that of HBL (i.e 74.6% > 50% in an average). In term of loan and advances to fixed deposit ratio of HBL is higher than that of NBBL (i.e 185.2% > 120.2% in an average). The turnover position in term of loan and advances to saving deposit ratio, NBBL is always greater than HBL with in the study period of 5 years. In term of investment by total deposit ratio of HBL as higher average ratio (21.2%) than that of NBBL (10.8%). The capital structure position in term of total debt to shareholder's equity ratio of HBL is higher than that of NBBL. The average of total debt to total asset ratio of HBL (96.1%) is slightly higher than NBBL (94.5%). Profitability ratio is measurement of efficiency. Profitability in term of net profit to total assets ratio of NBBL is found higher than that of HBL. Net profit to total deposit ratio of NBBL is lower than that of HBL (i.e 1.95% < 10.55%). Return on share holders equity of NBBL is in decreasing trend except fiscal year 1999/00(35%) where as this ratio of HBL is in increasing trend except F. Y 2001/02 (27.39%). The average net profit margin ratio of NBBL is 15.02% where as of HBL is 16.35%. NBBL has more coefficient of variation than that of HBL. The contribution of commission and discount in total income of NBBL is higher than HBL. NBBL is paying more interest on deposits than HBL. Expenditure in staff expenses of NBBL is slightly lower than that of HBL. NBBL is more efficient to reduce in operating expenses than HBL. The ROI of NBBL and HBL are in fluctuating trend. In case of NBBL, the EPS is more fluctuated than HBL. HBL found better performance in terms of EPS than NBBL. HBL is paying more divided as compared to NBBL.

The main statement of problem of his research is establishment of joint venture banks. Concentrate only in urban area has raised certain questions. This application is not able to contribute the socio – economic development of the country where around 80% people live in rural and 79% of the population depends upon agriculture. These banks should expand their operation in rural areas. NRB, as the central bank has ruled that joint venture banks should 10% of their total investment in the rural areas. These banks are inclined to pay fines rather than investing their resources to such less profitable. The main objective of bank is to collect deposits as much as possible from the customer and to mobilize into the most profitable and preferable sector. The present study basically focused on the financial performance of HBL and NBBL. In Nepal many banks and financial companies have opened up with in a span of few years. Although joint venture banks have managed to perform better than other local commercial banks with in the short period of time they have been facing a neck competition against one another. In Nepal the profitability rate, operating expenses and dividend distribution rate among the shareholders has been found different in the financial performance of the two joint venture banks in different period of time. The problem of the study will ultimately find out the reasons about difference in financial performance. A comparative analysis of financial performance of the banks would be highly beneficial for pointing out their strength and weakness.

G. Joshi (2005), states the average current ratio of the United Insurance Company Ltd and Himalyan General Company Ltd is more than two times. So that both companies are able to maintain a satisfactory level of the current ratio but in comparison UICL is better than HGI. The cash to current liabilities ratio shows that the both companies have been cash balance to meet short- term obligations. Both companies have the cash to current liabilities ratio below than the standard norm i.e 1:1. But in comparison HGI is in better position the UICL. Both companies are not used long-term debt to finance its assets during the study period. Hence the total debt of the companies means simply the total current liabilities. Both companies show the equity oriented capital structure. HGI is more risky than UICL in terms of debt to equity ratio. Investment in total assets made from 50% of less proportion of debt financing. Total assets turnover ratio of both companies has fairly below than 1. But in comparison HGI ratio has better than UICL's ratio. Fixed assets turnover ratios of both companies are in necessary trends which is the indication that the fixed assets are utilized properly and effectively. Fixed assets turnover ratio of HGI is better than that of UICL. Both companies are not able to utilize its current assets more effectively in order to generate net premium. But in comparison HGI has better turnover than that of UICL. Average gross profit margin of UICL is higher than HGI. Operating expenses ratio of UICL is increasing but it is decreasing case HGI. This shows that HGI has better and effective management in controlling and regulating operating expenses than that of UICL. Return on total assets ratio shows that the inefficiently of management of utilize total assets to earn a satisfactory level of income. But in comparison HGI is in better position in respect to return on total assets ratio than UICL. HGI has better EPS than UICL. Net premium earning of HGL is better than that of UICL.

The main statement of problem of her research is the insurance business is a multidimensional business. Insurance has become part and parcel of the contemporary business world. Insurance work is a double –edged weapon. On – one hand it provides the financial security against future loss and on the other hand it provides capital to the business houses. By knowing this reality, the numbers of insurance companies are increasing in Nepal. There are a number of constraints that hiders the development of insurance in Nepal. Lack of sufficient number of industries, limited market of opportunities, low per capita income, lack of knowledge of insurance, lack of profitable investment opportunities poses a serious threat to the insurance business in Nepal. The competition in the insurance business has turned to be more intense. Moreover increasing violence and terrism has been threatening the insurance business. Therefore the insurance companies should be very much cautious about their business operation the insurance business in Nepal.

D.P Poudel (2006), states that financial analysis shows mean of cash and bank balance to total deposit ratio remained higher in NBBL but the ratio remains more consistent in NABIL. Mean of cash and bank balance to current and saving deposit ratio seemed significantly higher in NBBL than that of NABIL. NRB balance to current and saving deposit ratio remained sufficiently higher above the standard set by NRB i.e 8% in each year of review period of NBBL. NRB balance to fixed deposit ratios it appeared that both of the banks were successful to maintain minimum level of the balance i.e 6%prescribed by NRB. The mean ratio of fixed deposits to total deposit is higher in NBBL. As depicted by higher investment to total deposit ratio in NABIL. Mean of loan and advances to total deposit ratio remained higher in NBBL. Loan and advances to total assets ratio is higher in NBBL than that in NABIL. Loan and advances to saving deposit ratio of NBBL is higher than that of NABIL. Total income generating assets to total debt ratios of both banks fluctuated during the study period. Net worth to total assets ratios was greater in NABIL than that of NBBL. Average of net worth to total deposit ratio was higher in NABIL and always it remained above 8%. Debt to equity ratio of both banks showed increasing trend. Average of the debt to total capital ratio came higher in NBBL than that of NABIL. Total debt to total assets ratio remained higher in NBBL. Average of interest coverage ratio of NABIL remained significantly higher than NBBL. Average return on assets in NABIL was much higher than in NBBL. Average return on net worth ratio appeared higher in NABIL than that of NBBL. Staff expenses to total income ratio seemed significantly lower in NABIL. Total interest expenses to total interest income seemed significantly lower in NABIL. Average ratio of return on total deposit is higher in NABIL is better than that of NBBL. Mean ratio of office operating expenses to total income appeared significantly higher in NABIL. EPS is much higher in NABIL than that of NBBL. Average dividend pay out ratio of NABIL much higher than that of NBBL.

The main statement of problem of his research is a well functioning banking system is an essential element in economic growth. A good banking system is supposed to mobilize saving from households and business in low cost of financing activities and channel funds to the most productive investment opportunities. As a consequence of the economic liberalization policy of government of Nepal, joint venture commercial bank mushroomed in short time span. They are mainly concentrated in the capital city and in the major urban areas. But due to agriculture predominance the banking services are highly required in the rural areas, commercial banks especially the joint venture one are reluctant to expand their operation in those areas where they are really needed.

Though, the flow of credit to priority and challenges to be faced by commercial banks is to contribute in the up-liftmen of the priority and productivity sector to the highest extent possible. Due to the lack of profitable investment opportunities the total deposits holding of commercial banks have significantly increased. The search for new horizon for investment has been the most challenging job for the commercial banks cut-throat competition among the commercial banks, financial companies, rural development banks and co-operative societies, in short span of the time has put a question mark to the survival of the joint venture bank including Nabil Bank Limited and Nepal Bangladesh Bank Limited. The both banks need to take it seriously and de something for the betterment in performance and improvement in their productivity and better customer orientation.

P.B Rana (2007), states that the average current ratio of NLGI, NLIC, LIC and ALICO companies are more than 2 times which is above the rule of thumb i.e 2:1. All four life insurance companies are able to maintain satisfactory level of current ratio but in comparison NLGI and LIC are better than NLIC and ALICO. The cash to current liabilities ratios shows that life insurance companies were more than the standard norm 1:1. It means all life insurance companies are able to meet the short-term obligation. But in comparison NLGI and LIC have better cash to current liabilities ratio compare to NLIC and ALICO. All life insurance companies have not been using long term debt to finance its assets during long term the study period. All four companies show the equity oriented capital structure. Creditors of all sampled insurance companies are in safer side because investment in total assets from 60% or less proportion of debt – financing during the study period. NLIC and LIC has better total assets turnover ratio than that of NLGI and ALICO. Fixed assets turnover ratio of LIC is better than that of NLGI, NLIC, and ALICO. NLGI and NIC has better current assets turnover ratio than that of LIC and ALICO. Average net profit margin of NLGI and NLIC are better than LIC and ALICO. NLIC, LIC and ALICO has better and effective management in controlling and regulating operating expenses than that of NLGI. Return on total assets ratio of NLGI and LIC has better than that of NLIC and ALICO. NLGI and LIC have better return on net worth ratio than that of NLIC and LIC. Net premium earning of ALICO is in better position than that of NLGI, NLIC, and LIC. Earned premium trend analysis shows the better premium earning trend of ALICO than that of NLGI, NLIC and LIC. On average total claim to net premium ratio of ALICO is smaller than that of NLGI, NLIC and LIC. So, ALICO is in better position.

The main statement of problem of his research is the insurance business is multi-dimensional business. Due to lack of growth of industry and business development insurance business affected. Other constraints to the development of insurance business are low per capita income, lack of knowledge about importance of insurance and obviously lack of legal provision making insurance compulsory. Now a day's competition in insurance business has been increasing but in another side increasing violence has been threatening to the insurance company. There are various problems regarding the insurance business. The first and fore most problem faced by both the parties is the clauses embedded in the insurance contract that sometime may not be agreed by the insured. Sometime the insured enters into the insurance contract with coercion, undue influence and misrepresentation by the insurer. For this reason, the relationship between the insurer and insured may involve in a problem. The outstanding premium collected from the insured and lack of investment opportunity have led to loss effective use of the premium. This directly may affect the insured too by getting the declining bonus rates.

S. Kharel (2008), found that Mahila Prayash Bachat Tatha Rindh Sahakari Sanstha Limited (MPBRS) has better short term solvency than Panchakanya Mahila Bikash Bachat Tatha Rind Sahakari Sanstha Limited (PMBRS). PMBRS hold more cash with in organization in comparison to MPBRS. MPBRS is highly leveraged in comparison to PMBRS as MPBRS has optimum use of debt to finance total assets. The capital structure of PMBRS is highly leveraged in comparison to MPBRS. MPBRS utilize maximum its total deposit in loan and advances in comparison to PMBRS. The investment to total deposit ratio, return on equity ratio, return on total deposit ratio and return on assets ratio of MBPRS illustrates that it is better than PMBRS. Comparing share capital it shows that people have more trust in MPBRS than to PMBRS. 30 – 40 years working age group women are more involved in both MFIs as they are more conscious to their family. This age group is also involving in decision making sectors. Study shows that Brahmins are more advanced to take an opportunity of being a member in MPBRS while in PMBRS Janajatis seemed to be forwarded to be member of it. Most of members of MPBRS and PMBRS are inspired from board member to take membership. The percentage of PMBRS respondents in high in comparison to MPBRS on developing their saving habits. Around 56% of both MFIs have taken loan from their respective organization. MPBRS respondents took loan which ranges from Rs 15000 – 30000 which is less than 15000 in the case of PMBRS. Majority members of both MFIs respondents saved money from their husband’s income and also borrow loan for their husband’s business. Majority of both MFIs respondents earn self confidence and successful on making changes in social and economical status after joining such organization.

The main statement of problem of her research, poverty is the major problem of every country and Nepal also lies under it. In Nepal 38% people are under poverty line and with out uplift of poverty line, no country assumes its development. MPBRS and PMBRS is a female leading Micro Finance Institutions. In such company, all board members as well as the general members are female and majority of members are unskilled and uneducated. The MPBRS and PMBRS have independency of financial resources due to share capital and resource mobilization. These organizations provide loan to those deprived female members on small tea shop, own business, small shop etc. It provides loan to those female member who were enthusiastic to do a work. So these MFIs try to uplift socio economic status of the members

2.4 Research Gap

The review of above relevant literature has contributed to enhance the fundamental understanding and knowledge, which is required to make study meaningful and purposive. There has been lots of article published related to financial performance of financial institutions. There are various researches conducted on financial performance and policy of financial institutions, impact and implementation of NRB guideline in financial institutions. Most of the thesis studies are of comparative type. Comparing of the financial institutions from same industry can make the sense. But at the same the individual financial institution may have its own strategy for business. In such a case comparative study may mislead the researcher. So, this is the exclusive study of DD Bank. However, the NRB directives are also taken into consideration while analyzing the data. Most of the studies missed to see the growth trend of all major elements. In this study the growth trend of total deposit, loan and advance and net profit have computed and analyzed. This shows the annual growth trend in the respective element while reviewing other studies on financial performance analysis related to single bank; the researcher found that the ratios are not properly analyzed. What actually the ratio indicates is not clear. So, this study has tried to analyze the different ratios in order to make fruitful analysis on the financial performance of the DD bank.

So, this study will be fruitful to those interested person, parties, scholars, professor, students, businessman and government for academically as well as policy perspective. Hope this study will help to others in future in the related field.

CHAPTER - III

RESEARCH METHODOLOGY

3.1 Introduction

Research in common parlance refers to a search for knowledge. The Webster International Dictionary gives a very inclusive definition of research as "a careful critical inquiry or examination in seeking facts and principles diligent investigation in order to ascertain something".

"Research is a systematic inquiry for seeking facts and methodology means the analysis of specific topic by using proper method. In other words research methodology is the way to solve systematically the research problem" (Kothari, 1999:61).

Thus, Research is a systematic inquiry seeking facts through objectives verifiable methods in order to discover the relationship among them and to deduce from them broad principles or laws. It is really a method of critical thinking by defining and redefining problems, formulating hypothesis or suggested solution, collecting, organizing and evaluating data, making decisions and making conclusions to determine whether they fit the formulated hypothesis.

The main objective of this topic is to analyze, examine, highlight and complete the financial performances of Bank, and recommend suggestions for improvements. This chapter looks into the research designs, nature and sources of data, data collection, and procedures and tools and techniques of analysis.

3.2 Research Design

Research is a theory building activity. Research design is the plan, structure and strategy of investigations conceived so as to obtain answers to research questions and to control variances.

“A research design is the arrangement of condition for collection and analysis of data in a manner that aims to combined relevance to the research purpose with economic in procedure”(Kthari, 1989:59).

It is the main part of any research work, which states clearly how the work has been planned, structured and is going to be completed.” Research Design is the plan, structure and strategy of investigation conceived so as to obtain answers to research questions and to control variances.” Research Design means preparing the frame work or plan for a study that guides the collection and analysis of the data. The procedure applied for assessing the performance evaluation of DD Bank is based on the tools which have been applied to examine the facts and descriptive techniques have also been used to evaluate the performance of DD Bank.

Since the main objectives of this study is to analysis financial performance of the bank, all the indicators that shows the financial performance of the bank was calculated using data obtained from the six year end internally generated accounting records maintained by sampled bank. The study depends on the secondary data. Various financial parameters and effective research techniques are employed to evaluate the financial performance of the bank. In this study descriptive and analytical research design are used.

3.3 Nature and Sources of Data

The study is mainly conducted on secondary data relating and showing the financial performance of DD Bank, as they are available at concerned Bank. For the purpose of this study, various related books, booklets, magazine, journals, newspapers and thesis made in this field have been observed closely. Beside these sources necessary suggestions are taken from various experts both inside and outside the bank whenever required in this research.

3.4 Data Collecting Procedures

The annual report of the concerned bank was obtained from their head office and their websites. NRB publication, such as Banking and Financial Statistics Economics Reports, Annual Reports of NRB etc. has been collected from the personal visit of concerned department of Baluwatar. Besides, a details review materials are collected from the library of Shankar Dev Campus and central library of T.U.

3.5 Tools and Techniques Used

"The analysis of data consists of organizing, tabulating, and performing statistical analysis."(Wolf and Pant, 2000: 127).

In this study, various financial and statistical tools have been used to achieve the objective of the study. According to the pattern of data available, the analysis of data will be done. The various tools applied in this study have been briefly presented under:

3.5.1 Financial Tools

Financial performance is analyzed through the use of two important tools. The financial tool is one of the most important tools, which includes ratio analysis and the other one financial statement analysis has been used to examine the financial strength and weakness of bank. Although there are many financial ratios, only selected ratios are used in this study.

3.6 Analysis of Financial Ratios

The techniques of ratio analysis in of considerable significance in studying the financial stability, liquidity, profitability, and the quality of management of the business and industrial concerns, the important ratios that are studied for this purpose are given below.

3.6.1 Liquidity Ratio

Liquidity ratio measures the ability of the firm to meet its current obligations. A bank must maintain its satisfactory liquidity position to meet the credit need of the community. Liquidity provides honor strength health and prosperity to an organization. It is extremely essential for an organization to meet its obligations as they become due. A firm should ensure that it has not lack of liquidity and also that it is not too much highly liquid.

The following ratios are the evaluated and interpreted under liquidity ratios:

Current Ratios

This ratio shows the relation between current assets and current liabilities. The current ratio is calculated by dividing current assets by current liabilities. The objectives of this ratio are to measure the ability of the firm to meet its short term obligation. Current ratio indicates whether the concern has instant ability to payout the current liabilities as they mature. The ratio is the yardstick to judge the soundness of the short term financial position of the business unit or industry. Standard of current ratio is 2:1.

We have,

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Cash and Bank Balance to Current Assets Ratio

Cash and Bank balance to current assets ratio reveals the position of the bank cash and bank into cash and bank balance in total of current assets.

We have,

$$\text{Cash and Bank balance to Current Assets} = \frac{\text{Total cash and Bank Balance}}{\text{Total Current Assets}}$$

In the present study cash and bank balances includes cash on hand including foreign cheques other cash item and balance with domestic banks and abroad. Cash and Bank balances are highly liquid assets. So this ratio scans higher liquidity position than current ratio.

Loan and Advances to Current Assets Ratio

Loan and advances to current assets ratio reflects the capacity of the bank discounting and purchasing the bill, loans and over draft facilities to the customer to make a profit, mobilization its fund in the best way. A bank should not keep its all funds as cash and bank balance but they should be invested as loan and advances to the customers.

We have,

$$\text{Loan and Advances to Current Assets Ratio} = \frac{\text{Loan and Advances}}{\text{Current Assets}}$$

Cash and Bank Balance to Borrowing Total Deposit Ratio

Cash and Bank Balance is said to be the first defense of every banks. The ratio between the cash and bank balance and borrowing total deposit measure the ability of the bank to meet the unanticipated cash and all type of deposit.

We have,

$$\text{Cash and Bank Balance to Total Deposit Ratio} = \frac{\text{Cash and Bank Balance}}{\text{Borrowing and Total Deposit}}$$

3.6.2 Activity Ratio

Activity or turnover ratio measures the efficiency of the bank to manage its assets in profitable and satisfactory manner. These ratios are employed to evaluate the efficiency with the firm manages and utilize its assets.

A bank must manage its assets properly to earn high profit. Under this following ratios are studied.

Loan and Advance to Borrowing Total Deposit Ratio

This ratio measures the extent to which the banks are successful to mobilize their borrowing total deposit on loan and advances.

We have,

$$\text{Loan and Advance to Total Deposit Ratio} = \frac{\text{Loan and Advances}}{\text{Borrowing and Total Deposit}}$$

3.6.3 Profitability Ratio

Profitability ratio indicates degree of success in achieving desired profit level. Profitability ratio, which measures management overall effectiveness, are shown by the returns generated on sale and investment. A bank should be able to earn profit to survive and grow over a long period of time. Profit is the indicator of effective operation of a bank. The banks acquire profit by providing different services to its costumer or by making investment of different kind.

Profitability ratio measures the efficiency of bank. Higher profit ratio shows higher efficiency of the bank .The following profitability ratios are related to study in this heading.

Return of Equity (ROE)

This ratio shows the relation between the net profit after tax and shareholders funds. Shareholders fund include equity share capital, performance shareholders capital, reserve and surplus, reserve funds, general reserve capital reserve and share premium. The fictitious assets should be deducted from total shareholder equity for finding out ratio. If bank can mobilize its equity capital properly, they can earn high profit. The return on equity capital measures the extend to which a bank is successful to mobilize its equity.

We have,

$$\text{Return on Equity} = \frac{\text{Net Profit}}{\text{Total Equity Capitals}}$$

Equity Capital includes paid up equity, Profit and Loss Account, Various Reserve, General Loan, Loss Provisions etc.

Interest Earned to Total Assets Ratio

This ratio reflects the extent to which the bank is successful in mobilizing their total assets to generate high income as interest. A high ratio is indicator for high earning power of the bank on its total assets ratio and vice- versa.

We have,

$$\text{Interest Earned to Total Assets Ratio} = \frac{\text{Interest Earned}}{\text{Total Assets}}$$

Interest Paid to Total Assets Ratio

This ratio measure the percentage of total interest paid against the total assets. A ratio indicates the higher interest expenses on total assets and vice- versa.

We have,

$$\text{Interest Paid to Total Assets Ratio} = \frac{\text{Interest Paid}}{\text{Total Assets}}$$

Interest Earned to Operating Income Ratio

This ratio reflects the extent to which the bank has successfully mobilized its fund in interest bearing assets. It measures the magnitude of interest income in total income.

We have,

$$\text{Interest Earned to Operating Income Ratio} = \frac{\text{Total Interest Earned}}{\text{Total Operating Income}}$$

Where,

Total operating income includes the interest income, commission and discount, income from dividend, foreign exchange income and others.

Return on Total Assets Ratio

It measures the profit earning capacity by utilizing available resources i.e. total assets. Return will be higher if the bank's working fund is well managed and efficiently utilized.

We have,

Return on Total Assets Ratio = $\frac{\text{Net Profit}}{\text{Total Assets}}$

Where,

Net profit includes the profit that is left to the internal equities after all costs, charges and expenses.

Return on Loan and Advance Ratio

It measures the earning capacity of banks on its total deposits mobilized on loan and advances.

We have,

Return on Loan and Advance Ratio = $\frac{\text{Net Profit}}{\text{Loan and Advances}}$

3.7 Statistical Tools

Under this topic some statistical tools such as coefficient of correlation analysis between different variables, trend analysis of deposit, loan and advances, net profit and EPS are used to achieve the objectives of the study.

3.7.1 Mean

An average is a single value related from a group of values to represent them in someway, a value, which is supposed to stand for whole group of which it is a part, as typical of all the values in the group. There are various types of averages. Arithmetic mean (AM, Simple and Weighted), Median, Mode, Geometric mean, Harmonic mean, are the major types of averages. The most popular and widely used measure representing the entire data by one value is the AM. The value of the AM is obtained by adding together all the items and by dividing this total by the number of items.

Mathematically:

Arithmetic Mean (AM) is given by,

$$\bar{X} = \frac{\Sigma x}{n}$$

3.7.2 Standard Deviation (SD)

The standard deviation is an important and widely used measure of dispersion. The measurement of the scatters of the mass of figures in a series about in average is known as dispersion. The standard deviation (SD) is an absolute measurement of dispersion is removed. The high amounts of dispersion in which the drawbacks present in other measures of dispersion are removed. The high amounts of dispersion are removed. The small standard deviation means the high degree of homogeneity of the observations.

$$SD\ (\sigma) = \sqrt{\frac{\Sigma(x-\bar{x})^2}{n}}$$

3.7.3 Coefficient of Variation (C.V.)

The coefficient of variation reflects the relation between standard deviation and mean. The relative measures dispersion based on the standard deviation known as coefficient of variation. The coefficient of dispersion based on standard deviation multiplied by 100 is known as CV. It is used for comparing variability of two distributions; the CV is defined as,

$$CV = \frac{\sigma}{\bar{x}} \times 100$$

Greater the CV ,the more variable or conversely less consistent , less uniform, less stainable and homogenous than the consistent more uniform, more stable and homogenous. The nature of CV uses that actual size of working capital.

3.7.4 Trend Analysis by using Least Square Method

This is the method which is the most popular and widely used in practice. It provides basis for obtaining the line of best fit in the series. This method satisfies the following two conditions.

1. The algebraic sum of the deviation of individual observations (above or below) from their respective trend values is zero. i.e. $\sum(Y-Y_c) = 0$, where Y is the actual value and Y_c is the calculated value of Y.

   i.e. $\sum Y = \sum Y_c$

   i.e. sum of the actual values are equal to sum of the trend values.
2. The sum of the sequences of the above deviations is the least,

   i.e. $\sum(Y-Y_c)^2$ = Least

   As $\sum(Y-Y_c)^2$ is least, this method is known as the method of least sequences. The line obtained by this method is known as the line of best fit.

   Let the straight line trend be Y= a+ bX------------- (1)

   Where, Y = dependent variable

   X= independent variable

   b= slope of trend line or annual rate of growth

   a= Y – intercept

The two parameters a and b in the equation is obtained by solving two normal equation s as follows:

$\sum X = na + b\sum X$---------------- (2)

And $\sum XY = a\sum X + b\sum X^2$ -------------- (3)

Where, n = number of years (month or any other period)

It should be noted that the first normal equation is obtained by taking summation of equation (1) and the second normal equation is obtained on multiplying equation (1) by X and then taking summation on both sides.

Now, substituting these values of a and b in equation (1) we get the required trend line as

Y_c = a + bX -------------------- (4)

Change of Origin

The method for calculating trend line from equation (2) and (3) is quite tedious and time consuming. Hence to make calculations easier the mid-point in time is taken as origin from which the negative values (-1,-2,-3, ----) in the first half of the series balance out the positive values (1, 2, 3, --) in the second half so that $\sum X = 0$.

In the other words the time variable is measured as a deviation from its mean so that, $\sum X = 0$.

Then, the trend line be

Y= a+ bX .0----------- (5), where

X = X- middle Year

Then, two normal equations estimating for a and b are

$\sum Y = na + b \sum X$ ------------------ (6)

$\sum XY = a\sum X + b \sum X^2$ --------------- (7)

Since, $\sum X = 0$ then equation (6) and (7) become

a= $\frac{\sum Y}{n}$ and b= $\frac{\sum XY}{\sum X^2}$

Substituting these values of and b in (5) we can get the required equation of trend line as

Y_c= a + bX

3.7.5 Coefficient of Correlation (r)

Correlation analysis is the statistical tools that we can use to describe the degree to which one variable is liner related to another. Coefficient of correlation is the measurement of degree of relationship between two causally related sets of figure whether positive or negative. Its values lie somewhere ranging between -1 to +1. If the both variables are constantly changing in the similar direction, the value of coefficient will be -1; two variables take place in opposite direction. The correlation is said to be perfect negative. In this study, simple correlation is used to examine the relationship of different factors with working capital and other variable.

Coefficient of Correlation (r) $= \dfrac{\text{Covariance of X and Y}}{\sigma_x \, \sigma_y}$

i. Coefficient of Correlation between Net Profit and Total Deposit

Net profit has played a very important role in performance of every bank. Coefficient of Correlation between Net profit and Total Deposit measures the degree of relationship between the two variables. In this analysis, Net profit is independent Variable(X) and Total Deposit is dependent Variable(Y). The main objectives of comparing "r" between these two variables are to justify whether Net profit is significantly used on Total Deposit and other sector in a proper way or not.

ii. Coefficient of Correlation between Deposits and Loan and Advances

Deposit have played a very important role in performance of banks and similarly loan and advances are important to mobile the collected deposits. Coefficient of Correlation between deposit and loan and advances measures the degree of relationship between the two variables. In this analysis, deposit is independent variable (X) and loan and advances is dependent variables (Y). The main objectives of computing ‘r’ between these two variables are to justify whether deposits are significantly used on loan and advances in proper way or not.

iii. Coefficient of Correlation between Interest Earned and Interest Paid

Interest Earned has played a very important role in the performance of the Bank. Coefficient of correlation between Interest Earned and Interest Paid measures the degree of relationship between the two variables. In this analysis, Interest Earned is independent variable(X) and Interest Paid is dependent variable (Y).The main objectives of comparing ‘r’ between these two variables is to justify whether Interest Earned is significantly used on Interest Paid and other sectors properly or not.

3.7.6 Regression Analysis

Regression Analysis is a statistical device with the help of which the estimation of unknown values or prediction of one variable from known values of other variables is done. It is one of the scientific techniques and is considered as a useful tool for determining the nature and the strength of relationship between two or more variables. Prediction or estimation has an important role in financing sector so Regression Analysis is the appropriate tool for this purpose. The regression line describes the average relationship between the two series. In fact there is no difference between the lines of best fit as best fit is generally used when X series is related to time and Y series is related to the value of variable. If both X and Y series are variable, the line of best fit is called line of regression. The equation describing the regression line is called regression equation.

Here, regression analysis is divided into two parts i.e. Simple and Multiple. The analysis used to describe the average relationship between only two variables at a time is known as simple regression analysis. It is used to study how independent variable influences dependent variable. The extension of simple regression techniques i.e. the use of two or more independent variable is used to estimate the value of a dependent variable is known as multiple regression analysis. For the study purpose, simple regression analysis is applied to find out the effect between the following variables.

∴ Net Profit (NPAT) as dependent variable and independent variable is Total Assets (TA).

Simple Regression Analysis

One of the most powerful statistical tools, to explain the relationship between two or more variable is undoubtedly regression analysis. This tool is employed here to determine within which the variable of total assets is related with net profit. Here two variables, Total Assets(X) and Net Profit(Y) are assumed as independent and dependent variable respectively.

The tools of Regression Analysis are explained below.

1. Regression Constant

The value of constant, which is intercept of the model, indicates the average level of dependent variable when independent variable is zero. In other words, it is better to understand the constant which indicates the mean or average effect on dependent variable if all variables are omitted from the model.

Symbolically, $a = \frac{\sum X}{N} - \frac{\sum Y}{N}$

Where, a= Regression Constant

N= Number of observation

$\sum X$= The total value of independent variable

$\sum Y$= The total value of dependent variable

2. Regression Coefficient

The regression coefficient of each independent variable indicate the marginal relationship between that variable holding constant and the effect of all other independent variables in the regression model. In other words, the coefficient describes how the changes in independent variable affect the value of estimated dependent variable.

Symbolically, b= $\frac{N\sum XY-(\sum X)(\sum Y)}{N\sum X^2-(\sum X^2)}$

Where, b= Regression Coefficient

$\sum XY$= The total value of the product of items in two series

$\sum X^2$= The total of the squares of items in X series.

N= Number of observation

i. Regression Analysis between Net Profit and Total Assets.

One of the most powerful statistical tools to explain the relation ship between two or more variables is undoubtedly Regression Analysis. This tool is employed here to determine within the variable of Total asset is related with Net Profit. Here, two variable Total Asset (X) and Net Profit (Y) are assumed as independent and dependent variable respectively.

ii. Regression Analysis between Net Profit and Total Deposit

Regression Analysis explains the relationship between two or more variables respectively. This tool here is used to determine within the variable of Total Deposit is related with net profit. Here, two variables Total deposit (X) and Net profit (Y) are assumed as independent and dependent variable respectively.

iii. Regression Analysis between Net Profit and Loan and Advance

We know that regression analysis explains the relationship between two or more variables. This tool is employed here to determine within the variable of loan and advance is related with net profit. Here two variable loan and advance(X) and Net profit (Y) are assumed as independent and dependent variable respectively.

CHAPTER- IV

DATA PRESENTATION AND ANALYSIS

The main objective of this chapter is presenting and analyzing data according to usual research methodology. The main part of this chapter will be ratio analysis which is considered as the powerful financial tool to analyze the financial data. In this chapter analysis and interpretations are categorized in two headings.

i. Analysis of Financial Ratios
ii. Statistical tools

4.1 Analysis of Financial Ratios

One of the most powerful financial tools to analyze the financial data thoroughly and readily to ratio analysis. It measures the financial stability, liquidity, profitability, management of the business and industrial concerns as well. The important ratios that are studied for this purpose are given below.

4.1.1 Liquidity Ratio

Liquidity ratio measures the ability of the firm to meet its current obligations. A bank must maintain its satisfactory liquidity position to meet the credit need of the community. Liquidity provides honor and strength, health and prosperity to an organization. It is extremely essential for an organization to meet its obligations as they become due. A firm should ensure that it has not lack of liquidity and also that it is not too much highly liquid.

The following ratios are evaluated and interpreted under liquidity ratios:

1) Current Ratio

In the following table we can see the data relating to Current Ratio of Bank.

Table 4.1

Current Ratio

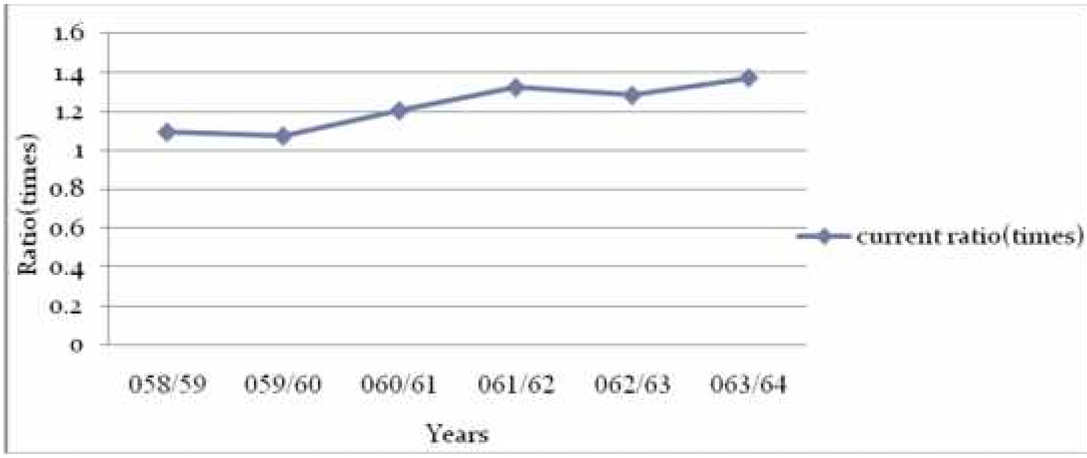
Fiscal Year	Current Assets (Rs.)	Current liabilities (Rs.)	Current Ratio (Times)
2058/2059	32,336,887.07	29,734,676.35	1.09
2059/2060	62,298,675.21	58,134,432.55	1.07
2060/2061	125,528,014.15	105,188,405.39	1.20
2061/2062	175,279,334.44	132,578,030.58	1.32
2062/2063	325,247,431.23	253,967,888.63	1.28
2063/2064	323,255,611.13	236,556,156.14	1.37
Average			1.22
S.D.			0.113
C.V.			0.093

Source: Annual Report of DD Bank

Table No. 4.1 shows that the current ratios are in increasing trend except FY 2062/063 over the study period. Average Current Ratio is 1.22. Here, the highest Current Ratio is 1.37 in the fiscal year 2063/064 and lowest Current Ratio is 1.07 in the fiscal year 2059/060.Current Ratio of fiscal year 2060/061 is 1.20 which is the nearest to the average current ratio. Here, the standard deviation is 0.113 and the coefficient of variation is 0.093. As the Current Ratio is below the normal standard we cannot conclude the liquidity position is poor as it is only quantitative measure not the qualitative and the situation of the bank is quite different than that of general Business enterprise.

Figure 4.1

Current Ratio



2) Cash and Bank Balance to Current Assets Ratio

Cash and Bank Balance to Current Assets reveals the position of cash and bank in total of Current assets.

Table 4.2

Cash and Bank Balance to Current Assets Ratio

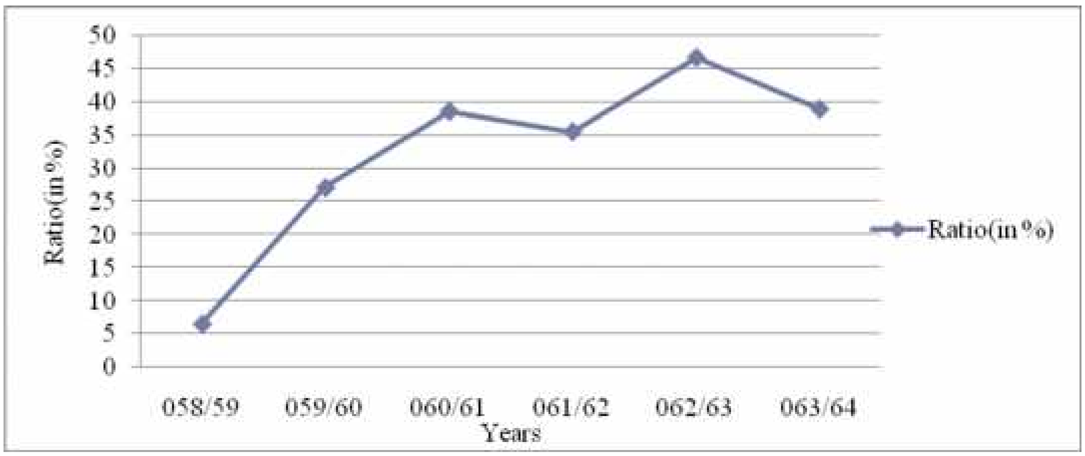
Fiscal Year	Cash and Bank Balance (Rs.)	Current Assets (Rs.)	Ratio (%)
2058/2059	2,126,310.07	32,336,887.07	6.58
2059/2060	16,917,454.88	62,298,675.21	27.16
2060/2061	48,496,229.82	125,528,014.15	38.63
2061/2062	62,420,344.95	175,279,334.44	35.61
2062/2063	151,926,941.00	325,247,431.23	46.71
2063/2064	125,976,951.13	323,255,611.13	38.97
Average			32.28
S.D.			12.852
C.V.			0.398

Source: Annual Report of DD Bank

Table 4.2 shows that the average Cash and Bank Balance Ratio is 32.28%. The highest Ratio is 46.71% in the fiscal year 2062/63 and the lowest Ratio is 6.58% in the fiscal year 2058/59 Above calculation represents that the standard deviation of Cash and Bank Balance to Current Assets Ratio is 12.852 and the coefficient of variation is 0.398..Cash and Bank balance to Current assets is better as it shows the ability to manage borrowing loans and deposit with draws from the members. The data have followed fluctuating trend over the study period, i.e. from the year 2058/59 to 2063/64.

Figure 4.2

Cash and Bank Balance to Current Assets Ratio



3) Loan and Advances to Current Assets Ratio

Loan and Advances to Current Assets Ratio reflects the capability of Bank discounting and purchasing the bill, loans and overdraft facilities to the member to make a profit, mobilization of its fund in the best way. A bank should not keep its all collected funds as cash and bank balance but they should be invested as loan and advances to the members.

The table below shows the ratio of loan and advance to the current assets ratio.

Table 4.3

Loan and Advance to Current Assets Ratio

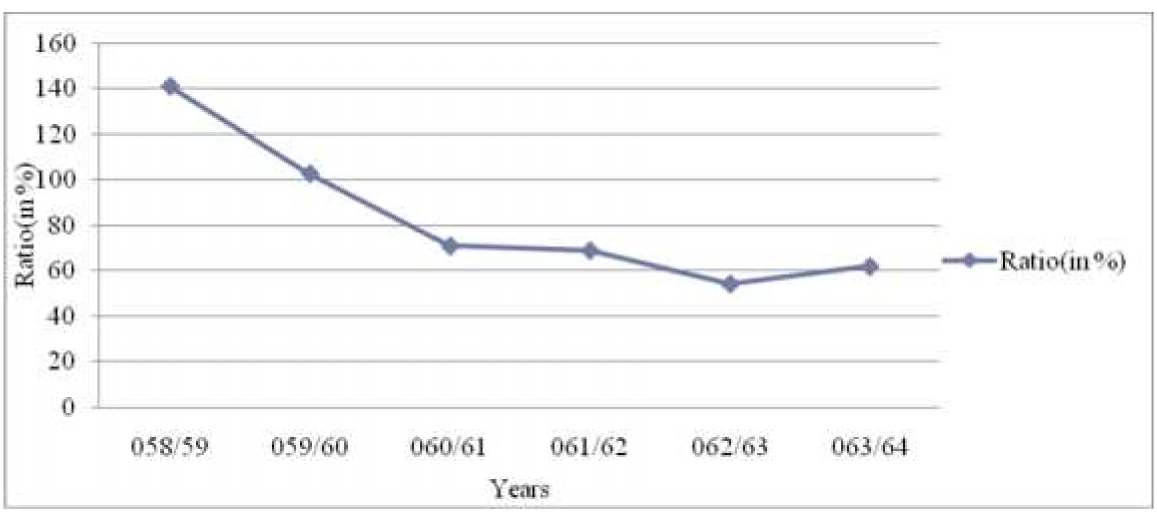
Fiscal Year	Loan and Advances (Rs.)	Current Assets (Rs.)	Ratio (%)
2058/2059	45,570,760.00	32,336,887.07	140.93
2059/2060	64,018,546.00	62,298,675.21	102.76
2060/2061	88,998,524.00	125,528,014.15	70.90
2061/2062	120,841,024.00	175,279,334.44	68.94
2062/2063	176,372,726.00	325,247,431.23	54.23
2063/2064	199,950,665.00	323,255,611.13	61.86
Average			83.27
S.D.			29.60
C.V.			0.356

Source: Annual Report of DD Bank

Table 4.3 shows that the loan and advance to the current assets ratio has followed the fluctuating trend in positive manner throughout the study period. In the fiscal year 2058/59 and 059/60 is the starting period of Bank. The average Loan and Advance to Current Assets ratio is 83.27%. The standard deviation of Loan and Advances to Current Assets Ratio is 29.60% and the coefficient of Variation is 0.356. Above discussion helps to conclude that that the Bank is successful to mobilize its current deposit on loan and advances.

Figure 4.3

Loan and Advances to Current Assets Ratio



4) Cash and Bank Balance to Borrowing Loan and Total Deposit Ratio

Cash and Bank Balance is said to be the first defense of every Bank. The ratio between the Cash and Bank balance and Borrowing loan and total Deposit measure the ability of the bank to meet the unanticipated cash and all types of deposit and loan.

The following table shows the ratio measurement of the years.

Table 4.4

Cash and Bank Balance to Borrowing Loan and Total Deposit Ratio

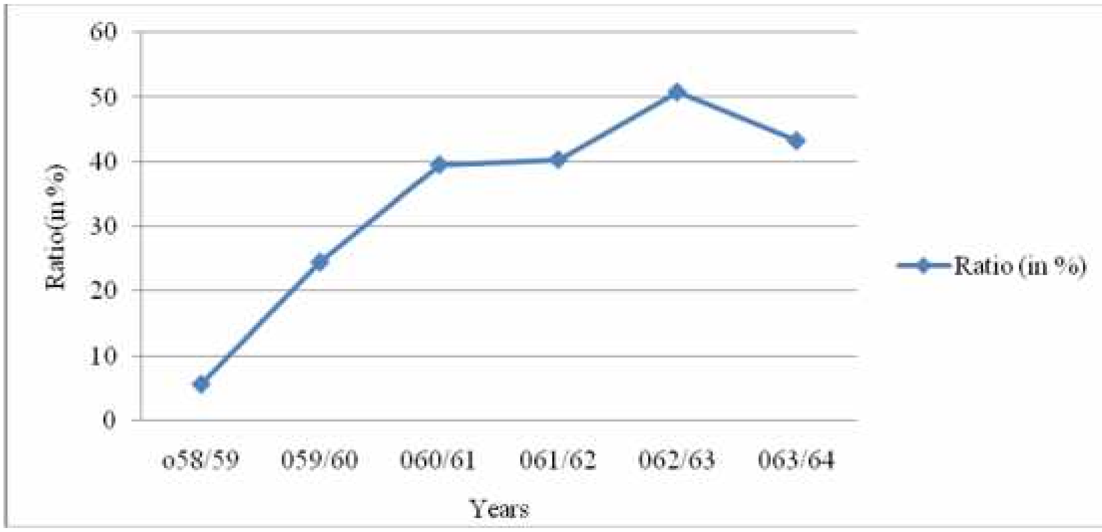
Fiscal Year	Cash and Bank Balance(Rs.)	Borrowing Loan and Total Deposit Ratio(Rs.)	Ratio (%)
2058/2059	2,126,310.07	37,181,732.07	5.72
2059/2060	16,917,454.88	68,911,897.47	24.55
2060/2061	48,496,229.82	122,530,043.30	39.58
2061/2062	62,420,344.95	154,622,469.85	40.37
2062/2063	151,926,941.00	298,911,704.41	50.83
2063/2064	125,976,951.13	291,146976.90	43.27
Average			34.05
S.D.			14.89
C.V.			0.4372

*Source**:** Annual Report of DD Bank*

Table 4.4 shows that the Cash and Bank Balance to Borrowing Loan and Total Deposit Ratio is in increasing trend during the study period. The Average Cash and Bank balance to Borrowing Loan and total Deposit ratio is 34.05%. In average it has maintained remarkable cash and Bank balance to borrowing Loan and total Deposit ratio. The standard deviation of cash and bank balance to borrowing loans and Total deposit ratio is 14.89% and the coefficient of variation is 0.4372. It shows that improves or executes modification on the satisfactory position. It operates in higher risks, though the high ratio indicates its high ability but very high ratio shows the inefficiency.

Figure 4.4

Cash and Bank Balance to Borrowing Loans and Total Deposit Ratio



4.1.2 Activity Ratio

Activity or turnover ratio measures the efficiency of the bank to manage its assets in profitable and satisfactory manner. These Ratios are employed to evaluate the efficiency with which the firm manages and utilize its assets. A bank must manage its assets properly to earn high profit.

Under this Chapter following ratios are studied.

I) Loan and Advance to Borrowing loan and Total Deposit Ratio

This ratio measure the extent to which the banks are successful to mobilize their borrowing loan and total deposit on loan and advances. The table below shows the ratio of loan and advances to borrowing loan and total deposit ratio.

Table 4.5

Loan and Advance to Borrowing Loan and Total Deposit Ratio

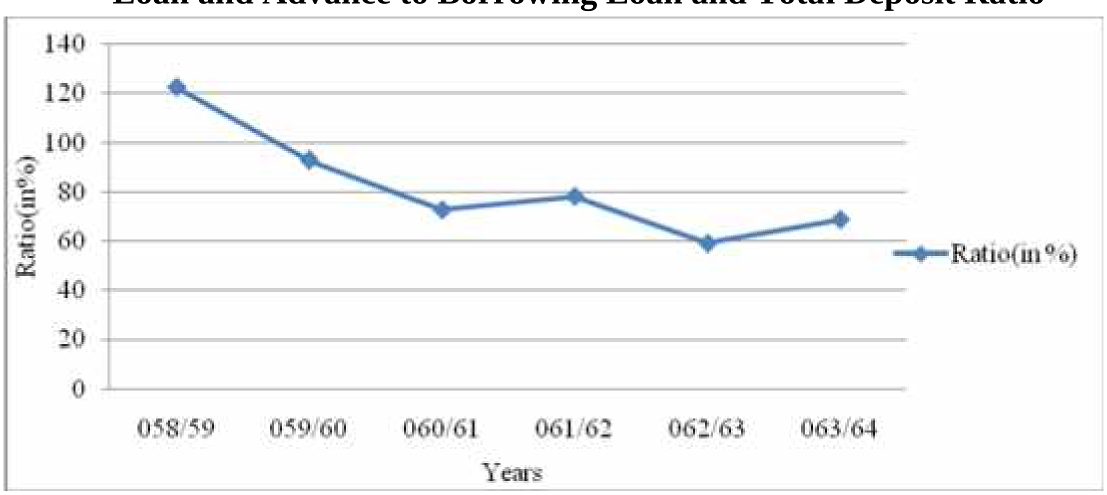
Fiscal Year	Loan and Advances(Rs.)	Borrowing Loan and Total Deposit Ratio (Rs.)	Ratio (%)
2058/2059	45,570,760.00	37,181,732.07	122.63
2059/2060	64,018,546.00	68,911,897.47	92.90
2060/2061	88,998,524.00	122,530,043.30	72.63
2061/2062	120,841,024.00	154,622,469.85	78.15
2062/2063	176,372,726.00	298,911,704.41	59.00
2063/2064	199,950,665.00	291,146976.90	68.68
Average			82.33
S.D.			20.72
C.V.			0.2517

Source: Annual Report of DD Bank

Table 4.5 shows that the ratio in different year have fluctuating trend The highest ratio is 122.63% in the FY 2058/59 and the lowest ratio is 59.00%in the FY 2062/63. The standard deviation of loan and advances to borrowing loan and total Deposit ratio is 20.72 and the coefficient of variance is 0.2517. . In conclusion, the bank had strong position regarding the mobilization of Borrowing loans and Total deposit on loan and advance and acquiring higher profit from the fiscal year 2059/60 to 2063/64.

Figure 4.5

Loan and Advance to Borrowing Loan and Total Deposit Ratio



2) Loan and Advance to Total Assets Ratio

This ratio reflects the extent to which the banks are success in mobilizing their assets as loan and advances for the purpose of income generation.

The following table exhibits the ratio of Loan and Advance to Total Assets Ratio.

Table 4.6

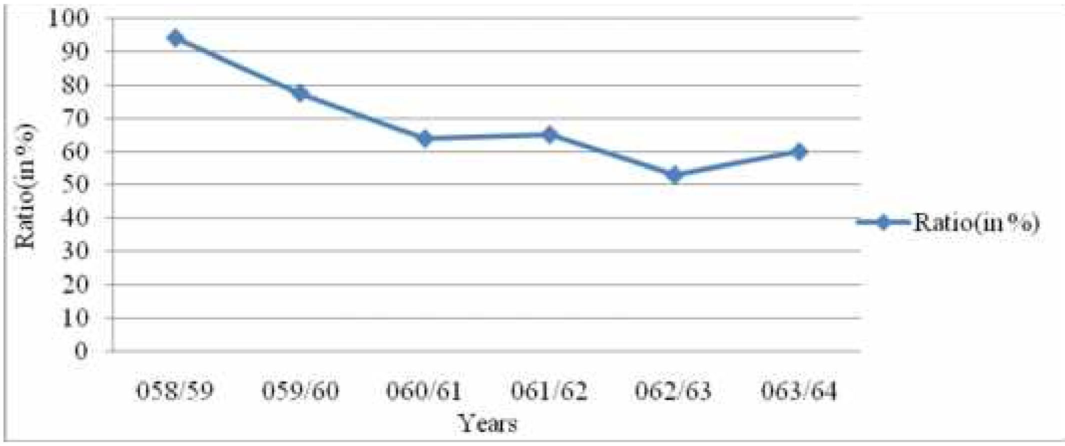
Loan and Advances to Total Assets Ratio

Fiscal Year	Loan and Advances (Rs.)	Total Assets (Rs.)	Ratio (%)
2058/2059	45,570,760.00	48,387,080.59	94.18
2059/2060	64,018,546.00	82,483,887.71	77.61
2060/2061	88,998,524.00	139,429,904.55	63.83
2061/2062	120,841,024.00	185,852,735.67	65.02
2062/2063	176,372,726.00	333,401,104.36	52.90
2063/2064	199,950,665.00	334,060,763.48	59.85
Average			68.90
S.D.			13.50
C.V.			0.1959

Source: Annual Report of DD Bank

Table 4.6 shows that the loan and advances to total assets in fluctuating trend. The average ratio of loan and Advance to the total Assets is 68.90%. The standard deviation of Loan and Advance to Total Assets ratio is 13.50% and the coefficient of variance is 0.1959. It represents that the ratio of DD Bank is in very good condition over the study period. The highest ratio is 94.18% in FY 2058/59 and the lowest ratio is 52.90% in the FY 2062/63. So, the high ratio indicates better mobilization of fund as loan and advances and vice versa.

Figure 4.6
Loan and Advance to Total Assets Ratio



4.1.3 Profitability Ratio

Profitability Ratio indicates degree of success in achieving desired profit level. Profitability Ratio, which measures management overall effectiveness as shown by the returns generated on sale and investment. A bank should be able to earn profit to survive and grow over a long period of time. Profit is the indicator of effective operation of a bank. The banks acquire profit by providing different services to its customer or by making investment of different kind.

Profitability ratio measures the efficiency of bank. Higher profit ratio shows higher efficiency of the bank. The following profitability ratios are related to study in this heading.

1) Return on Equity (ROE)

If banks can mobilize its equity capital properly, they can earn high profit. The Return on Equity capital measures the extent to which a bank is successful to mobilize its equity. The table below shows the ROE in different years during the study period.

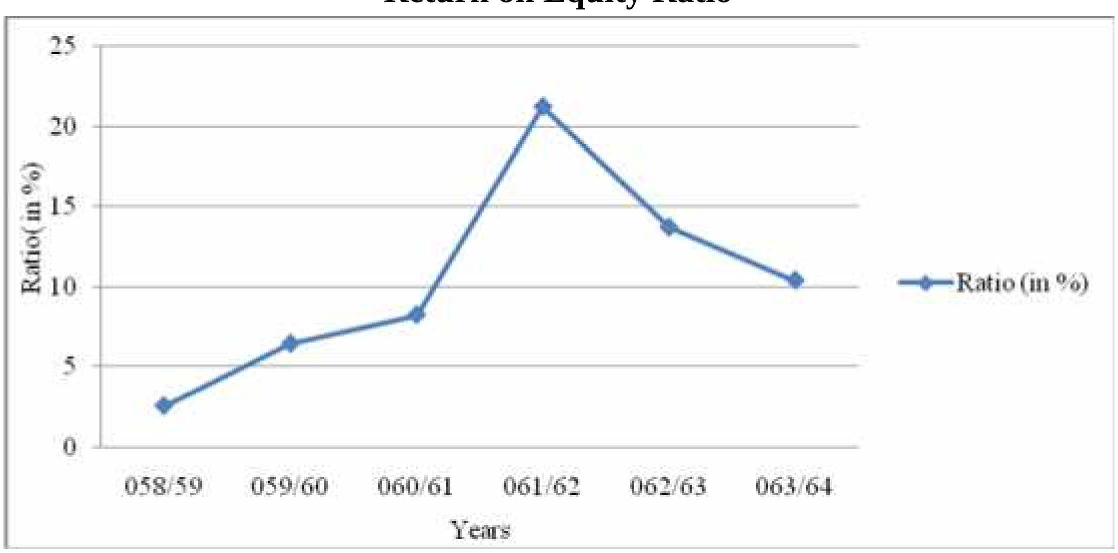
Table 4.7
Return on Equity

Fiscal Year	Net Profit (Rs.)	Total Equity Capital (Rs.)	Ratio (%)
2058/2059	606,182.04	23,802,586.64	2.55
2059/2060	772,673.92	12,004,455.96	6.44
2060/2061	1,077,514.00	13,081,969.96	8.24
2061/2062	3,213,245.93	15,135,215.89	21.23
2062/2063	3,088,943.17	22,517,266.53	13.71
2063/2064	2,889,527.16	27,876,601.34	10.40
Average			10.43
S.D.			5.919
C.V.			0.567

Source: Annual Report of DD Bank

Table 4.7 represents that the ratio has followed the increasing trend. It has the range of 2.55% to 21.23% during the study period. The average return on equity ratio of DD Bank is 10.43%.The standard deviation of Return on Equity Ratio is 5.919% and the coefficient of variance is 0.567.It can be concluded that the bank has been efficiently utilizing its equity capital but the bank seems to be having lack of sound investment policy for the mobilization of its equity capital.

Figure 4.7
Return on Equity Ratio



2) Interest Earned to Total Assets Ratio

This ratio reflects the extent to which the banks are successful in mobilizing their total assets to generate high income as interest. A high ratio is indicator for high earning power of the bank on its total assets and vice versa.

Table 4.8

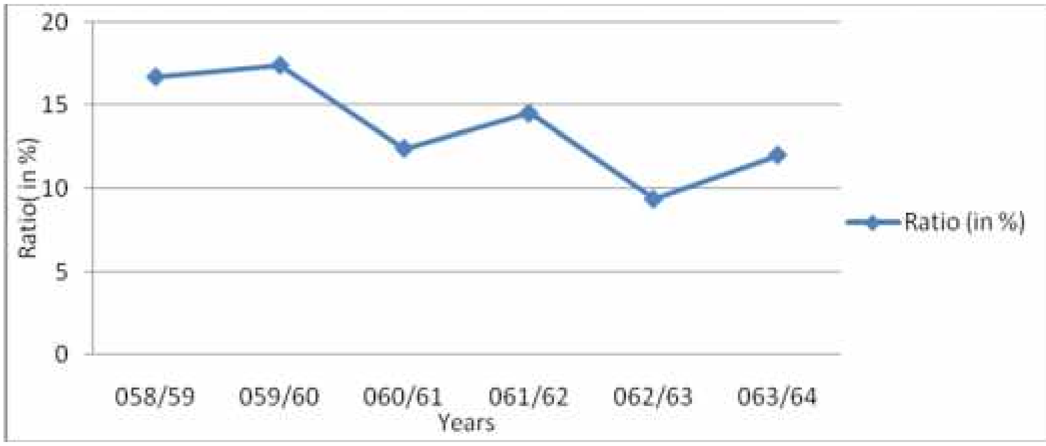
Interest Earned to Total Assets Ratio

Fiscal Year	Total Interest Earned (Rs.)	Total Assets(Rs.)	Ratio (%)
2058/2059	8,083,698.63	48,387,080.59	16.71
2059/2060	14,358,153.85	82,483,887.71	17.41
2060/2061	17,298,974.92	139,429,904.55	12.41
2061/2062	26,976,037.55	185,852,735.67	14.51
2062/2063	31,180,317.94	333,401,104.36	9.35
2063/2064	40,145,934.09	334,060,763.48	12.02
Average			13.735
S.D.			2.795
C.V.			0.204

Source: Annual Report of DD Bank

Table 4.8 shows that the ratio exhibits increasing and decreasing trend. It has the highest ratio of 17.41% in FY 2059/60 and the lowest of 9.35%in FY 2062/63. The average interest earn to total assets ratio is 13.735%. The standard deviation of interest earns to total assets ratio is 2.795% and the coefficient of variance is 0.204. From the above table it can be concluded that the ratio of total interest earned to total assets is not satisfactory. That mean bank is not successful in earning interest income spontaneously.

Figure 4.8
Interest Earned to Total Assets Ratio



3) Interest Paid to Total Assets Ratio

This ratio measure the percentage of total interest paid against the total assets. A high ratio indicates the higher interest expanses on total assets and vice versa.

The following table shows the figures of this ratio.

Table 4.9

Interest Paid to Total Assets Ratio

Fiscal Year	Total Interest Paid (Rs.)	Total Assets(Rs.)	Ratio (%)
2058/2059	3,469,741.16	48,387,080.59	7.17
2059/2060	5,700,900.37	82,483,887.71	6.91
2060/2061	8,290,931.71	139,429,904.55	5.95
2061/2062	14,101,589.27	185,852,735.67	7.59
2062/2063	11,174,078.51	333,401,104.36	3.35
2063/2064	14,380,434.62	334,060,763.48	4.30
Average			5.88
S.D.			1.557
C.V.			0.265

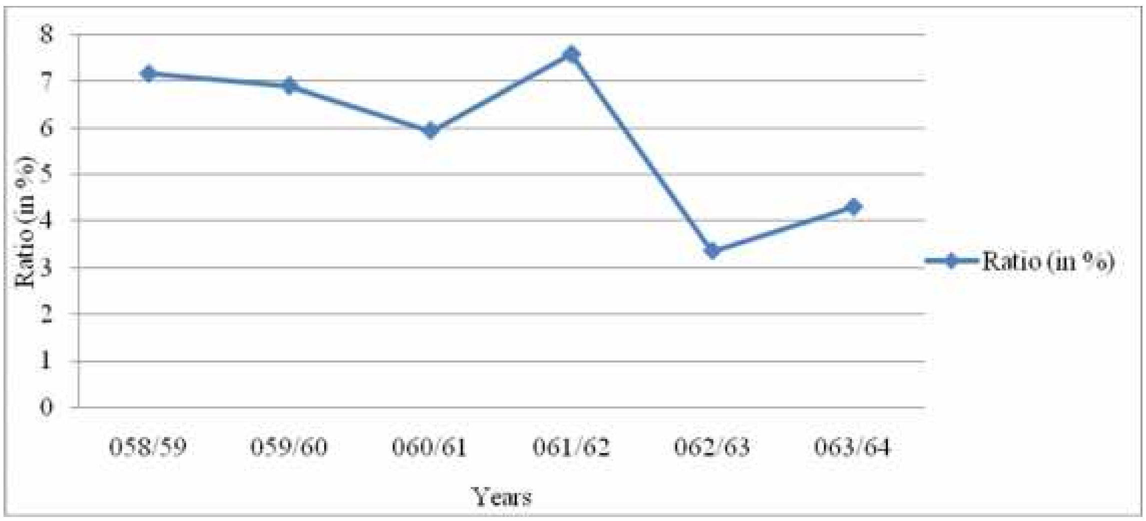
Source: Annual Report of DD Bank

The above table 4.9 show that the total interest paid to total assets ratio is in fluctuating trend. The average interest paid to total assets ratio of DD Bank is

5.88%. The highest ratio of interest paid to total assets is 7.17% in FY 2058/59 and the lowest ratio is 3.35% in FY 2062/63. The standard deviation of interest paid to total assets ratio is 1.557% and the coefficient of variance is 0.265.In conclusion we can say that bank is in good position from payment of interest point of view. It seems to be successful to collect its assets from less expensive sources.

Figure 4.9

Interest Paid to Total Assets Ratio



4) Interest Earned to operating Income Ratio

This ratio reflects the extent to which the banks have successfully mobilized its fund in interest bearing assets. It measures the magnitude of interest income in total income. Total operating income includes the interest income, commission and discount, income from dividers, foreign exchange and others.

The following table shows the figure of this ratio.

Table 4.10

Interest Earned to Operating Income Ratio

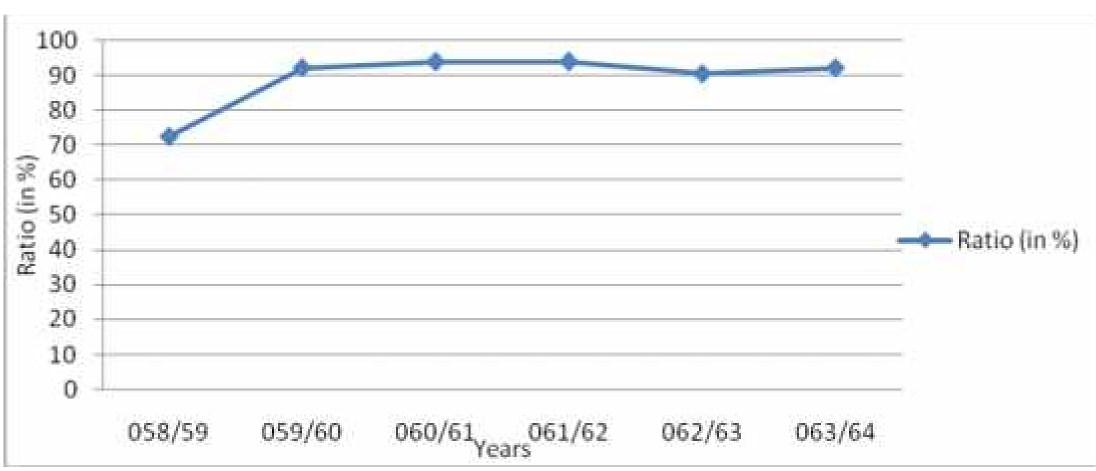
Fiscal Year	Total Interest Earned (Rs.)	Operating Income (Rs.)	Ratio (%)
2058/2059	8,083,698.63	11,134,224.63	72.60
2059/2060	14,358,153.85	15,534,383.85	92.43
2060/2061	17,298,974.92	18,388,054.92	94.08
2061/2062	26,976,037.55	28,653,549.55	94.15
2062/2063	31,180,317.94	34,379,948.11	90.69
2063/2064	40,145,934.09	43,465,434.16	92.36
Average			89.39
S.D.			7.597
C.V.			0.085

Source: Annual Report of DD Bank

Table 4.10 exhibits that the bank ratio of total interest earned to total operating income is in fluctuating trend. The ratio is 94.15% is highest in FY 2061/62 where as the lowest ratio 72.60% is in FY 2058/59.The standard deviation of Interest Earned to Operating Income ratio is 7.597% and the coefficient of variance is 0.085.It can be concluded that the bank has the satisfactory position regarding the mobilization of interest bearing assets such as loan and advances and investment though the investment in such fund based investment are more risky than the fee based activities.

Figure 4.10

Interest Earned to Operating Income Ratio



5) Return on Total Assets Ratio

It measures the profit earning capacity by utilizing available resources i.e. total assets. Return will be higher if the bank's total assets is well managed and efficiently utilized.

Net profit includes the profit that is left to the internal equities after all costs, charges and expenses. Following table shows the figure of this rat

Table 4.11

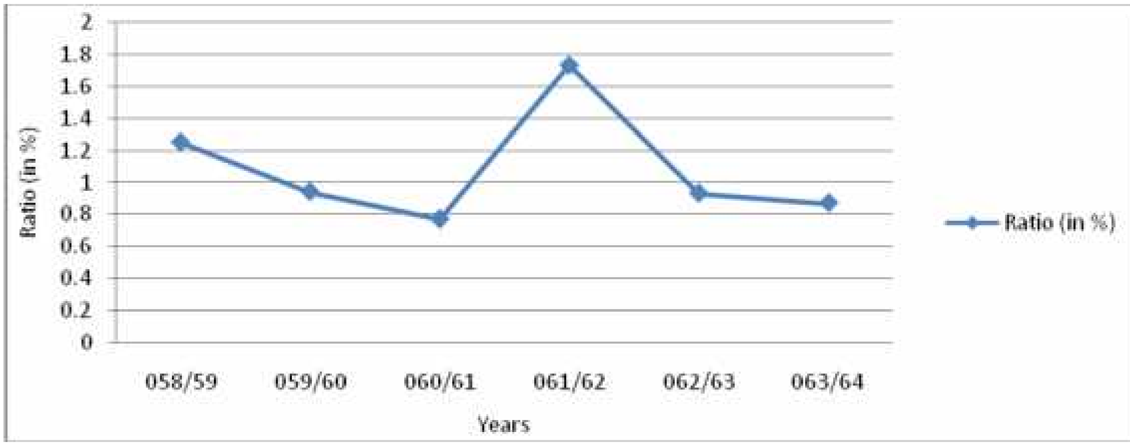
Return on Total Assets Ratio

Fiscal Year	Net Profit (Rs.)	Total Assets(Rs.)	Ratio (%)
2058/2059	606,182.04	48,387,080.59	1.25
2059/2060	772,673.92	82,483,887.71	0.94
2060/2061	1,077,514.00	139,429,904.55	0.77
2061/2062	3,213,245.93	185,852,735.67	1.73
2062/2063	3,088,943.17	333,401,104.36	0.93
2063/2064	2,899,527.16	334,060,763.48	0.87
Average			1.08
S.D.			0.325
C.V.			0.301

Source: Annual Report of DD Bank

Table 4.11 shows that the profitability ratio of bank is in increasing and decreasing level. It has maintained net profit in the year 2058/59 to 2063/64.which are in the ratio of 1.25%, 0.94%, 0.77%, 1.73%, 0.93% and 0.87% respectively. The average return on total assets is 1.08%, standard deviation is 0.325% and coefficient of variation is 0.301.From the above analysis, it can be concluded that the profitability with respect to financial resources and investment of the bank asset is satisfactory as well as stable.

Figure 4.11
Return on Total Assets Ratio



6) Return on Loan and Advances Ratio

It measures the earning capacity of banks on its total deposit and borrowing loans mobilized on loan and advances.

The following table shows the figure of this ratio.

Table 4.12

Return on Loan and Advances Ratio

Fiscal Year	Net Profit (Rs.)	Loan and Advances(Rs.)	Ratio (%)
2058/2059	606,182.04	45,570,760.00	1.33
2059/2060	772,673.92	64,018,546.00	1.21
2060/2061	1,077,514.00	88,998,524.00	1.21
2061/2062	3,213,245.93	120,841,024.00	2.66
2062/2063	3,088,943.17	176,372,726.00	1.75
2063/2064	2,899,527.16	199,950,665.00	1.45
Average			1.601
S.D.			0.5076
C.V.			0.317

Source: Annual Report of DD Bank

Table 4.12 reveals that DD Bank's return on loan and advances ratio have fluctuating trend. In the study of six years it has positive but volatile trend like

1.33> 1.21 = 1.21< 2.66>1.75> 1.45 during the year 2o58/59 to 2063/64 respectively. Thus it can be concluded that the bank is not perfect able to earn loan and advances.

Figure 4.12

Return on Loan and Advances

4.2 Statistical Tools

Under this Heading some statistical tools such as Coefficient of Correlation Analysis between different Variables, Trend analysis of Net Profit and Total assets, Loan and Advance and Deposit are used to achieve the objective of the study.

4.2.1 Trend Analysis by using Least Square Method

This is the method which is the most popular and widely used in practice. It provides basis for obtaining the line of best fit in the series. This method satisfies the following two conditions.

1. The algebraic sum of the deviation of individual observations (above or below) from their respective trend values is zero. i.e. $\sum(Y-Y_c) = 0$, where Y is the actual value and Y_c is the calculated value of Y.

   i.e. $\sum Y= \sum Y_c$

   i.e. sum of the actual values are equal to sum of the trend values.

2. The sum of the sequences of the above deviations is the least,

   i.e. $\sum(Y - Y_c)^2$ = Least

   As $\sum(Y - Y_c)^2$ is least, this method is known as the method of least sequences. The line obtained by this method is known as the line of best fit.

   Let the straight line trend be Y= a+ bX------------- (1)

Where, Y = dependent variable

X= independent variable

b= slope of trend line or annual rate of growth

a= Y – intercept

The two parameters a and b in the equation is obtained by solving two normal equation s as follows:

∑X = na + b∑X---------------- (2)

And ∑XY = a∑X + b $\sum X^2$ -------------- (3)

Where, n = number of years (month or any other period

.

It should be noted that the first normal equation is obtained by taking summation of equation (1) and the second normal equation is obtained on multiplying equation (1) by X and then taking summation on both sides.

Now, substituting these values of a and b in equation (1) we get the required trend line as

Y_c = a + bX -------------------- (4)

Change of Origin

The method for calculating trend line from equation (2) and (3) is quite tedious and time consuming. Hence to make calculations easier the mid-point in time is taken as origin from which the negative values (-1,-2,-3, ---) in the first half of the series balance out the positive values (1, 2, 3, --) in the second half so that $\sum X = 0$.

In the other words the time variable is measured as a deviation from its mean so that, $\sum X = 0$.

Then, the trend line be

$$Y = a + bX \text{ .0----------- (5), where}$$

$$X = X - \text{middle Year}$$

Then, two normal equations estimating for a and b are

$\sum Y = na + b\sum X$ ------------------ (6)

$\sum XY = a\sum X + b\sum X^2$ --------------- (7)

Since, $\sum X = 0$ then equation (6) and (7) become

$a = \frac{\sum Y}{n}$ and $b = \frac{\sum XY}{\sum X^2}$

Substituting these values of and b in (5) we can get the required equation of trend line as

$Y_c = a + bX$

1) Trend Analysis of Total Deposit

This analysis shows trend line of the respective bank whether the mobilization of Total Deposit goes positively or negatively in the different years. Trend analysis of Total Deposit for six years of DD Bank is shown as follows, where independent variable(X) is taken as Year and dependent variable(Y) is taken as Total Deposit and the amount is also assumed as Rs. in Lakh respectively.

Table 4.13

Calculation of Trend Values of Total Deposit

Fiscal Year	Total Deposit (Y) (Rs. In Lakh)	X= X-2060/061	X^2	XY	Trend value (Y_c)
2058/2059	85	-2	4	-170	9
2059/2060	109	-1	1	-109	134
2060/2061	171	0	0	0	260
2061/2062	256	1	1	256	386
2062/2063	409	2	4	818	511
2063/2064	530	3	9	1590	637
Total	∑Y= 1,560	∑X= 3	$\sum X^2$= 19	∑XY=2,385	$\sum Y_c$= 1,937

Let the trend line be,

Y= a+ bX ------------- (1), where,

X= X- middle year

Since, ∑X = 3

a= $\frac{\sum Y}{n} = \frac{1560}{6}$ =260

b= $\frac{\sum XY}{\sum X^2} = \frac{2358}{19}$ = 125.526

Substituting these values of a and b in (1), we get trend values as follows

Y_c= 260 + 125.526X----------- (2)

Now, substituting X= -2,-1, 0, 1, 2, and 3 subsequently in (2) we get the trend values as follows:

When,

X= -2 Y_c= 260 + 125.526× (-2) = 8.948

X= -1 Y_c= 260 + 125.526× (-1) = 134.474

X= 0 Y_c= 260 + 125.526× 0 = 260

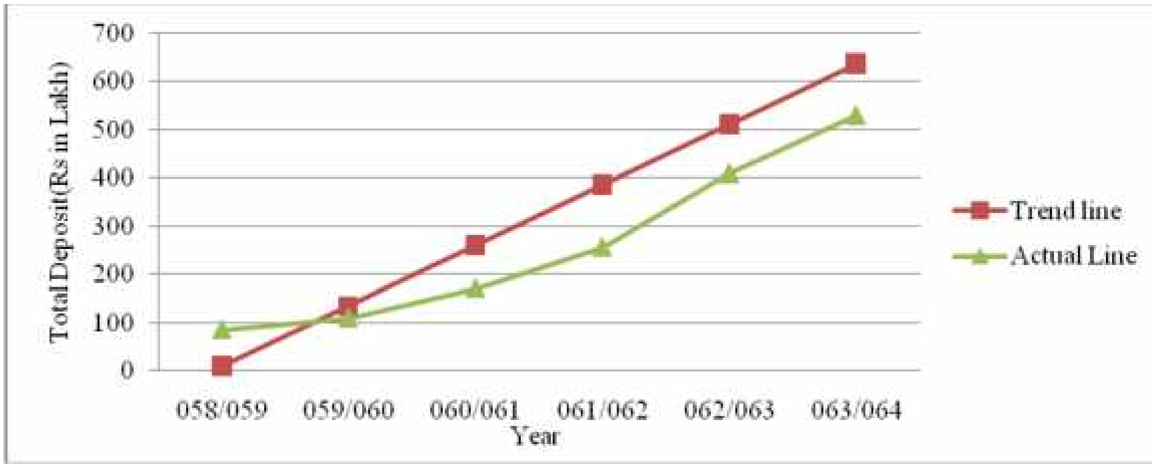
X= 1 Y_c= 260 + 125.526×1 = 385.526

X= 2 Y_c= 260 + 125.526× 2 = 511.052

X= 3 Y_c= 260 + 125.526× 3 = 636.578

Figure 4.13

Trend Analysis of Total Deposit



Here, above figure shows that the trend line of Total Deposit is increasing simultaneously comparing with the trend line of Actual data. From this we can say that the bank's deposit is properly utilized in investment and other respective fields. This tend line also represents that the bank's members are in increasing trend and successful to mobilize the Total Deposit.

2) Trend Analysis of Loan and Advances

This analysis shows the trend line of the respective bank whether the Bank mobilizes its Loan and Advances in investment sector properly or not in the different years. Trend analysis of Loan and Advances for six years of DD Bank is shown as follows, where independent variable(X) is taken as Year and dependent variable(Y) is taken as Loan and Advances and the amount is also assumed as Rs. in Lakh respectively.

Table 4.14

Calculation of Trend Values of Loan and Advances

Fiscal Year (X)	Loan and Advances (Y) (Rs. In Lakh)	X= X- 2060/061	X^2	XY	Trend value (Y_c)
2058/2059	455	-2	4	-910	193
2059/2060	640	-1	1	-640	676
2060/2061	889	0	0	0	1159
2061/2062	1,208	1	1	1.208	1642
2062/2063	1,763	2	4	3.526	2125
2063/2064	1,999	3	9	5,997	2609
Total	∑Y= 6,954	∑X= 3	$\sum X^2$= 19	∑XY=2,385	$\sum Y_c$= 8,404

Let the trend line be,

Y= a+ bX ------------- (1), where,

X= X- middle year

Since, ∑X = 3

a= $\frac{\sum Y}{n}$ = $\frac{6,954}{6}$ =1159 and b= $\frac{\sum XY}{\sum X^2}$ = $\frac{9181}{19}$ = 483.211

Substituting these values of a and b in (1), we get trend values as follows

Y_c= 1159 + 483.211X--------------- (2)

Now, substituting X= -2,-1, 0, 1, 2, and 3 subsequently in (2) we get the trend values as follows:

When,

X= -2 Y_c= 1159 + 483.211× (-2) = 192.578

X= -1 Y_c= 1159 + 483.211× (-1) = 675.789

X= 0 Y_c= 1159 + 483.211× 0 = 1159

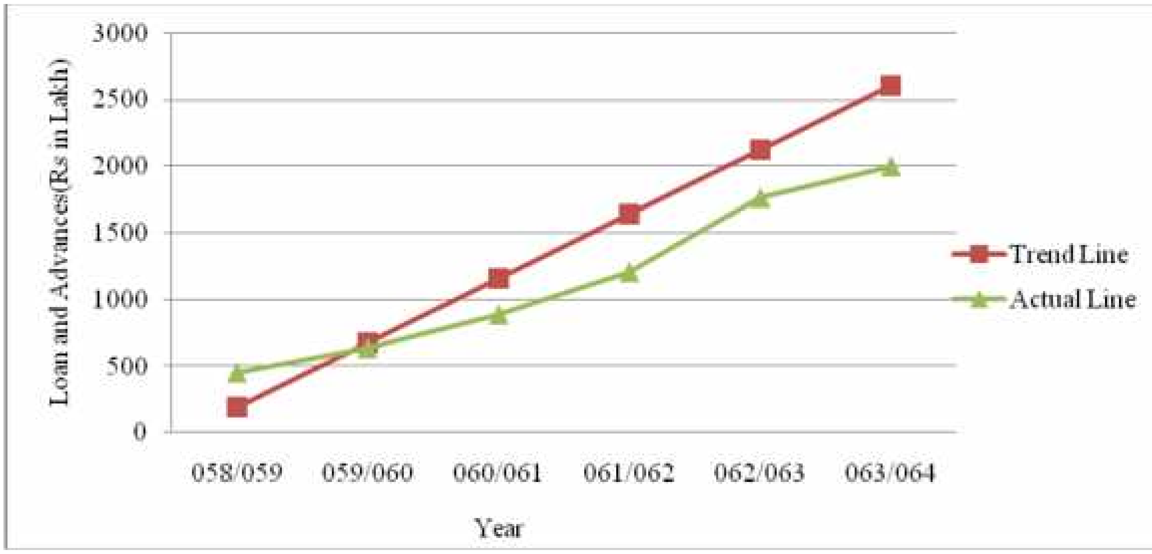
X= 1 Y_c= 1159 + 483.211×1 = 1,642.211

X= 2 Y_c= 1159 + 483.211× 2 = 2125.422

X= 3 Y_c= 1159 + 483.211× 3 = 2608.633

Figure 4.14

Trend Analysis of Loan and Advances



Here, above figure shows that the trend line of Loan and Advances is positively increasing comparing with the trend line of Actual data. Both trend line shows that the bank's Loan and Advances is successfully mobilized in investment sector. The bank had strong position regarding the mobilization of Loan and Advances to acquire higher profit in the fiscal year starting from 059/60 to 063/064. It represents that the trend of Loan and Advances of DD Bank is in very good condition and also shows that members are growing positively in the study period.

3) Trend Analysis of Net Profit

We know that trend analysis explains the trend of actual and trend value. This analysis shows the trend line of the respective bank whether the financial condition is in good and strong position or not in the different years of study. Trend analysis of Net Profit for six years of DD Bank is shown as follows, where independent variable(X) is taken as Year and dependent variable(Y) is taken as Net Profit and the amount is also assumed as Rs. in Lakh respectively.

Table 4.15

Calculation of Trend Values of Net Profit

Fiscal Year (X)	**Net Profit (Y) (Rs. In Lakh)**	**X= X-2060/061**	**X^2**	**XY**	**Trend value (Y_c)**
2058/2059	6	-2	4	-12	2
2059/2060	7	-1	1	-7	11
2060/2061	10	0	0	0	19
2061/2062	32	1	1	32	27
2062/2063	30	2	4	60	35
2063/2064	28	3	9	84	44
Total	∑Y= 113	∑X= 3	$\sum X^2$= 19	∑XY= 157	$\sum Y_c$= 138

Let the trend line be,

Y= a+ bX ------------- (1), where,

X= X- middle year

Since, ∑X = 3

a= $\frac{\sum Y}{n}$ = $\frac{113}{6}$ =18.833 and b= $\frac{\sum XY}{\sum X^2}$ = $\frac{157}{19}$ = 8.263

Substituting these values of a and b in (1), we get trend values as follows

Y_c= 18.833 + 8.263X--------------- (2)

Now, substituting X= -2,-1, 0, 1, 2, and 3 subsequently in (2) we get the trend values as follows:

When,

X= -2 Y_c= 18.833 + 8.263× (-2) = 2.307

X= -1 Y_c= 18.833 + 8.263× (-1) = 10.57

X= 0 Y_c= 18.833 + 8.263× 0 = 18.833

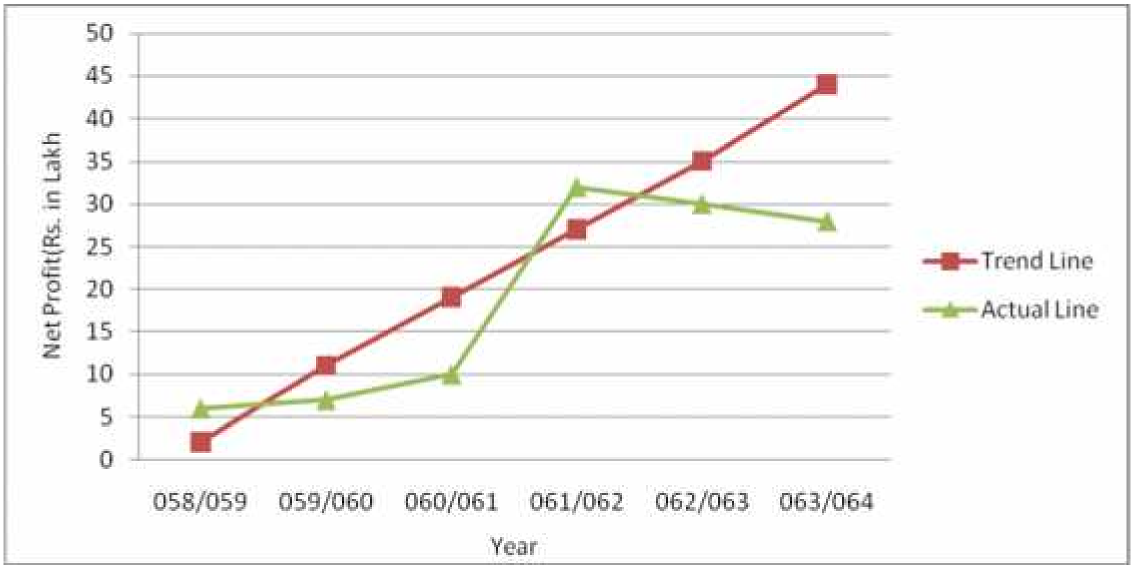
X= 1 Y_c= 18.833 + 8.263×1 = 27.096

X= 2 Y_c= 18.833 + 8.263× 2 = 35.359

X= 3 Y_c= 18.833 + 8.263× 3 = 43.622

Figure 4.15

Trend Analysis of Net Profit



Here, above figure shows that the trend line of Net Profit of actual values is in fluctuating trend i.e. increasing trend from FY 058/059 to 061/062 where as in decreasing trend in the FY 062/063 and 063/064 respectively. The trend line of Actual values shows its positive increasing trend. It shows that the Net Profit of DD Bank is in satisfactory condition and also reveals the fact that bank is in stable condition which means that financial position of the bank is good and strong in the period of study.

4.2.2 Coefficient of Correlation Analysis

Under this chapter Karl Pearson's coefficient is used to find out the relationship between Net Profit and Total Deposit, Total Deposit and Loan and Advance and Interest Earned and Interest Paid.

1) Coefficient of Correlation between Net profit and Total deposit

Net profit has played a very important role in performance of every bank. Coefficient of Correlation between Net profit and Total Deposit measures the degree of relationship between the two variables. In this analysis, Net profit is independent Variable(X) and Total Deposit is dependent Variable(Y). The main objectives of comparing "r" between these two variables are to justify whether Net profit is significantly used on Total Deposit and other sector in a proper way or not.

Table 4.16

Calculation of Coefficient Correlation between

Net Profit and Total Deposit

(Rs. in Thousand)

Net Profit(X)	Total Deposit(Y)	$X-\bar{X}$	$Y-\bar{Y}$	$(X-\bar{X})^2$	$(Y-\bar{Y})^2$	$(X-\bar{X})(Y-\bar{Y})$
606	8,561	-1,337	-17,461	1,787,569	304,886,521	23,345,357
772	10,912	-1,171	-15,110	1,371,241	228,312,100	17,693,810
1,077	17,106	-866	-8,916	749,956	79,495,056	7,721,256
3,213	25,619	1,270	-403	1,612,900	162,409	-511,810
3,088	40,900	1,145	14,878	1,311,025	221,354,884	17,035,310
2,899	53,036	956	27,014	913,916	729,756,196	25,825,384
$\sum X$ = 11,655	$\sum Y$ =156,134			$\sum(X-\bar{X})^2$ =7,746,627	$\sum(Y-\bar{Y})^2$ =1,563,967,166	$\sum(X-\bar{X})(Y-\bar{Y})$ =91,109,307

$\bar{X}=\frac{\sum X}{N}=\frac{11,655}{6}=$ 1,943

$\bar{Y}=\frac{\sum Y}{N}=\frac{156,134}{6}=$ 26,022.33=26,022

$\sigma_x=\sqrt{\frac{\sum(X-\bar{X})^2}{n}}=\sqrt{\frac{7,746,627}{6}}=\sqrt{1291104.5}=$ 1,136.268

$\sigma_y=\sqrt{\frac{\sum(Y-\bar{Y})^2}{n}}=\sqrt{\frac{1,563,967,166}{6}}=\sqrt{260,661,194.3}=$ 16,145.005

Cov(X, Y) $=\frac{\sum(X-\bar{X})(Y-\bar{Y})}{n}=\frac{91,109,307}{6}=$15,184,884.5

Correlation(r) $=\frac{Cov(X,Y}{\sigma_x.\sigma_y}=\frac{15,184,884.5}{1,136.268\times16,145.005}=$ 0.82774

The above calculation shows the correlation is 0.82774. Thus there is a positive correlation between the Net Profit and Total Deposit of DD Bank. It is nearly perfectly positive state, which shows that with every change in Total Deposit will affect the net worth. If there is an increase in Total Deposit, there will be positive increase in Net Worth and vice versa.

Calculation of Probable Error (P.E.):

P.E. = 0.6745 × $\frac{1-r^2}{\sqrt{N}}$

P.E. = 0.6745 × $\frac{1-(0.82774)^2}{\sqrt{6}}$

P.E. = 0.6745 × $\frac{1-0.68515}{2.449}$

P.E. = 0.6745 × $\frac{0.31485}{2.449}$

P.E. = 0.6745 × 0.12856

P.E. = 0.08671

The calculated P.E. is 0.08671.Hence, r= 0.82774> P.E=0.08671.

The correlation(r) is more than 0.5 as well as 6 times more of the standard probable error which is considered as significant. Here, we can conclude that there is highly positive correlation between Total Deposit and Net Worth of DD Bank.

2) Coefficient of Correlation between Total Deposit and Loan and Advance

Deposit always plays a very important role in the performance of the bank and similarly loan and advance are important to mobilize the collected deposits properly. Coefficient of correlation between these two variables is calculated below. In this analysis, Deposit is independent variable (X) and Loan and advance is dependent variable (Y). The main objective of competing ‘r’ between these two variables is to justify whether deposits are significantly used on loan and advances in appropriate way or not

Table 4.17

Calculation of Coefficient of Correlation between Total Deposit and Loan and Advance

(Rs. in Thousand)

Total Deposit (X)	Loan and Advance (Y)	X-$\bar{X}$	Y- $\bar{Y}$	$(X-\bar{X})^2$	$(Y-\bar{Y})^2$	(X-$\bar{X}$) (Y-$\bar{Y}$)
8,561	45,570	-17,461	-70,388	304,886,521	4,954,470,544	1,229.094,868
10,912	64,018	-15,110	-51,940	228,312,100	2,697,763,600	784,813,400
17,106	88,998	-8,916	-26,960	79,495,056	726,841,600	240,375,360
25,619	120,841	-403	4,883	162,452,664	23,843,689	-1,967,849
40,900	176,372	14,878	60,414	221,354,884	3,649,851,396	898,839,492
53,036	199,950	27,014	83,992	729,756,196	7,054,656,064	2,268,959,888
$\sum X$= 156,134	$\sum Y$ =695,749			$\sum(X-\bar{X})^2$ =1,563,967,166	$\sum(Y-\bar{Y})^2$ 1,910,742,689	$\sum(X-\bar{X})(Y-\bar{Y})$ 5,420,065,159

$\bar{X}= \frac{\sum X}{N} = \frac{156,134}{6}$ = 26022.33= 26,022

$\bar{Y}= \frac{\sum Y}{N} = \frac{695,749}{6}$ = 115,958.17= 115,958

$\sigma_x = \sqrt{\frac{\sum(X-\bar{X})^2}{n}} = \sqrt{\frac{1,563,967,166}{6}} = \sqrt{260,661,194.3}$ = 16,145.005

$\sigma_y = \sqrt{\frac{\sum(Y-\bar{Y})^2}{n}} = \sqrt{\frac{1,910,742,689}{6}} = \sqrt{3,184,571,149}$ = 56,432.005

Cov(X, Y) $= \frac{\sum(X-\bar{X})(Y-\bar{Y})}{n} = \frac{5,420,065,159}{6}$ = 903,344,193.2

Correlation(r) $= \frac{Cov(X,Y)}{\sigma_x \cdot \sigma_y} = \frac{903,344,193.2}{16,145.005 \times 56,432.005} = \frac{903,344,193.2}{911,095,002.5}$ = 0.99149

The above calculation shows the correlation is 0.99149. Thus there is a high degree positive correlation between Total Deposit and Loan and Advances of DD Bank. It is nearly perfectly positive state, which shows that with every change in Total Deposit will affect the Loan and Advances. If there is an increase in Total Deposit, there will be positive increase in Loan and Advances and vice versa.

Calculation of Probable Error (P.E.):

P.E. = 0.6745 × $\frac{1-r^2}{\sqrt{N}}$

P.E. = 0.6745 × $\frac{1-(0.99149)^2}{\sqrt{6}}$

P.E. = 0.6745 × $\frac{1-0.98305}{2.449}$

P.E. = 0.6745 × $\frac{0.01695}{2.449}$

P.E. = 0.6745× 0.00692

P.E. = 0.00467

The calculated P.E. is 0.00467.Hence, r=0.99149 >P.E=0.00467.

The correlation(r) is more than 0.5 as well as 6 times more of the standard probable error which is considered as significant. Here, we can conclude that there is highly positive correlation between Total Deposit and Loan and Advances of DD Bank.

3) Coefficient of Correlation between Interest Earned and Interest Paid

Interest Earned has played a very important role in the performance of the Bank. Coefficient of correlation between Interest Earned and Interest Paid measures the degree of relationship between the two variables. In this analysis, Interest Earned is independent variable(X) and Interest Paid is dependent variable (Y).The main objectives of comparing ‘r’ between these two variables is to justify whether Interest Earned is significantly used on Interest Paid and other sectors properly or not.

Table 4.18

Calculation of Coefficient of Correlation between Interest Earned and Interest Paid

(Rs. in Thousand)

Interest Earned(X)	**Interest Paid (Y)**	**X-$\bar{X}$**	**Y- $\bar{Y}$**	$(X-\overline{X})^2$	$(Y-\overline{Y})^2$	**(X-$\bar{X}$) (Y-$\bar{Y}$)**
8,083	3,469	-14,924	-6,050	222,725,776	36,602,500	90,290,200
14,358	5,700	-8,649	-3,819	74,805,201	14,584,761	33,030,531
17,298	8,290	-5,709	-1,229	325,592,681	1,510,442	7,016,361
26,976	14,101	3,969	4,582	15,752,961	20,947,704	18,185,958
31,180	11,174	8,173	1,655	66,797,929	2,739,025	13,526,315
40,145	14,380	17,138	4,861	293,711,044	23,629,321	83,307,818
$\sum X$ =138,040	$\sum Y$ =57,114			$\sum(X-\overline{X})^2 =$ 706,385,592	$\sum(Y-\overline{Y})^2$ =100,060,772	$\sum(X-\bar{X})(Y-\bar{Y})$ =245,357,183

$\overline{X}= \frac{\sum X}{N}= \frac{138,040}{6}= 23,006.67= 23,007$

$\overline{Y}=\frac{\sum Y}{N} = \frac{57,114}{6}= 9,519$

$\sigma_x=\sqrt{\frac{\sum(X-\overline{X})^2}{n}}=\sqrt{\frac{706,385,592}{6}}= \sqrt{117,730,932}= 10,850.389$

$\sigma_y=\sqrt{\frac{\sum(Y-\overline{Y})^2}{n}}=\sqrt{\frac{100,060,772}{6}}= \sqrt{16,676,795.33}= 4,083.723$

$\text{Cov}(X, Y) =\frac{\sum(X-\overline{X})(Y-\overline{Y})}{n}= \frac{245,357,183}{6}= 40,892,863.83$

$\text{Correlation}(r) =\frac{\text{Cov}(X,Y)}{\sigma_x \sigma_y}= \frac{514,108,005.7}{10,850.389 \times 4,083.723}= \frac{40,892,863.83}{44,309,983.12}= 0.92288$

The above calculation shows the correlation is 0.92288. Thus there is a positive correlation between Interest Earned and Interest Paid of DD Bank. It is nearly perfectly positive state, which shows that with every change in Total Assets; here will be positive increase in Interest Earned and Interest Paid and vice versa.

Calculation of Probable Error (P.E.):

P.E. = $0.6745 \times \frac{1-r^2}{\sqrt{N}}$

P.E. = $0.6745 \times \frac{1-(0.92288)^2}{\sqrt{6}}$

P.E. = $0.6745 \times \frac{1-0.85171}{2.449}$

P.E. = $0.6745 \times \frac{0.14829}{2.449}$

P.E. = 0.6745 × 0.06055

P.E. = 0.04084

The calculated P.E. is 0.26454.Hence, r=0.92288>P.E=0.04084.

The correlation(r) is more than 0.5as well as 6 times more of the standard probable error which is considered as significant. Here, we can conclude that there is highly positive correlation between Interest Earned and Interest Paid of DD Bank.

4.2.3 Regression Analysis

Under this chapter Regression Analysis is used to find out the trend analysis between Net Profit and Total Assets, Net profit and Total Deposit and Net Profit and Loan and Advance.

1) Regression Analysis between Net Profit and Total Assets

One of the most powerful statistical tools to explain the relation ship between two or more variables is undoubtedly Regression Analysis. This tool is employed here to determine within the variable of Total asset is related with Net Profit. Here, two variable Total Asset (X) and Net Profit (Y) are assumed as independent and dependent variable respectively.

Table 4.19

Regression Analysis between Net Profit and Total Assets

(Rs. in Thousand)

Fiscal Year (FY)	Total Assets (X)	Net Profit (Y)	XY	X^2
2058/2059	48,387	606	29,332,522	2,341,301,769
2059/2060	82,483	772	63,676876	6,803,445,289
2060/2061	139,429	1,077	150,165,033	1,944,044,604
2061/2062	185,852	3,213	597,142,476	345,409,659
2062/2063	333,401	3,088	1,029,542,288	1,111,562,268
2063/2064	334,060	2,899	968,439,940	1,115,960,836
Total	∑X =1,123,612	∑Y =11,655	∑XY =2,838,289,135	$\sum x^2$ =1,366,172,443

$\overline{X} = \frac{\sum X}{N} = \frac{1,123,612}{6}$= 187,268.67= 187,268

$\overline{Y} = \frac{\sum Y}{N} = \frac{11,658,086.22}{6}$= 1,942.5= 1,943

Calculation of a,

a= $\overline{Y}$- b$\overline{X}$

a= 1,943- b 187,268----------- (Equation no. 1)

Calculation of b,

$$b= \frac{N\sum XY-\sum X\sum Y}{N\sum X^2-(\sum X)^2}$$

$$b= \frac{6\times 2,838,289,135-1,123,612\times 11,655}{6\times 1,366,172,443-(1,123,612)^2}$$

$$b= \frac{1,702,973,481-1,309,569,786}{8,197,034,658-1,262,503,927}$$

$$b=\frac{393,403,695}{6,934,530,731}$$

b= 0.05673

Putting the value of b in equation no. 1, we have,

a= 1,943- b 187,268

a= 1,943- (0.05673) × 187,268

a= 1,943- 10,623.71

a= -8,680.71

The required equation is,

Y= a+ b X

Y= -8,680.71 + 0.05673 × X

Y= -8,680.71 + 0.05673 X

The above table shows the simple regression between Net profit and Total Asset of DD Bank. We found that the regression coefficient of beta (b) is positive, which indicates that changes in independent variable will affect the value of dependent variable positively.

The value of constant (a) indicate that the mean or average effect on dependent variable Net profit by (-8680.71).

2) Regression Analysis between Net Profit and Total Deposit

Regression Analysis explains the relationship between two or more variables respectively. This tool here is used to determine within the variable of Total Deposit is related with net profit. Here, two variables Total deposit (X) and Net profit (Y) are assumed as independent and dependent variable respectively,

Table 4.20

Regression Analysis between Net Profit and Total Deposit

(Rs. in Thousand)

Fiscal Year (FY)	Total Deposit (X)	Net Profit(Y)	XY	X^2
2058/2059	8,561	606	5,187,966	73,290,721
2059/2060	10,912	772	8,424,064	119,071,744
2060/2061	17,106	1,077	18,423,162	292,615,236
2061/2062	25,619	3,213	82,313,847	656,333,161
2062/2063	40,900	3,088	126,313,847	1,672,810,000
2063/2064	53,036	2,899	153,751,364	2,812,817,296
Total	$\sum X$ = 156,134	$\sum Y$ =11,655	$\sum XY$ =394,399,603	$\sum X^2$ =5,626,938,158

$\bar{X}= \frac{\sum X}{N} = \frac{156,134}{6}$= 26,022.33= 26,022

$\bar{Y}= \frac{\sum Y}{N} = \frac{11,655}{6}$= 1,942.5= 1943

Calculation of a,

a= $\bar{Y}$- b$\bar{X}$

a= 1,943- b 26,022 ----------- (Equation no. 1)

Calculation of b,

$b= \frac{N\sum XY - \sum X \sum Y}{N\sum X^2 - (\sum X)^2}$

$b= \frac{6 \times 394,399,603 - 156,134 \times 11,655}{6 \times 5,626,938,158 - (156,134)^2}$

$b= \frac{2,366,397,618 - 1,819,741,770}{3,376,162,895 - 2,437,782,596}$

$b= \frac{546,655,848}{938,380,299}$

b= 0.58255

Putting the value of b in equation no. 1, we have,

a= 1,943- b 26,022

a= 1,943- 0.58255× 26,022

a= 1,943- 15,519.18

a= -13,216.18

The required equation is

Y= a+ b X

Y= -13,216.18+ 0.58255 X

The above table shows the simple regression between Net profit and Total Deposit of DD Bank. We found that the regression coefficient of beta (b) is positive, which indicates that changes in independent variable will affect the value of dependent variable positively.

The value of constant (a) indicate that the mean or average effect on dependent variable Net profit by (-13,216.18).

3) Regression Analysis between Net Profit and Loan and Advance

We know that regression analysis explains the relationship between two or more variables. This tool is employed here to determine within the variable of loan and advance is related with net profit. Here two variable loan and advance(X) and Net profit (Y) are assumed as independent and dependent variable respectively.

Table 4.21

Regression Analysis between Net Profit and Loan and Advance

(Rs. in Thousand)

Fiscal Year (FY)	Loan and Advance (X)	Net Profit (Y)	XY	X^2
2058/2059	45,570	606	27,615,420	2,076,624,900
2059/2060	64,018	772	49,421,896	4,098,304,324
2060/2061	88,998	1,077	95,850,846	7,920,644,004
2061/2062	120,841	3,213	388,262,133	1,460,254,728
2062/2063	176,372	3,088	544,636,736	3,110,708,238
2063/2064	199,950	2,899	579,655,050	399,800,025
Total	$\sum X$ =695,749	$\sum Y$ =11,655	$\sum XY$ =1,685,442,081	$\sum X^2$ =1,906,633,622

$\bar{X} = \frac{\sum X}{N} = \frac{695,749}{6} =$ 115,958.17= 115,958

$\bar{Y} = \frac{\sum Y}{N} = \frac{11,655}{6} =$ 1,942.5= 1943

Calculation of a,

a= $\bar{Y}$- b$\bar{X}$

a= 1,943- b 115,958----------- (Equation no. 1)

Calculation of b,

$b = \frac{N\sum XY - \sum X \sum Y}{N\sum X^2 - (\sum X)^2}$

$b = \frac{6 \times 1,685,442,081 - 695,749 \times 11,655}{6 \times 1,906,633,622 - (695,749)^2}$

$b = \frac{1,011,265,249 - 8,108,954,595}{1,143,980,173 - 484,066,671}$

$b = \frac{-7,097,689,346}{659,913,502}$

b= -10.75548

Putting the value of b in equation no. 1, we have,

a= 1,943- b 115,958

a= 1,943- (-10.75548) × 187,269,246

a= 1,943+ 1,247,183.95

a= 1,249,126.95

The required equation is

Y= a+ b X

Y= 1,249,126.95 + (10.75548) X

Y= 1,249,126.95- 10.75548X

The above table shows the simple regression between Net profit and Loan and Advance of DD Bank. We found that the regression coefficient of beta (b) is negative, which indicates that changes in independent variable will affect the value of dependent variable inversely.

The value of constant (a) indicate that the mean or average effect on dependent variable Net profit by (1,249,126.95).

4.3 Major Findings

Based on the analysis data, the main findings are given below,

4.3.1 Liquidity Ratio

From the analysis of liquidity ratio, the following findings are categorized.

i. The bank is able to maintain its liquidity position to meet the daily cash requirement.
ii. It has maintained moderate investment policy on loan and advance.
iii. Overall the bank has indicated the unstable liquidity position as the data shown lower consistency.

4.3.2 From the analysis of various activity ratios, the following findings are categorized

i. Bank has strong position regarding the mobilization of borrowing loan and total deposit as loan and advances.

ii. Bank has normal position and decreasing trend regarding the mobilization of borrowing loan and total deposit as investment.

iii. The bank has average position towards the utilization of total assets on loan and advance.

4.3.3 Profitability Ratio

From the analysis of various profitability ratios the following findings can be categories as follows.

i. Return on equity is found unsatisfactory; as it has not efficient utilize its equity capitals.

ii. The ratio of total interest earned to total assets ratio is not satisfactory as it is decreasing of interest earned every year.

iii. The ratio of interest paid to total assets ratio is satisfactory position, as it seems to be successful to collect its total assets from less expensive sources.

iv. The ratio of interest earned to operating income shows the magnitude of interest income is high as the bank seems to be successful to mobilize interest bearing such as loan & advances and investment.

v. From the analysis of return on total assets ratio is found that the profitability with respect to financial resources investment of the bank assets is satisfactory as well as stable

vi. From the analysis of return on loan and advance ratio, it is found that the bank is not able to earn satisfactory income on loan and advances.

4.3.4 Statistical Analysis

Coefficient of correlation analysis between different variables, trend analysis, and regression analysis are used to achieve the objective of the study.

i. Coefficient of correlation between net profit and total deposit shows that their relationship is highly positive.
ii. Coefficient of correlation between total deposit and loan and advance shows that their relationship is highly positive.
iii. Coefficient of correlation between interest earned and interest paid shows that their relationship is highly positive.
iv. Regression analysis between net profit and total assets of DD bank we found that the regression coefficient of beta (b) is positive, which indicates that changes in independent variable, will affect the value of dependent variable positively.
v. Regression analysis between net profit and total deposit of DD bank we found that the regression coefficient of beta (b) is, positive which indicates that changes in independent variable will affect the value of dependent variable positively.
vi. Regression analysis between net profit and loan and advance of DD bank we found that the regression coefficient of beta (b) is, negative which indicates that changes in independent variable will affect the value of dependent variable inversely.
vii. Trend analysis of total deposit shows that the trend line is increasing simultaneously comparing with the trend line of actual data. This trend line also represents that the bank's members are in increasing trend and successful to mobilize the total deposit.
viii. Trend analysis of loan and advance represents that the trend of loan and advance of DD Bank is in very good condition and also shows that members are growing positively in the study period.

ix. Trend analysis of net profit shows that the net profit of DD Bank is in satisfactory condition and also reveals the fact that the bank is in stable condition which means that financial position of the bank is good and strong in period of study.

CHAPTER - V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

This study was conducted with a view to examine and evaluate the financial performance of DD Bank, which is working as microfinance in Nepal by providing the quality and banking services to poor segment of the society to address the poverty.

Global market condition, banking as become highly complex and sophisticated. Several banks, micro finance & finance company create threats and opportunities that have direct impact on the performance of the banks. Therefore, future is going to be more challenging than what it is today. The ultimate objective of the bank is to ensure sustainable financial services to poor families to increase their disposable income so that the income would be utilizes for the welfare and overall development of the family members, particularly women and their family, to escape from poverty. The bank program has been effective changing the social – economic life of poor, particularly increasing nutritional intake, increasing school enrolment, increasing family expenses in health, improving sanitation condition and increasing women access and control over resources there by increasing women participation in the decision making with in house and in the community. Financial analysis is the key for financial decision – making and for making plans and program before sophisticated forecasting and budgeting procedures.

The value of this approach is to from imitative relation, which can be used to diagnose strength and weakness in a bank's performance. Such analysis is considerable thing for the bank's common stock holder, investors and others financial policies of any concern are directly or indirectly influenced by the financial performance. Thesis, it is a base for a firm's survival, growth and expansion.

Financial performance of DD Bank is done on the basis of financial statement from 2058/059 to 2063/064. To approach the result, some financial and statistical tools have been used, As Financial tools; ratio analysis has been used massively. In the same way, some statistical tools such as coefficient of correlation analysis between different variables and trend analysis have been used to accomplish the objectives. This study is mainly based on the secondary data that have been first processed and analyzed. The bank is able to maintain its liquidity position to meet the daily cash requirement.

The bank has also maintained moderate investment policy on loan and advance. Overall the bank has indicated the unstable liquidity position as the data shown lower consistency. Bank has strong position regarding the mobilization of borrowing loan and total deposit as loan and advances.The bank is able to maintain its liquidity position to meet the daily cash requirement. The position and decreasing trend regarding the mobilization of borrowing loan and total deposit as investment .The bank’s average position towards the utilization of total assets on loan and advance. Return on equity is found unsatisfactory; as it has not efficient utilize its equity capitals. The ratio of total interest earned to total assets ratio is not satisfactory as it is decreasing of interest earned every year. The ratio of interest paid to total assets ratio is satisfactory position, as it seems to be successful to collect its total assets from less expensive sources. The ratio of interest earned to operating income shows the magnitude of interest income is high as the bank seems to be successful to mobilize interest bearing such as loan & advances and investment .From the analysis of return on total assets ratio is found that the profitability with respect to financial resources investment of the bank assets is satisfactory as well as stable. From the analysis of return on loan and advance ratio, it is found that the bank is not able to earn satisfactory income on loan and advances.

Trend analysis of total deposit shows that the trend line is increasing simultaneously comparing with the trend line of actual data. This trend line also represents that the bank's members are in increasing trend and successful to mobilize the total deposit. Trend analysis of loan and advance represents that the trend of loan and advance of DD Bank is in very good condition and also shows that members are growing positively in the study period. Trend analysis of net profit shows that the net profit of DD Bank is in satisfactory condition and also reveals the fact that the bank is in stable condition which means that financial position of the bank is good and strong in period of study. Coefficient of correlation between net profit and total deposit shows that their relationship is highly positive. Coefficient of correlation between total deposit and loan and advance shows that their relationship between is highly positive. Coefficient of correlation between interest earned and interest paid shows that their relationship is highly positive. Regression analysis between net profit and total assets of DD bank we found that the regression coefficient of beta (b) is positive, which indicates that changes in independent variable, will affect the value of dependent variable positively. Regression analysis between net profit and total deposit of DD bank we found that the regression coefficient of beta (b) is positive, which indicates that changes in independent variable, will affect the value of dependent variable positively. Regression analysis between net profit and loan and advance of DD bank we found that the regression coefficient of beta (b) is negative, which indicates that changes in independent variable, will affect the value of dependent variable inversely.

From the analysis of study we found that the bank's profitability and liquidity position is satisfactory. The bank's financial stability is also in better condition.

5.2 Conclusion

The study is conducted on DD Bank, Which is one of the micro-finance banks in Nepal. DD Bank has been maintaining a steady growth rate over this period. DD Bank earned a net profit is Rs. 6,305,320.97 for the fiscal year 2064/065 which is less than Rs.1,076, 730.64 compared to the same period in the previous fiscal year, DD Bank earned a operating income is Rs. 43,465,434.16 which is more than 9,085,486.05 compared to the same period in the previous fiscal year. DD Bank's total deposit and borrowing loan is Rs. 291,146,976.90 for the fiscal year 2063/064 which is less than Rs.7, 764,727.5 compared to the same period in the previous fiscal year.

The bank’s current ratio is below the normal standard (2:1) however we cannot conclude the liquidity position is poor as it is only quantitative measures not qualitative and the situation of the bank is quite different than that of general business enterprise. Cash and bank balance to current ratio is better as it shows the ability to manage borrowing loans and deposit withdraws from the members. Loan and advance to current assets ratio shows that the bank is successful to mobilize its current deposit and loan and advances. Cash and bank balance to borrowing loans and total deposit ratio shows that improves or executes modification on the satisfactory position. The bank has strong position regarding the mobilization of borrowing loans and total deposit on loan and advance and acquiring higher profit in FY 2059/060 to FY 2063/064. Loan and advance to total assets ratio represents that the bank’s mobilization of fund is very better condition. Return on equity ratio shows that the bank has been efficiently utilizing its equity capital. Interest earned to total assets ratio represents that the bank is not successful in earning interest income. Interest paid to total assets ratio shows that the bank is in good position from payment of interest point of view. Interest earned to operation income ratio shows that the bank has the satisfactory position regarding the mobilization of interest bearing assets. Return on total assets ratio shows that profitability with respect to financial resources investment of the bank asset is satisfactory. Return on loan advance ratio represents that the bank is not perfect able to earn loan and advances.

DD Bank provide financial services to low-income groups by a financially viable, technically competent and sustainable institution, which could attract private sector investment by commercialization of the services to increase disposable family income and improve social economic condition of the participation families.

The bank performs activities necessary for the growth of micro finance industry in Nepal. Access to financial services could help poor to come out of poverty by creating opportunity for the implementation of income generation program for better food, sound health, good education, hygienic shelter and clothing. The monetarism has been increased since liberalization policy taken by the government. On the other hand due to political crisis economic sectors have been damaged most of the projects have been withdrawn due to security problem.

5.3 Recommendations

A Clear financial picture of DD Bank can be viewed from all above presentation. Now some valuable a timely suggestions and recommendation can be advanced to overcome weakness, inefficiency, and to improve present financial position of the bank. On the basis of findings mentioned above some of recommendation have been drown as follows.

i. The bank is suggested to maintain to its liquidity position in normal standard i.e. 2:1 as the liquidity position is below the normal standard and also recommended to follow consistence liquidity policy.

ii. Group saving is of great importance in the rural economy. Though, the credit groups are supported to deposit a certain amount but there is need to adopt incremental approach, i.e., saving should be increased as income starts to increase from the programmed.

iii. All the general group members should be responsible for given Programmed timing but not only the chairman or manager of the group.

iv. The provision of loan disbursement to the women should be based upon the proper evaluation of the economic viability of the projects.

v. MFIs are helpful to poor to enable them to finance specific private income generation activities to increase their income. How ever, it is vitally important to ensure that the loans facilities provide to the poor are not utilized for consumption purpose. The actions of such borrowers if imitated by other poor people could produce a negative impact on the future growth of DD Bank. So, respective DD Bank is recommended to adopt proper monitoring evaluation and feed back mechanism.

vi. Regular supervision follows up program and awareness programs should be done in effective way to encourage the people to pay the loan and principle precisely in the various purpose of objective of the program.

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