

CHAPTER-ONE

INTRODUCTION

1.1 Background

Nepal is one of the least developed countries in the world. Majority of Nepalese population resides in rural areas holding the main occupation in agricultural sector. Agriculture is the mainstay of its economy which contributes about 40% of G.D.P More important, the sector provides employment to 80% of the total labor force. Thus, the importance of agricultural sector is inevitable, as it is strongly correlated with the development of overall economy. The high and sustainable overall economic growth of a country can be achieved through the development of agricultural and other economic sector for income and employment opportunities. They have little access to alternative employment opportunities. On the other hand, poverty is widespread problem of the country, low level of household incomes have led to low levels of saving. This has limited the scope of self financing of farm and off-farm employment and income generating activities. In this context, development of industrial sector is not possible until or unless it pays proper attention to the modernization and uplift of agriculture sector. And without industrial development, economic prosperity cannot be achieved. Thus, the growth performances of agricultural sector have one way or other affected the growth of overall economy.

Agricultural development is the major concern in the developing country like Nepal provides a source of lifeline to uplift the lifestyle of rural people. But, the availability of capital, mobilization of foreign and domestic savings, the state of technology, the productivity of labor, inadequate infrastructure etc. have adversely affected the growth performance of agricultural sector.

Viewing its great importance for creating congenial environment for production, employment generation and poverty alleviation, it is necessary to make strong the affected area by providing agricultural credit. Agricultural development bank Nepal (ADBN) was established in 1968 under the agricultural development Act 1967 A.D. in order to supply institutional credit in easy and accessible manner mainly for the agricultural sectors. It is a pioneer and leading institution in the sector of agricultural and rural financing interested to focus its activities towards uplifting the socio-economic condition of the large populace of the country through accessing the agricultural and rural credit needs extensively.

ADBN is a sole financial institution in the country executing its activities by the three major windows namely development financing, commercial banking and micro financing through small farmers development program and small farmers co-operative limited. Through these sectors, it is contributing more than 79 percent of institutional credit to the rural populace by strengthening its network in all geographical regions the mountains, the hills and the terai.

The ADBN operates as an autonomous body that has been controlled by the Ministry Of Finance. It has, in total, two billion rupees of an authorized capital, of which Rs. 1.44 billion is paid up capital. Of the total, the government owns 93.6 percent, and 2.1 percent belongs to Nepal Rasta Bank and individuals, and co-operatives owns 4.3 per cent.

The main sources of the ADBN are capital (6.5%), customer deposits (61.3%), external borrowings (14.5%), internal borrowings (3.5%) and other (14.2%).

ADBN has been rendering services through 546 field offices scattered throughout the country. Agriculture development bank, Branch

Office, Dharan is one of the branch office operating under the Agricultural Development Act 1976 A.D.

1.2 Focus of the Study

Of the total economic activities, agriculture is the mainstay in Nepal as it is the main source of livelihood for majority of Nepalese People. A study carried out by NRB in 1994 revealed that large proportion of rural population are still depending upon informal credit where interest rate is exorbitant because only 20% rural population has access to formal credit out of which ADB Nepal covers 78%.

Agriculture accounts for 54% of household's income among which livestock, crops and horticulture contributes more than 90% of G.D.P. As the largest source of employment, the performance of this sector impacts upon the performance of overall economy from manufacturing, commerce and services.

Generally, there is a heavy interdependence between agriculture and other economic sectors. A systematic development in agriculture sector must be initial task for the growth of industrialization too because growth in such sector will lead to the improvement of other economic sector. This sector is a major supplier of required raw materials for various industries. Systematic agriculture development process helps to increase productivity and subsequently, there will be an increase in output and income in general. In this sense, improvement in the productivity of agriculture is one of the most solid means of promoting industrialization. That's why, it is necessary for the overall development of the undeveloped economy.

In agrarian societies, poverty is the main factory of economic backwardness which includes inaccessibility of credit, lack of opportunity, lack of material well being etc. poverty is 44% in rural

households and 23% in urban households of Nepal. Average land holding size in Nepal is less than one hectare farms. Being small farmers, they operate at subsistence level. In many cases, income originating only from agriculture activities is not enough for their livelihood. Farmers always face economic problems at the time of crop cultivation. They need money to buy seeds, fertilizers and other inputs. Institutional credit is available for crop cultivation but the process of borrowing is clumsy and length. Therefore, bigger share of credits comes from informal sources where the interest rate is unfavorable to crop growers. These sorts of situation discourage farmers from getting optimal level of the production. Thus the main objective of the economic development is to eliminate poverty by providing agriculture credit. Agriculture credit plays catalytic role in order to increase production of cereal crops, cash crops and horticulture crops by delivering credit for purchasing agricultural inputs. Thus, realizing the importance of a development bank in poverty reduction by providing agricultural credit, A.D.B. established in 1967 A.D., under the act of Agricultural Development Act 1967 A.D. Agricultural Development Bank has been providing agricultural credit since 1968 in rural areas extensively. In addition, it has disseminated development innovations improved technologies, credit information and socio-economic experiences from its publication since long time.

ADBN has huge network having more than 500 offices operating all over the country. The present study encompasses the analysis of financial performance of Agricultural Development Bank, Dharan Branch. The bank has been running its activities with respect to the objective of ADBN. To fulfill its objectives in sustainable manner, the bank needs adequate financial support. It is because only the financially strong institution can run and achieve its goals successfully. The

availability and proper utilization of resources (physical and financial) is considered one of the contributing factors for the success of institution.

“At present, financial sustainability and wide market intervention arise great challenges in the financial institution, hence, as the market oriented economy creates competition among each other against the monopoly market. So far, Nepal cannot get away from this economic ambience.” With view to compete with the present challenges of market lead economy, the bank has been providing major focus to extend its financial activities by promoting and strengthening loan investments activities on agricultural and non-agricultural sector.

In this regard, an attempt is made to assess the financial performance of the bank to know how far the bank is getting success to meet its objectives. How well the bank is utilizing its funds & what is the status of its financial capability.

1.3 Statement of the Problem

ADB Dharan has been imparting services through different development programs by ADBN. The bank specially works on loan investment sector. It has flown huge amount of loan in various purposes like cereal crops, marketing, agro-tools, irrigation, bio-gas, agro-business, cottage industry, horticulture etc. As, the bank is situated in Dharan, the demand of loan investment from non-agricultural sector exceeds the demand for agricultural loan investment.

The financial sustainability of the bank can be measured by the status of its activities towards loan investment, collection of principal, collection of interest, repayment rate, loan outstanding, overdue loan, interest receivable, total expenses and available physical resources.

Timely repayment of loan is one of the major criteria for successful operation of the bank.

This study focuses on analyzing the financial performance of the bank. In this regard, the data and information collected about the financial performance of the bank has been analyzed.

The bank has been successfully working on its targeted goal. Despite its praiseworthy progress in financial viability and sustainability, still, the bank has been encountering the problem like low repayment rate, overdue loan and interest receivable etc. the reasons behind the problems are due to the lack of sufficient income to pay the interest, amount not invested in project weakness of collateral, insufficient income made by the business/project itself and exceptionally unwillingness to pay the loan etc.

To get rid of above circumstances, the bank has adopted the Reform program 1997. The Reform measures i.e. monthly interest collection, client security fund and loan restructuring program have collectively contributed to augment collection performance, internal resource mobilization capability and quality of loan portfolio. However, the effectiveness of monthly interest collection and loan collection has not been met as per the targeted goal.

Therefore, it is most necessary to analyze the bank's financial performance so that corrective measures can be applied for the improvement of its current operation and for its perpetual growth and development.

1.4 Objective of the Study

The general objective of this study is to analyze the financial performance of the bank. The study has been mainly concentrated in assessing the various relevant factors to check the appropriateness of its financial activities. However, the specific objectives of the study are as follows:-

1. To examine critically the financial position and performance of Bank
2. To find out the extent of credit policy and types of credit provided.
3. To assess the liquidity position.
4. To analyze the profitability of bank.
5. To study and evaluate the capital structure.
6. To find out the information about the financial strength and weaknesses on the basis of investment and return pattern.
7. To analyze the bank's assets, liabilities, operating return and other relevant factors for the detail analysis of bank's economic condition.
8. To examine the correlation between investment and principal collection, principal collection and interest collection, loan investment and interest collection in a particular year.

1.5 Need of the Study

This study is all about the analysis of Financial performance of the bank and the necessity behind this study lies in the fact that it shows the clear picture of financial viability and sustainability (health) of the bank on the basis of several indicators like loan repayment rate, loan investment, principal and interest collection, available physical resources, total expenses and total income etc.

Financial performance of any institution is the key factor for measuring its success and failure. Moreover, this is the attempt based on cross sectional data which deals with the factors governing (related to) the financial performance of the bank with the help of descriptive and inferential analysis. This study will help to find out the strengths and weakness of the bank and would be helpful in taking appropriate measures to improve the weakness in order to continue its financial viability in future.

Furthermore, this study may be more applicable to the bank's stakeholders like shareholders, creditors and management and long with the regulating authority e.g. Government. Again, this study may be helpful to the forthcoming analysts on the same field.

1.6 Limitation of the Study

Every study has certain limitations. This study is not far from the limitations. The study cannot be done extensively because of time and resource constraints. The following limitations are pointed out while conducting the research study of the bank.

1. It is based on only five years date from 2061/62 B.S. to 2065/66 B.S. Therefore, it may not be sufficient to draw the latest conclusion.
2. The major financial statements like Balance sheet, Income statements etc. as well as questionnaire, data, suggestion, etc have been taken into consideration to conduct this research study.
3. This study is confined to analyze the financial performance of the bank.
4. This study is restricted to the Agricultural Development Bank, Branch Office, Dharan.

5. This study mainly focuses the numerical tools to analyze the financial performance.

1.7 Organization of the Study

This study mainly focuses on the evaluation of financial performance of Agriculture Development Bank Dharan. Financial analysis provides information regarding the financial condition of any institution, that's why it is a complex task and should be organized properly. Thus, this study has been organized in five chapters:-

Introduction

It is introduction chapter. In this chapter, background of the study, focus of the study, statement of problem, objective of the study, significance of the study and limitations of the study are included.

Review of literature

This chapter includes review of past studies relation to the same kinds of studies. It consist the theoretical review about the financial statement, financial analysis, various tools use in financial analysis etc.

Research methodology

This chapter includes research design, population and sample of the study, sources of data, data collection techniques, data analysis tools and limitation of the methodology.

Presentation and analysis of data

This chapter is a major part of the study which includes the presentation of various data and analysis of them using various financial

and statistical tools and techniques. In this chapter, major findings of the study are also included.

Summary, conclusion and recommendation

This is the last chapter which consist summary of the research study, conclusion take out from the study and finally recommendation to the organization for perpetual growth and success.

CHAPTER-TWO

REVIEW OF LITERATURE

Literature review is to read available materials related to research topic. It is a way to discover what other research in the area of our problem has uncovered. It is also a way to avoid investigating problems that have already been definitely answered. Review of literature begins with a search for a suitable topic and continues throughout the duration of the research work. The purpose of literature review is to find out what research studies have been conducted in one's chosen field of study and what remains to be done. It minimizes the risk of pursuing same problems that have already been answered or discussed and increases the chances of new contribution to the field. *The main purpose of reviewing the literature is to develop some expertise in one's area to see what new contribution can be made and to receive some ideas for developing a research designs* (Wolff & Pant, 2002, P 34).

Review of previous studies provides the foundation for developing a comprehensive theoretical framework from which hypothesis can be developed for testing. It also minimizes the risk of pursuing dead-ends in research.

In the course of reviewing the literature, various books, journals, articles, various literature, rules, regulations and policies on the subject matter have been used.

This Chapter has the following two sub- chapters.

2.1 Conceptual Review

This review focuses on the factors which affect the financial position and performance of the Agricultural Development Bank.

2.1.1 Financial Performance

Financial performance is that managerial activity which has concern with the planning, raising, controlling and administrating of financial resource of an enterprise. Again, it is basically concern with analysis of financial statement of an enterprise by using different tools and techniques.

Financial performance is not only the evaluation of financial condition but also the evaluation of planning and it helps to improve the planning in future. The real picture of financial performance mainly depends upon the past, present and anticipated profit and current financial position of an enterprise. Thus, the financial performance prefers to treatment of the information confined in the financial statement to afford a full diagnosis of profitability and financial position of the concern/enterprise.

Financial analysis is the process of indentifying the financial strength and weakness of the firm by properly establishing relationship between the items of the balance sheet and the profit and loss account (Pandey, 1991, P 19).

Management should be particularly interested in knowing the financial strength of the firm to make their best use and to be able to spot out the financial weakness of the firm to take suitable corrective action. The future plans of the firm should be laid down in view of the firm's financial strength and weakness (Pandey, 1983, P 89).

In fact the better financial performance means to generate the reasonable profit by giving high quality of goods and service offered of the consumer/concern parties.

An effective financial performance is that which has management effectiveness by the return generated investment, the firm's ability to maintain its economy to use the proper advantage and to take corrective action of the financial strength and weakness.

The strength must be understood if they are to be used to proper advantage and the weakness must be recognized if corrective action is to be taken.

2.1.2 Financial Management

Financial management is the management of the flow of money and any credit instrument in an organization whether it is corporation, school, enterprises, bank or government agency. The successful financial management of an organization is beneficial to customer, employees, investors and general public.

The term financial management connotes that the funds flow are directed according to some plan: it is with managing the flow of fund within the firm (Van Horn, 1984, P 2).

Financial management is that managerial activity which is concern with the planning controlling of the firm's financial resources (Pandey, 1991).

The financial management is a business activity which is concerned with the acquisition and utilization of capital funds in meeting

the financial needs and overall objectives of the business organization. It stresses the analytical approach for solving the financial problems. It is considered as an integral part of overall management and decision of each and every functional area as contribution to achieve the financial objective of the business organization.

The function and scope of financial management covers the three major decision making areas, which are:

- (1) The investment decision
- (2) The financial decision and
- (3) The divided decision

These above financial decision are not sequential: they are performed by the firm simultaneously and continuously. Thus, the process of raising fund, investing them in the required assets is the key point of the financial management.

2.1.3 Financial Statement

The organized summary of detailed information about financial position and performances of a concern is known as the financial statement. The financial statements are annual documents prepared by the organization at the end of accounting period. They are prepared for periodical review on the progress made and results achieved during the period under review.

It includes profit and loss account or income statement and balance sheet. Profit and loss account indicates the results of operation for a particular period and balance sheet indicate the financial position regarding assets, total payable, and capital. Financial statements generally provide the following information.

- ✓ Whether earning is adequate to attract the potential investors to invest.
- ✓ Whether the sales/service is profitable or not.
- ✓ Liquidity position of the organization/Concern.

Financial statements are historical documents and relate to a past period and are expressed in financial or monetary terms to indicate the financial position in terms of assets and liabilities through balance sheet. The basic objective of the financial statements is to supply meaningful financial information to those who have a need of it and legitimate interest and right to have such information for decision making.

The Financial statement provides a summary of the accounts of a business enterprise, the balance sheet reflecting the assets, liabilities and capital as of a certain date and the income statement showing the results of operations during a certain period (Myer, 1974, P 95).

Financial statements attempt to do several things. First, they portray the assets and liabilities of a business firm at a moment in time, usually at the end of a year. This portrayal is known as the balance sheet. On the other hand, an income statement portrays the revenues, expenses, taxes and profit of the firm of a particular period of time, again usually a year. While the balance sheet represents a snapshot of the firm's financial position at a movement in time, the income statement depicts its profitability over time (Van Horne, 1984).

As above discussions, the nature of financial statements can be stated below.

1. Financial statements are prepared by the organization for periodical review on the progress made by the management.

2. These reports are prepared at the end of the accounting period so that various parties may take decisions of their future actions in respect of the relationship with the business.
3. These are reports or summarized reviews about the performance achievements and weaknesses of the enterprise.
4. The reliability of financial statements depends on the reliability of accounting data.
5. The figures in the financial statements are combination of recorded facts.
6. These statements are prepared as per accounting concept and conventions.

The most commonly used financial statements which are prepared for providing reliable information to internal and external stakeholders can be discussed as below:

2.1.3.1 Income Statement

An income statement shows the net result of the business operations during an accounting period. It may include manufacturing and trading account, profit and loss account and profit and loss appropriation account. An income statement presents the summary of revenues, expenses and net income or net loss of a firm.

Income statement basically provides information on the various revenue and expenses items during a certain period. This statement shows the total income generated in a certain period and the expense made by the firm on that date.

The income statement/profit and loss account of a firm reports the result of operations in terms of income/net profit in a year (Khan & Jain, 2000, P 2.8).

The amount received in the ordinary courses of a business is known as revenue income. It is the income earned from selling merchandise or in the form of discount, commission, interest, transfer fees etc. Expenses are generally states as amount spent for earning of income. Expenses occur when assets are consumed or liabilities are increased in order to generate revenue. In other words, the cost of economic resources spend to earn revenues during the period are called expenses.

2.1.3.2 Balance Sheet

The balance sheet is a most significant financial statement. It is a statement of assets and liabilities and indicates the financial position of the firm at a particular moment of time. It contains information about economic resources and obligations of the business and owners interests in the business. In term of accounting, the balance sheet communicates about the financial position of the firm at the end of the accounting period (Munakarmi, 2000, P 460).

The balance sheet is prepared at the end of accounting period and after completing the preparation of trading and profit and loss account. It is the statement of balances of ledger account which are not included in income statement. The Balance sheet is a significant financial statement. In fact, it is called the fundamental accounting report. Balance sheet provides the value of firm's assets (what the firm owns), liabilities (what the firm owes to outsiders) and equity (what the inside shareholders or owners

own) on a particular date. The value of assets will equal the value of liabilities plus owner's equity.

Assets refer to tangible objects or intangible rights owned by enterprises and carrying probable future benefits. Assets are also termed as economic resources owned by an enterprise. Assets include current assets (ex. Cash, marketable securities, account receivable, inventory, prepaid expenses) that are more liquid than the long term fixed assets (ex. Furniture, machine, equipment, land). Assets that are intangibles and yet valuables (ex. Goodwill, patents).

Liabilities refer to the economic obligation to be payable in cash or provided in goods or services in sometime future. Liabilities include current liabilities (ex. Bank, advances, income tax payable, account payable, accrued expenses), long term debts (ex. Bonds, capital leases), retained earnings, foreign currency transaction adjustment.

2.1.4 Financial Statement Analysis and Interpretation

Analysis of Financial statements means a study of relationship among the various mass data of financial factors. It is a process of classifying and arranging mass data of financial statement. For obtaining a better understanding of the position of a business and its performance, classifying and arranging are needed. It is a systematic study and analysis of financial statements like balance sheet, income statement, and cash flow statement etc. of the firm.

In fact *analysis of financial statement is a process of evaluating the relationship between the component parts of the financial statements to obtain better understanding of a firm's position and performance* (Munakarmi, 2000, P 3.4).

The major purpose of financial analysis is to get the detail knowledge of financial/economic condition of an organization or financial statement analysis is carried out with the objectives of measuring profitability, liquidity and safety. Profitability is the ability to earn a rate of return on the owner's investment. Liquidity is the ability to meet anticipated and unanticipated demands for funds. Safety of the organization is ultimately interpreted in terms of ability to cover all costs and meet all obligations. When studying financial statement, safety is evaluated by looking credit quality and capital adequacy.

The analysis of financial statements is done to obtain a better insight into a firm's position and performance (Munakarmi, 2057/2000, P 3.4).

In this sense, financial analysis is the process of critically examining the detail accounting information given in the financial statement. For the purpose of analysis individual items are studied, their interrelationship with other related figures established, the data is rearranged to have better understanding of the information with the help of different techniques or tools. Financial statements often do not tell us everything we want to know about profitability, liquidity and safety, but they provide important insights.

The analysis is helpful in ruling out problems and identifying potential sources of problems.

The results of the analysis must be interpreted in light of knowledge about the meaning of a particular measure and the overall conditions at the time. Financial statement analysis is particularly useful

in calling attention to potential problems areas that need further examination.

There are different users of financial statements. They look at the same financial statements from different angles. The analysis of bank statement is undertaken by analysts, depositors, regulating authorities, stockholders, borrowers, the bank management and authors of books. Management is interested in analysis of financial statements for measuring the effectiveness of its own policies and decisions.

It also analyzes the financial statement to know short and long term solvency position, profitability in relation to turn over and investment and liquidity position of the institution.

Depositors are interested to know the solvency position of the bank. They analyze the financial statement to know about the safety of their fund and the ability of the firm to pay interest and repayment of principal amount on due date. Shareholders or owners are interested in analysis of financial statements to know the operating profitability and the growth potentiality. The regulating authorities are interested in analysis of financial statement to assure themselves that bank are operating in accordance with the requirements of the law and are in sound financial condition. The borrower is interested in knowing the extent of available funds and the use that is made of the bank's resources.

Financial analysis is the process of identifying the financial strength and weakness of the firm by properly establishing relationship between the items of financial statements i.e. Balance Sheet and Income Statement (Pandey, 1991, P 109).

Financial statement analysis goes beyond simply reading financial statement to measuring key relationships. One way to measure relationship is to put financial statement on a common size basis with all income statement and balance sheet items restated as percentage of total assets. Another appropriate is to computer key ratios, such as the ratio of net income to owner's equity.

While analyzing, the financial statements trend for single company can be studied and the performance for one company can be compared to that of others. A person analyzing financial statement is like a doctor conducting diagnostic tests. After analysis of financial statement, its interpretation is most necessary. Interpretation is impossible without interpretation analysis has no value.

As part of the interpretation, the company's performance can be compared to that of other company or trends for the same company can be studied.

Analysis refers to the process of fact finding the breaking down complex set of figures into simple components while interpretation status for explaining the real significance of these simplified components. Thus, interpretation acts as a bridge between the art of recording and reporting financial information and the acts of using this information.

The most important objectives of the interpretation of financial statements data are to know the strength and weakness of the business undertaking so that a forecast may be made of the future prospects of the business undertaking.

2.1.4.1 Objectives of Financial Analysis

The major objectives of analysis of financial statements are:

1. To ascertain its earning capacity as well prediction relating to its future earnings.
2. To evaluate the short term and long term solvency position of the concern for the benefit of the bondholders and trade creditors.
3. To ascertain the financial strength and soundness of business.
4. To ascertain the efficiency of the plans and policies made by management.
5. To help and management in order to make a comparative study of different firms engaged in same business.
6. To assess financial performance of the firm.
7. To know the trend of business, profit and earning capacity etc.

2.1.4.2 Importance of Financial Analysis

The importance of financial analysis can be stated as below:

- i) It measures the firm's liquidity, profitability and solvency position of the firm.
- ii) It is important to assess the firm's operating efficiency, financial position and performance.
- iii) It is helpful to fulfill the objectives and interest of short-term creditors, present and potential investors, long-term creditors, management and regulating authorities.

2.1.4.3 Limitations of Financial Statements Analysis

Analysis of financial statements suffers from the following limitations.

- 1) Financial analysis fails to disclose the current worth of the enterprise. Financial analysis is based on financial statement which record historical facts. They do not record the changes in the price level.
- 2) Financial analysis is based on facts and figures contained on financial statements. Hence the limitations of financial statements such as influence of personal judgment, disclosure of monetary facts only are also the limitations of financial analysis.

2.1.5 Tools & Techniques of Financial Analysis

Financial analysis is done by using various tools and techniques and major of them are:

1. Ratio analysis
2. Cash flow analysis
3. Net working capital analysis
4. Correlation analysis
5. Trend analysis
6. Common size financial statement

2.1.5.1 Ratio Analysis

Ratio Analysis is regarded as most powerful tool of financial analysis. To evaluate the financial condition and performance of a firm, the financial analyst needs certain yardsticks. In financial analysis, ratio is used as an index of yardstick for evaluating the financial position and

performance of the firm. It is a technique of analysis and interpretation of financial statements.

Ratio is the expression of one figure in terms of another. It is the expression of the relationship between the mutually independent figures. According to Wixon, Kell and Bedford *A ratio is an expression of the quantitative relationship between two items or variables*. Ratio analysis is powerful tool of the financial analysis. A ratio is simply one number expressed in terms of another. It is found by dividing one number the base into others.

In financial analysis, ratio is used as an index of yardstick for evaluating the financial position and performance of the firm. (Munakarmi, 2000, P 3.8).

Ratio analysis can be defined as an analysis of financial statements with the help of ratios. It helps in making decisions as it helps establishing relationship between various ratios and interpret thereon.

It helps analysts to make quantitative judgment about the financial position and performance of the firm. The rationale is of ratio analysis in the fact that it makes related information comparable. A single figure by itself has no meaning but when expressed in terms of a related figure, it yields significant inferences.

The analysis of financial ratio involves comparison with the ratios of same concern over a period of years to know upward or downward trend or static position to help in estimating the future or comparison of calculated ratio with the ratios of another firm in same line or with industry averages at the same point in time. Such comparison gives insight to the relative financial condition and performance of the firm.

Ratio analysis used financial report and data and summaries the key relationship in order to appraise financial performance.

Generally, ratios are calculated from the financial statements by the parties such as creditors, investors, financial statements by the parties such as creditors, investors, financial institutions by management of the firm to know their field of interest.

These are various types of ratios which are used by different parties for different purposes. We concentrate only on the more important ratios as per the need of the study analysis. In the broad category, ratio can be classified as:-

1. Liquidity ratio
2. Leverage ratio
3. Profitability ratio
4. Activity ratio

Liquidity ratio measures the ability of a firm to meet its short term obligations. It reflects the short term financial strength of the business. These ratios are used to know the capacity of the concern to replay its short term liability. Liquidity is probably the most difficult aspect of the financial performances of a financial institution to measure from the published financial statement. The ratios, which indicate the liquidity of a firm, are (1) Current ratio (2) Acid test/Quick ratio (3) Stock turnover ratio (4) Debtors turnover ratio.

Leverage/Capital structure ratios are the second category of financial ratio. The leverage ratios are calculated to judge the long term financial position of a firm. These ratios measure the enterprises ability to pay the interest regularly and to repay the principal on maturity. In fact

leverage capital structure ratio refers to the financial ratios which throw light on the long-term creditors with regard to (a) Ability to repay the principal when due and (b) Regular payment of the interest. Leverage ratio includes ratios like (1) Debt equity ratio (2) Debt asset ratio (3) Interest coverage ratio (4) Fixed charges coverage ratio.

Profitability ratio related to profit of the business. Profit is essential for the survival of the business, so it is regarded as the engine that drives the business and indicates economic progress. The profit is also important to preserve the existence of business as well as strengthen and expand it. Profitability ratios are calculated to measure by profitability ratio. Profitability is ultimately measured in terms of the rate of return earned by equity investors who are the owners of the business. Profitability can be measured as the discount rate that makes the present value of all future cash benefits equal to the amount invested. This rate of return does not reflect the performance of the company, though it reflects the discount rate investors apply to future cash flows in determining a price for the company stock. Profitability ratio can be determined on the basis of either sales or investments. The profitability ratios in relation to sales are (1) Gross profit (2) Net profit ratio (3) Operating ratio. Profitability ratio in relating to investment is measured by (1) Return on capital employed (2) Return on assets (3) Return on shareholders' equity.

Activity ratios are concerned with measuring the efficiency in assets management. These ratios are also called efficiency performance or assets utilization ratios. Turnover is the primary mode for measuring the extent of efficient employment of assets by relating the assets to sales. The greater rate of turnover or conversion, the more efficient is the utilization management. Some of the important activity ratios are (1)

Capital turnover ratio (2) Fixed asset turnover ratio (3) Working capital turnover ratio (4) Debtor turnover ratio (5) Creditor turnover ratio (6) stock turnover ratio (7) Total asset turnover.

It is mostly noted that the activities ratio (ratio relating to sales) are basically applicable to manufacturing organization i.e. it is not applicable to service organization like banking sector.

2.1.5.1.1 Ratio Technique in Credit Appraisal

In the area of credit appraisal, the ratio technique is very important and used for measuring past performance and for projecting future trend. In modern credit analysis, ratio analysis is one integral part and final conclusions are drawn based on the ratio analysis also for credit decision. When Parties approach bank for credit limits, bankers must be satisfied about the financial health of the borrowers. The analysis of financial statement will disclose the pattern of working results and the financial structure. But the analysis of financial statements will be complete only with the study of ratio analysis. The banker uses ratio technique for following objectives:

- To judge the operating efficiency of the borrowers.
- To judge the financial health.
- To ensure safety and security of the advance.

The new approach to lending draws the attention of the banker to the fact that if the business is performing well with a sound financial health, bankers advance is sage and secured.

A banker is interested to know the following efficiency aspect of the borrowers business.

-) Efficiency of operational management
-) Efficiency of financial management
-) Efficiency of debt-service management

2.1.5.1.2 Importance of Ratio Analysis

Ratio analysis is an important and useful technique to check upon the efficiency of an organization. The management can arrive at important decisions by using ratio analysis. The ratio is used for expressing the mutual relation of different accounts consisting in the financial statement. Batty has rightly mentioned that ratios can assist management in its basic function of forecasting, planning, co-ordination, control and communication. Ratio analysis is useful to arrive at meaningful conclusions relating to liquidity, profitability, capital structure and locate systems of weaknesses and strengths. Following are the important uses of ratio analysis.

1. Ratio analysis simplifies the financial statements. It helps to understand the changes in the financial condition of the business.
2. Ratio analysis facilitates inter-firm comparison. It highlights the factors associated with successful and unsuccessful firms.
3. Ratio analysis makes possible the comparison of the performance of the different divisions of the firm. They also are helpful in deciding about the efficiency of the divisions in the past and likely performance in the future.
4. Ratio analysis help in planning and forecasting as the ratios may provide clues on trends and future problems.

5. Ratios are useful tools for evaluating the liquidity and solvency position of a concern. They point out the liquidity position of the organization to meet its short term and long term obligations.
6. Ratio can assist management in its basic functions like planning, forecasting, coordinating, control and communications.

2.1.5.1.3 Limitation of Ratio Analysis

The ratio analysis contributes a lot to portray the financial position of a business. But they suffer from various limitations. Some of the limitations of the ratio analysis are given below.

1. The results shown by ratio analysis are not fully dependable. It must be understood that ratios are only the symptoms. It requires further investigation for pinpointing the underlying factors.
2. Ratio analysis is a helpful tool to aid judgment in complex situation. It can never be substitute for sound judgment.
3. Ratio analysis is related to the quantitative analysis only but not with a qualitative analysis. It is ignored by ratio analysis.
4. Ratio analysis is related to financial statement. Financial statement itself is subject to limitations. This ratio analysis also suffers from the inherent weakness of the financial statement.
5. Changes in accounting procedure often make ratio analysis misleading.
6. A change in price level can seriously affect the validity of comparisons of ratios computed for different periods.
7. Ratios are means to achieve a particular and but not an end itself.

8. Ratios have to be interpreted and different people may interpret the same ratio in different ways. Hence, it totally depends upon the user as what conclusion he draws on the basis of ratio calculation.
9. Single ratio would not be able to convey anything. Calculation of too many ratios creates confusion instead of revealing meaningful conclusions.

2.1.5.2 Common Size Statement

The common size statement indicates the relationship of various items with some common items (expressed in percentage of common items). Generally, two common size statements are prepared while analyzing the firm's condition and operation i.e. common size balance sheet & common-size income statement.

Common size balance sheet discloses the relationship of each asset to total assets and each liability and capital item to total liabilities & capital or the common size balance sheets are yearend amounts divided by year-end total assets. The common size statement show how the company has changes proportions in its assets and liability structure. Comparison of the common size balance sheet of a single enterprise over the past year is very useful as the changing proportions in the components within the group.

Common size income statement is prepared with a view to express the various items in the statement as a percentage of total assets. The percentage so calculated can be easily compared with the corresponding percentage in other periods and meaningful conclusion can be done. Common size financial statements are useful in identifying trends in both

profitability and balance sheet structure. Additional insight can be gained by supplementing these data with certain key ratios.

2.1.5.3 Cash flow analysis

Cash is the lifeblood of business enterprise. It is the fuel that keeps a business alive. Without cash no activities can be taken place. So a business must have an adequate amount of cash to operate. The decision makers must pay close attention to the firm's cash position and events and transactions that affect/cause cash position to change. The analysis of the events and transactions that affect the cash position of the company is termed as cash flow analysis.

The movement of cash is of vital importance to the management. If the inflows of cash are not sufficient to meet the outflows, the firm will not be able to meet its current obligation. Management is interested to know about the movement of cash and availability of cash. And for this, the management has to use cash flow analysis. Profits are accounting measures that may not reflect the economic reality of the firm. Increasing profits will not always result in higher stock prices. Cash flow analysis not only recognizes the profit, it also measures the actual cash available for the firm. It is after all, the available cash not the profit that determines the firm's future investment and growth.

Cash flow analysis is done through statement of cash flow. A cash flow statement is a statement of company's ability to generate cash from various activities such as operating, investing, and financial and their need of cash. It is a statement which shows the inflows and outflows of cash and equivalents during the year.

A cash flow statement is defined as “*a statement of company’s ability to generate cash from various activities and their need of cash* (Munakarmi, 2000, P 3.2).

Cash flow statement concentrates on transactions that have direct impact on cash. It deals with the inflow and outflow of cash between two balance sheet dates. It provides information to the users of financial statement about the ability of the enterprise to utilize those cash flows.

Cash flow analysis is usually useful to the investor, creditors and management too. It helps the management to assess the liquidity of business to determine dividend policy, to evaluate the policies regarding investment and financing etc. Similarly, this statement is useful for investors and creditors in assessing the company’s ability to manage cash flows, to generate positive future cash flows, to pay dividend and interest etc. The importance and usefulness of cash flow statements is increasing day by day. In general the cash flow statement may help to answer the following questions:

- a) If a company operates at a profit, why is it continually short of cash?
- b) How can a company operate at a loss and still generate huge inflows of cash from operations?
- c) How was the company’s growth and expansion financed?
- d) Did the company acquire any long term investment or other income producing assets?
- e) Was financing obtained during the period through issuance of debt or equity securities? If so, what were the amounts of cash obtained?

- f) Did the company use cash to retire any long term debt or equity securities during the period?
- g) Are the company's incomes producing activities using more cash than they are generating?
- h) Do operating activities consistently generate enough cash to assure prompt payment of operating expenses, maturing liabilities, interest obligations and dividends?

The cash flow statement aims at providing information about a cash receipt and cash payment of a company during an accounting period. The statement would be useful in assessing the changes in the cash position of the company, and the reasons for variations in cash position.

It helps in evaluating the financial policies of the company and assists the firm in short term cash planning.

2.1.5.4 Trend Percentage Analysis

To overcome the major limitations of common-size statement (i.e. absence of basic standard to indicate whether the proportion of an item is normal or abnormal), trend analysis is made as a useful technique of financial statement analysis. Changes in financial statements between the periods can be easily studied by establishing a base year and expressing other years in terms of the base year. The trend percentage statement is an analytical device for condensing the absolute rupee data by comparative statement. It also indicates the degree of increase or decrease but they cannot indicate the cause of changes.

2.1.5.5 Networking Capital

Working capital is the finance required for meeting current needs of a business concern or industry it is a fund required for meeting day today operational requirements of an enterprise. It is concerned with current assets and current liabilities. Current assets are expected to be converted into cash within a short period and those liabilities which are expected to have been paid within a short period are non as current liabilities.

The term working capital refers to the investment made by a firm in short-term assets such as cash, marketable securities, account receivable and inventories. Net working capital is the amount by which the value of current assets exceeds the value of current liabilities. It is an excess of current assets over current liabilities and is the amount normally available to finance current operations. The amount of the working capital represents the net volume of current assets which are financed by long-term funds. The financial soundness of the business is judge on net working capital basis by creditors and investors. It is also used as a measure of liquidity position of the firm. The more net working capital a firm has, the greater its ability to satisfy creditors' demand. Working capital is required for operating cycle is the time duration required to convert sales (account receivable) into cash. So, working capital is required because of time gap between the sales and their actual realization in cash.

Any transactions that result in increase in working capital are a source of working capital. Any transaction that causes the net decrease in working capital is an application of working capital.

But, it is not so easy to estimate the amount of working capital required by the firm. The working capital requirement of a firm is closely related to the nature of business and length of operating cycle.

Insufficient working capital and over working capital is not favorable for the firm. Therefore, maintaining of adequate working capital is very much important for smooth function of business. Working capital has a certain cycle. Generally, the working capital cycle involves purchase of raw materials and stores its conversion into stock of finished goods through work-in-progress with progressive increment of labor and service cost, conversion of finished goods into sales, debtors, receivable and ultimately realization of cash.

2.2 Review of Previous Thesis

(1) The thesis entitled, *Financial Performance Analysis of Investment Bank and Nepal SBI Bank* was written by Miss Anita Khadka.

The basic objectives of the study are to analyzes the financial performance of two joint venture banks for the past five years and find out the causes of the high and low performance.

The study focuses on the comparative financial performance of Nepal Investment Bank Ltd and Nepal SBI Bank Ltd from the period of 2060 to 2066. In this study, to get knowledge about financial performance, mobilizing its capital fund, the earning capacity, efficient use of assets and proper utilization of funds are the attempts made. To identify the financial weakness and strength of two particular JVBs are the focuses of this study.

(2) The thesis entitled, *A Study on Financial Performance Analysis of Join Venture Banks and Financial Companies* was written by Mr. Ajay Bahadur Singh.

The main objective of the study is to generalize the financial performance of the selected finance companies and Banks of Nepal and their roles and interest rate in the economic development in the Nation.

This study focuses upon the examination of the financial performance of Banks and financial companies in terms of liquidity, activity, profitability, capital adequacy and growth ratios. It further examines, compare and interprets the financial position and performance of selected Banks and finance companies.

Every study has certain objectives and focuses and the researcher has also some objectives and focuses in this thesis. It is different then previous theses. It is focused upon the financial condition and evaluates various financial programs lunched. It further finds out the information about credit policy, type of credit provided, liquidity position, analyzes the economic condition through assets, liabilities, operating returns and other relevant factors and examines the correlation between related factors.

CHAPTER-THREE

RESEARCH METHODOLOGY

The Main objective of this study is to analyze financial performance of the Bank as well as it is concentrated in assessing the various relevant factors to check the appropriateness of its financial activities of bank. It requires an appropriate research methodology therefore; this chapter highlights the methodology adopted in the process of present study.

An appropriate choice of research methodology is a difficult work which is most necessary to support the study in realistic term with sound empirical analysis so that, the study uses the following research methodology regarding research design, population and sample of the study, source of data collection techniques, analysis tools of the data, ratio analysis, cash flow analysis, common-size statement, networking capital, mean/average, standard deviation, coefficient of variation, correlation analysis etc. these points are discussed in details in the following sub-section.

3.1.1 Research Design

To achieve the objectives of the present research, appropriate research design has been used. The present research design is a descriptive cum exploratory.

The basic aim of this study is to examine and access the financial performance of agriculture development bank, Dharan through the process of collection, evaluation, verification and analysis of data facts evaluation has been done on the basis of five years' performance form

2061/62 to 2065/66 B.S. This study totally depends upon the primary and secondary data.

3.1.2 Population and Sample of the Study

. The existing 31 commercial Banks are the population of the study. Among them, only an agriculture development bank, Dharan has been selected as a sample for the present study.

3.1.3 Sources of Data

Collection of data is the first step and considered as an integral part of research study. The data are collected primarily due to the realizations that better decisions are possible with more information. Data or information may be collected either from the primary source or secondary source. Data collected by the researcher or through agent for the first time from related field and possessing original character are known as primary source. On the other hand, data collected by someone else, used already and are made available to others in the form of published statistics are known as secondary data. Once primary data have been used, it loses its primary characteristics and becomes secondary.

This study basically depends upon the secondary data. The major secondary sources of data for this study are the annual audit reports published by the bank. And some other relevant information from various journals, banking, news, magazines and articles have been taken into consideration for this study. Along with during the course of research study, primary information for analysis have been directly collected through the direct visit, personal investigations, making questionnaire, taking suggestions, explanations etc.

3.1.4 Data Collection Techniques

This study is basically depends upon the secondary sources of data. The annual audit reports and some other relevant information from various journals, banking news, magazines and articles etc are taken as the secondary sources of data.

Although, while collecting data from secondary sources there exists less problem in comparison to the collection of data from primary source since the secondary data have been collected under a given set of definition of various terms and units used. However, before using secondary data for statistical investigation under study, it must be subjected to careful editing and scrutiny with respect of their reliability, Suitability and adequacy.

Thus the applicability of secondary data for this analysis has been tested in the following manner.

- a) Test of reliability
- b) Test of suitability
- c) Test of adequacy

The necessary data required for the analysis has been collected from more reliable sources. Annual report published by the bank is the main source of the secondary data for this analysis. While testing reliability of data, the following matters have been considered.

1. The reliability, integrity and experience of the selecting Institution.
2. The reliability of source of information and
3. The method used for the collection and analysis of data.

A mere reliable data may not sufficient for the purpose of the analysis/study. The available data must be suitable as per the objective, nature and scope of the analysis/study. To analyze the financial performance of concern/bank, some important financial statement like Profit & Loss Account, Balance Sheet and Cash Flow Statement have been taken as a suitable data.

Even if the secondary data are reliable and suitable in terms of various aspects, it may not be adequate for the purpose of the given study. To reach in the best conclusion, adequate data must be needed. In this study, past five years data (Income Statements, Balance Sheet) have been collected, arranged and tabulated for the analysis.

3.1.5 Analysis Tools of the Data

There are number of tools and techniques which will be used to analyze the bank's financial performance. All of the tools and techniques may not applicable at a time due to the nature, objectives, scope and availability of time and cost. Here, in this research study, some of the important tools and techniques have been used to measure the financial performance of Agricultural Development bank Dharan. These are:

A. Financial Tools:

- Ratio analysis
- Cash flow analysis
- Various comparative analyses

B. Statistical Tools

- Trend analysis
- Mean
- Standard deviation
- Correlation analysis

- T-test

3.1.5.1 Ratio Analysis

Ratio analysis is regarded as most powerful tool of financial analysis. In financial analysis, ratio is used as an index of yardstick for evaluating the financial position and performance of the firm. It is a technique of analysis and interpretation of financial statements. Ratio analysis can be defined as an analysis of financial statement with the help of the ratios. It helps analyst to make quantitative judgment about the financial position and performance of the firm as it helps establishing relationship between various ratios and interpret thereon. The rationale is of ratio analysis in the fact that it makes related information comparable, more meaningful. Ratio analysis is useful to arrive at meaningful conclusions relating to liquidity, profitability, capital structure and to locate systems of weakness and strengths of the firm.

There are different types of ratios such as Liquidity ratio, Profitability ratio, Leverage ratio & Activity ratio. In this study some important and relevant ratios, for the study, have been computed.

3.1.5.2 Cash Flow Analysis

Cash flow analysis deals with the inflow and outflow of cash between two dates. Cash flow analysis concentrates on transactions that have direct impact on cash. It deals with the inflow and outflow of cash between two balance sheet dates. It provides information to the users of financial statement about the ability of the enterprise to generate cash and cash equivalents and the needs of the enterprise to utilize those cash flows.

3.1.5.3 Common-size Statement

Common size financial statements indicate relationship of various items with some common items (expressed in percentage of common items). The percentage so calculated can be easily compared with the corresponding percentage in other periods and meaningful conclusion can be drawn.

3.1.5.4 Net Working Capital

Net working capital is the amount by which the value of current assets exceeds the value of current liabilities or it refers to the current assets less current liabilities. It is used as measure of liquidity position of the firm. The more net working capital a firm has, the greater its ability to satisfy creditors' demand. Working capital analysis helps to determining the optimal level of working capital for smooth functioning of organization/bank without any deficiencies.

Statistical methods/tools are the mathematical technique used to facilitate the analysis and interpretation of numerical data secured from groups of individuals or groups of observation from a single individual. The statistical analysis is one particular language, which describes the data in a simple way. By using statistical analysis, it is possible to talk about the relation and differences of variables "*with the help of statistical analysis of data, the results can be presented in brief and precise language and complex and complicated problems can be studied in very simple way*" (Joshi, 2059, P 134).

It becomes possible to convert abstract problems into figures and complex data in the forms of tables, generally, a satisfactory statistical tools unit should have four qualities which are 1) Appropriateness 2) Clarity 3) Measurability and 4) Comparability.

The popular and well accepted statistical tools are: Average/mean, Standard deviation, trend percentage analysis, co-efficient of variation.

3.1.5.5 Mean

Mean is the measures, which condense a huge data into a single value which represent the entire data and generally located at the central part. *Mean/average is a single value that represents a group of single value or it is a typical value that represents the entire mass of unwidely data* (Shrestha, 2053, P 01).

Mean is the typical values around which other items of the distribution congregate. They are the values which lie between the two extreme observation of distribution and gives us an idea about the concentration of the values in the central part of observation. The study of measure of central tendency enables us to locate the position or place of the distribution. There are five types of measure of central tendency/average which are: 1) Arithmetic Mean 2) Mean 3) Mode 4) Geometric Mean 5) Harmonic Mean.

Among the different types of average, geometric mean has been primarily used in this study. Because it is used to find the average percent increase in variables like profit, expenses, and other economic or business series.

3.1.5.6 Standard Deviation

Standard deviation is the most important and widely used measure of dispersion or variability and gives uniform, correct and stable results. The standard deviation is the square root of mean squared deviation of the observation from the arithmetic mean of the distribution. The standard deviation is also called *root mean squared deviation*.

The standard deviation is an absolute measure of dispersion. A small standard deviation indicates a high degree of uniformity or homogeneity of the data, a large standard deviation indicates just the opposite. Standard deviation is extremely useful in judging the representative of mean.

3.1.5.7 Coefficient of Variation

Co-efficient of Variation shows the relationship between standard deviation and mean or average. *Standard deviation is the absolute measure of dispersion. The relative measure of dispersion based on the standard deviation is known as the co-efficient of variation* (Bajracharya, P 180).

2.1.5.8 Trend Percentage Analysis

Trend percentage analysis is another statistical tool of financial analysis widely used for measuring changed over a period of time.

It enables us to study the general trend of the phenomenon under study. These can be easily studied by establishing a base year and expressing other year in terms of the base year. The trend percentage can also be presented in the form of index numbers showing relative change in the financial data of certain period.

3.1.5.9 Correlation Analysis

The correlation is a statistical tool which studies the relationship between the more variables. In other words, correlation is defined as the relationship (or association) between (among) the one dependent variable (S) or factor (S) and one (or more than one) independent variable (S) or factor (S) (Shrestha, Sunity & Silwal, 2057, P 315).

Two variables are said to be correlating if the change in variable result in a corresponding change in other variable. Or if the two (or more) variables so related that the change in the value (S) of one (or more) independent variable (S) result the change in the value of dependent variable then they are said to have *correlation*.

Correlation analysis is defined as the statistical technique which measures the degree and direction of relationship (or association) between/among the variables.

In other words, it helps in studying the covariance of two or more variables.

The correlation is a statistical tool which studies the relationship between two variables and correlation analysis involves various methods and techniques used for studying and measuring the extent of the relationship between the two variables (Gupta, 1998, P 10.1).

The concept of cause and effect relationship is most important in the study of correlation and regression analysis. The variable and the resulting variable are called *effect variable*.

There may be correlation in following situations.

- i) When one or more variables are causing one variable to change.
- ii) When same variables are affecting simultaneously.
- iii) If we cannot establish cause and effect relationship among them, correlation is calls "Nonsense correlation".

There are several types of correlation. But widely used correlation are 1) Positive and negative 2) Simple, partial and multiple and 3) Linear and non-linear. The most important method of measuring the correlation

between the two variables is *Karl Pearson's co-efficient of correlation*. This method of measuring correlation is also called *Pearsonian Coefficient of correlation*; it is denoted by the symbol r .

This is the mathematically method of measuring the degree of association between the two variables say X and Y .

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

Where, r = Karl Pearson's co - efficient of correlation

X & Y = Observed variables

\sum = Summation (total)

N = Number of observation

Interpretations:-

The value of r ranges from -1 to +1 i.e. $-1 < r < +1$. Following general rules are given which would help in interpreting the relationship between the two variables.

-) If $r = 0$, there is no relationship between the variables.
-) If $r < 0$, there is negative relationship between the variables.
-) If $r > 0$, there is positive relationship
-) If $r = +1$, the relationship is perfectly positive
-) If $r = -1$, the relationship is perfectly negative.

3.1.5.9.1 Probable Error

The significance of the correlation must be tested. The probable error of the coefficient of correlation helps in interpreting its value. The probable error of the correlation helps in interpreting its value. The

probable error of the correlation coefficient is applicable for the measurement of reliability of the computed value of the correlation coefficient (r).

If r is the observed correlation coefficient in a sample of N pairs of observations then its standard error is denoted by $S.E. (r)$ is given by,

$$S.E.(r) = \frac{1 - r^2}{\sqrt{N}}$$

Probable error of the correlation coefficient is given by,

$$P.E.(r) = 0.6745 \times S.E.(r)$$

Or,

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

The following guideline may be used.

- i) If $r < P.E. (r)$, the value of 'r' is not significant i.e. there is no evidence of correlation between the variables.
- ii) If $r > P.E. (r)$, the value of r is significant i.e. correlation is significant.

3.1.5.10 Testing of Hypothesis

One of the important applications of statistical inference is testing of hypothesis. *“In testing of hypothesis, assumption is made about the population parameter. To test whether the assumption or hypothesis is right or not, a sample is selected from the population, sample statistic is obtained, observe the difference between the sample mean and the population hypothesized value and test whether the difference is significant or insignificant. Smaller the difference, the sample mean is close to the hypothesized value, and, larger the difference the*

hypothesized value has low chance to be correct" (Shrestha, Sunity & Silwal, 2057).

3.1.5.10.1 Steps in testing hypothesis

) Null hypothesis

In hypothesis testing, a general way to start the process is to set the hypothesis and present it into a standard way. Setting up the null hypothesis is the initial part to start testing the hypothesis which states that there is no difference between the sample mean and population mean. It is denoted as H_0 .

) Alternative hypothesis

During the process, the sample evidence may lead to accept or reject the hypothesis. If the hypothesis is accepted, that mean, the hypothesized value is really true. But if the hypothesis is rejected, then alternative hypothesis should be set. And it is denoted as H_1 .

) Level of significance

The objective of hypothesis testing is not to question about the computed value of sample statistic, but the difference between the sample statistic and population parameter. After setting null and alternative hypothesis, next step is to decide the criteria to decide whether to accept or reject the null hypothesis. For this, a cut-off point is decided with the determination of level of significance. It is the percentage of sample means that is outside certain limit (confidence limit) when the hypothesis is correct. This limit is called the acceptance region. The region beyond the acceptance region is called the rejection region and the null hypothesis is rejected. The 5% rejection region on both sides is defined as the probability of rejecting the null hypothesis when it is true. This

rejection region is called the risk or the level of significance and is denoted as α .

3.1.5.11 Test of Hypothesis for Small Samples (t-distribution)

The small sample distribution is called t-distribution. The student's t-distribution states that if the sample size is less than 30, t-test is used to test the validity of our assumptions.

3.1.5.12 Test of significance of an observed correlation coefficient

The t-statistic also tests the significance of an observed correlation coefficient. From a vicariate normal population, if the observed correlation coefficient of population has to be tested as significant or insignificant (zero) i.e. the variables in the population are uncorrelated.

Hypothesis on correlation coefficient are set as follows:

H_0 : $\rho = 0$, the variable in the population are not correlated,
(i.e. correlation coefficient is insignificant)

H_1 : $\rho \neq 0$, the variables in the population are correlated,
(i.e. correlation coefficient is significant)

3.1.5.13 Limitation of Methodology

For every study, certain methodology has been applied. Similarly, for this study (Financial Performance analysis of ADB Dharan), some specific methodology has been adopted. Financial analysis is a complex topic which cannot be performed in a limit period and at a limit cost.

This study is based on only five years date i.e. 2058/59 B.S. to 2062/63 B.S Annual audit report of Agricultural Development Bank, Dharan has been taken as a major source of data. Only these audit report may not be fully reliable source of date. The collected data has been arranged, processed and manipulated to make easy for analyzing. The

effective analysis of financial performance of the bank basically depends upon the fact finding of the data. There are a number of tools and techniques for analyzing the financial performance of the bank. But because of inadequate data of inadequate data and time, only some of the common and well accepted tools like common size financial statement analysis, trend percentage analysis, net working capital, and cash flow analysis, ratio analysis along with some statistical tools like mean, standard deviation and correlation have been adopted for analysis of financial performance of the selected bank.

A mere numerical analysis may not give the best result about the financial performance of the bank. Again, the data received from annual report has been taken in the same form i.e., time value of money has been fully ignored. Similarly, only major two statements (i.e. P/L Account and B/S) are taken for analyzing the data. Further, this study does not compare the financial performance of the bank with the financial performance of another bank. It is based on horizontal analysis where the comparison has been made between past and present performance only. Finally, this study gives recommendation to the bank for its better future performance, which may not fully applicable to the bank in future environment.

CHAPTER-FOUR

PRESENTATION AND ANALYSIS OF DATA

4.1 Introduction

After acquiring the data from different sources, analysis of the data and the interpretation of the results are necessary. After data collection is completed, it is necessary to arrange, organize the raw data so that it makes some sense to the researcher and so that it can later be presented to the readers of the thesis.

"The main purpose of analyzing the data is to change it from an unprocessed form to an understandable presentation. The analysis of data consists of organizing, tabulating, performing statistical analysis and draw inferences" (Wolff & Panta, 1999)

The facts and figure collected are to be processed with a view to reducing them to manageable proportions. Thus the activities in data processing include editing, coding and classification of information. Editing implies checking and correcting the data gathered in a systematic way to ensure their accuracy and completeness. Coding is the process which includes identifying and categorizing of each response and refers to dividing of the data into different categories, classes, groups or heads for the purpose of convenient interpretation. It converts the mass data into manageable form. A good classification should have the characteristics of clarity, homogeneity, equality, purposefulness and accuracy.

Tabulation is the process of transforming classified data from data gathering tools to the tabular form in which they may be systematically examined. It is an orderly arrangement of data in columns and rows. In

tabulations data are arranged in the forms of tables for facilitation the statistical and mathematical operations.

Tabular form of data contains a large number of figures, which do not always appeal to the common man. The facts are presented in diagrams and graphs to overcome the figure. Diagrams are pleasant and appealing to the eyes and easier to understand.

In this way, collected data are presented and analyzed by using different types of methods and techniques. There are various methods and techniques like charts, figures and graphs which are commonly used in the presentation of the data. The analysis of data consists of organizing, tabulating and performing statistical analysis.

The collected data are analyzed by applying various statistical tools and techniques. Thus, the analysis of data, in general way, involves a number of related activities like summarizing the collected data, arranging the collected data in such a manner that they answer the research question.

In this study, obtained data are analyzed by using some financial tools and techniques like common-size statements, ratio analysis, trend analysis and other statistical tools like mean, standard deviation, correlation analysis etc.

4.2 Common-Size Statement Analysis

It indicates the relationship of various items with some common items expressed as percentage of the common items. It includes common size income statement and common size balance sheet.

4.2.1 Common-Size income statement

Table no.1: The common-size P/L account in percentage (%)

Expenses	2061/62	2062/63	2063/64	2064/65	2065/66	Average
1. Interest Expenses	8.53	17.76	6.51	10.67	13.84	11.46
2. Administrative expenses	12.81	13.87	8.67	11.57	10.82	11.55
Personnel expenses	11.43	10.52	7.09	9.43	9.34	9.56
Office expenses	1.38	1.31	1.58	2.14	1.48	1.58
3. Other Expenses	2.87	2.04	15.10	17.00	35.45	14.50
4. Provision for loan loss	34.17	26.16			6.43	13.35
5. Contra		0.38				0.076
6. Net profit after provision	41.62	41.83	69.71	60.76	33.46	49.48
Total	100	100	100	100	100	100
Income	2058/59	2059/60	2060/61	2061/62	2062/63	
1. Interest income	93.80	93.19	93.80	98.65	97.38	95.36
Interest Income	93.35	88.64	93.30	97.32	94.52	93.45
Other Interest Income	0.45	4.54	0.50	1.32	2.86	1.93
2. Other Income	4.92	6.81	1.18	1.35	1.41	3.13
Commission/Discount Income	0.81		0.77	0.94	1.01	0.71
Miscellaneous Income	4.11	6.81	0.41	0.41	0.40	2.49
3. Income from loan loss	1.28		5.02		1.21	1.50
Total	100	100	100	100	100	100

Table no. 1 shows the clear picture of common size income statement of the bank from F.Y. 2061/62 to 2065/66 B.S. According to the table, it is clear that interest income is the main operating earning sources of the bank, which occupies 95.36% of the respective average total income over the five years. Similarly, Administrative expenses for the bank which covers average 11.538% of respective total income over the five fiscal years from 2061/62 to 2065/66 B.S. Interest expenses is lower than the interest income yet it is in increasing trend.

4.2.2 Common-Size Balance Sheet

The common-size balance sheet is prepared by dividing each item by total assets and arriving at a percentage figure. Comparison of the common size Balance Sheet of a single enterprise over the past years is very useful as the changing proportions in the components within the group.

Table no.2. The Common-Size Balance Sheet in percentage (%)

Liabilities	2061/62	2062/63	2063/64	2064/65	2065/66	Average
1. Reserve Fund			0	0.64	3.99	
2. Bank deposit	2.35	2.16	4.18	4.46	2.58	3.146
3. Other liabilities & provision	97.65	94.23	95.81	94.91	93.43	95.21
Account payable	0.26	0.03	0.01	0.05	0.04	
Other liabilities account	9.66	14.10	4.59	6.82	7.78	
Internal office payable	65.96	61.32	87.55	83.94	81.89	76.13
Provision for loan loss	17.90	18.78	3.67	4.09	3.72	
4. Contra		3.61				
Total	100	100	100	100	100	100

Assets	2061/62	2062/63	2063/64	2064/65	2065/66	Average
1. Cash & bank balance	0.94	1.6	2.06	1.09	1.45	1.43
Cash	0.67	0.08	0.04	0.04	0.04	0.15
Bank	0.27	1.52	2.01	1.05	1.41	1.19
2. Loan Investment	65.99	63.37	72.43	70.35	64.84	67.39
Short-term investment	32.53	29.97	36.69	35.64	34.28	33.82
Medium-term investment	33.38	33.33	35.65	34.62	30.48	33.30
Unsecured Loan investment	0.08	0.07	0.10	0.09	0.08	0.08
3. Loan & advances to employee	1.43	1.54	1.78	1.46	1.35	1.51
4. Advance Account	1.65	1.29	1.68	1.93	1.92	1.69
5. Interest receivable	13.35	14.08	12.43	12.56	12.53	13
6. Fixed Assets	16.65	14.49	9.62	12.61	17.91	14.26
7. Contra		3.61				0.722
Total	100	100	100	100	100	100

Source: Appendix-B

Table no.2 reflects the clear picture of the common-size balance sheet of the bank. Of the total assets reserve fund covers 0.64% & 3.99% respectively in F.Y. 2064/65 and 2065/66 and there is no reserve fund in initial 3 years. Deposit collection occupies average 3.146% of the respective total assets over the five fiscal year period from F.Y. 2061/62

to 2065/66. Other liabilities and provisions occupy 95.206% of the respective total assets from F.Y. 2061/62 to 2065/66 where internal office payable covers huge proportion of total assets which accounts average 76.13% in over the five years. Similarly, of the total assets, the Percentage of cash & bank balance has been 1.43% average from F.Y. 2061/62 to 2065/66. As the bank works on loan investment sector, the proportion of loan investment in total assets have been average 67.39% respectively in over the five years. The Percentage of fixed assets in respective total assets has been average 14.26% respectively from F.Y. 2061/62 to 2065/66.

4.3 Ratio analysis

Ratio analysis is regarded as most powerful too of financial analysis. It is used as an index of yardstick for evaluation the financial position and performance of the firm. It is a technique of analysis and interpretation of financial statements. It helps analysts to make quantitative judgments about the financial position and performance of the firm. The ratio used for financial analysis of the bank is as follow.

4.3.1 Current ratio

Current ratio of firm measures its ability to meet cash obligations as they come due. It is a test of liquidity. It measures short term debt paying ability of the firm. In other words, it measures the availability of current assets for meeting current liabilities. It is calculated by dividing current assets by current liabilities and 2:1 is regarded as standard.

$$\text{Current ratio} = \frac{\text{Current Assets}}{\text{CurrentLiabilities}}$$

The current assets are those assets which are expected to be converted into cash within a short period of time. It includes cash & bank,

short-term investment, bills receivable, loan and advances to employees, prepaid expenses, and other alike. Similarly, current liabilities are those liabilities which fall due for payment in the relatively short period of time. It includes bills payable, interest payable, short-term deposit, short-term borrowing, outstanding expenses and other account payable.

The objective of computing this ratio is to measure the ability of the firm to meet its short- term obligations and to reflect the short-term financial strength/solvency of the firm.

The table no.1 shows the current ratio of the Agricultural Development Bank Dharan from F.Y. 2061/62 to 2065/66.

Table no.3: Current ratio

(Amount in N.Rs. '000')

Year	Current Assets(a)	Current liabilities(b)	Current ratio (a/b)
2061/62	129028	81942	1.57:1
2062/63	135731	92109	1.47:1
2063/64	156006	23605	6.61:1
2064/65	157960	32880	4.80:1
2065/66	162854	36475	4.46:1
Mean (G.M.)			3.19
Standard deviation			2.22
C.V.			69.64%

Source: Appendix-C

According to the table no.3, Current Assets have adopted an increasing trend over the study period. Current liabilities have adopted an increasing trend over the period except the year 2062/63. Current ratio has adopted a decreasing trend over the study period except the year 2063/64 in which it has increased significantly. Current ratios are ranged between 1.57:1 and 6.6:1 during the period of five years. The very high

C.V (i.e 69.64%) indicates that the current ratio has fluctuated much significantly.

4.3.2 Total operating income to total assets ratio:

This ratio shows the relationship between operating income (interest income) and total assets. Interest income includes interest from loan and other interest income. This ratio reflects the utilization of the assets for its operating income.

$$\text{Operating income to total assets} = \frac{\text{Total Operating Income}}{\text{Total Assets}} \times 100$$

The table no.4 shows the operating income to total assets over the past five years from F.Y. 2061/62 to 2065/66.

Table no 4: Total operating income to total assets ratio

(Amount in N.Rs. '000')

Year	Total operating income	Total assets	Ratio (%)
2061/62	20700	258581	8.01
2062/63	22979	279908	8.21
2063/64	37159	285551	13.01
2064/65	32957	299848	10.99
2065/66	30119	316024	9.53
Mean (G.M.)			9.78
Standard deviation			2.09
C.V.			21.35%

Source: Appendix-A & B

According to the table no. 4, Total operating income has adopted an increasing trend over the study period except last fiscal year. Total assets have also adopted an increasing trend. The ration between total operating income and total assets have adopted increasing trend and the ratio have

ranged between 8.01 and 10.99 percent during the study period. The C.V indicates that the ratio has moderate significant.

4.3.3 Total operating expenses to total operating income ratio:

This ratio is the good indicator for the financial/operating analysis of the bank. A high ratio is unfavorable to the bank and vice-versa.

Total operating expenses to total operating income =

$$\frac{\text{Total Operating Expenses}}{\text{Total Operating Income}} \times 100$$

Table no.5: Total operating expenses to total operating income ratio

(Amount in N.Rs. '000')

Year	Total operating expenses	Total operating Income	Ratio (%)
2061/62	5342	20700	25.81
2062/63	7798	22979	33.94
2063/64	11999	37159	32.29
2064/65	13111	32957	39.78
2065/66	18590	30119	61.72
Mean (G.M.)			37.01
Standard deviation			13.79
C.V.			37.27%

Source: Appendix-B

According to the table no.5, the operating expenses have adopted an increasing trend during the study period. The total operating income has increased in the first half and decreased in second half. The ratio have also adopted an increasing trend except the fiscal year 2063/64 and ranged between 25.81 and 61.72 percent during the five years period. The C.V. is 37.27%, it indicates the less consistent.

4.3.4 Total Expenses to Total Income Ratio

It is a best operating performance indicator for the bank. Total expenses includes interest expenses, administrative expenses and other kinds of provisions & reserves (e.g. provision for loan loss) and total income includes interest income and other income like commission/discount income and miscellaneous income. Low ratio is favorable to the bank and indicates the sound operating performance.

$$\text{Total expenses to total income} = \frac{\text{Total Expenses}}{\text{Total Income}} \times 100$$

The table no.6 shows about the total expenses to total income from F.Y. 2061/62 to 2065/66

Table no.6: Total expenses to total income ratio

(Amount in N.Rs. '000')

Year	Total Expenses	Total Income	Ratio
2061/62	12882	22067	58.38
2062/63	14343	24659	58.17
2063/64	11999	39614	30.29
2065/66	13111	33409	39.24
2062/63	20579	30928	66.54
Mean(G.M.)			48.51
Standard deviation			15.11
C.V.			31.15%

Source: Appendix-B

According to table no.6, total expenses have adopted a decreasing trend except the year 2063/64. Total income has adopted an increasing trend except the last fiscal year. The ratio have adopted decreasing trend except the fiscal year 2062/63 and it has ranged between 30.24 and 66.54 percent over the study period. The C.V. is 31.15% it indicates the less consistent.

4.3.5 Interest Expenses Ratio

This ratio reflects the relationship between interest expenses and total income.

$$\text{Interest Expenses Ratio} = \frac{\text{Interest Expenses}}{\text{Total income}} \times 100$$

Table no.7: Interest Expenses Ratio

(Amount in N.Rs. '000')

Year	Interest Expenses	Total Income	Ratio
2061/62	1882	22067	8.53
2062/63	4379	24659	17.76
2063/64	2581	39614	6.52
2064/65	3566	33409	10.67
2065/66	4280	30928	13.84
Mean(G.M.)			10.78
Standard deviation			4.44
C.V.			41.21%

Source: Appendix-B

As per the table no.7, Interest expenses have adopted an increasing trend except the fiscal year 2063/64. Total income has adopted an increasing trend in first half and decreasing in second half. The ratio has increasing trend except the year 2063/64 and it has ranged between 6.52 and 17.76 percent over the study period. The C.V (i.e. 41.21%) indicates the very high fluctuation and it is very much significance.

4.3.6 Administrative expenses ratio

This ratio shows the relationship of administrative expenses and total income. The bank has to make administrative expenses in the course of its functioning such as office expenses, personnel expenses and other expenses. Low ratio is favorable to the bank.

$$\text{Administrative expenses ratio} = \frac{\text{Administrative Expenses}}{\text{Total Income}} \times 100$$

Table no.8: Administrative Expenses ratio

(Amount in N.Rs. '000')

Year	Administrative Expenses	Total Income	Ratio
2061/62	3460	22067	15.68
2062/63	3419	24659	13.87
2063/64	9419	39614	23.78
2064/65	9545	33409	28.57
2065/66	14310	30928	46.27
Mean(G.M.)			23.28
Standard deviation			12.99
C.V.			55.83%

Source: Appendix-B

According to the table no.8, Administrative expenses have adopted an increasing trend except the fiscal year 2062/63. The ratio has been increased over the respected five years study period except the fiscal year 2062/63 and the ranged between 13.87 and 46.27 percent in current study period. The C.V. is 55.83% it indicates high fluctuating over the period and much significance.

4.3.7 Investment Ratio

This ratio shows the relationship between investment and total assets. Or it shows the utilization of total assets in terms of investment. Investment includes short-term, medium-term loan investment and unsecured loan investment.

$$\text{Investment ratio} = \frac{\text{Investment}}{\text{Total assets}}$$

Table no.9, Investment Ratio

(Amount in N.Rs. '000')

Year	Investment	Total Assets	Ratio
2061/62	170637	258581	65.99
2062/63	177383	279908	63.37
2063/64	206836	285551	72.43
2064/65	210938	299848	70.35
2065/66	204908	316024	64.84
Mean(G.M.)			67.31
Standard deviation			3.83
C.V.			5.70%

Source: Appendix-B

As per the table no.9, investment has adopted an increasing trend except the last fiscal year. Total assets have adopted an increasing trend. Investment ratio has adopted a decreasing trend except the fiscal year 2063/64 and it has ranged between 63.37 and 72.43. The Coefficient variance is 5.70% which indicates the consistence between the relations.

4.3.8 Return on investment ratio

This ratio is measured in terms of relationship between interest income and investment. It measures the productivity of the investment. Higher ratio shows the higher return on investment and vice-versa.

$$\text{Return on Investment} = \frac{\text{Interest Income}}{\text{Investment}}$$

Table no.10: Return Investment Ratio

(Amount in N.Rs. '000')

Year	Interest Income	Investment	Ratio
2061/62	20700	176037	11.76
2062/63	22979	177383	12.95
2063/64	37159	206836	17.97

2064/65	32957	210938	15.62
2065/66	30119	204908	14.70
Mean(G.M.)			14.44
Standard deviation			2.41
C.V.			16.66%

Source: Appendix-B

Accounting to the table no.10, interest income has adopted an increasing trend in first half period and decreasing in second half. Investment has adopted an increasing trend except the last fiscal year. The coefficient variance is 16.66 which indicate the less consistency between the relations of two variables.

4.3.9 Return on Assets ratio (ROA):

This ratio is measured in terms of relationship between net profit and total assets. It measures the productivity of the assets. This ratio judge the effectiveness in using the total fund supplied by the owners and creditors. Higher ratio shows the higher return on the assets used in the business thereby indicating effective use of the resources available and vice-versa. This ratio is calculated by using following formula,

$$\text{Return on assets} = \frac{\text{Net Profit After Provision}}{\text{Total Assets}}$$

Table no. 11 shows the return on assets ratio from the F.Y. 2061/62 to 2065/66

(Amount in N.Rs. '000')

Year	Net Profit after provision	Total assets	Ratio
2061/62	9185	258581	3.55
2062/63	10316	279908	3.69
2063/64	27614	285551	9.67
2064/65	20299	299848	6.77

2065/66	10348	316024	3.27
Mean(G.M.)			4.89
Standard deviation			2.78
C.V.			56.87%

Source: Appendix-A & B

According to the table no.11, Net profit after provision has adopted an increasing trend last fiscal year. The ratio of return on assets over the five years period from 2061/62 to 2065/66 has adopted an increasing trend in first half and decreasing trend in second half period and the ranged between 3.27 and 9.67 percent during study period. The coefficient variance is 56.87% which indicate the high fluctuation between the two variables.

4.3.10 Interest Expenses to Interest Income Ratio;

This ratio shows the relationship between interest expenses and interest income. Low ratio is favorable to the bank.

$$\text{Interest expenses to interest income ratio} = \frac{\text{Interest Expenses}}{\text{Interest Income}}$$

Table no. 12: Interest expenses to interest income ratio

(Amount in N.Rs. '000')

Year	Interest Expenses	Interest Income	Ratio
2061/62	1882	20700	9.09
2062/63	4379	22979	19.06
2063/64	2581	37159	6.95
2064/65	3566	32957	10.82
2065/66	4280	30119	14.21
Mean(G.M.)			11.31
Standard deviation			4.75
C.V.			41.96%

Source: Appendix-B

According to table no. 12, Interest Expenses has adopted in increasing trend except the fiscal year 2063/64. Interest income has adopted increasing trend except the last fiscal year. The coefficient variance is 41.96% which indicate the high significance between the variables.

3.2.11 Net income after provision to total operating income ratio:

Operating income/interest income is the major sources of fund/cash for the bank by which the bank makes expense for its continuous operation. After making such expenses, the bank should make several provisions in various sector/aspects. Then only the remaining amount is transfer to the shareholders' fund. If operating income is high, obviously the net income will be high. This ratio is calculated as,

Net income after provision to total operating income =

$$\frac{\text{Net income after provision}}{\text{Total operating income}} \times 100$$

The table no.13 shows the net income after tax to total operating income over the past five years.

Table no.13: Net income after provision to total operating income

(Amount in N.Rs. '000')

Year	Net income after provision	Total operating Income	Ratio
2061/62	9185	20700	44.37
2062/63	10316	22979	44.89
2063/64	27614	37159	74.31
2064/65	20299	32957	61.59
2065/66	10348	30119	34.36
Mean(G.M.)			50.02
Standard deviation			15.89

C.V.			31.76%
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Source: Appendix-B

As per the table no.13, the net income after provision and total operating income has adopted an increasing trend in first half and decreasing in second half period. The has adopted in increasing trend in first half and decreasing in second half in study period and ranged between 43.36 and 74.31 percent. The coefficient variance between two variables is 31.76% which indicate the less consistency.

4.3.12 Total Assets Turnover Ratio

This ratio is employed to take information on total assets for generating net profit in operation business by the firm. It shows the relationship between total assets and sales. This ratio shows the amount of interest paid to total expenditure made by the bank.

$$\text{Total assets turnover ratio} = \frac{\text{Total income}}{\text{Total assets}}$$

Table no. 14: Total Assets Turnover Ratio

(Amount in N.Rs. '000')

Year	Total Income	Total assets	Ratio
2061/62	22067	258581	8.53
2062/63	24659	279908	8.81
2063/64	39614	285551	13.87
2064/65	33409	299848	11.14
2065/66	30928	316024	9.79
Mean(G.M.)			10.26
Standard deviation			2.18
C.V.			21.24%

Source: Appendix-A & B

As per the table no.14, total assets turnover ratio over the five fiscal year period from F.Y. 2061/62 to 2065/66 have adopted an increasing

trend in first half and decreasing in second half period and its has ranged between 8.53 and 13.87 percent during the study period. The mean value of the ratio is 10.26 and standard deviation & Coefficient of variation are 2.18 & 21.24% respectively. It has indicated that less consistence between two variables

4.3.13 Loan collection rate:

This ratio shows the relationship between the collection of the loan in a particular year and loan investment in a particular year.

$$\text{Loan collection ratio} = \frac{\text{Loan collected a particular year}}{\text{Loan invested in a particular year}} \times 100$$

Table no. 15: Loan collection rate

(Amount in N.Rs. '000')

Year	Loan collected in particular year	Loan invested in a particular year	Ratio
2061/62	90418	105385	85.80
2062/63	105668	118502	89.17
2063/64	102422	125112	81.86
2064/65	145737	183990	79.21
2065/66	10451	122903	80.50
Mean(G.M.)			53.09
Standard deviation			33.98
C.V.			64.00%

Source: Appendix-A

The table no.15 shows the loan collected particular year has decreased in 2063/64 and 2065/66 fiscal year respectively. Loan collection in particular year has adopted in increasing trend except in last fiscal year. The loan collection ratio has decreased in 2063/64 and 64/65 fiscal year respectively. The ration has ranged between 85.80% and

89.17%. The coefficient variance is 64% which indicate the high fluctuation and very much significance.

4.3.14 Fixed Assets Ratio

Fixed assets to total assets ratio shows the relationship between fixed assets and total assets. The purpose of this ratio is to calculate the percentage of the total assets utilized to acquire fixed assets. The total assets include current assets, fixed assets and investment. Similarly, the fixed assets include the fixed assets of the bank as well as fixed assets auction. This ratio is calculated as under,

$$\text{Fixed assets ratio} = \frac{\text{Fixed assets}}{\text{Total assets}} \times 100$$

Table no.16: Fixed assets ratio

(Amount in N.Rs. '000')

Year	Fixed Assets	Total Assets	Ratio
2061/62	43041	258581	16.65
2062/63	40566	279908	14.49
2063/64	27469	285551	9.62
2064/65	37810	299848	12.61
2065/66	56588	316024	17.91
Mean(G.M.)			13.93
Standard deviation			3.29
C.V.			23.62%

Source: Appendix-A

As per the table no.16, fixed assets have decreased in 2062/62 and 63/64 fiscal years respectively. Total assets have adopted an increasing trend. The fixed assets ratio has decreased in 2062/62 and 63/64 fiscal years respectively and ranged between 9.62% and 17.91%. The Mean is 13.93% and standard deviation and coefficient of variation are 3.29 &

23.62% respectively. It indicates the less consistency between two variables.

4.4 Net Working Capital Analysis:

Working capital is the finance required for meeting current needs of a business concern or industry or the 'term' working capital to the investment made by a firm in short-term assets such as cash, marketable securities, account receivable and inventories. The net working capital is the amount by which the value of current assets exceeds the value of current liabilities. The financial soundness of the business is judged on net working capital basis by creditors and investors. It is also used as a measure of liquidity position of the firm. A company's profitability is one way determined by the management of its working capital. For banking organization, working capital is most critical aspect. The table no. 17 shows the working capital of the bank in different years.

Table no.17: Net working capital

(Amount in N.Rs. '000')

Year	2061/62	2062/63	2063/64	2064/65	2065/66
Current Assets	129028	135731	156006	157960	162854
Current liabilities	81942	92109	23605	32880	36475
Net working capital	47086	43622	132401	125080	126379
Increase/Decrease in w/c		(3464)	+88779	(7312)	+1299

Source: Appendix-C

The above table shows the heavy fluctuation in the volume of working capital. While making comparison of working capital with the previous year, all the years show negative needs accept 2063/64 & 2065/66. This is why due to seasonal need of working capital in different years. While making comparison between 2063/64 & 2064/65, there is

great change in current liabilities and causes a decrease in working capital.

4.5 Trend Analysis:

Trend analysis is an important tool of horizontal financial analysis. This method is immensely helpful in making a comparative study of the financial statement of several years. This analysis reflects the changes in financial statements between the periods. These can be easily studied by establishing a base year and expressing other years in terms of the base year. This device is valuable to the management of bank because by the substitution of percentage for large amount and brevity and readability are achieved. They are generally computed for major items in the statements: minor amounts are omitted. Trend percentage indicates the cause for the changes. The important value of trend analysis is that it can disclose to the analyst a better understanding of management policies and motives which are the causes for the changes.

In this analysis, various data related to financial performance have been analyzed in terms of time series or trend analysis to show the actual trend of relative variables of ADB Dharan over the five periods of time.

4.5.1 Indexed Profit & Loss Account

Table no.18 Indexed Profit and Loss Account (%)

Expenses	2061/62	2062/63	2063/64	2064/65	2065/66
Interest Expenses	100	233	137	190	227
Administrative Expenses:	100	103	122	137	118
Personnel Expenses	100	103	111	125	115
Office Expenses	100	106	206	235	150
Other Expenses	100	80	945	897	1732

Provision for Loan Loss	100	86	0	0	26
Contra		100	0	0	0
Net Profit after Provision	100	112	301	221	113
Total	100	112	180	151	140
Income	2061/62	2062/63	2063/64	2064/65	2065/66
1. Interest Income:	100	111	180	159	146
Interest income	100	106	179	158	142
Other interest income	100	1116	197	441	882
2. Other Income:	100	155	43	42	40
Commission/Discount income	100		171	177	175
Miscellaneous Income	100	185	18	15	14
3. Income from loan loss	100		706	0	133
Total	100	112	180	151	140

Source: Appendix –B

Table no. 18 shows the comparative indexed income statement from F.Y. 2061/62 to F.Y. 2065/66 taking 2061/66 as base year. As per the table, interest Expenses is increasing in average which accounts 133%, 37%, 90% and 127% respectively over the four year period taking 2061/62 as base year. The administrative Expenses are increased by 3%, 22%, 37% & 18% respectively. Personnel and office expense are also on increasing trend. Other Expenses are more fluctuating. The bank has made provision for loan loss at the F.Y. 2063/64 and it is in highly increasing trend. Net profit after provision has increased over the 4 year period in comparison to the base year i.e. 2061/62.

Interest income, major source of operating income of the bank, is in increasing trend. The interest from loan is increased to 11%, 80%, 59% and 46% respectively in over the period taking 2061/62 as a base year. But other interest income has also increased highly in over the period

respectively. Other income like miscellaneous income, commission/discount income are more fluctuating in average. Overall, the amount of total income is increasing trend, which reflects the favorable trend for the bank.

4.5.2. Indexed Balance Sheet

Table no.19: Indexed Balance Sheet (%)

Liabilities & capital	2061/62	2062/63	2063/64	2064/65	2065/66
1.Reserve fund			100	14997	98965
2. Bank deposit	100	100	197	220	135
3. Other liabilities & provision	100	104	108	113	117
Account payable	100	13	3	24	20
Other liabilities account	100	113	37	58	70
Internal office payable	100	101	147	148	152
Provision for loan loss	100	114	23	27	25
4. Contra		100			
Total	100	108	110	116	122
Assets	2061/62	2062/63	2063/64	2064/65	2065/66
1.Cass and bank balance:	100	56	84	58	407
Cash	100	109	117	1961	249
Bank	100	55	83	17	104
2. Loan Investments:	100	102	107	115	120
Short-term investment	100	102	111	112	112
Medium-term investment	100	102	102	119	128
Unsecured investment	100	100	100	100	100
3. Loan & advances to employees	100	86	91	102	119
4. Advance account	100	121	137	125	106
5. Interest receivable	100	106	120	136	155
6. Fixed assets	100	138	222	219	207
7. Contra		100			
Total	100	105	119	127	137

Source: Appendix- A

The table no. shows the comparative indexed balance sheet from F.Y. 2061/62 to 2065/66 taking 2061/62 as a base year. As per the table, reserve fund has increased to 14997% and 98965% in 2064/65 and 2065/66 respectively and then there is no reserve fund in 2061/62 & 2062/63, the magnitude of bank deposit is increasing which comes 97%, 120% and 35% in F.Y. 2063/64, 2064/65, & 2065/66 respectively taking the 2061/62 as base year. In total, other liabilities and provision is in increasing trend. Account payable is more fluctuating and it is decreasing in average. Similarly, other liabilities account is in highly increasing trend, provision for loan loss is increased in F.Y 2062/63 and it is decreased in other rest of over period.

The amount of cash and bank balance is fluctuating, it has decreased to 56%, 84%, 58% in 2062/63, 2063/64 & 2064/65 respectively and then increased to 407% in 2065/66. Loan investment is significantly increasing which accounts 2%, 7%, 15% & 20% in F.Y. 2061/62, 2062/63, 2063/64 & 2065/66 respectively taking F.Y. 2061/62 as a base year Loan and advances o employees has decreased to 85% and 91% respectively in F.Y. 2062/63 and 2063/64 and then it is increasing gradually. Similarly, advance account & interest receivable is in increasing trend and fixed assets is also increasing in a large extent which accounts 38%, 112%, 119% and 107% in 2061/62, 2062/63, 2063/64 & 2064/65 respectively taking 2061/62 as a base year.

4.5.3 Trend of loan investment & loan collection I a particular year

One of the major objectives of the Agriculture Development Bank is to provide loan in different sector i.e. agricultural sector and non-agricultural sector and to uplift the standard of life of rural people. The bank under the study specially works on loan investment sector. Hence,

the trend of loan investment and loan collection is the major concern which also determines the financial sustainability of the bank.

Table no.20: Trend of Loan investment & Loan collection in a particular year

(Amount in N.Rs. '000')

Year	Loan Investment	Trend Value	Loan Collection	Trend Value
2061/62	105385	111073	90418	114912
2062/63	118502	121126	105668	102926
2063/64	125112	131178	102422	90939
2064/65	183990	141231	145737	78953
2065/66	122903	151283	10451	66967

Source: Appendix-D

Figure no.1: Trend of Loan Investment in a particular Year

(Amount in N.Rs. '000')

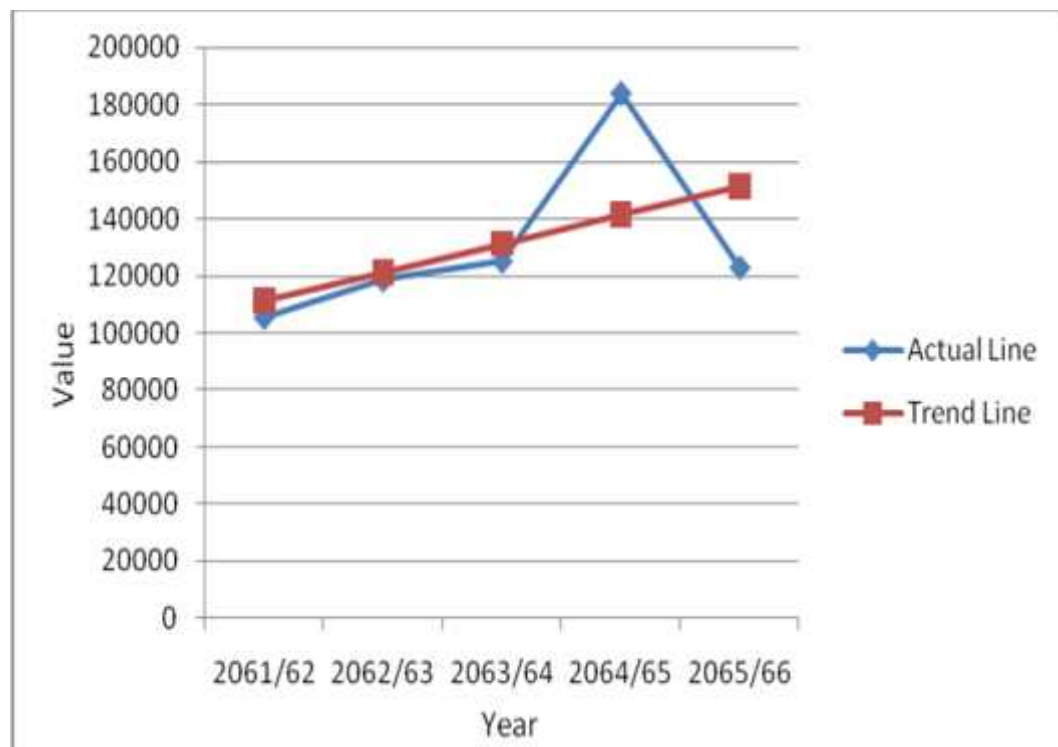
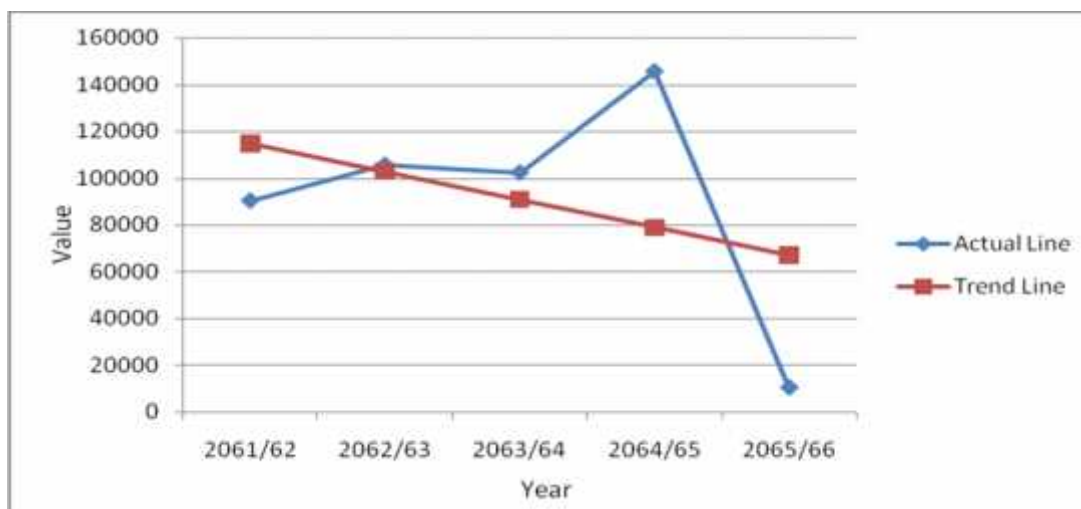


Figure no.2: Trend of Loan Investment in a particular Year

(Amount in N.Rs. '000')



As per the table no.20 & figure no.1 & 2, loan investment are 105385 thousand, 118502 thousand, 125112 thousand, 183990 thousand & 122903 thousand in each respective years from 2061/62 to 2065/66 where as trend value of loan investment over the five fiscal year period are 111073 thousand, 121126 thousand, 131178 thousand, 141231 thousand & 151283 thousand respectively. There is an increasing trend of loan investment taking 2061/62 as base year.

In the same way, loan collection are 90418 thousand, 105668 thousand, 102422 thousand, 145737 thousand & 10451 thousand in each respective years from 2061/62 to 2065/66 whereas trend value of the loan collections over the five fiscal year period are 114912 thousand, 102926 thousand, 90939 thousand, 78953 thousand and 66967 thousand respectively which also shows the increasing trend of loan collection.

4.5.4 Trend of Loan investment on short term medium term & unsecured loan

The bank under the study specially works on loan investment sector. It has been granting credit to its client on short-term and medium

term basis. The following table and figure shows the trend of short-term, medium-term and unsecured loan.

Table no.21: Trend of Short-term Loan Investment

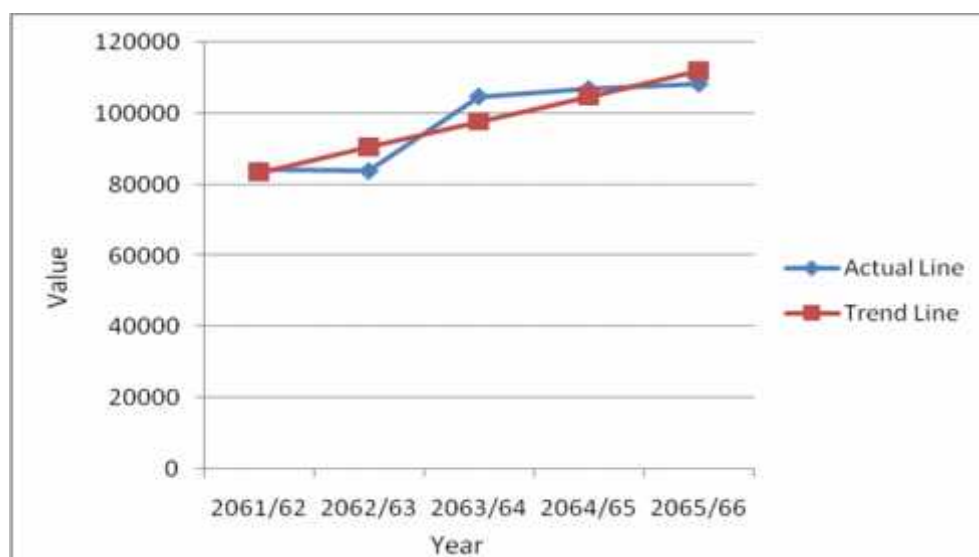
(Amount in N.Rs. '000')

Year	Short-term Loan	Trend Value
2061/62	84125	83315.6
2062/63	83885	90453.2
2063/64	104759	97590.8
2064/65	106859	104728.4
2065/66	108326	111866

Source: Appendix-A

Figure no.3: Trend of Short-term Loan Investment

(Amount in N.Rs. '000')



As per the table no.21 and figure no.3, the short-term loan investment have been 84125 thousand, 83885 thousand, 104759 thousand, 106859 thousand and 108326 thousand from F.Y. 2061/62 to 2065/66 respectively where trend value of the short-term loan investments have been Rs.83315.6 thousand, 90453.2 thousand, 97590.8

thousand, 104728.4 thousand & 111866 thousand respectively from F.Y. 2061/62 to 2065/66 which shows the increasing trend of short-term loan investment.

Table no.22: Trend of Medium-term Loan Investment

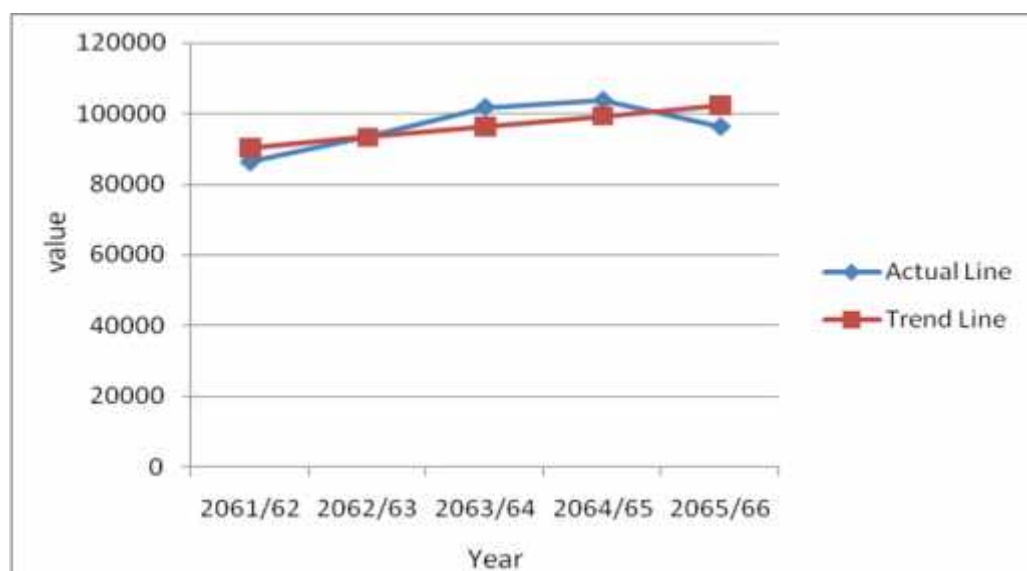
(Amount in N.Rs. '000')

Year	Medium-term Loan	Trend Value
2061/62	86316	90205.2
2062/63	93301	93257.5
2063/64	101802	96309.8
2064/65	103804	99362.1
2065/66	96326	102414.4

Source: Appendix-A

Figure no.4: Trend of Medium-term Loan Investment

(Amount in N.Rs. '000')



As per the table no.22 and figure no. 4, medium-term loan investment have been 86316 thousand, 93301 thousand, 101802 thousand, 103804 thousand and 96326 thousand respectively in each respective years whereas trend values have been 90205.2 thousand,

93257.5 thousand, 96309.8 thousand, 99362.1 thousand and 102414.4 thousand respectively from F.Y. 2061/62 to 2065/66 which shows the increasing trend of Medium-term loan investment.

Table no.23: Trend of Unsecured Loan Investment

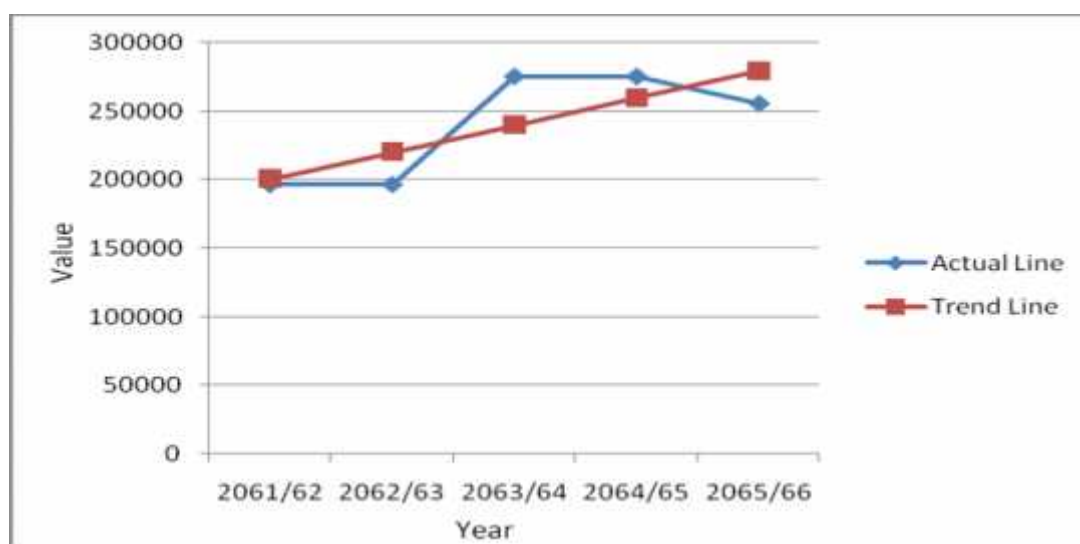
(Amount in N.Rs. '-')

Year	Unsecured Loan	Trend Value
2061/62	196575	200506.6
2062/63	196575	220164
2063/64	275205	239821.4
2064/65	275205	259478.8
2065/66	255547	279136.2

Source: Appendix-A

Figure no.5: Trend of Unsecured Loan Investment

(Amount in N.Rs. '000')



As per the table no.23 and figure no.5, the unsecured loans have been constant Rs. 196575 in F.Y 2061/62 to 2062/63, Rs 275205 in F. Y 2063/64 to 2064/65 and Rs 255547 in F.Y 2065/66 respectively whereas trend values have been 200506.6, 220164, 239821.4, 259478.8 and

279136.2 respectively from F.Y 2061/62 to 2062/63, it shows the increasing trend of Unsecured loan where bank has to be reduce as soon as possible for the better performance.

4.5.5 Trend of Deposit Collection on Client's Security Fund

The bank collects deposit on client's security fund while taking loan; the borrowers are required to deposit 5% percent of loan amount on client security fund. The bank also provides 3% interest on C.S.F. Deposit collection on client security fund is one of the major sources for generating internal resources.

Table no. 24: Trend of Deposit Collection on Client's Security Fund

(Amount in N.Rs. '000')

Year	Deposit Collection	Trend Value
2061/62	6066	6816.2
2062/63	6049	7966.9
2063/64	11946	9117.6
2064/65	13366	10268.3
2065/66	8161	11419

Source: Appendix-A

Figure no.6: Trend of Deposit Collection on Client's Security Fund

(Amount in N.Rs. '000')

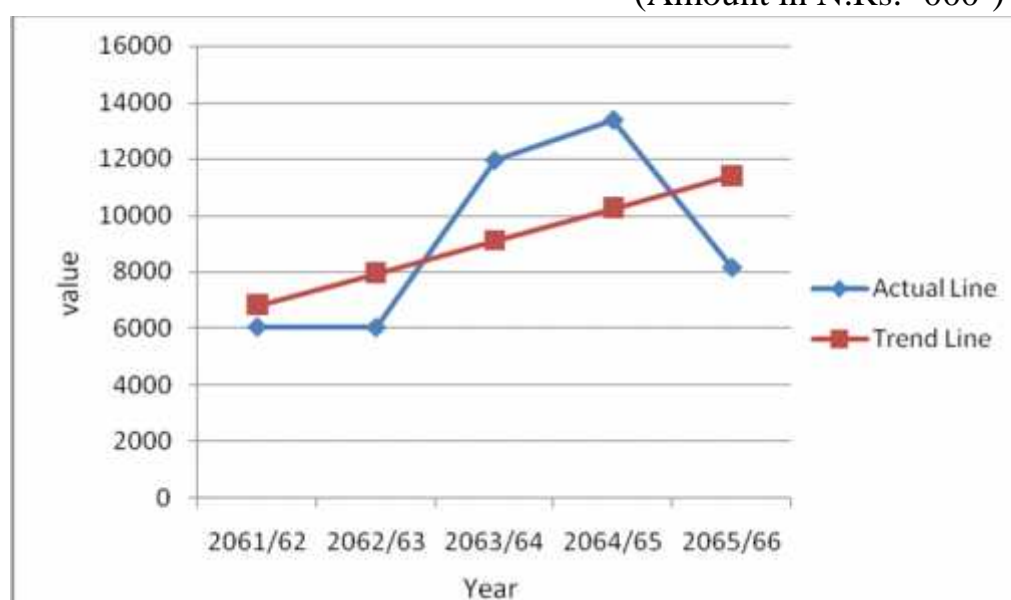


Table no.24 & figure no.6 shows the clear picture about the deposit collection on client security fund over the five fiscal periods from 2058/59 to 2061/62. Taking 2058/59 as base year, the amount of deposit collection has slightly decreased to 6049 thousand in F.Y. 2062/63 and it has increased to 11946 thousand, 13366 thousand & 8161 thousand in 2063/64, 2064/65 & 2065/66 respectively whereas trend value of the deposit collection have been 6816.2 thousand, 7966.9 thousand, 9117.6 thousand, 10268.3 thousand and 11419 thousand respectively in each respective year which shows the increasing trend of deposit collection.

4.5.6 Trend of Total Income, Expenses and Net Profit

The major income source of the bank is interest income from loan investment and other sources like commission/discount, and other miscellaneous incomes. Similarly bank has to make expenses for interest on deposit, administrative expenses etc. The bank has also maintaining provision for loan loss to secure from the future difficulties & losses.

Table no. 25: Trend of Total Income

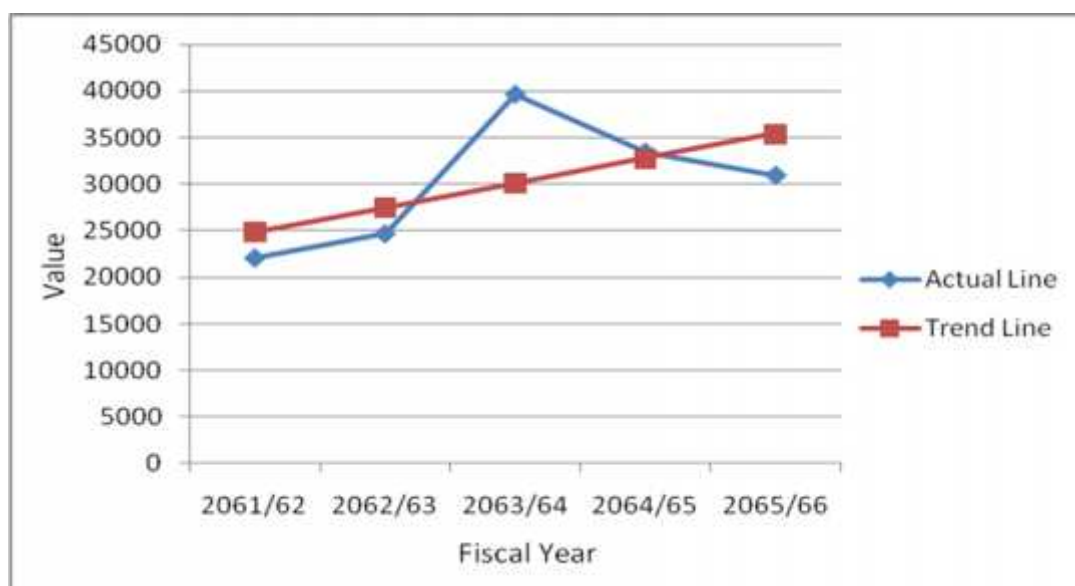
(Amount in N.Rs. '000')

Year	Total Income	Trend Value
2061/62	22067	24841
2062/63	24659	27488.2
2063/64	39614	30135.4
2064/65	33409	32782.6
2065/66	30928	35429.8

Source: Appendix-B

Figure no.7: Trend of Total Income

(Amount in N.Rs. '000')



As per the table no.25 & figure no. 7, total income over the five years period from 2061/62 to 2065/66 are 22067 thousand, 24659 thousand, 39614 thousand, 33409 thousand & 30928 thousand respectively whereas trend values of the total income have been 24841 thousand, 27488.2 thousand, 30135.4 thousand, 32782.6 thousand and 35429.8 thousand respectively from F.Y. 2061/62 to 2065/66. It shows the increasing trend of total income taking 2061/62 as a base year.

Table no.26 : Trend of Total Expenses

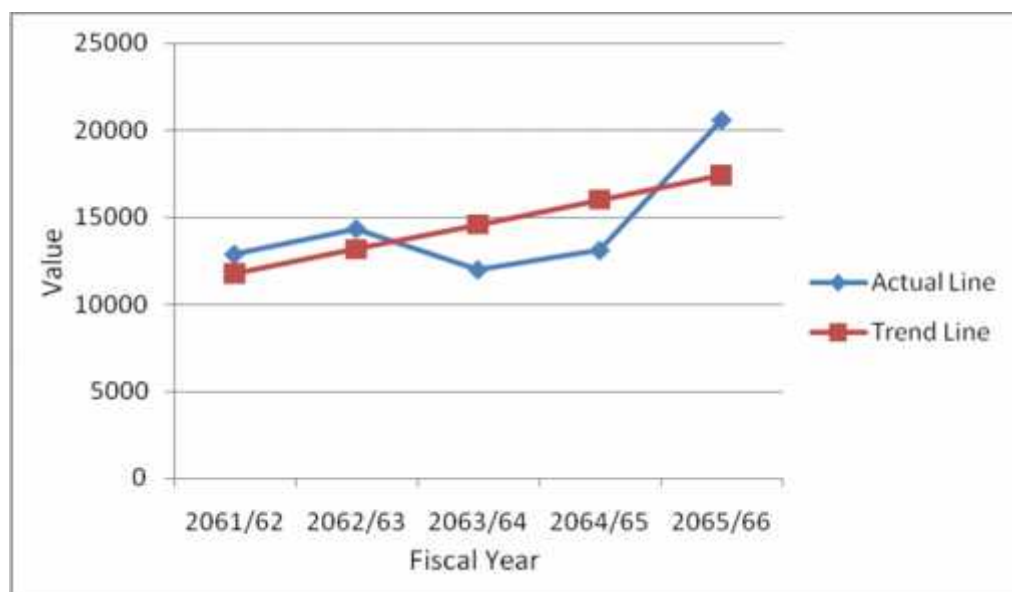
(Amount in N.Rs. '000')

Year	Total Expenses	Trend Value
2061/62	12882	11750.4
2062/63	14343	13166.6
2063/64	11999	14582.8
2064/65	13111	15999
2065/66	20579	17415.2

Source: Appendix-B

Figure no.8 Trend of Total Expenses

(Amount in N.Rs. '000')



As per the table no.26 and figure no 8, total expenses have been 12882 thousand, 14343 thousand, 11999 thousand, 13111 thousand & 20579 thousand in F.Y. 2061/62, 2062/63, 2063/64, 2064/65 & 2065/66 respectively whereas trend values have been 11750.4 thousand, 13166.6 thousand, 14582.8 thousand, 15999 thousand & 17415.2 thousand respectively in each respective years which shows the increasing trend of total expenses.

Table no. 27: Trend of Net Profit

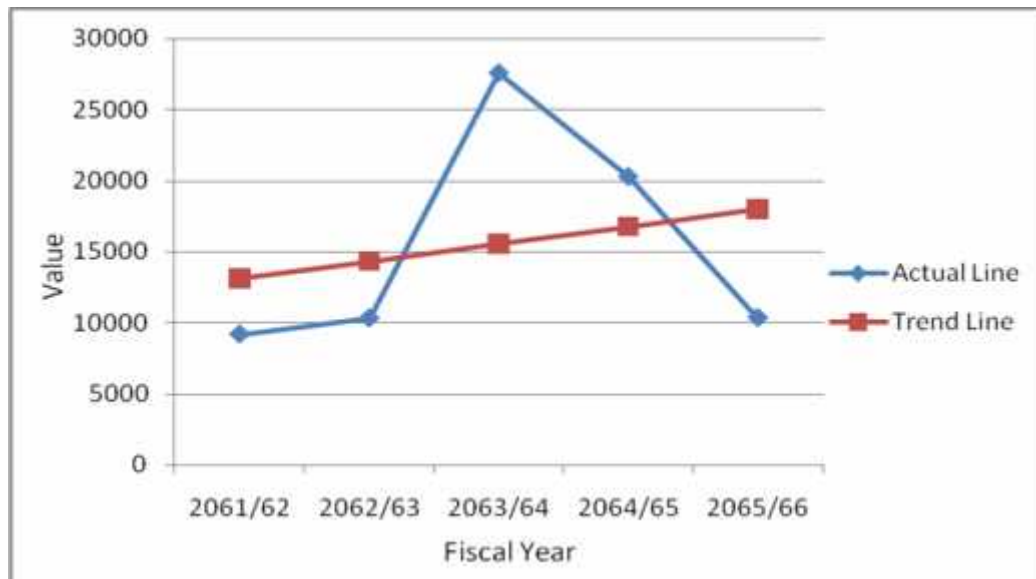
(Amount in N.Rs. '000')

Year	Net Profit	Trend Value
2061/62	9185	13090.6
2062/63	10316	14321.5
2063/64	27614	15552.4
2064/65	20299	16783.3
2065/66	10348	18014.2

Source: Appendix-B

Figure no.9: Trend of Net Profit

(Amount in N.Rs. '000')



According to the table no.27 and figure no.9, net profit have been 9185 thousand, 10316 thousand, 27614 thousand, 20299 thousand & 10348 thousand respectively from F.Y. 2061/62 to 2065/66 whereas the trend value of the net profit have been Rs. 13090.6 thousand, 14321.5 thousand, 15552.4 thousand, 16783.3 thousand and 18014.2 thousand in each respective year from F.Y. 2061/62 to 2065/66 which shows the increasing trend of Net profit.

4.6 Co-efficient Correlation Analysis

The correlation is a statistical tool which studies the relationship between two or more variables. In other words, correlation is defined as the relationship between the one dependent variable and one independent variable. This study focuses on the correlation between investment & collection, correlation between investment & interest collection correlation between interest income & net profit, correlation between short-term & medium- term loan investment.

4.6.1 Correlation between Loan Investment & Principal Collection in a particular year

This relation reflects relationship between loan investment and principal collection in a particular year. As the loan investment and principal collection are the major transactions of the bank, the positive relationship between the two variables will be favorable to the bank.

Table no.28: Correlation between Loan Investment and Principal Collection in a particular year

(Amount in N.Rs. '000')

Year	2058/59	2059/60	2060/61	2061/62	2062/63
Investment (x)	89.3	131.4	94.5	105.4	118.5
Principal Collection in a particular year (y)	73.2	104.1	80.4	90.4	105.7

Year	2061/62	2062/63	2063/64	2064/65	2065/66
Investment (x)	105.38	118.50	125.11	183.99	122.90
Principal Collection in a particular year (y)	90.42	105.67	102.42	145.74	10.45

Source: Appendix-D

Correlation (r_{xy}) = 0.55 (Formula applied from appendix F)

P.E. (r) = 0.2109

6 P.E. (r) = 1.2653

Table no.28 and above calculation shows that there is positive correlation between investment and principal collection i.e. 0.55. It means when the magnitude of loan investment increases the magnitude of principal collection also increases. Here, $r < 6$ P.E. i.e. $0.55 < 1.2653$. It is

significant. Therefore, there is moderate degree of relationship between the two variables.

4.6.2 Correlation between principal collection and interest collection in a particular year

Interest collection in a particular year.

Table no. 29: Correlation between principal collection and interest collection in a particular year

(Amount in N.Rs. '000')

Year	2058/59	2059/60	2060/61	2061/62	2062/63
Principal Collection	73.2	104.1	80.4	90.4	105.7
Investment Collection	14.4	18.7	16.4	15.8	18.3

Year	2061/62	2062/63	2063/64	2064/65	2065/66
Principal Collection	90.42	105.67	102.42	145.74	10.45
Interest Collection	15.76	18.28	20.10	26.18	21.35

Source: Appendix-D

Correlation (r_{xy}) = 0.27

P.E. (r) = 0.2797

6P.E. (r) = 1.6781

$R > 6P.E. (r)$ i.e. $0.27 > 6 \times 0.2797 = 0.27 > 1.6781$

The above table and calculation shows that the correlation between principal collection & interest collection is positive i.e. 0.27. It is positively correlated. Here, probable error P.E. (r) = 0.2797 and 6 P.E. (r) is 1.6781. The calculated value of r is less than 6 times P.E. i.e. $r < 6 P.E. (r)$ or $0.27 < 1.6781$. Hence, it is significant which shows that there is a low degree of relationship between the two variables.

4.6.3 Correlation between Loan investment & Interest collection in a particular year

This relation shows the relationship between Loan Investment and Interest collection in a particular year.

Table no. 31: Correlation between Loan investment and Interest collection in a particular year

(Amount in N.Rs. '000')

Year	2058/59	2059/60	2060/61	2061/62	2062/63
Loan Investment	89.4	131.4	94.5	105.4	118.5
Interest Collection	14.4	18.7	16.4	15.8	18.3

Year	2061/62	2062/63	2063/64	2064/65	2065/66
Loan Investment	105.38	118.50	125.11	183.99	122.90
Interest Collection	15.76	18.28	20.10	26.18	21.35

Source: Appendix-D

Correlation (r_{xy}) = 0.94

P.E (r) = 0.0349

6 P.E (r) = 0.2091

$r > 6P.E.$ i.e. $0.94 > 0.2$

Above table & calculation shows the positive correlation loan investment & interest collection. The calculated value of r is +0.94 between. It means when the magnitude of loan investment increases, the magnitude of interest collection also increases. Here the probable error P.E. is 0.0349 where as 6 P.E. is 0.2091. The value of r is greater than the value of 6 P.E. (r) i.e. $r > 6 P.E.$ or $0.94 > 0.2091$. It is highly significant.

4.7 Testing of Hypothesis

The observed data for this study covers only five years period from 2062/2063 to 2065/66. Therefore, t-distribution or small sample distribution hypothesis have been tested at 5% significant level.

4.7.1 Hypothesis testing of observed Correlation co-efficient between Loan Investment and Principal Collection in a particular year

Setting the null hypothesis (H_0) and alternative hypothesis (H_1) :

H_0 : $\rho=0$, There is no significant correlation coefficient between investment & principal collection.

H_1 : $\rho \neq 0$, There is significant correlation coefficient between investment & principal collection.

Level of significance = 5%

Degree of freedom = $n-2$ where, n = no. of pairs of observations

$$=5-2$$

$$=3$$

Tabulated value of at 5% level of significance in 3 degree of freedom is 3.182

Calculation of value of t

$$\begin{aligned}
 t &= \frac{r\sqrt{n-2}}{\sqrt{1-r^2}} \\
 &= \frac{0.55\sqrt{5-2}}{\sqrt{1-(0.55)^2}} \\
 &= \frac{0.953}{\sqrt{0.698}} \\
 &= \frac{0.953}{0.853} \\
 &= 1.14 < 3.182
 \end{aligned}$$

Since calculated value of t is 1.14 and tabulated value of t at 5% level of significance in 3 degree of freedom is 3.182. Here calculated value is less than the tabulated value, therefore, null hypothesis is accepted. Hence it is found that the correlation coefficient between loan investment & principal collection is insignificant.

4.7.2 Hypothesis testing of observed Correlation co-efficient between Principal Collection and Interest Collection in a particular year

Again,

$H_0: \rho=0$, the principal collection & interest collection are not correlated.

$H_1: \rho \neq 0$, the principal collection & interest collection are correlated.

Level of significance(α) = 5%

Degree of freedom = $n-2$
 = $5-2$
 = 3

Tabulated value of t at 5% level of significance in 3 degree of freedom is 3.182

Calculation of value of t

$$\begin{aligned}
 t &= \frac{r\sqrt{n-2}}{\sqrt{1-r^2}} \\
 &= \frac{0.27\sqrt{5-2}}{\sqrt{1-(0.27)^2}} \\
 &= \frac{0.468}{\sqrt{0.927}} \\
 &= \frac{0.468}{0.963} \\
 &= 0.49 \\
 &= 0.49 < 3.182
 \end{aligned}$$

Since the calculated value of t is 0.49 and tabulated value of t at 5% level of significance in 3 degree of freedom is 3.182. Here, the calculated value of t is less than tabulated value of t . therefore, null hypothesis is accepted and can be concluded that correlation coefficient between principal collection & interest collection is insignificant.

4.7.3 Hypothesis testing of observed Correlation co-efficient between Loan Investment and Interest Collection in a particular year

Again,

H_0 : $\rho = 0$, correlation coefficient between loan investments & interest collection is insignificant

H_1 : $\rho \neq 0$, correlation coefficient between loan investment & interest collection is significant

Level of significance (α) = 5%

Degree of freedom = $n - 2$

$$= 5 - 2$$

$$= 3$$

Tabulated value of t at 5% level of significance in 3 degree of freedom is 3.182

Calculation of value of t

$$\begin{aligned}
t &= \frac{r\sqrt{n-2}}{\sqrt{1-r^2}} \\
&= \frac{0.94\sqrt{5-2}}{\sqrt{1-(0.94)^2}} \\
&= \frac{1.628}{\sqrt{0.116}} \\
&= \frac{1.628}{0.341} \\
&= 4.77 \\
&= 4.77 > 3.182
\end{aligned}$$

Since the calculated value of t is 4.77 and tabulated value is 3.182. Here, the calculated value of t is greater than the tabulated value of t. Therefore, null hypothesis is rejected. Hence, it can be concluded that the correlation coefficient between loan investment & interest collection is significant.

4.8 Cash Flow Analysis

Cash flow analysis basically reflects the movement of cash during the particular year. The primary purpose of the cash flow analysis is to provide information regarding a bank's cash inflow and outflow during an accounting period. Thus, the cash flow analysis is done under the activity format of cash flow statement. Cash flow statement is a statement of Company's ability to generate cash from various activities such as operating, investing and financing and their need of cash. It is a statement which shows the inflows and outflows of cash and cash equivalents during the year. Cash flow statement may be used as another yardstick for measuring the financial performance of ADB Dharan. This analysis helps the management to determine the future budget of the cash requirement.

4.8.1 Cash Flow from operating activity

Cash flow from operation is the good source of inflow of cash for operating activities. It is the single major continuing source of cash. Operating activities are always within the management control and they provide base for management estimation of fund needed to rise from available sources.

Table no.32: Cash Flow from Operating Activity

Fiscal Year	Cash Flow	Percentage
2061/62	16187937	100
2062/63	18812360	116.21
2063/64	27643131.6	170.76
2064/65	53896101	332.94
2065/66	26342235.4	162.73

Source: Appendix –E

Table no.32 shows the cash flow from operating activities. As per the table, the highest cash flow from operating activities is Rs. 53896101 in F.Y. 2064/65 and lowest cash flow is Rs. 16187937 in F.Y. 2061/62. There is increasing trend in cash flow from operating activities. It has increased by 16.21%, 70.76%, 232.94% & 62.73% in F.Y. 2061/62 to 2065/66 respectively. It is due to the reduction in other operating cash income and increase in operating expenses.

4.8.2 Cash Flow from Investing Activity

Investment activities include lending money (investment) and collecting on those loans, buying and selling productive assets that are expected to generate revenues in future periods, and buying and selling securities not classified as cash equivalent.

Table no. 33: Cash Flow from Investing Activity

Fiscal Year	Cash Flow	Percentage
2061/62	(15702360)	100
2062/63	(12163088)	77.46
2063/64	(19518662.8)	124.30
2064/65	(36514804.2)	232.54
2065/66	(16636059.7)	105.95

Source: Appendix –E

Table no. 33 shows the cash flow from investing activities. As per the table, cash flow from investing activities is negative throughout the study period. It is because the bank has made heavy loan investment and it is also highly increasing. In the other hand, Deposit Collection has been decreasing gradually. The Bank has made the highest investment in 2064/65 where the percentage of Cash flow is highly negative i.e. - 232.54% in comparison to the base year.

4.8.3 Cash Flow from Financing Activity

Financial activities include borrowing money from creditors, and obtaining resources from owner's repayment of borrowed Funds/Amount and payment of dividend to owners.

Fiscal Year	Cash Flow	Percentage
2061/62	(370088)	100
2062/63	(6219854)	(178.57)
2063/64	(7625000.6)	(106.69)
2064/65	(17764490.8)	(112.63)
2065/66	(5339829.30)	(87.24)

The above table shows that the cash from financing activities are also negative in all the study period from 2061/62 to 2065/66. The bank

has been making huge amount of payment of overdraft and sending fund to regional office in each year which exceeds the amount of fund received by the bank in each year in the form of overdraft and fund from regional office. There is highest negative cash flow in F.Y. 2059/60 i.e. 78.57% taking 2061/62 as a base year. It is due to the huge payment of fund to regional office than that of other years.

4.8.4 Cash/Cash equivalent increase/decrease

Table no. 35: Cash/Cash equivalent increase/decrease

Fiscal Year	Cash Flow	Percentage
2061/62	115489	100
2062/63	429418	371.83
2063/64	499468.2	432.48
2064/65	383194	(331.80)
2065/66	4366346.4	3780.75

Source: Appendix –E

As per the table no.35, the bank has positive cash/cash equivalent in all the years except in the F.Y. 2064/65. While making comparison to the base year i.e. 2061/62, cash/cash equivalent increase/decrease have been fluctuating highly. There is negative cash/cash equivalent in F.Y. 2064/65 it is increased in rest fiscal year.

4.8.5 Major Finding of the Study

-) While analyzing common-size statement, it have been shown that interest income is the major sources of income which accounts average 95.36% over the study period.
-) Interest expenses have covered average 11.46% in respective total income of each year. Customer deposit has covered average 3.146% of total assets over the study period.

-) Reserve fund has covered 0.64% & 3.99% of the total assets in 2064/65, & 2065/66 and there is no reserve fund in rest of the years.
-) Current liabilities are 27.56%, 32.88%, 8.26%, 10.91% & 11.5% of total assets in each respective year. On the other hand, current assets has covered 49.9%, 48.48%, 54.64%, 52.68% & 51.53% of total assets in each respective years from F.Y. 2061/62 to 2065/66 B.S.
-) Medium term loan investment has covered average 33.30% of the total assets in the study period.
-) The current ratio of the bank has decreasing trend over the study period except the fiscal year 2063/64 which has increased significantly and its mean value and standard deviation are 3.19 & 2.22 respectively. The Coefficient variance is 69.64% which indicates the current ratio has fluctuated much significantly.
-) Fixed assets ratios have been 16.61%, 14.49%, 9.62%, 12.61% & 17.97% in each respective year from F.Y. 2061/62 to 2063/64 and its mean value and standard deviation are 13.93 & 3.29 respectively. The coefficient variance is 23.62% which indicates less consistency between the variables.
-) Total operating income to total assets ratios have been 8.01%, 8.21%, 13.01%, 10.99% & 9.53% respectively from 2061/62 to 2065/66 and its mean value and standard deviation are 9.78% & 2.09 respectively.

- J Total expenses to total income ratios have been 58.38%, 58.17%, 30.29%, 39.24% & 66.54% in each respective year from 2061/62 to 2065/66 and its mean value and standard deviation are 48.51% & 15.11 % respectively.
- J Interest expenses ratios have been 8.53%, 17.76%, 6.52%, 10.67% & 13.84% in each respective year and its mean value and standard deviation are 10.78% & 4.44 respectively.
- J Administrative expenses ratios have been 15.68%, 13.87%, 23.78%, 28.57% & 46.27% in each respective years from F.Y. 2061/62 to 2065/66.
- J Interest expenses to interest income ratios have been 9.09%, 19.06%, 6.95%, 10.82% & 14.27% in each respective year and its mean value and standard deviation are 11.31% & 4.75% respectively.
- J Return on assets ratios have been 33.55%, 3.69%, 9.67%, 6.77%, 3.27%, from F.Y. 2061/62 to 2065/66 respectively. Its mean value and standard deviation are 4.89% & 2.78% respectively.
- J Investment ratios have been 65.99%, 63.37%, 72.43%, 70.35% & 64.89% in each respective year from 2061/62 to 2065/66 B.S.
- J Return on investment ratios have been 11.76%, 12.95%, 17.97%, 15.62% & 14.70% respectively from F.Y. 2061/62 to 2065/66 B.S. The average ratio is 14.44 and its standard deviation is 2.41.
- J Loan collection ratios have been 85.80%, 89.17%, 81.86%, 79.21% & 80.5% in each respective year from 2061/62 to 2065/66. The

mean value of the ratio and standard deviation are 53.09% & 33.98 respectively.

-) Net income after tax to total operating income ratios have been 44.37%, 44.89%, 74.39%, 61.59% & 34.36% in each respective period from 2061/62 to 2065/66. The mean value of the ratio and standard deviation are 50.02% & 15.89%.
-) The net working capital of the bank have been Rs.47086 thousand, 43622 thousand, 132401 thousand, 125080 thousand and 126379 thousand from F.Y. 2061/62 to 2065/66 B.S respectively. The net working capital has decreased in the fiscal year 2062/63 and 2064/65.
-) The net cash flow from operating activities are positive in all the fiscal year from F.Y. 2061/62 to 2065/66 but net cash flow from investing and financing activities are negative throughout the study period.
-) The annual income has been fluctuated trend taking 2061/62 as a base year and net profit after provision is also in fluctuating trend. Similarly, the amount of deposit has been in decreasing and increasing trend over the five years period. The magnitude of loan investment is also in increasing and decreasing trend.
-) There is positive relationship between Loan investment and Interest collection and it has highly significant. The Principal collection and Interest collection have also been correlated with each other. Further, there has been high degree of correlation between Loan investment and Interest collection.
-) Testing of hypothesis shows the insignificance and significant result of observed correlation coefficient.

CHAPTER-FIVE

SUMMARY, CONCLUSION & RECOMMENDATION

5.1 Summary

Nepal being an agrarian country, agriculture is the mainstay of its economy which provides large contribution to the nation's economy. That is why agricultural development is necessary for the overall development of the country. Agriculture development bank is a pioneer and leading institution in the sector of agricultural and rural financing, committed to focus its activities toward uplifting the socio-economic conditions of the larger populace of the country thorough assessing the agricultural and rural credit needs extensively.

ADB Dharan is one of the branch offices, established in 2034 B.S., and has been imparting services through different development programs launched by ADBN. The bank specially works on loan investment sector. It has been providing credit support to various purposes like cereal crops, marketing, agro-tools, irrigation, bio-gas, business, cottage industry, horticulture etc. For smooth running of any institution/organization, the organization must be financially strong. To meet the basis objectives of the bank, financial strength is key variable. For this, a detail analysis is needed. This study therefore, focuses on analyzing the financial performance of the ADB Dharan.

Financial performance analysis is not only helpful for evaluating the financial condition but also for the evaluation of planning and it guides to improve the planning in future. In order to study the financial performance of ADB Dharan, this report has been divided into five major chapters i.e. introduction, review of literature, research methodology,

presentation, analysis and interpretation of data and summary, conclusion and recommendation.

In introduction chapter, background of the study, the status of agricultural sector, impact of this sector on the overall economy, interdependence between agricultural and other economic sectors and its prospects and problems has been discussed.

Of the total economic activities, agriculture is the mainstay in Nepal as it is the main source of livelihood for majority of Nepalese people. However, the pace of development of this sector is not satisfactory because of poverty which is defined as low standard of living. Poverty is widespread in Nepal. So, effective and adequate access to rural credit is essential to promote growth of this sector and reduce rural poverty. ADBN focuses on the agricultural credit massively accessible to the rural community to uplift their living standard.

To fulfill the objective of the bank in sustainable manner, the bank needs adequate financial support because the availability and proper utilization of resources is considered one of the contributing factors for the success of the institution. Hence, this study focuses on the financial performance of the bank by assessing the status of its financial activities.

The necessity behind this study lies in the fact that it shows the clear vision about the bank's current position and helps to make the better perspective plan and policies for its perpetual growth and success.

This study is not far from the limitations. The study can not be done extensively because of time and resources constraints. Only five years financial data have been used for analysis, only important financial and statistical tools and techniques have been used to analyze the

financial performance of the bank. This study is mainly based on secondary data. Therefore, it may not be sufficient to draw conclusion.

The study has been mainly concentrated in assessing the various relevant factors of ADB Dharan to check the appropriateness of its financial performance.

In second chapter, different available materials related to the study have been studied or discussed which were useful to the study. As the general objective of the study is to analyze the financial performance of the bank, conceptual and theoretical review of financial position; the study has been mainly concentrated in assessing the various relevant factors of ADB Dharan to check the appropriateness of its financial performance.

In second chapter, different available materials related to the study have been studied or discussed which were useful to the study. As the general objective of the study is to analyze the financial performance of the bank, conceptual and theoretical review of financial performance, statements, statement analysis etc. are done. Financial performance is that managerial activity which is concerned with the planning, raising, controlling and administrating of financial resources of an enterprise. Again, it is basically concerned with analysis of financial statement of an enterprise by using different tools and techniques. Financial statement at least refers to the statements which are prepared by a business concern at the end of the year. They are income statement and balance sheet. They are prepared for the periodical review on the progress made and results achieved during the periodical review. Balance sheet is a statement of assets and liabilities and indicates the financial position of the firm at a particular moment of time. It communicates about assets, liabilities and

owner's equity in the firm. The income statement basically provides information on the various revenue and expense items during a certain period. The statement shows the total income generated in a certain period and the expenses made by the firm on that date.

Financial analysis is one key tool to analyze the firm's financial performance and its positions. Financial analysis is a systematic study and analysis of financial statement like balance sheet, income statement, and cash flow statement etc. of the firm. The major purpose of financial analysis is to get detail knowledge of financial/economic condition of an organization which may be beneficial to all the stakeholders like depositors, regulating authorities, stockholders, borrowers, management etc.

While analyzing the financial performance of the bank, different tools and techniques like common-size financial statements, trend percentage analysis, net working capital analysis, ratio analysis, correlation analysis, cash-flow analysis etc. have been analyzed.

The common-size statements indicate the relationship of various items with some common items (expressed in percentage of common items). Generally, two common-size statement i.e. common-size balance sheet and common-size income statements have been prepared while analyzing the financial performance of the bank.

Trend analysis is a useful device for condensing the absolute rupee data by comparative statement. The trend percentages show the relationship of each item with its preceding year's percentage.

Working capital is the finance required for meeting current needs of a business concern or industry. Net working capital is the amount by

which the value of current assets exceeds the value of current liabilities. Working capital is regarded as lifeblood of a business. Maintaining of adequate working capital is very much important in meeting solvency position, credit worthiness, optimum utilization of fixed assets, maximizing earning capacity of the firm.

Ratio analysis has been used as a yardstick for evaluating the financial condition and performance of the bank. Ratio analysis can be defined as an analysis of financial statements with the help of ratios. In the study, computed ratios have been compared with the ratios of the same bank over five period of years to know upward and downward trend or static position. Generally, frequently used ratios are liquidity ratios, leverage ratios, profitability ratios and activity ratios out of which appropriate and necessary ratios have been computed in this study.

Cash flow analysis has been done in the study with a view to know those transactions that have direct impact on cash because cash is the lifeblood of a business enterprise. Without cash no activities can be taken place. Cash flow statement deals with the inflow and outflow of cash between two balance sheet dates. It shows the sources (inflow) of cash receipts and purposes for which payment (outflow) of cash receipts and purposes for which payment (outflow) are made.

In the third chapter, scientific method of conducting research or various steps to be adopted by a researcher in studying his/her research problem have been discussed. Research methodology includes research design, population and sample of the study, sources of data, data collection techniques and data analysis tools etc.

Research design is very important aspect of any research study which constitutes the blueprint for the collection, measurements and

analysis of data. Population means all the members of any well-defined class of the people, events or objects. Sampling is a tool which helps the researcher to draw conclusions about the characteristics of the population after studying only those observations that are included in the sample. This study is made by using judgmental or purposive sampling. Only five years data, and only required statements like balance sheet, income statements have been taken for analyzing financial performance of the bank.

The required data for analysis is collected through the primary & secondary sources. Before using the collected data for analysis, reliability, suitability and adequacy of the data have been tested and some of well-accepted and important financial and statistical tools like common-size financial statement, net working capital, ratio analysis, cash-flow statement analysis, trend percentage analysis, mean, standard deviation, correlation analysis have been used as data analysis tools to measure the financial performance of the bank.

Data presentation and analysis is an important aspect of the study. Obtained data have been presented in tabular form and in diagram as per the requirement and the results have been interpreted to make them understandable presentation.

5.2 Conclusion

ADB Branch Office, Dharan has been successfully operating its activities since its establishment date. This bank specially works on loan investment sector. The bank has been granting credit to its client on short-term and medium-term basis. The bank has been implementing the Loan Reform Program 2054 B.S. adopted by ADBN. Under this program, the bank collects interest on monthly basis and it provides 10%

rebate on interest for repaying interest on monthly basis. On the other hand, the bank collects deposit on client security fund. At the time of borrowing, borrower are required to deposit 5% of loan in CSF (Client security fund). Following conclusions have been made after analyzing the financial performance of Agricultural Development Bank, Branch Office, Dharan.

-) Total expenses of the bank have been lower in comparison to its total income.
-) The bank has been continuously running in profit. However, the net profit of the bank has been fluctuating (increase or decrease) in each respective year. On the other hand, the bank has been properly utilizing its assets/resources in spite of that these assets could not have been able to earn sufficient income or the bank has not been able to invest its assets/resources on sufficient income earning sector. As a result, there is fluctuating in net profit throughout the study period as compared to base year.
-) Personnel expenses and interest expenses have been in fluctuating trend. Still, the expenses ratio of the bank has been less than 50% in average which shows that the bank has control over its expenses but it is high significant through the coefficient variance.
-) Low amount of interest income in comparison to investment, fluctuating trend of deposit collection, high assets turnover ratio show that the bank has been able to utilize available resource/assets effectively while operating its programs.
-) Return on assets ratio of the bank over the five fiscal years period is not satisfactory. The ratios have been less than 10% in each respective year i.e. its mean value is only 4.89%. Again, the ratio is in fluctuating trend which shows that the bank has not been able to utilize its assets/resources in generating sufficient income.

-) As the bank specially works on loan investment sector. Loan investment and loan collection performance of the bank is satisfactory. Investment ratios in all the fiscal years are above 50%. However, the ratios have been fluctuating trend in respective year. Hence, still some corrective measures are required to apply in order to achieve the optimum result.
-) As loan investment is the major transaction of the bank, it has made huge amount of loan investment of the total assets but the income generating capacity of the investment seems to be lower as compared to the amount invested. The ratio of interest income on investment has been 14.44% in average; again the ratio is fluctuating trend each year. It is clear that the bank could not have been able to earn sufficient income from investment.
-) Net income after provision to total operating income ratio has been 50.02% in average but it is in increasing and decreasing trend. The total operating income over the five year period have been increasing and decreasing each year which leads to the increase and decrease in net profit after provision. As a result, the ratio has been increase and decreasing each year. But, the average ratio of 50.02% indicates the satisfactory financial position of the bank.
-) Fixed assets ratio of the bank has been 13.93% in average. It shows that comparatively less amount of total assets have been invested to acquire fixed assets.
-) Loan investment and loan collection in a particular year the major concern for the financial viability and sustainability of the bank. Loan collection rate of the bank is quite satisfactory which accounts 53.09% in average. Further, the ratios have been increasing and decreasing trend each year over the five years period. The bank has been conducting Reform Program from 2054

B.S. which has obviously helped in increase in the collection of loan.

-) The bank has positive working capital in each respective year from 2061/62 to 2065/66. But there is heavy fluctuation in the volume of net working capital. This is due to the seasonal needs of working capital in different years.
-) Loan investment and principal collection in a particular year has been significant it means there is list degree of correlation between the two variables which indicates satisfied performance of the bank on loan investment and principal collection.
-) Both the variables, principal collection and interest collection have also been positively correlated. Further, they have been highly significant which is also favorable to the bank.
-) Correlation between loan investment and interest collection is positively correlated and they have also been highly significant it means when the magnitude of loan investment increases, amount of interest collection also increases.
-) The relationships between loan investment and loan collection in a particular year have been linear. Both variables have in increasing trend as compared to the base year.
-) Trend of loan investment in short-term and medium-term shows that there is linear relationship between investment in short-term and medium-term and both the variables have been increasing in same trend. But the amount of loan invested in unsecured loan has been constant throughout the study period. As short-term and medium-term loan investments have been in fluctuating trend, the trend of outstanding loan is also increase/decrease.

-) While analyzing the trend of deposit collection on client security fund, it has been shown that deposit collection has been in decreasing and increasing trend.
-) Testing of Hypothesis shows the significance and Insignificant of observed correlation coefficient. It means there is high degree of association between the variables and if one variable is in bad position, ultimately other variables are influenced by it.

5.3 Recommendation

Financial viability and sustainability is the key variable for the development of any institution. In such circumstances, to know the financial performance of ADB Dharan, the various preliminary and secondary data have been successfully operating its activities since its establishment date till now. However, there have been some problems/weaknesses in different aspect of the bank's financial performance. Hence, following essential recommendations and suggestions have been prescribed for the betterment of ADB Dharan for the day ahead.

-) The loan investment performance of the bank is satisfactory although the outstanding loan and interest receivable is gradually increasing. Hence, the bank has to put more effort in increasing the rate of principal collection and interest collection by properly implementing Loan Reform Program.
-) The bank is unable to generate sufficient operating income by utilizing its assets/resources. Return on assets and investment ratios are not so satisfactory. Hence, the bank should focus on generating sufficient amount of income by properly utilizing its resources.
-) The net profit after provision of the bank is satisfactory but also not optimum. Hence, the bank must put its efforts in controlling operating expenses. It should emphasis on efficient use of resources particularly through the human resources development.
-) Current ratio of the bank is more fluctuating. So, the bank should put effort in maintaining stability in current ratio by increasing cash balance.
-) The bank should focus the investment policy more efficiently so that the operating income should be increased.

-) It would be advisable to the bank give attraction to the outsider for new customers in order to increase the volume of any deposit.
-) There should be proper provision for bad debts losses since they are insufficient to meet loss. The worker's participation in management needs to be improved to get better work performance.
-) The bank should focus mind for enough flow of fund to the agro-based industries to mobilize capital.
-) Lack of sufficient number of staff is another considerable factor in the bank. Hence, sufficient number of efficient and capable staff should be provided to improve its performance. On the other hand, the staff should be trained time to time to give them adequate knowledge regarding projects, technicality, income and expenditure norms, project profitability, financial ratios and marketing potentiality of the proposed project.
-) Quality investment plays crucial role in maintaining financial sustainability of the bank. Hence, to cope with great challenges of delinquency loan and non-performing assets, the bank should give due attention to the selection of projects and entrepreneurs.
-) As the market oriented economy creates competition among each other against the monopoly market, only the market lead financial institutions would be sustained in such circumstances. Hence, the bank needs to review its process so as to compete with the present challenges of market lead economy.
-) Since the margin of security for providing loan is still 20% and it shows the non recovery of outstanding loan within maturity period. It would be suggested to increase the above mentioned margin.

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APPENDIX-A
Agricultural Development Bank, Branch Office, Dharan
Balance Sheet
From the Fiscal Year 2061/62 B.S. to 2065/66 B.S.

Liabilities	2061/62	2062/63	2063/64	2064/65	2065/66	Assets	2061/62	2062/63	2063/64	2064/65	2065/66
Reserve fund			12,731.60	1,909,377.40	12,599,797.60	Cash and bank balance:	2428387.44	4488465.43	5870722.97	3280544.4	4585268.272
Saving deposit	6,066,435.00	6,049,303.00	11,946,067.00	13,366,402.00	8,161,212.80	Cash	1742493	221096	124399.8	135702	135380.7
Other liabilities & Provision:	252,514,450.28s	263,745,423.07	273,592,508.77	284,572,499.33	295,262,643.95	Bank	685894.44	4267369.43	5746323.17	3144842.4	4449887.572
Account Payable	672,373.00	87,390.00	23249.80	164,374.00	135,395.00	Loan Investment:	170637359	177382811	206836053.2	210938051.8	204908083.9
Other Liabilities Account	34,977,975.00	34,459,739.00	13,107,193.40	20,436,973.20	24,573,402.10	Short-term Investment	8412500	83885000	10479200	106859200	108326400
Internal Office Payable	170,572,437.28	171,636,401.07	249,987,495.17	251,692,607.53	258,787,632.65	Medium-term Investment	86315784	9301236	101801648.2	103803646.8	96326136.4
Provision for loan Loss	46,291,665.00	52,561,893.00	10,474,570.40	12,278,544.60	11,766,214.20	Unsecured loan Investment	196575	196575	275205	2752.5	255547.5
Contra		10,113,227.00				Loan and Advance To Employees	3694692	4316643	5085171	4271319.4	4274315.5
						Advance Account	4266685	3624066	4789234.8	5796592.2	6071514.8
						Interest Receivable	34512784	39417048	35501312	37652221.6	39596510.2
						Fixed Assets	43040977.84	40565692.64	27468813.4	37809549.33	56587961.68
						Contra		10113227			
Total	258,580,885.28	279,907,953.07	285,551,307.37	299,848,278.73	316,023,654.35	Total	258,580,885.28	279,907,953.07	285,551,307.37	299,848,278.73	316,023,654.35

Source: Annual Audit Report of Agricultural Development Bank, Branch Office, Dharan

APPENDIX-B
Agricultural Development Bank, Branch Office, Dharan
Profit And Loss Account
From the Fiscal Year 2061/62 B.S. to 2065/66 B.S.

Expenses	2061/62	2062/63	2063/64	2064/65	2065/66	Income	2061/62	2062/63	2063/64	2064/65	2065/66
Interest Expenses	1,881,514.00	4378710	2,580,736.20	3565709	4279637.70	Interest Income:	2069554	22979343	37159376.8	32957372	30118774.4
Administrative Expenses:	2,827,280.00	2,915,904.00	3,435,789.21	3866836.792	3346179.29	Interest Income	20599184	21858716	3696124.4	32514843.2	29233731.8
Personnel Expenses	2,523,181.00	2,593,473.00	2,808,687.00	3151185.8	2889695.29	Other Interest Income	100370	1120627	198136.4	442528.8	885042.6
Office Expenses	304,099.00	322431	627,102.21	715650.992	456483.39	Other Income:	1085664	167995	466378.85	452050.2	435311.266
Other Expenses	632,909.00	503589	5,982,939.20	5678011.57	109639.1.00	Commission/Discount Income	177666		304251.5	315245	311625.6
Provision for Loan Loss	7,540,003.00	6451084			1989770.90	Miscellaneous Income	907998	1679595	162127.35	136805.2	12685.666
Contra		93704			00.0	Income from Loan Loss	281369		1987839		373787.7
Net Profit after Provision	9,184,881.00	10315947	27,614,130.04	20298864.84	10348384.48						
Total	22,066,587.00	24,658,938.00	39,613,594.65	33,409,433.20	30,927,873.37	Total	22,066,587.00	24,658,938.00	39,613,594.65	33,409,433.20	30,927,873.37

Source: Annual Audit Report of Agricultural Development Bank, Branch Office, Dharan

APPENDIX-C
Agricultural Development Bank, Branch Office, Dharan
List of Current Assets and Current Liabilities
From the Fiscal Year 2061/62 B.S. to 2065/66 B.S.

Current Assets	2061/62	2062/63	2063/64	2064/65	2065/66	Current Liabilities	2061/62	2062/63	2063/64	2064/65	2065/66
Cash and Bank balance:	2,428,387.44	4488465.43	5,870,722.97	3280544.4	4585268.27	Account Payable	672373	87390	23249.8	164374	135395
Cash	1,742,437.00	221,096.00	124,399.80	135702	135380.70	Other Liabilities Account	34977975	39459739	13107193.4	20436973.2	24573402.1
Bank	685,894.44	4,267,369.43	5,746,323.17	3144842.4	4449887.57	Provision for Loan Loss	46291665	52561893	10474570.4	12278544.6	11766214.2
Short-term investment	84,125,000.00	83885000	104,759,200.00	106859200	108326400.00						
Loan and Advances to Employees	3,694,692.00	4316643	5,085,171.00	4371319.4	4274315.50						
Advance Account	4,266,658.00	3624066	4,789,234.80	5796592.2	6071514.80						
Interest Receivable	34512784	39417048	35,501,312.00	37652221.6	39596510.20						
Total	129,027,548.44	134,731,222.43	156,005,640.77	157,959,877.60	162,854,008.77	Total	81,942,013.00	92,109,022.00	23,605,013.60	32,879,891.80	36,475,011.30

Source: Annual Audit Report of Agricultural Development Bank, Branch Office, Dharan

APPENDIX-D
Agricultural Development Bank, Branch Office, Dharan
Receipt And Payment Account
From the Fiscal Year 2061/62 B.S. to 2065/66 B.S.

Receipts	2061/62	2062/63	2063/64	2064/65	2065/66	Payments	2061/62	2062/63	2063/64	2064/65	2065/66
Opening Cash/Bank	2,312,898.00	4059.47	5,371,255.40	5870723.6	2919520.50	Loan Investment	105384939	118501501	125111931	183989954.4	122902964.6
Loan Collection	90,417,661.00	105,668,181.00	102,421,912.60	145737359.6	10451296.70	Payment of Overdraft	7900000	8000000	5636593.2	11197229.4	8450544.7
Interest Collection	15,763,989.00	18,275.615.00	20,096,759.20	26184603.2	21351709.60	Refund of Saving Deposit	50179	213302	1326246.6	3856391	2194927.8
Overdraft Received	7,900,000.00	7000000	5,600,000.00	11900000	8450000.00	Refund of Security Money			520672.6	1107241.8	
Saving Deposit on Client's Security	1,714,416.00	1901271	2,970,661.40	4681107.2	2830597.90	Loan & Advances to Employees	1945319	1017737	1116512.6	2660791	1436559.8
Deposit of Security Money			3,164,126.00	6341498.8		Fund sent to Regional office	2007205	2412256	9414115.2	4196679.2	2289956.5
Fund Received from Regional Office	1000000		1,825,707.80	1081850	993216.90	Administrative Expenses	2008205	2412256	2530704.4	4196679.2	2289956.5
Other Cash Income	5,678,808.00	8174073	10,340,954.00	29974488.6	7438471.30	Purchase of Office Materials	25146	22048	15925		157989
						Other Expenses	3222509	5203024	4384333.8	1933688.4	
						Cash/Bank Balance					
Total	124,787,772.00	145,078,187.00	151,791,376.40	231,771,631.00	54,434,712.90	Total	124,787,772.00	145,078,187.00	151,791,376.40	231,771,631.00	54,434,712.90

Source: Annual Audit Report of Agricultural Development Bank, Branch Office, Dharan

APPENDIX-E
Agricultural Development Bank, Branch Office, Dharan
Cash Flow Statement
From the Fiscal Year 2061/62 B.S. to 2065/66 B.S.

Year	2061/62	2062/63	2063/64	2064/65	2065/66
Cash flow from operating activities:					
Interest collection	15763989.00	18275615.00	20096759.20	26184603.20	21351709.60
Other cash income	5678808.00	8174073.00	14477335.60	29974488.60	7438471.30
Administrative expenses	(2007205.00)	(2412256.00)	(2530704.40)	(4196679.20)	(2289956.50)
Purchase of office materials	(25146.00)	(22048.00)	(15925.00)		(157989.00)
Other expenses	(3222509.00)	(5203024.00)	(4384333.80)	1933688.40	
(I) Net cash flow from operating activities	16187937.00	18812360.00	27643131.60	53896101.00	26342235.40
Cash flow from investing activities:					
Recovery of loan principal	90417661.00	105668181.00	102421912.60	145737359.60	104511496.70
Saving deposit on client's security fund	1714416.00	1901271.00	2970661.40	4681107.20	2700597.90
Deposit of security money	1714416.00	1901271.00	3164126.00	4681107.20	27700597.90
Loan & Advance to employees	(1945319.00)	(1017737.00)	(1116512.60)	(2660791.00)	(1436559.80)
Loan investment	(105384939.00)	(118501501.00)	(125111931.00)	(183989954.40)	(122902964.60)
Refund of saving deposit	(504179.00)	(213302.00)	(1326246.60)	(3856391.00)	(2209227.80)
Refund of security deposit	(1714416.00)	(1901271.00)	(520672.60)	(1107241.80)	
(II) Net cash flow from investing activities	(15702360.00)	(12163088.00)	(19518662.80)	(36514804.20)	(16636059.70)
Cash flow from financing activities:					
Overdraft received	7900000.00)	7000000.00	5600000.00	11900000.00	8450000.00
Fund received from regional office	1000000.00		1825707.80	1081850.00	993216.90
Payment of overdraft	(1370088.00)	(52119854.00)	(6414115.20)	(19549111.40)	(6332501.50)
Fund sent to regional office	(1370088.00)	(6219854.00)	(7625000.60)	(17764491.80)	(5339829.30)
(III) Net cash flow from financing activities	(370088.00)	(6219854.00)	(7625000.60)	(17764490.80)	(5339829.30)
Net cash/cash equivalent increase/decrease (I+II+III)	115489.00	429418.00	499468.20	(383194.00)	4366346.40
Add:- Opening Cash/Bank balance	2312898.00	4059047.00	5371254.77	3663738.40	218921.87
Closing Cash/Cash equivalent	2428387.00	4488465.00	5870722.97	3280544.40	4585268.27

Source: Annual Audit Report of Agricultural Development Bank, Branch Office, Dharan

APPENDIX –F
STATISTICAL FORMULAE USED IN THIS STUDY

1. Geometric Mean (G.M.) = $\sqrt[n]{x_1 \times x_2 \times x_3 \times \dots \times x_n}$ $\sum f x_1 \times x_2 \times x_3 \dots x_n \frac{1}{n}$

Where, $x_1, x_2, x_3, \dots, x_n$ = given n observations

n = number of observations

2. Sample Standard deviations (s) = $\sqrt{\frac{\sum f x^2 - \frac{(\sum f x)^2}{N}}{N - 1}}$

Where, x = observation, \bar{x} = Arithmetic Mean, N = no. of observation

3. Correlation(r) = $\frac{N \sum XY - \sum X \sum Y}{\sqrt{[N \sum X^2 - (\sum X)^2][N \sum Y^2 - (\sum Y)^2]}}$

Where, r = Karl Person's co-efficient of correlation

X & Y = Observed variables

= Summation (total)

N = Number of observation

4. Co-efficient of Variation (C.V.) = $\frac{\sigma}{\bar{X}}$

5. Probable error P.E.(r) = $0.6745 \times \text{S.E.}(r) = 0.6745 \times \frac{\sqrt{\sum f_i - r^2 A}}{\sqrt{N}}$

6. Linear trend line(Y_c) = $a + bx$

Where, Y = actual values of y

Y_c = Computed value of Y

a & b = Constant