CHAPTER - I
INTRODUCTION

1.1 GENERAL INTRODUCTION

Nepal is a landlocked developing country in south Asia with a per Capita National Income of US$ 484 in 2008(Central Bureau of Statistics, GON, 2009). The country is surrounded by two Asian emerging giant economies; Republic of India in South, East and west and People's Republic of China in the North. Presently, the country is politically transformed to a Federal Democratic Republic, and is in the process of transforming the structure of the state in this regard. The political transformation was initiated after reaching in the 2006 Broad Peace Agreement. Before internal political conflict which encompassed over a decade seriously affected Nepalese economic and social environment. It is estimated that Nepal had annually lost 2.1% GDP during the conflict (Ra S. and Singh B, 2005). During this period, a large number of domestic financial institutions retreated from remote and rural areas of the country due to security concerns, which led to magnify inequality for accessing financial services. The country has now entered a period of New Nepal, and is striving to meet the people's heightened expectation in this new context.

Nepal is a developing country and is striving to develop and modernize its economy rapidly on rational and socially desired footings with almost one-third of its population living below the poverty line. Agriculture is the backbone of the Nepalese economy, providing a livelihood for over three-fourths of the population and accounting for 40 percent of GDP. Although, the country has one of the lowest levels of per capita income in the world, Nepal has considerable scope for exploiting its potential in hydropower and tourism, areas of recent foreign investment interest. Prospects for foreign trade or investment in other sectors will remain poor because of the small size of the economy, its technological backwardness, its remoteness, its landlocked geographic location, its civil strife, and its susceptibility to natural disaster.

In a country like Nepal, banking consciousness is lacking as well as majorities of the people are economically and financially immobile. So, the country is facing great problem to get economic prosperity. As the people are financially poor, the intermediary channels should allocate the funds to sectors like agriculture and other productive sectors so that to uplift the life standard of the people and ensure the sustainable economic growth.

Through intermediary channels such as financial institutions and financial markets, funds should be efficiently channeled from depositors and investors to borrowers in need of funding. By mobilizing the scattered idle resources from the savers, intermediary channels pools up the funds in a sizable volume in order to feed the fund requirement of productive sector of the economy that consequently help in increasing employment opportunity, reducing poverty and thereby developing the society and the nation as a whole. The role played by financial institutions and financial markets in this process is referred to as the function of financial intermediation. Financial institutions as important financial intermediary channels need to maintain sound business operations. Financial institutions need to better satisfy various financial demands of customers and enhance profitability by continually improving the ways in which they manage risks and their business operations and to remain as the major contributing factors to the growth of the nation's economy, they themselves have to have sustainable existence and growth of themselves.

As we know, loan disbursement and collection is one of the main functions of every commercial bank and it may be collectively entitled as "loan management". Loans are the risky as well as profitable asset which the bank grants to the person for the temporary use. And management is the way to handle anything for the better use. So loan management can be defined as the management of granted loan in a better manner. Loan management, generally, focused on the management of loan distribution and collection procedures. Loan management is concerned with the activities of lending and recovering the credit so that the bank will not face the problem of fund as the funds are provide from the public deposition. As for maintaining liquidity position of the bank, there should be the proper management of the loan distribution and collection, as the liquidity depends upon the disbursement of the loan.

Loans and advances portfolio, being the most significant asset of the financial institutions, has direct impact on its profitability. Increase in competition and emergence of new types of risks in the financial sector has lead to efficient loans and advances management. In order to ensure strong portfolio financial institutions need to implement necessary policies aiming at strengthening of pre sanction appraisal and post sanction monitoring system. In order to cope up with the changing scenario, financial institutions in Nepal are strengthening their organizational setup through specialized departments to meet the credit requirements of the borrowers and continuous analysis of the potential credit growth.

1.2 BANKING IN NEPAL

In the context of Nepal, the history of modern banking system is not very lengthy. This becomes explicit when one compares Nepalese banking system with the banking system of other countries of the world but this doesn't mean that there was the complete absence of banking activities in Nepal in ancient period. The banking in the form of money leading can be traced back in the reign of Gun Kam Dev towards the end of eighth century. According to the historical evidence in 723 Gun Kam Dev, the King of Kathmandu had borrowed money to rebuild and to rule Kathmandu.

Another historical example as to the pre-modern banking system is found when Rana Prime minister Randip Singh was administering Nepal in 1880 AD. During his regime one financial institution name by 'Tejarath Adda' was establish to give loan facilities to the governmental staff and to afford loan facilities to the public in general in the term of 5% interest. 'Tejarath Adda' may be regarded as the father of modern banking institution in Nepal. During the Prime Ministership of Juddha Shamsher in 1994 B.S. the 'Tejarath Adda' was replaced by a commercial bank, 'Nepal Bank Ltd.' which marked the beginning of the new era in the history of modern banking in Nepal. Nepal Rastra Bank was established in 2012 B.S. to do the function of a central bank. Rastriya Banijya Bank, as a second commercial bank, was established in 2022 B.S. Similarly, to uplift the agricultural sector and other supporting sector of the rural area

of the country the Agricultural Development Bank Limited was established in 2024 B.S.

After the introduced financial reforms to facilitate the private and foreign investment in the financial sector the new phase of the development of the banking institution started. The establishment of Nepal Arab Bank Ltd. in 2041 B.S. under the commercial bank act 2031 B.S., with the allocation of 50% share of Emirates Bank Ltd., Dubai, 20% share of Nepalese financial institutions and 30% share of general public, marked the first phase of development of the banking institution. Nepal Indosuez Bank Ltd. (now Nepal Investment Bank) emerged in 2042 BS. as the second and Nepal Grind lays Bank Ltd. (now Standard Chartered Bank Nepal Ltd.) established in 2043 B.S. as the third joint venture bank in the country.

When the multiparty democracy was restored in 2046 B.S., Nepal was trying to develop its economic condition through global trend mixing with economic liberalization, globalization and market dependent economic policy. By adoption of these policies, lots of institutions have been established to participate in Development, Manufacturing, Processing, Banking and other various areas through the activities of public private partnership. Under this government programme many Joint-venture banks, Development Banks, Finance Companies and Co-operatives have been established with authority of cash transaction. Among them, Development Banks established to plays the vital role for the fulfillment of cash scarcity of industrial sector, business sector, foreign employment sector and other various sector. The history of Development Bank is nearly as old as Commercial Banks. Development Banks were established under special enactment of Development Bank Act 2052.

With the introduction of the Development Bank Act, a number of new development banks come into existence in the private sectors. Now, the development banks are operating under the Bank and Financial Institution Act 2063 as 'B' class financial institutions. They usually accept time deposit and advances loans to individuals, firms, companies or institutions for various purposes in order to promote their economic benefits. Development Banks are popular among low income and medium class people to make available hire purchase facility and other loans for the purchase of vehicles, machinery tools, equipments and other moveable property.

Recently, the trend of upgrading of 'C' and 'D' class financial institutions to 'B' class financial institutions and 'B' class financial institutions to 'A' class financial institutions is on the row. Following this trend, the Agricultural Development Bank Limited, which was established as 'B' class financial institution in its initiation registered as company limited in 2062 A.D. and upgraded to 'A' class financial institution.

After that, there was a gradual increase in the number of joint venture commercial banks in Nepal. Now, there are 26 commercial banks, 73 development banks, 78 finance companies, 17 micro credit development banks, 16 saving and credit cooperatives (limited banking) and 47 NGOs in operation at present *(NRB, List of banks and non-bank financial institution as of Mid-July, 2009)*. The open and liberal policy in the financial sector has helped in establishment of commercial and financial institutions in the country.

1.3 BRIEF INTRODUCTION OF ADBL

With the main objective of providing institutional credit for enhancing the productivity of the agricultural sector in the country, the Agricultural Development Bank Limited was established in 1968 under ADBN Act 1967, as a successor to the cooperative bank. The Land Reform Saving Cooperation was merged with ADBN in 1973. Subsequent amendments to the Act empowered the bank to extend credit to small farmers under group liability and expand the scope of financing to promote cottage industries. The amendments also permitted the bank to engage in commercial banking activities for the mobilization of domestic resources.

Agricultural Development Bank Limited (ADBL) is an autonomous organization largely owned by government of Nepal. The bank has been working as a premier rural credit institution since the last three decades, contributing a more than 67% of institutional credit supply to the country. Hence, rural finance is the principle operational area of ADBL. Besides, it has also been executing Small Farmer Development Program, the major poverty alleviation program launched in the

country. Furthermore, the bank has also been involved in commercial banking operations since 1984. The enactment of Bank and Financial Institution Ordinance (BAFIO) in February 2004 abolished all Acts related to financial institutions including the ADBN Act, 1967. In the line with the BAFIO, ADBL has been incorporated as a public limited company on July 14, 2005. Thus, ADBL operates as a "A" category financial institution under the legal framework of BAFIO and the Company Act, 5053 B.S or 1996 A.D.. (www.adbl.gov.np)

1.4 FOCUS OF THE STUDY

Every country needs to give emphasis on upliftment of economic conditions. The upliftment of economic conditions of a nation needs mobilization of its own domestic resources through banking. But the financial situation of Nepalese banking sector is in a very poor condition. Apart from other measures required to improve their performance, the banking sector is expected to have better prospects with effective profit planning and control. Loan management being one of the major factors which directly affects the profitability position of the bank this study mainly focuses on the loan management of a banking institution i.e. Agricultural Development Bank Limited.

Agricultural Development Bank Limited established as development bank, later converts its operation as commercial bank, has been playing a helpful role in the economic development of Nepal. Banks hold the deposit of many persons, government establishment and business units and grant loan and advances to the industries, people and companies that results to increase the productivity of nation. This means fund collection and the mobilization in the productive sector is one of the main function of Agricultural Development Bank Limited.

The research study is focuses on the loan management of the Agricultural Development Bank Limited excluding the other aspect of bank transaction. The study focuses on evaluating purpose wise and region wise loan disbursement, collection and outstanding. In general, the research study has been carried out to analyze the loan management through the use of appropriate statistical and financial tools.

1.5 STATEMENT OF THE PROBLEM

After the restoration of democracy and world wide evolution of globalization and liberalization, Nepal has introduced the liberal economic system even though there are many problems confronting to the Nepalese economy. This application of liberal economic system enhances the establishment of financial institution in Nepal. Although the banking service per person is low in Nepal, the number of establishment of financial institution has been increasing day by day.

Financial Institutions, as mentioned before, have a vital role in the economic upliftment. Financial institution deals in exchanging the currency, accepting deposits giving loans and performing commercial transactions. Therefore financial institution acts as pool between savers and investors of the fund. Banks or Financial Institutions must also maintain the adequate cash and bank balance to meet the day to day management of resources, i.e. liquidity position of the bank.

Although every bank has wide range of services covering the different level of society, deposit collection, loan disbursement and collection has considered as main function to be performed by banks. Agricultural Development Bank Limited is no exception in this case. Agricultural Development Bank Ltd (ADBL) is a single commercial organization established in the form of a development bank especially with an objective to promote agricultural field of our agricultural based country. Irrespective of its effort towards the agricultural sector for long duration from the time of its inception no such noticeable changes could be observed in relation to the living standard of peasants. The financial status of this bank is also not considered as prosperous to that of recent one. ADBL has to follow a number of directives set by the central bank in all the activities, despite of this the bank has been facing various problems like lack of good lending opportunities, poor information systems, political instability, security problem, increasing level of non-performing assets etc. So, to overcome such problem the bank has to adopt the proper techniques of loan management which help the bank in maintaining the liquidity position and improve its performance. And the study on the loan management of ADBL would be highly beneficial for pointing out the strengths and weakness.

This research paper attempts to show the effective application of loan management within the conceptual framework of loan disbursement and collection procedure. Besides this, the present study, intends to explore the loan disbursement and collection pattern of ADBL, the difficulties associated with it, the situation of loan outstanding and the recommendation to improve the lending and recovery procedure of the disbursed loan.

1.6 OBJECTIVES OF THE STUDY

To complete any work systematically, there must have some certain set of specific objectives. The study without the objective cannot be imagined. The main objective of the study is to analyze the loan management of ADBL in terms of loan disbursement and collection.

The specific objectives of the study are as follows:

1. To examine the loan disbursement and collection procedure of ADBN.
2. To evaluate the trend of Loan Disbursement and collection in totality, by sectors and categories.
3. To show the achievement of purpose wise and development region wise loan disbursement, outstanding and collection of ADBN.
4. To measure the relationship between loan disbursement and collection.
5. To suggest remedies for improving loan disbursement and collection procedure to ADBN.

1.7 IMPORTANCE OF THE STUDY

ADBL is one of the major financial institutions supporting to the rural and urban people for institutional credit. ADBL provides loan to agricultural sector, industries and trade, priority and deprived sector and even to individual. Many lending agencies are present in Nepal but agricultural financing problem has not been solved yet. ADBL has contributed more than 79 percentage of institutional credit to the rural

populace by strengthening its network in all over the country. Non-institutional financing plays a vital role in rural area. This study provides some information to analyze the data and some occurring problems for specific field. This study tries to focus the ADBL's disbursement and collection procedure so that all Nepalese farmers and other entrepreneur can get some knowledge about receiving the institutional credit from ADBN easily.

The significance of the study is as follows:

1. This study can be useful for all those person who show the interest on banking sector as researcher, jobseeker, investor, borrower, depositor, etc.
2. The study will help to figure out the financial conditions and may provide the useful information to the organization under study.
3. The findings of the study may be significant for the bank to incorporate its weakness and apply corrective measures regarding to loan disbursement and collection.
4. Although the study includes only the issue of loan management, it will support for those researchers who want to make more findings on this topic.

1.8 LIMITATIONS OF THE STUDY

Today world is dynamic; everything here is of limit character. Likewise, this study is also surrounded by limitations. This study is for the partial fulfillment of MBS course of T.U., so it may not cover other aspects. The limitations of the study are as follows:

1. The study covers the data of last 5 years period only i.e. from F/Y 2061/62 to 2065/66 B.S.
2. This study is focused only on loan disbursement and collection procedure of the ADBL excluding all the other aspect of the bank.
3. The study is made on the basis of collected secondary data as well as primary data as possible. And hence the findings may depend on the reliability of information and data provided by bank.
4. Limited time and resources availability is another limitation of the research study to make specific findings.

1.9 SCHEME OF THE STUDY

This study is classified into five different chapters and the chapters are as follows:

Chapter 1 – INTRODUCTION

The first chapter deals with the meaning of bank, brief historical background of ADB/N, Statement of the problem, objectives, importance, limitation of the study, and scheme of the study.

Chapter 2 – REVIEW OF LITERATURE

The second chapter, review of literature includes some work, analyze and discussion already made in the field of banks in various planning periods and finally a brief review of previous research works specially made into respect of disbursement and collection procedure.

Chapter 3- RESEARCH METHODOLOGY

This chapter three include research methodology, which deals with the research design, period covered, types and sources pf data, data collection procedure, method of analysis and analytical tools use.

Chapter 4 – DATA PRESENTATION AND ANALYSIS

Data presentation and analysis is the forth chapter that deals with data collection through various sources. It mainly consists of the analysis of various types of data regarding disbursement and collection as well as recovery rat of ADBN.

Chapter 5- SUMMARY, CONCLUSION AND RECOMMENDATION

This is the last chapter of this research paper in which summary of this study, major findings and recommendations have been made on the basis of the study.

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CHAPTER - II

REVIEW OF LITERATURE

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2.1 CONCEPTUAL REVIEW

2.1.1 CONCEPT OF LOAN AND ADVANCE

The amount of principal, which is lent by the banks to the customer, is called loan. Loan is the amount of money lent by the creditor to the borrower either on the basis of security or without security. In a loan, the borrower initially receives or borrows an amount of money, called the principal, from the lender, and is obligated to pay back or repay an equal amount of money to the lender at a later time. Typically, the money is paid back in regular installments, or partial repayments; in an annuity, each installment is the same amount. The loan is generally provided at a cost, referred to as interest on the debt, which provides an incentive for the lender to engage in the loan. In a legal loan, each of these obligations and restrictions is enforced by contract, which can also place the borrower under additional restrictions known as loan covenants. (Wikipedia, the free encyclopedia, 2010)

According to the Oxford Advanced Learners Dictionary, "loan is sum of money lent by a bank". Acting as a provider of loans is one of the principal tasks of banks. Loans and advances are considered as the important items on the asset side of the balance sheet of bank. Banks earn interest on loans and advances which is one of the major source of income for the bank. So loan is the amount of money which is lent to the borrower in the condition of repaying it back with interest. Bank's deposits can cross beyond a desired level but the level of loan and advances should not cross it.

2.1.2 TYPES OF LOAN

Bank makes a wide variety of loans to a wide variety of customers for many different purposes. For customers, the cause of taking loan facility may be investment in business, purchasing automobiles, taking dream reactions, pursuing college education, constructing home and office building etc. According to nature, scope and objective the loan can be divided into different types.

According to the nature of date of maturity, the loan can be classified as follows.

a. Short-term Loan
b. Middle-term Loan
c. Long-term Loan

Similarly, with the nature of price the loan can be classified into following group.

a. Rate free or with interest.
b. Secured or Unsecured
c. Collateral or Non-collateral
d. Pledge or Non-Pledge.

Johnson and Johnson has classified loan as follows. (Johnson and Johnson, 1940)

a. Commercial Loan
b. Consumer Loan
c. Mortgage Loan

Likewise Satish Manjal has classified loan as follows. (Manjal, 1997)

a. Overdraft
b. Cash Credit
c. Bills discounting

2.1.3 LOAN MANAGEMENT

Loan management refers to systematic identification of needy or required party, verifying their documents, pre and post site visit, disbursement of loan, keeping

collateral as cushion for giver and post-disbursement inspection cum sound recovery of granted loan as far as practicable. Loan management is one of the important responsibilities of the lending officer. In total loan management is planning, organizing and controlling the activities associated with loan at the time of disbursement and collection in a proper way. In loan management, planning denotes the consideration of risk and return to meet profit along with division of loan, organizing means putting goals and objectives into action through definition and processes with support functions and controlling means making and monitoring loan as per deadlines supported by corrective action to be taken in granting loan if necessary.

Effective management of the loan and the credit function is fundamental to a bank's safety and soundness. Loan management is the process by which risks that are inherent in the credit process are managed and controlled. Because review of the loan management process is so important, it is primary supervisory activity. Assessing loan management involves evaluating the steps bank management takes to identify and controlled risk throughout the credit process. The assessment focus on what management does identify issue before them become problem. (Rose, 2002)

All the activities followed by the bank for the disbursement and collection of loan is known as Loan Management. The two simultaneous running aspects are:

1. Loan Disbursement
2. Loan Collection

2.1.3.1 Loan Disbursement

Banks are expected to support their local communities with an adequate supply of credit for all legitimate business to consumers' financial needs and to price that credit responsibility in line with competitively determined interest rates. Indeed, making

loans is the principal economic function of banks to fund consumption and investment spending by business, individuals and units of government. How will a bank perform its lending function has a great deal to do with the economic health of its region, because bank loan support the growth of new business and jobs. Loans often seem to convey positive information to the market place about borrower's credit quality, enabling to obtain more and perhaps some what cheaper funds from other source.

In Banking sector all transaction, unavoidable loan disbursement policy and its working methods or procedure is regarded very important. The policy of loan flow, documents of loan flow, renewable loan, the conditions of loan flow, the provision of loan security, the procession of the payment of the capital and its interest and others such procedures play a great role in healthy competitive activities.

2.1.3.2 Loan Collection

A bank or financial institution can disbursement necessary amount to their borrowers and collect the entire disbursed amount in time if there is a good loan management system. Just as expediting the collection process conserves cash showing, disbursements accomplish the same thing by keeping cash on hand for longer period. An obvious way to do this is simply to delay payment, but this equally involves difficulties. Firms in the past have devised rather ingenious methods for "legitimately" lengthening the collection period on their own check ranging from maintenance disbursement accounts in remote banks to using slow, awkward payment procedure. Since such practices are usually recognized for what they are, their use should be avoided.

Designation of repayment of the loan is also an art to the bankers. The appropriate selection of the repayment method according to nature of loan is also a challenging part of lending. Loan is defined as the amount expected to be repaid with interest. In each loan, modalities for repayments is mentioned which is affected by the nature of debt. In case of long-term loan payment is received in the form of installment (principle +interest) as per pre-fixed schedule. There are loans in which interest and

principle is paid in lump sum. In some cases, interest is paid periodically and full debt at maturity.

2.1.4 SECURITY AND MARGIN POLICY

ADBL has accepted the collateral within the area of Nepal. But collateral which is valid and acceptable to the bank is valued by the authority. Loan is sanctioned and granted by deducting the margin as given below

Table 2.1

Security and Margin policy

S. No.	Type of Collateral	Margin Deducted %	Loan %
1	Land	40	60
2	Building /Godown	40	60
3	Machinery/ Equipment	50	50

Source: (Loan Department, ADBL)

2.1.5 LOAN POLICY

The loan policy is the primary means by which senior management and the board guide lending activities. Lending policy is one side of the overall range of policies that guide a bank's operations. Good policy is a product of the intelligent application of sound principles to changing combination of factors and circumstances. Although the policy primarily imposes standards, it also is a statement of the bank's basic credit philosophy. It provides a framework for achieving asset quality and earning objectives; sets risk tolerance level and guide the bank's lending activities in the manner consistent with the bank's strategic decision. Loan policy sets standards for portfolio composition individual, credit decisions, fair lending and compliance management. Loan policies vary in length, organization, degree of detail, breadth of

topics, i.e. there is no ideal format. Frequently, the bank's general lending policy will be supplemented by more detailed underwriting standards, guidelines, and procedures. Within the same banking company, certain aspects of the policy may vary because of factors such as geographic location, economic conditions, personal or portfolio objective. Without effective and proper loan policy, no bank can accomplish its predetermined goals and objectives. The sound loan policy of a bank is based on following principles as;

- Principle of safety funds
- Principle of liquidity
- Principle of security
- Principle of purpose of loan
- Principle of profitability
- Principle of spread
- Principle of national interest

2.1.6 OBJECTIVES OF THE SOUND LOAN POLICY

Considering the importance of lending to the individual bank and also the society it serve, it is vital that the bank carefully plans its credit operations sound credit policy, whose objectives are as follows, is a foundation in this direction (Dahal and Dahal, 2002).

- **To have Performing Assets**
  Performing assets repays principal and interest to the bank from its generated cash flow. The objective of sound loan policy is to keep financial health of the bank meeting interest of depositors and share holders as well.

- **To Contribute Economic Development**:

Sound loan policy says that loans are granted to productive sector of which provides multiple benefit to the society such as: direct and indirect employment generation, capital creation, tax paid to the government and uplift of living standard.

)   **To Set a Yardstick for Control**

Periodic follow up is essential for proper implementation of any credit policy. Sound credit policy aids in identification the deviation between actual and standard performance along with corrective action to be taken.

)   **To Provide Guidelines to Lending Officials**

There should be no discrimination while dealing with borrower by one officer to another and one branch or another. Individual loan officer make inconsistent judgment from each other and also with organizational goals in the absence of credit policy.

2.1.7 LOAN APPROVAL PROCESS

The loan approval process and working method of bank are very important. It is a multi-step process. An individual or the business organization come to borrow loan so, a bank should know the process and working method about it. A bank provides loan to its customers. There may not be the same process/ method for providing all kinds of loans. The processes to approve the loan to same industry, businessman or merchants are different. The process of the bank may be different in approving the loan for primary sector and for bigger projects. The bank makes special types of study, research and analysis before providing loan. It makes supervision and inspection in such project even after providing loan. Behind it, there are two fundamental reasons: First the bank wants to be more secure to its investment and second it grows the quantity of loan. If the wrong loan proposal is approved that may cause great loss to the lending institution. So loan approval process is done with great care. There are many processes involved to approve the loans which have been appended below:

1. **Application (Submission of Loan Request)**

   Every loan process gets momentum after submission of loan request. It encompasses project proposal, historical financial statements and documents about incorporation cum legal existence.

2. **Conducting the Interview**

   Loan officer may conduct oral interview with the applicant to gauge authenticity at the bank premise. It should be done in a friendly and positive manner. Here is the threat that interviewer may be extremely negative due to risk of undesirable loan. It clarifies about:

) Loan purpose
) Amount of loan
) Primary as well as secondary repayment sources of borrower.
) History of business.
) Banking relationship

3. **Credit Analysis**

   "Analyzing a credit request includes analysis of the character, capacity and capital position of the potential borrower and evaluation of those features in terms of the current economy and the economic conditions predicted over the loan period"

4. **Historical Analysis**

   It denotes ex-post analysis .It deals about past financial statement and business risk, which is quantitative analysis by nature. Further, it depicts the financial performance of management and business risk analysis supports to measure such as: supply, demand, production, collection etc in the past and how management settled them. It discloses the borrower's likely success or failure in repaying the debt in future.

Financial institutions have plasticized analysis of 5cs of credit.

- ） Character
- ） Conditions
- ） Capital
- ） Capacity
- ） Collateral

5. **Return of the Investment**

Income received on investment plus any change in market price is usually expressed as a percent of the beginning market price of the investment. Total return (i.e. interest, fee and commission) should be calculated through analysis and compare either it meets bank's standard or not.

6. **Liquidation**

The bank may decide to bring liquidation in order to satisfy creditors if the possibility of the borrowers long range survival is minimal. Once the liquidation decision is taken and then a plan of action that includes the method of liquidation and settlement of debt obligation should be adopted.

7. **Preparation of Credit Report**

Prepare the structured credit repost containing the loan approval process in a precise order. It entails the answers to the vital questions during initial interview as well as consequences of checking various sources of credit information and the results of financial statement analysis. Sometimes a one layer higher than analyst may be approving authority but ultimately works as this authority.

8. **Creditworthiness and Debt Structure**

Structuring of debt facility to be released is essential if the analysis finds the credit worthiness of borrower and determines to grant loan.

2.1.8 ELIGIBLE BORROWERS OF ADBL

To take loan from ADBL, borrowers must have following eligibility:

1. Must be a Nepalese citizen, if the applicant is co-operative or corporation body, it must be registered in the related government offices.
2. Must have necessary knowledge, experience and skill to operate enterprise.
3. Must be socially and financially characteristic nature.
4. Must not be arrested in repayment of principal or interest on any existing loan except for reasons behind their reasonable reasons.
5. Must be willing to meet the equity contribution for the project as required by ADBN's rule and regulations.

2.1.9 NECESSARY DOCUMENTS WHILE RECEIVING LOAN

The following documents are needed while receiving the loan from ADBN.

1. Copies of the ownership certificate of land or building, receipt of land revenue and citizenship of Nepal citizen.
2. Blue print of land or building.
3. Firm registration Certificate.
4. Acceptance of owners while taking the collateral of other person.
5. Credit information from other related financial institutions.
6. Cost estimation of the project.
7. Quotation of the machinery while procuring it for the project.
8. Two copies passport size photo of client.
9. Scheme and feasibility study report etc.

2.1.10 NRB DIRECTIVES

The financial sector reform of Nepal was initiated in mid 1980s. Since then NRB has been playing pioneer role in regulation, supervision and monitoring of commercial banks by issuing directives. At present the number of guidelines issued by NRB to commercial bank reaches sixteen, which are as follows.

1. The provision of minimum capital fund to be maintained by the commercial bank.
2. The provision of loan classifications and loan loss provisioning on the credit.
3. The provision relating to limit on credit exposure and facilities to a single borrower, group of related borrowers and single sector of the economy.
4. The provision relating to accounting policy and the structure of financial statements to be followed by the commercial banks.
5. Regulation relating to minimization of risk inherent in the activities of commercial banks.
6. The provision of institutional good governance to be followed by commercial banks.
7. Time frame for implementation of regulatory directives issued in connection with inspection and supervision and supervision of commercial banks.
8. Regulation relating to investment in shares and securities by commercial banks.
9. The provision of submission of statistical data to the NRB, Banking management division and inspection and supervision division.
10. Regulation relating to sale and ownership transfer of promoters shares.
11. Regulation relating to, stringent blacklisting procedure for loan defaulters.
12. The provision relating to compulsory deposited amount of NRB.
13. Regulation relating to developing the branch office of commercial banks.
14. Provision relating to interest rates.
15. Provision relating to collection of financial sources.
16. Provision relating to consortium financing.

2.1.10.1 NRB Directives Relating to Loan Classification and Loan Loss Provision
(NRB, Unified Directives, 2067)

1. **Classifications of Loan and Advances**

   Effective from FY 2058/59 (2001/02) banks shall classify outstanding principal amount of loan and advances on the basis of aging. As per the directives issued by NRB, all loans and advances shall be classified into the following four categories:

   a. **Pass Loan: -** Loans and advances whose principal amount are not past due and past due for a period up to 3 months shall be included in this category. These are classified and defined as performing loans.

   b. **Sub-Standard Loan: -** All loans and advances that are past due for a period of 3 months to 6 months shall be included in this category.

   c. **Doubtful Loan: -** All loans and advances which are past due for a period of 6 months to 1 year shall be included in this category.

   d. **Loss: -** All loans and advances which are past due for a period of more than 1 year as well as advances which have least possibility of recovery or considered unrecoverable and those having thin possibility of even partial recovery in future shall be included in this category.

   Loans and advances falling in this category of sub-standard, Doubtful and loss are classified and defined as Non-performing loan. It is appropriate in the view of the banks management; there is no restriction in classifying the loan and advances from low risk category to high risk category. For instance, loans falling under substandard may be classified into doubtful or loss and loans falling under doubtful may be classified into loss category. The term loan and advances also includes bills purchased and discounted.

2. **Additional Arrangement in Respect of Pass Loan**

   Loan and advances fully secured by gold, silver, fixed deposit receipts, credit cards and government securities shall be include under "pass" category. Loans against fixed deposit receipts of other banks shall also qualify for inclusion under pass loan. However, where collateral of fixed deposit receipt or government securities or NRB bonds is placed as extra security, such loan has

to be classified on the basis of clause 1 to clause 7. While renewing working capital loan having maturity period up to one year can be classified as pass loan. If the interest of working capital nature loans and advance is not regular, such loan and advances should be classified on the basis of interest outstanding period.

3. **Additional Arrangement in Respect of loss Loan**

   Even if the loan is not past due, loans having any or all of the following discrepancies shall be classified as "loss".

   a. Security is not sufficient,
   b. The borrower has been declared bankrupt,
   c. The borrower is absconding or cannot be found,
   d. Purchased or discounted bills are not realized within 90 days from the due date and non fund based letter of credit and guarantees etc are not realized with in 90 days from the date of conversion into fund based are not realized within 90 days,
   e. The credit has not been used for the purpose originally intended,
   f. Owing to non-recovery, initiation as to auctioning of the collateral has passed six months and if the recovery process is under litigation,
   g. Loan provided to the borrowers included in the blacklist of credit information center (CIC),
   h. Project or business is not in operative conditions, project or business is not in operation,
   i. Credit Card Loan is not written off within 90 days from past due date.

4. **Additional Arrangements in Respects of Term Loan**

   In respect of term loans, the classification shall be made against the entire outstanding loan on the basis of the past due period of overdue installment.

5. **Prohibition to Recover Principal and Interest by Overdrawing the Current Account and Exceeding the Overdraft Limit**

   Principal and interest on loans and advance shall not be recovered by overdrawing the borrower's current account or where overdraft facility has been extended, by overdrawing such limit. However, this arrangement shall

not be constructed as prohibitive for recovering the principal and interest by debiting the customers' account. Where a system in the bank exists as to recovery of principal and interest by debiting the customers' account, and recovery is made as such resulting in overdraft, which is not settled within one month, such overdrawn principal amount shall also be liable to be include under the outstanding loan and such loan shall be downgraded by one step from its current classification. In respects if recognition of interest, the same shall be as per the clause relating to income recognition mentioned in directives no 4.

6. **Letter of Credit and Guarantees**

   If letter of credit and guarantees and other contingent liabilities converted into fund based liabilities and have to be paid, in such condition such loan shall be classified as pass loan within 90 days from the date of conversion into fund based. After 90 days such loan shall be classified as loss loan.

7. **Rescheduling and Restructuring of the Loan**

   If the bank is confident on the following bases of written plan of action submitted by borrower, it may reschedule or restructure the loans and advances. Clear bases of rescheduling or restructuring should be attached with loan files.

   a. If there is proof of adequate documents and collateral security relating to loan.

   b. If the bank is confident in recovery of restructured or rescheduled loans and advances.

   In addition to written plan of action for rescheduling or restructuring of loan, payment of at least 25 percent of total accrued interest up to the date of rescheduling of restructuring should have been collected.

8. **Loan Loss Provisioning**

   The loan loss provisioning, on the basis of the outstanding loans and advances and bills purchases classified as per this directives, shall be provided as follows:

Classification of Loan	Loan Loss Provision
Pass Loan	1%
Sub-Standard Loan	25%
Doubtful Loan	50
Loss	100%

2.2 REVIEW OF RELATED STUDIES

2.2.1 REVIEW OF BOOKS

One of main problems of Nepalese agricultural is its slow productivity. Some of the main factor responsible for the low productivity is the inadequate supply of various essential inputs, viz. fertilizers, improved varieties of seeds, lack of adequate irrigation facilities, insecticides and lack of knowledge on the part of the cultivation of improved techniques of cultivation. Other factor conditioning the slow growth of agricultural output are the poor farming techniques, insufficient incentive to augment production under the traditional system of land tenure, lack of adequate agricultural credit and marketing facilities (Pant and Jain, 1969).

Agricultural is the most important occupation in Nepal and plays a vital role in economic development. It is generally acknowledged that an efficient system of agricultural credit is necessary to sustain, stimulate and strengthen agriculture. The sector money lenders took advantages of the situation and extracted various rate of interest. The high rate of interest, coupled with the borrowing for meeting day to day family expenses resulted in a mounting volume of indebts. Ultimately, this resulted in the transfer of land to the creditor. The outcome of indebt was not only the loss of land for the actual tiller but also resulted in large scale emigration of people, from one part of the country to another and also outside the country especially to India. Slow progress of cooperative movement in Nepal may be attributed mainly to the lack of sufficient and administration difficulty in making and recovering loans. Thus, all other Nepal credit and indebt were urgent problem. Most of the framers are not able to save anything from their farm income and they are perpetually in debt with result that

the conditions of land cultivated by an average farmer in Nepal stand hardly any change of improvement (Jha, 1998).

Loan disbursement is not development. Defaulters-in or non-repayment of loan by borrowers are variously described as credit delinquencies or overdue in India. One major causality was the quality of loan portfolio as has been evident from the mounting over dues. The nineties would therefore need, to be a decade devoted mainly to reconstruction and development so that before the end of the decade, there is strong, healthy and vibrant rural credit system (Nair, 1991).

The loan and advances dominate the asset side of balance sheet of any bank. Similarly, earnings from such loan and advances occupy a major space in income statement of the bank. It is very important to be noted the most of the bank failure in the world are due to the shrinkage in the value of loan and advances. So, loan is known as risky assets. Risk of non-payment of loan is known as credit risk. Loans that repay principle and interest to the bank from the cash flow it generates are performing assets. Though loans are risky assets, a bank invest most of its resources in granting loan and advances.

Further showing their view on credit policy of the commercial bank, they have expressed that the factors like deposit mix, competition, statutory directives and quality of lending affect a bank's credit policy. So these factors should be considered during establishment of credit policy. A sound credit policy should be based on the objectives having good assets, contributing to the economic development, also giving guidance to the lending officers and establishing a standard for control. (Dahal & Dahal, 2002)

The deterioration in the quality of loan portfolio is another important matter that should receive the immediate attention of the bank. Political and interference in credit decision making may be pointed out as a factor that has contributed to the deterioration in the quality of loan portfolio. They also indicate that the level and accumulation of non-performing assets is direct result of deterioration in the quality of loan portfolio. So the provision should be made by the banks for non-performing assets out of their profit. (Shekher & Shekher, 1999).

Agricultural Development Bank was established 20-30 years ago to extend financial services, mainly credit of subsidized interest rates, to customers not considered creditworthy by commercial banks. They are largely state- owned and funded by government and international donor agencies. In general, ADBN has focused on providing credit rather than an accepting deposit, a practice that has undermined their self-reliance as well as their viability. Given the high cost of administering large number of small loans, the banks have tended to provide bigger loans to better off farmers. Because farming is a seasonal occupation, agricultural lending intuitions experience the boom and bust of the cash flows, with loan requirements drastically increasing during the sowing season. In addition, an emphasis on providing loans strictly for agricultural activities, mainly crop production, as opposed to providing credit for other kinds of rural income- generating activities has limited the potential of ADBN to serve a wider clientele. Such preferential credit programs have tended to curtail rather than expand their outreach to small farmers and other customers in rural areas (Kunwar, 2003).

In banking sector or transaction, an inviolableness of loan management and its methodology (working method) is regarded very important. Under this management, many subject matters are considered and thought. For example, there are subject matters like the policy of loan flow, the documents of loan flow, loan administration, and audit of loan, renewal of loan, the condition of loan flow, and the provision of security, the provision of the payment of capital and its interest and other such procedures. This management plays a great role in healthy competitive activities (Bhandari, 2003).

2.2.2 REVIEW OF ARTICLES

In the article "Issues in ADBL Reform" the writer has presented his views that there are some issues that need to be taken care of while carrying out the reform programs. These issues broadly classified into external or structural and internal or operational like as shifting and replication of all bank head offices from the present regional

offices to other viable and business centre which will automatically help in reducing the overstaffing and posting problem in all offices and help them to achieve sound working condition. It is very helpful for loan disbursement and collection department of the bank. Due to this, the staff can get direct connection with client of the bank in the market which will help in management of loan. (Bista, 2001)

In the article "Importance of loan information center and its activities" the writer has forwarded his view that there raised some malpractices in credit investment between the banks along with the increment in the establishment of banks and financial institutions. For e.g., misuse of loan due to lack of continual monitoring and supervision of projects, lack of following rules and procedures in loan processing, borrowing loan from various banks frequently by single borrower, lack of coordination between banks and financial institution, etc. Due to all these problems, the condition of non-performing loan arises and as a result of which negative impact is shown in financial capability of banks and economy of the country. Hence keeping these things in consideration, loan information center was established with the active participation of Nepal Rastra Bank in Jestha 1, 2046. Loan information center under Nepal Bankers" Association is regarded as loan information center established by bank until next provision. The writer has put forward the views that the loan information center has not worked as effectively applied in real field as expected, so he has suggested all banks and financial institutions to make full utilization of information obtained from the center following the directives of NRB so that the activities of the center can be made effective. (Pradhan, 2004)

In the article, "Credit Culture of Commercial Banks in Nepal", has concluded that the unorganized moneylenders in Nepal never loose. They used to assess the record of accomplishment of potential borrowers and innocent characters termed as the best borrower. The bank, on the other hand, is an institution established to support and improves development process of a nation. The politicians and the staff have been responsible for the existence of huge volume of NPA in state-owned commercial banks. In order to improve the situation, there is a need to evolve a more acceptable working system backed by cooperation and realization by the banks employees as

well as the politicians and stakeholders, who can influence in banks operation. (Koirala, 2006)

In the article, "Problems of NPL's and the Need of Financial Discipline in the Nepalese Banking System", has concluded that poor credit management and deterioration in the quality of loans give birth to non-performing assets. The internal measures play significance role to control the growth of NPL. Best credit practices, culture and policies are required to strengthen the internal factors. The banks should have a proper system and competency on risk management and should insure that risk are accurately identified, assessed and controlled properly. A proper risk management is undoubtedly an important tool for a good banking and NPL management. (Dhungana, 2006)

He further states that it can be expected that the financial sector reforms will lower down the level of NPL from the existing level and strengthening the banks and financial institution internally to manage the credit portfolio efficiently and support will be continued to make a good credit culture in the system.

In the article, "Etiology and Strategy of Loan Repayment", has concluded that lending agencies should adopt several strategies for achieving their target of credit repayment. However, before enforcing coercive actions against entrepreneur and the enterprise, the banks and the lending agencies should follow a series of liberal strategies for recovering their loans. (Bhandari, 2007)

In the article, "Loan Portfolio Management", affirmed that to manage the loan portfolios, bankers must understand not only the risk posed by each credit but also how the risks of individual loans and portfolios are interrelated. These interrelationships can multiply risk many times beyond what it would be if the risks were not related. Until recently, few banks used modern portfolio management concepts to control credit risk. Now, many banks view the loan portfolio in its segments and as a whole and consider the relationships among portfolio segments as well as among loans. These practices provide management with a more complete picture of the bank's credit risk profile and with more tools to analyze and control the risk.

Zerith further concluded that effective loan portfolio management begins with oversight of the risk in individual loans. Prudent risk selection is vital to maintaining favorable loan quality. Therefore, the historical emphasis on controlling the quality of individual loan approvals and managing the performance of loans continues to be essential. But better technology and information systems have opened the door to better management methods. A portfolio manager can now obtain early indications of increasing risk by taking a more comprehensive view of the loan portfolio. (Zerith, 2008)

2.2.3 REVIEW OF THESIS

Singh (2006) has submitted a thesis entitled "A Study on Loan Management of Agricultural Development Bank Nepal" to Shanker Dev campus in partial fulfillment of the requirement of Degree of Master in Business Studies.

The main objectives of the study are:

- To examine the loan disbursement and collection procedure of ADBN.

- To evaluate the trend of loan investment and collection in totality, by sectors and categories.

- To show the achievement of purpose wise, term wise and development region wise loan disbursement, outstanding and collection of ADBN.

- To suggest remedies for improving loan disbursement and collection procedure to ADBN

The major findings of the study are as follows:

) Actual loan investment of cereal and cash purpose is in fluctuating trend and showed negative growth rate of 1.12%. Actual loan collection is increased every year except in F/Y 2003/04 and growth rate is in fluctuating trend.

) Actual loan investment, outstanding and collection of marketing purpose is in increasing every year and showed growth rate is in fluctuating trend. % of loan collection to investment is increasing.

) Actual loan investment, outstanding and collection of horticulture purpose is in fluctuating trend and shows negative growth rate.

) Actual loan investment, outstanding and collection and growth rate of housing and land development purpose is in fluctuating trend. % of loan collection to investment is also in fluctuating.

) Actual loan investment, outstanding and collection short term is increased every year.

) Actual loan investment and collection of medium term has been increased every year except in F/Y 2003/04 and loan outstanding is in increasing trend.

) Actual loan investment and collection of long term is in fluctuating trend but loan outstanding amount is increased every year. % of loan collection to investment is fluctuating.

Sigdel (2006) has submitted a thesis entitled "A Study on Loan Management of ADBL" to Shanker Dev campus in partial fulfillment of the requirement of Degree of Master in Business Studies.

The main objectives of the study are:

) To evaluated the trend of loan disbursement and collection.
) To study target and actual loan disbursement and collection.
) To examine the achievement of purpose wish, term wise and development region wish loan disbursement outstanding and collection of ADBL.
) To provide suggestion to the ADBL on the basis of findings

From the study the major finding about disbursement and recovery management are as follow:

⟩ Actual loan disbursement, outstanding and collection of marketing purpose is increased every year. % of loan collection to disbursement is increasing every year.

⟩ Likewise the highest percentage of loan collection to outstanding is 67.74% in f/y 061/62 it is increasing trend. Because of significant relationship existed increase in loan disbursement increase loan collection?

⟩ Actual loan disbursement of long term is in decreasing trend but loan outstanding and collection is in increasing and fluctuating trend respectively. And disbursement the outstanding and collection of short term is increased every year the lower percentage.

⟩ The highest actual loan outstanding of eastern, center western, mid western and far western development regions are 29%, 33.35%, 22.73%, 8.69%, and 9.12% in total loan outstanding.

⟩ The targeted loan disbursement and collection is in increasing trend similarly, the actual loan disbursement and collection is also in increasing trend. There is small % of fluctuating trend in targeted and actual loan disbursement and collection.

Khanal (2006) has submitted a thesis named "A Study of Loan Management of Agricultural Development Bank Nepal" to Shanker Dev Campus in partial fulfillment of the requirement of Degree of Master in Business Studies.

The main objectives of the study are:

⟩ To examine the achievement of purpose wise, term and development region wise loan investment, collection and outstanding.

⟩ To analysis the relationship between targeted and achievement of loan investment and collection.

⟩ To study lending policy, loan recovery procedure interest rebel and discount, interest rate charged by ADBN.

⟩ To analysis the relationship between the loan outstanding and collection.

Major finding about the loan management of the study are below

⟩ Targeted loan investment and collection is increase every year and weight age growth rate in fluctuating percent of collection to investment is in fluctuating trend.

⟩ The highest investment has been in agriculture input marketing and lowest investment in horticulture. Investment growth rate was increasing/decreasing trend. The investment table emphasizes incremental trend of investment except in the total portfolio like irrigation, biogas, housing and land development.

⟩ The total loan collection of the development financing increased by 12.73%. The highest collection has been in agriculture input marketing in amount and lowest collection in amount tea and coffee purpose, however, collection growth rate was highest in tea and coffee followed by marketing and lowest in irrigation.

⟩ Generally, ADBN‟s loan is not impress good behavior in the borrower. Most of the borrowers are not know about the interest rate, repayment period, type of loan, calculating the transaction, penalty of late paying amount etc.

Dawadi (2007), has submitted a thesis named "Loan Management of Banking Company (A Case Study of ADBL) to Central Department of TU in partial fulfillment of the requirement of Degree of Master in Business Studies.

His research objectives are as follows relevant to loan.

⟩ To analyze the management of loan disbursement.
⟩ To analyze the recovery management of disbursed loan.
⟩ To measure association between deposit collection and loan disbursement.
⟩ To measure relationship between loan disbursement and recovery.

Major finding about loan management of ADBL are as follow

) The ADBL bank divides their loan disbursement amount in the categories. The miscellaneous loan category is included such types of loans, which are not categorized specially the highest potion of the loan is disbursed in overdraft banking. In average around 38% of the total loan disbursed in this category.

) The average cash and bank balance of the bank is 12.67% with total deposit, like this the standard deviation and coefficient of variation of this ratio are 1.76% and 13.96% is 56.76% where its standard deviation and coefficient of variation are 4.20% and 7.40% respectively.

) The all year's loan management target is less than their actual achievement. The calculated value of t-test is 1.828 degree of freedom is 2.306. So there is no significance difference to t-test.

) The loan outstanding amount depends upon loan disbursement and loan collection amount. From the multiple regression analysis he can find that both variables have positive relation with outstanding loan. If the amount changes in these two variables by Re 1 the loan outstanding amount will be changed by Re.0.4560 and 0.1815 respectively. If both amounts are few the loans outstanding amount would Rs.53.4795 cores.

) The non performing asset of the bank is highest in 2062/63 i.e. Rs 1092777 thousand. In this year the amount of NPA is increased by Rs 294723 thousand. The NPA ratios with loan disbursement are 2.97%, 3.56, 4.32%, 4.62% and 6.26% respectively during study period etc.

Sharma (2008), in his study on, "Loan Management of Agricultural Development Bank Limited" submitted to Shanker Dev Campus in partial fulfillment of the requirement of Degree of Master in Business Studies focused the efficiency and effectiveness of loan recovery of the bank, has the objective to evaluate the loan disbursement and collection procedure of ADBL.

The study has involved other objectives as follows

) To examine the loan disbursement and collection procedure of ADBL

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⟩ To evaluate the trend of loan investment, collection and outstanding.

⟩ To show achievement of purpose wise and term wise loan disbursement, collection and outstanding.

⟩ To study lending policy, loan recovery procedure, interest berate and discount, interest change by ADBL.

⟩ To suggest some remedies for improving loan disbursement and collection procedure of ADBL.

The researcher has made various statistical and financial analysis, according to which some findings are made as follows

⟩ The trend of total investment of development financing has increasing with average growth rate 10.43%.

⟩ The trend of total collection of development financing has also increasing with average growth rate14.22%.

⟩ The trend of outstanding of development financing also increasing with growth rate 9.53%

⟩ The term wise loan disbursement, collection and outstanding is in fluctuating trend with varying average growth rates.

With the above finding the researcher has concluded that the bank should examine the past repayment records in case of borrowers who are unable to repay loan back and take corrective action immediately. He has figured out that weak supervision, high interest rate and other charges charged by the bank, political interferences and poor liquidity of borrowers are the poor recovery. Hence he has suggested that the bank must provide strict supervision during loan utilization, supervisor need to visit field to make fair eyes on the borrower"s loan utilization for the concerned purpose and motivate the borrower to make full utilization of loan amount.

Lekhak (2009), has submitted a thesis named "Loan policy of Agricultural Development Bank of Nepal" to submitted to Shanker Dev Campus in partial fulfillment of the requirement of Degree of Master in Business Studies.

The major objectives of this study are as follows:

- To see lending practice loan recovery procedure, interest rebate and discount interest rate charged by ADBL.
- To examine the loan of ADBL sector wise, term wise, Development Region-wise.
- To evaluate the trend of loan investment collection and outstanding.

The major findings of the study researcher finds in this thesis are:

- The total loan disbursement of the development financing increased from Rs.8.89 billion in F/Y 2058/59 to Rs. 36.33 billion in F/Y 2064/65 registration an annual growth rate of Rs. 31.86 billion.
- The disbursement except in the portfolio like irrigation, biogas and housing and loan development the short fall disbursement in irrigation is due to government policy. The average annual growth rate of loan disbursement is 31.86.
- Large portion of the term-wise loan disbursement covered by short term loan, it covered 61% where 38% by medium term and only 1% of total disbursed loan covered by long term loan.
- The performing loan is constantly increasing during the review period except in the FY 2005/06, which can be said that the bank is doing well in loan management. The non-performing loan is constantly decreasing during the review period except in the FY 2005/06. Although the percentage of non-performing loan to total loan outstanding is high in respect to international banking norms, but bank make an effort to meet those norms in FY 2008/09.
- Although purpose wise loan collection is in fluctuating trend, total loan collection is in increasing movement from Rs.26.30 billion in FY 2004/05 to Rs. 40.22 billion in FY 2008/09.
- Though the loan collection is in fluctuating trend, there is increasing trend of outstanding loan but it is not so good for the bank. Although the loan outstanding amount is increasing each year, the growth percentage is declining; it means bank is gaining good position in loan management.

2.3 RESEARCH GAP

Going through the above study, it can be said that loan management is an important element for every bank as it helps in managing the problem of NPA and Loan Loss Provisioning, which is raising problem for banking sector. Various researches have been found relating to the Loan Management of ADBL, but the main theme of this research is to analyze loan disbursement, collection and outstanding of ADBL. The purpose of this research is to develop some expertise in one's area, to see what new contribution can be made and to receive some ideas, knowledge and suggestions in relation to Loan Management of ADBL. Thus, the previous studies can't be ignored because they provide the foundation to the present study.

This study differs itself from others research by specially focusing on the Loan Management of ADBL and covers the period of F.Y. 2061/62 B.S. to 2065/66 B.S. Another fact of the previous researches is that they were focused on loan related to development banking. As we know, now ADBL has changed its function toward commercial banking also. So this research work has tried to include overall loan management of ADBL and facilitate readers to evaluate past and present performance of the bank as well as it will help to project future prospect the bank.

CHAPTER - III

RESEARCH METHODOLOGY

3.1 INTRODUCTION

As we know research involves certain methodology for the systematic analysis of the related topic. So research methodology includes some steps or process which helps to make complete and essential analysis. It contains sequential steps which a researcher applied during the research study for fulfilling its objectives. With the help of logical evidences and various statistical tools, the predetermined objectives of the research study can be analyzed and related problem can be solved. It includes method of critical thinking by defining and redefining problem, formulating hypothesis, collecting, organizing and evaluating data, making deduction and giving conclusion to determine weather the fit the formulated hypothesis. For a particular research project, the various determining variable like of project, time frame of project, importance of project may have to select the related methodology. The methodology involved in the study of loan management of Agricultural Development Bank Ltd has tried to come in conclusion regarding to loan disbursement and collection of the bank. The methodology have to follow the under described process.

3.2 RESEARCH DESIGN

The main objective of the study is to analyze the loan management of Agricultural Development Bank, all the indicators which are related with loan disbursement and collection of the bank have been calculated using data obtained from the five years end accounting records maintain by the bank. The study depends on both primary as well as secondary data on the basis of which collection, verification and evaluation of past evidences have been done for final conclusion. Various financial parameters and effective research techniques are employed to identify the condition of loan disbursement and collection of the bank. Both qualitative and quantitative data are used to get full information about loan disbursement and collection position of bank for fulfilling the objectives of study. Since, the study is based on certain research

design, this study emphasizes on descriptive and analytical study of collected data over a period of time and it gives suggestion on the improvement.

3.3 PERIOD COVERED

The present study covers the period of five years from F.Y.2061/62 to F.Y. 2065/66. The analysis is mainly based on the last five year's data and information.

3.4 POPULATION AND SAMPLE

Altogether there are 26 commercial banks performing their financial activities to the public through various branches throughout Nepal and most of their stocks are traded in stock market. The total is as follows.

S. No.	Names	Operation Date (A.D.)	Head Office
1	Nepal Bank Limited	1937/11/15	Kathmandu
2	Rastriya Banijya Bank	1966/01/23	Kathmandu
3	Agriculture Development Bank Ltd.	1968/01/02	Kathmandu
4	NABIL Bank Limited	1984/07/16	Kathmandu
5	Nepal Investment Bank Limited	1986/02/27	Kathmandu
6	Standard Chartered Bank Nepal Limited.	1987/01/30	Kathmandu
7	Himalayan Bank Limited	1993/01/18	Kathmandu
8	Nepal SBI Bank Limited	1993/07/07	Kathmandu
9	Nepal Bangladesh Bank Limited	1993/06/05	Kathmandu
10	Everest Bank Limited	1994/10/18	Kathmandu
11	Bank of Kathmandu Limited	1995/03/12	Kathmandu
12	Nepal Credit and Commerce Bank Limited	1996/10/14	Siddharthanagar, Rupendehi
13	Lumbini Bank Limited	1998/07/17	Narayangadh, Chitawan
14	Nepal Industrial & Commercial Bank Limited	1998/07/21	Biaratnagar, Morang
15	Machhapuchhre Bank Limited	2000/10/03	Pokhara, Kaski

16	Kumari Bank Limited	2001/04/03	Kathmandu
17	Laxmi Bank Limited	2002/04/03	Birgunj, Parsa
18	Siddhartha Bank Limited	2002/12/24	Kathmandu
19	Global Bank Ltd.	2007/01/02	Birgunj, Parsa
20	Citizens Bank International Ltd.	2007/6/21	Kathmandu
21	Prime Bank Ltd	2007/9/24	Kathmandu
22	Sunrise Bank Ltd.	2007/10/12	Kathmandu
23	Bank of Asia Nepal Ltd.	2007/10/12	Kathmandu
24	Development Credit Bank Ltd.	2008/5/25	Kathmandu
25	NMB Bank Ltd.	2008/6/5	Kathmandu
26	Kist Bank Ltd.	2003/02/21	Kathmandu

Source: NRB, List of banks and non-bank financial institution as of Mid-July 2009 A.D.)

In addition to the above mentioned bank, recently some other banks also have started their operation as commercial bank. The Central Bank of Nepal, Nepal Rastra Bank, has given permission to Janata Bank Nepal Ltd. to operate as 27th commercial bank of Nepal and Mega Bank Ltd. to operate as 28th commercial bank of Nepal.

Due to the time limitation and points mentioined as the statement of problem, the study is confined on only one bank. So, all commercial banks are considered as population and bank under study, i.e., Agricultural Development Bank Limited contributes as sample. The ADBL has been chosen as a sample bank as the bank has been operating as a commercial bank since July 14, 2005 (30th Ashad 2062 B.S.) and this study covers the initial periods after its commercialization which will facilitate readers to evaluate past and present performance of the bank as well as it will help to project future prospect the bank. For secondary data analysis, loan disbursement and collection of ADBL from F/Y 2061/62 to 2065/66 is taken.

3.5 NATURE AND SOURCES OF DATA

Both primary and secondary data have been used in this research report. But the study is mainly based on secondary source of data. Primary data are basically based on supplementary questionnaire, unstructured dialogues and discussion is also helpful for this purpose. Secondary data have been taken from the published documents and financial statements of ADBL, published documents of NRB. Likewise newspapers, journals, periodicals, magazines, reports and unpublished thesis and websites were taken as other sources of data during the study.

According to the need and objective, all the secondary data were compiled, processed and tabulate in the time series in order to judge the reliability of data provided by the banks and other sources. Formal and informal talks and interviews of concerned head, experts are also helpful to obtain the plus information about related topic.

3.6 DATA COLLECTION PROCEDURE

Data collection is the most important part of the research, consists of obtaining information. It is very difficult activity of the whole research process. Regular visit to the bank has been done in order to collect the required data from the official record of the ADBL. Similarly the published documents, books, articles, magazine are collected from central library, SDC library and websites. For the primary source personal observation and interviews methods are used.

3.7 DATA PROCESSING

After the collection of data from different sources, the collected data were compiled in an appropriate form. Required facts were selected and analyzed and then they were presented in the form of table and chart. The data were analyzed on yearly basis according to the information gathered.

3.8 METHOD OF DATA PRESENTATION AND ANALYSIS

The data presentation and analysis were focal part of the study. Ranges of financial and statistical tools were used to analyze the collected data and to achieve the objective of the study. The analyses of the data were done according to the pattern of

data available. Because of limited time and resources, simple analytical statistical tools were adopted in this study. In the same way, some strong financial tools, ratio analysis and trend analysis, were used in the study. The data extracted from annual report, financial statement and other available information were processed and tabulated in various tables and charts under different headings according to the nature.

3.9 ANALYTICAL TOOLS USED

Collected data and information from different sources are analyzed and presented in proper table, chart, format and graphs. To analyze the collected data some financial and statistical tools have been used as per requirements.

A. Financial Tools
B. Statistical Tools

A. FINANCIAL TOOLS

Under this mainly the ratio analysis that is relevant to the loan management of the bank has been done.

1. **Loan Collection to Loan Disbursed**

   This ratio measures the relationship between the loan collection and loan disbursed. A stable policy of loan collection considering the loan disbursement is crucial for sound loan management. It is calculated as:

   $$\text{Loan Collection to Loan Disbursement X} \frac{\text{Loan Collection}}{\text{Loan Disbursement}}$$

2. **Loan Collection to Loan Outstanding**

   This ratio measures the relationship between loan collection and loan outstanding. The ratio reflects the efficiency of the bank in collecting the loan amount disbursed. It is calculated as:

   $$\text{Loan Collection to Loan Outstanding X} \frac{\text{Loan Collection}}{\text{Loan Outstanding}}$$

3. **Total Loan to Total Deposit**

   This ratio is calculated to find out how successfully the banks are utilizing their deposits on loan and advances for profit generating activities. Greater the ratio indicates the better utilization of total deposits. It is calculated as:

   $$\text{Total Loan to Total Deposit X} \frac{\text{Total Loan}}{\text{Total Deposit}}$$

4. **Growth Rate**

   Under this, the growth of loan disbursement, loan collection and the loan outstanding of ADBL have been calculated. This ratio reflects the status of loan management of the bank.

   $$\text{Growth Rate \% X} \frac{\text{Ending Value Z Begining Value}}{\text{Begining Value}} \mid 100$$

B. STATISTICAL TOOLS

This process of analysis for this study is to simplify the complicity of mass figures, to presents the fact in a definite form, to facilitate comparison, to help in forecasting. Statistical tools are used to make the analysis more effective, convenience, dependable and genuine. Analysis and presentation of the data is core of the study. It help to find out the trends of financial position of the bank and also helps bank to make appropriate investment policy regarding profit maximization and deposit collection, fund utilization through providing loan and advances or investment on other companies. Simple analytical statistical tools i.e. Standard deviation, Karl Pearson's Coefficient of Correlation are used in this study.

1. **Karl Pearson's Coefficient of Correlation**

   Karl Pearson derived this method to measure the liner relationship between two variables (i.e. one dependent and one independent) it is also known as the Pearson Ian coefficient of correlation. Two values are said be correlated when the change in the value of one variable is accompanied by the change in the value of the other. Under this topic, this study tries to find out relationship various items.

Karl Pearson's coefficient of correlation between variables is denoted by r.

$$r \ X \ \frac{xy}{\sqrt{x^2} \ \sqrt{y^2}}$$

Where, r = correlation coefficient which lies between +1 to -1

x = X-X (an independent variable)

y = Y-Y (an independent variable)

Following Table is considered to describe the relation ship between variable. If r is

-1	-0.7	-0.3	0	+0.3	+0.7	+1
Perfect negative	Strong negative	Weak negative	Perfect independence	Weak positive	Strong positive	Perfect Positive

2. Probable Errors (P.E.)

Probable Error (PE) is a measure for testing the reliability of an observed value of correlation coefficient. If r is observed coefficient in a sample of n pairs of observations then,

Probable Error (P.E.) = 0.6745 x S.E.

Where, S.E. = Standard Error $X \dfrac{1\,Zr^2}{\sqrt{n}}$

So, $P.E. X 0.6745 \left| \dfrac{1\,Zr^2}{\sqrt{n}} \right.$

If r   6 P.E., r is highly significant.

If 6 P.E.   r   P.E., nothing can be stated

If r   P.E., r is insignificant.

3.Trend Analysis:

One of the most important tasks before the economists and businessmen is to estimate future. Growth rate analysis was carried out to ascertain growth rate of

the past. Trend analysis was adopted to ascertain future factor. It predicted the future behaviors of data and helped to find out the future growth factor. Hence, trend analysis is taken as a tool to evaluate the future financial position of the banks.

The future value can be calculated by using following equation;

$$\mathbf{Y = a + bX} \text{ .... (i)}$$

Where, X = time variable
        Y = trend value
        a = y-intercept
        b = slope of trend line of amount change in y-variable that is associated with change in one unit in x-variable.

To find the value of X and Y, the following equation should be solved.

$$\sum Y = na + b \sum X \text{ ....(ii)}$$
$$\sum XY = a \sum x + b \sum x^2 \text{ ....(iii)}$$

CHAPTER – IV

PRESENTATION AND ANALYSIS OF THE DATA

4.1 INTRODUCTION

Data presentation is the basic organization and classification of the data of loan management for analysis. The main purpose of analyzing the data of loan management is to change it from an unprocessed to an understandable presentation. The analysis of data consists of organizing, tabulating, performing statistical analysis and drawing standard Deviation, coefficient of variation to find out the answer of research questions or to fulfill the objectives of this research. On the basis of several data regarding ADBL's loan management, it focuses to present an overall disbursement, collection and outstanding situation of the loan granted by ADBL to different purposes for an Agricultural Development in Nepal. In this chapter, secondary and primary data has been analysis.

4.2 ACTUAL LOAN DISBURSEMENT, COLLECTION AND OUTSTANDING

Actual loan disbursement, collection and outstanding of ADBL is occurred each and every year during the actual operation of business.

Table 4.1

Actual Loan Disbursement, Collection and Outstanding

(in 000)

F/Y	Disbursement		Collection		Outstanding		% of Collection	
	Amount	Gr. rate%	Amount	Gr. rate%	Amount	Gr. rate%	To Disb	To Outst.
2061/62	28255509	-	26289750	-	31309074	-	93.04	83.97
2062/63	30613889	8.35	28612217	8.83	33310746	6.39	93.46	85.89
2063/64	29285522	3.65	28155899	7.10	34440369	10.00	96.14	81.75
2064/65	36335966	28.60	34171617	29.98	36604718	16.91	94.04	93.35
2065/66	41915104	48.34	40218719	52.98	38301103	22.33	95.95	105.01

Source: Financial Statement of ADBL from 2061/62 to 2065/66

Fig.4.1

Position of Actual Total Loan Disbursement, Collection and Outstanding
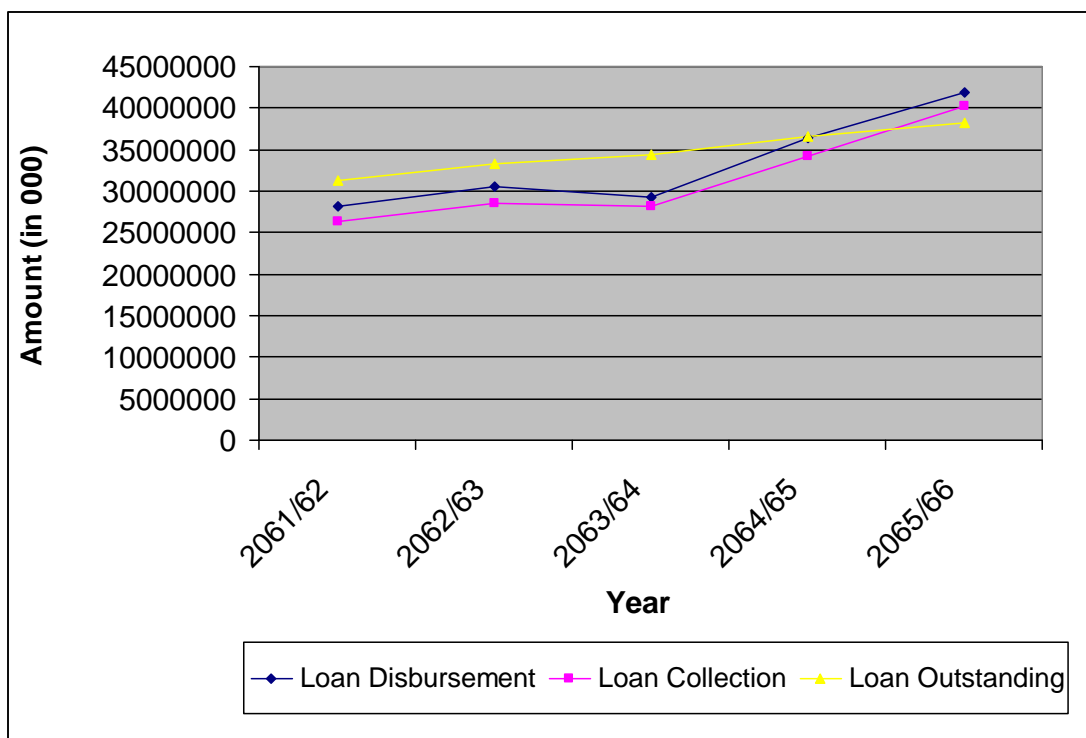
In the above table, actual loan disbursement is increased in first year and slightly decrease in second year after it grows continuously. The lowest actual loan disbursement is Rs.28255509 thousand in the F/Y 2061/62 and the highest loan disbursement amount is Rs.41915104 thousand in F/Y 2065/2066. The lowest growth rate on actual loan disbursement is 3.65 % in F/Y 2063/64 and the highest is 48.34% in F/Y 2065/66

The actual loan collection amount has also increased in first year and slightly decrease in second year after it grows continuously. The lowest actual loan collection amount is Rs.28155899 thousand in the F/Y 2063/64 and the highest actual loan collection amount is Rs.40218719 thousand in the F/Y 2065/66. Similarly, the lowest growth rate on actual loan collection is 7.10% in F/Y 2063/64 and the highest growth rate is 52.98% in F/Y 2065/66.

The actual loan outstanding has gradually increased throughout the study period. The loan outstanding amount in the year 2061/62 was Rs.31309074 thousand which

increases each year with more than 10% growth rate except second year to reach the total loan outstanding amount Rs.38301103 thousand in the year 2065/66.

The percentage of loan collection to loan disbursement has increase from 2061/62 to 2063/64 and decreased to 94.04% in the year 2064/65 and again increased in next year to reach 95.95%. Similarly, the percentage of loan outstanding and loan collection was 83.97% in the first year which increases every year to reach 105.01% in the year 2065/66 except it decreases in the year 2063/64.

The coefficient of correlation value is calculated between actual loan disbursement and collection is +0.9975, which is positively correlated. Therefore, the coefficient of correlation is significant or shows significant relationship between actual loan disbursement and collection whereas, the coefficient of correlation between loan outstanding and collection is +0.8045, which is also positively correlated and shows the significant relationship between two variables.

4.3 TREND VALUE OF FORECASTED LOAN DISBURSEMENT, OUTSTANDING AND COLLECTION

The trend value of the loan disbursement, outstanding and collection has been forecasted for the next five years after the study period.

Table 4.2
Trend Value of Loan Disbursement, Outstanding and Collection

(in billion)

Year	Disbursement	Collection	Outstanding
2061/62	28.26	26.29	31.31
2062/63	30.61	28.61	33.31
2063/64	29.29	28.16	34.44
2064/65	36.36	34.17	36.60
2065/66	41.92	40.22	38.30
2066/67	43.22	41.51	39.98
2067/68	46.53	44.85	41.71
2068/69	49.84	48.19	43.44
2069/70	53.15	51.53	45.17
2070/71	56.46	54.87	46.90

Source: Annexure III

The above table shows the trend value of the current five years and future five years forecasted values of Loan Disbursement, Collection and Outstanding. The trend values have increasing trend for the forecasted period. If other things remaining the same, the Loan Disbursement, Collection and Outstanding will be Rs.56.46 billion, Rs.54.87 billion and Rs.46.90 billion in the F/Y 2070/71. The calculated trend values have been diagrammatically presented in the trend line below.

Fig.4.2

Trend Value of Loan Disbursement, Collection and Outstanding
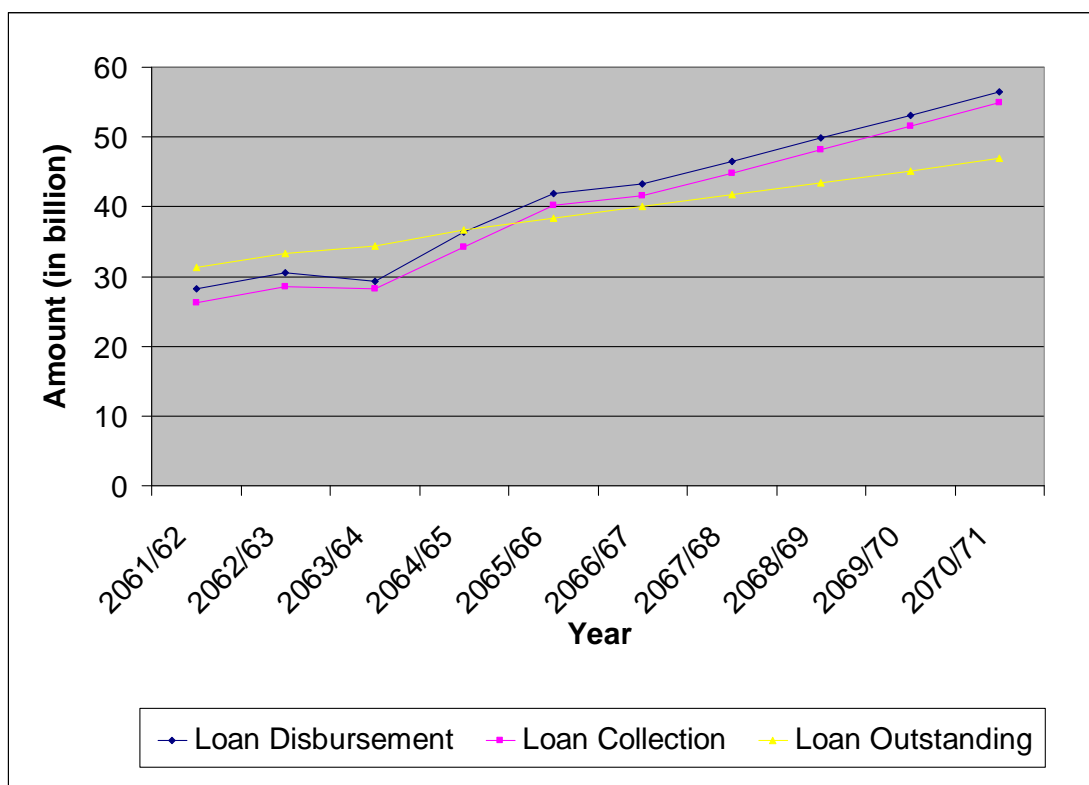
4.4 ACHIEVEMENT OF PURPOSE WISE LOAN DISBURSEMENT, OUTSTANDING AND COLLECTION

ADBL has invested development credit in different purposes to uplift the life standard of poor living such as agriculture, industry, land development, trade, deprived class credit and service business which is given below;

a. Agricultural Purpose

b. Minerals Purpose

c. Production Purpose

d. Manufacturing Purpose

e. Metal Production, Machineries and Fittings Purpose

f. Transportation Tools Production

g. Transport, Media and Public Utility Service

h. Wholesaler and Retailer

i. Finance, Insurance and Fixed Assets

j. Service Industry

k. Other Service Industry

l. Consumer Loan

m. others

4.4.1 Actual Loan Disbursement, Outstanding and Collection of Agricultural Purpose

ADBL grants loan for different Agricultural Purpose. Loan categorized under Agricultural purpose are Cereal & Cash Crops, Special Crops, Agricultural Tools and Irrigation, Agricultural Industry, Tea & Coffee Farming and all other agricultural related loan.

Table 4.3

Actual Loan Disbursement, Collection and Outstanding of Agricultural Purpose

(in 000)

F/Y	Disbursement		Collection		Outstanding		% of Collection	
	Amount	Growth rate%	Amount	Growth rate%	Amount	Growth rate%	To Disb.	To Out.
2061/62	3958870	-	4168142	-	10435864	-	105.29	39.94
2062/63	5629288	42.19	5953102	42.82	10112050	-3.10	105.75	58.87
2063/64	5296964	33.80	4792954	14.99	10616060	1.73	90.48	45.15
2064/65	4776136	20.64	4808315	15.36	10583881	1.42	100.67	45.43
2065/66	3653828	-7.71	5240311	25.72	8997398	-13.78	143.42	58.24

Source: Financial Statement of ADBL from 2061/62 to 2065/66

Fig.4.3

Position of Actual Loan Disbursement, Collection and Outstanding of Agricultural Purpose
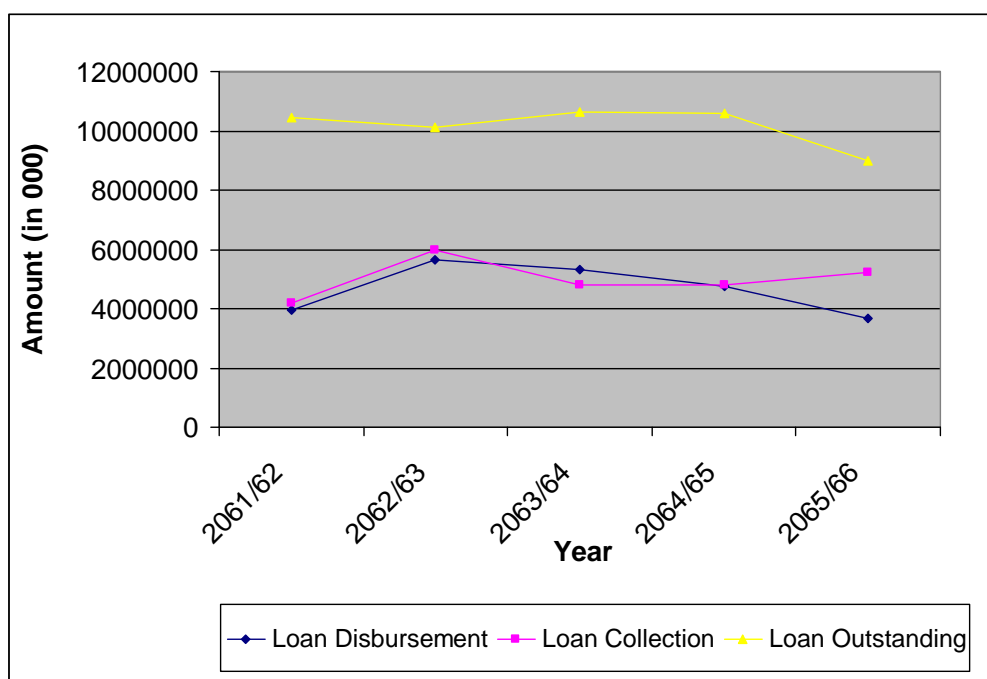
In the above table, loan disbursement has increased in the F/Y 2063/64 and it drop down gradually to the F/Y 2065/66. The lowest actual loan disbursement amount of Agricultural purpose is Rs.3958870 thousand in F/Y 2061/2062 and the highest loan disbursement amount of Agricultural purpose is Rs.5629288 thousand in the F/Y 2062/63. The lowest growth rate on loan disbursement is -7.71% in F/Y 2065/ and the highest is 42.19% in F/Y 2062/2063.

Actual loan collection amount is also increased in the F/Y 2063/64 and it drop down gradually to the F/Y 2065/66. The lowest actual loan collection amount of Agricultural purpose is Rs.168142 thousand in F/Y 2061/62 and the highest loan collection amount of Agricultural purpose is Rs.5953102 thousand in the F/Y 2062/63. The lowest growth rate on actual loan collection is 14.99% in F/Y 2063/2064 and highest growth rate is 42.82% in the F/Y 2062/63.

Loan outstanding amount is slightly decreased in F/Y 2062/2063 and it increase slowly and again decrease in last F/Y 2065/2066. The lowest actual loan outstanding amount of Agricultural is Rs.8997398 thousand in the F/Y 2065/2066 and the highest loan outstanding amount is Rs.10616060 thousand in the F/Y 2063/2064. Similarly, the lowest growth rate on loan outstanding is -13.78% in the F/Y 2065/2066 and the highest growth rate is 1.73% in the F/Y 2063/2064.

The percentage of loan collection to loan disbursement is over 100% throughout the study period expect in the year 2063/64 at 90.48%. The highest ratio is in the year 2065/66 at 143.42%. Whereas the percentage of loan collection to loan outstanding is 39.94% in the first year and increased in the second to 58.87%. Then it was consistent in 2063/64 and 2064/65 at approximately 45% to increase in the year 2065/66 at 58.24%

The coefficient of correlation value is calculated between loan disbursement and collection is +0.4983, which is positively correlated. Therefore, the coefficient of correlation shows significant relationship between loan disbursement and collection. Similarly, the coefficient of correlation value is calculated between loan outstanding and collection is -0.0449, which is weakly negatively correlated. Therefore, the coefficient of correlation shows insignificant relationship between loan outstanding and collection of Agricultural purpose.

4.4.2 Actual Loan Disbursement, Outstanding and Collection of Mineral Purpose

ADBL grants loan for Minerals Purpose as well. Loan categorized under Mineral purpose are different minerals related works production of its by-products.

Table 4.4
Actual Loan Disbursement, Collection and Outstanding of Mineral Purpose

(in 000)

F/Y	Disbursement		Collection		Outstanding		% of Collection	
	Amount	Growth rate%	Amount	Growth rate%	Amount	Growth rate%	To Disb.	To Out.
2061/62	1600	-	1845	-	1779	-	115.31	103.71
2062/63	3899	143.69	3099	67.97	2579	44.97	79.48	120.16
2063/64	3730	133.13	3050	65.31	3259	83.19	81.77	93.59

2064/65	23	-98.56	58	-96.86	3224	81.23	252.17	1.80
2065/66	172	-89.25	2997	62.44	399	-77.57	1742.44	751.13

Source: Financial Statement of ADBL from 2061/62 to 2065/66

Fig.4.4
Position of Actual Loan Disbursement, Collection and Outstanding of Mineral Purpose
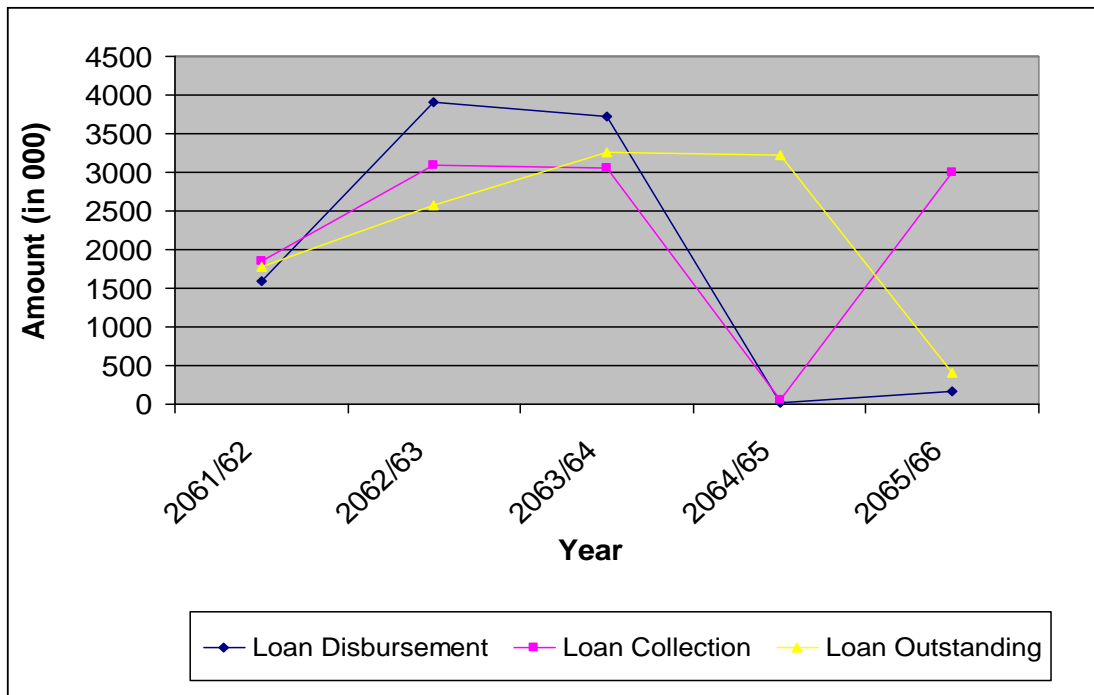
Throughout the study period the loan disbursement, loan collection and loan outstanding has very fluctuating trend.

The lowest actual loan disbursement amount of Mineral purpose is Rs.23 thousand in F/Y 2064/2065 and the highest loan disbursement amount of Mineral purpose is Rs.3899 thousand in the F/Y 2062/2063. The lowest growth rate on loan disbursement is 1.44% in F/Y 2064/2065 and the highest is 243.69% in F/Y 2062/2063.

The lowest actual loan collection amount of Mineral purpose is Rs.58 thousand in F/Y 2064/2065 and the highest loan collection amount of Mineral purpose is Rs.3099 thousand in the F/Y 2062/2063.The lowest growth rate on actual loan collection is -96.86% in F/Y 2063/2064 and highest growth rate is 67.97% in the F/Y 2062/2063.

The lowest actual loan outstanding amount of Mineral is Rs.399 thousand in the F/Y 2065/2066 and the highest loan outstanding amount is Rs.3259 thousand in the F/Y 2063/2064. Similarly, the lowest growth rate on loan outstanding is -77.57% in the F/Y 2065/2066 and the highest growth rate is 83.19% in the F/Y 2063/2064.

The percentage of loan collection to disbursement and loan collection to outstanding is very fluctuating. The lowest percentage of loan collection to disbursement is 79.48% in the F/Y 2062/63 whereas the highest was 1742.44% in the F/Y 2065/66. Accordingly, the lowest percentage of loan collection to outstanding 1.80% in the F/Y 2064/66 and the highest was in the corresponding year at 751.13%.

The coefficient of correlation value is calculated between loan disbursement and collection is +0.6232, which is positively correlated. Therefore, the coefficient of correlation shows significant relationship between loan disbursement and collection. Similarly, the coefficient of correlation value is calculated between loan outstanding and collection is -0.3382, which is weakly negatively correlated. Therefore, the coefficient of correlation shows insignificant relationship between loan outstanding and collection of Minerals purpose.

4.4.3 Actual Loan Disbursement, Collection and Outstanding of Production Purpose

ADBL grants loan for Production Purpose also. Loan categorized under Production purpose are loan provided to productive industry, Power Related Industry, Bio-Gas, Solar Panel, Small Scale Hydropower and other productive sector.

Table 4.5

Actual Loan Disbursement, Collection and Outstanding of Production Purpose

(in 000)

| F/Y | Disbursement | | Collection | | Outstanding | | % of Collection | |
	Amount	Growth rate%	Amount	Growth rate%	Amount	Growth rate%	To Disb.	To Out.
2061/62	3019507	-	2754793	-	4214789	-	91.23	65.36
2062/63	2794892	-7.44	2768236	0.49	4241445	0.63	99.05	65.27
2063/64	2602296	-13.82	2723360	-1.14	4120381	-2.24	104.65	66.09

2064/65	3445626	14.11	3173855	15.21	4392152	4.21	92.11	72.26
2065/66	5920549	96.08	5078097	84.34	5234604	24.20	85.77	97.01

Source: Financial Statement of ADBL from 2061/62 to 2065/66

Fig.4.5
**Position of Actual Loan Disbursement, Collection and Outstanding of
Production Purpose**
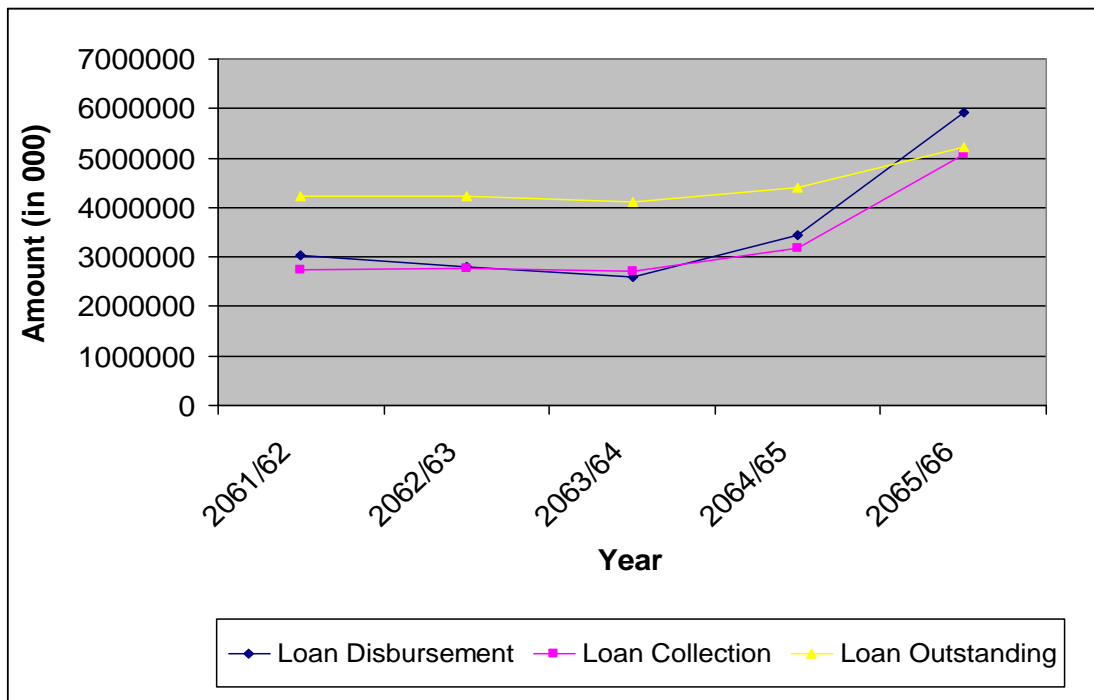
The above table shows, the loan disbursement, collection and outstanding has decreasing trend from 2061/62 to 2063/64 then it increased in last two years of the study period.

The lowest actual loan disbursement amount of Production purpose is Rs.2602296 thousand in F/Y 2063/2064 and the highest loan disbursement amount of Production purpose is Rs.5920549 thousand in the F/Y 2065/2066. The lowest growth rate on loan disbursement is -13.82% in F/Y 2063/2064 and the highest is 96.08% in F/Y 2065/2066.

The lowest growth rate on actual loan collection is -1.14% in F/Y 2063/2064 and the highest growth rate is 84.34% in F/Y 2065/2066.

The lowest actual loan outstanding amount of Production is Rs.4120381 thousand in the F/Y 2063/2064 and the highest loan outstanding amount is Rs.5234604 thousand in the F/Y 2065/2066. Similarly, the lowest growth rate on loan outstanding is -2.24% in the F/Y 2063/2064 and the highest growth rate is 24.20% in the F/Y 2065/2066.

The percentage of loan collection to disbursement and loan collection to outstanding is quite consistent. The percentage was highest at 104.65% in the F/Y 2063/64 and the lowest was 85.77% in the year 2065/66. Accordingly, the percentage of loan collection to outstanding is in increasing trend after second year and reached 97.01% in the F/Y 2065/66 from 65.36% in the F/Y 2061/62.

The coefficient of correlation value is calculated between loan disbursement and collection is +0.9948, which is highly positively correlated. Therefore, the coefficient of correlation shows significant relationship between loan disbursement and collection. Similarly, the coefficient of correlation value is calculated between loan outstanding and collection is 0.4162, which is positively correlated. Therefore, the coefficient of correlation shows significant relationship between loan outstanding and collection of Production purpose.

4.4.4 Actual Loan Disbursement, Collection and Outstanding of Manufacturing Purpose

ADBL grants loan for Manufacturing Purpose as well. Loan categorized under Manufacturing purpose are loan provided for Go-down & Cold storage, Housing, Business Housing, and other Manufacturing Related Loan.

Table 4.6
Actual Loan Disbursement, Collection and Outstanding of Manufacturing Purpose

(in 000)

F/Y	Disbursement		Collection		Outstanding		% of Collection	
	Amount	Growth rate%	Amount	Growth rate%	Amount	Growth rate%	To Disb.	To Out
2061/62	651605	-	430231	-	1088981	-	66.03	39.51
2062/63	607772	-6.73	332722	-22.66	1364031	25.26	54.74	24.39

2063/64	561890	-13.77	327328	-23.92	1598593	46.80	58.25	20.48
2064/65	1086978	66.82	835533	94.21	1850038	69.89	76.87	45.16
2065/66	979951	50.39	701259	63.00	2449497	124.93	71.56	28.63

Source: Financial Statement of ADBL from 2061/62 to 2065/66

Fig.4.6
Position of Actual Loan Disbursement, Collection and Outstanding of Manufacturing Purpose
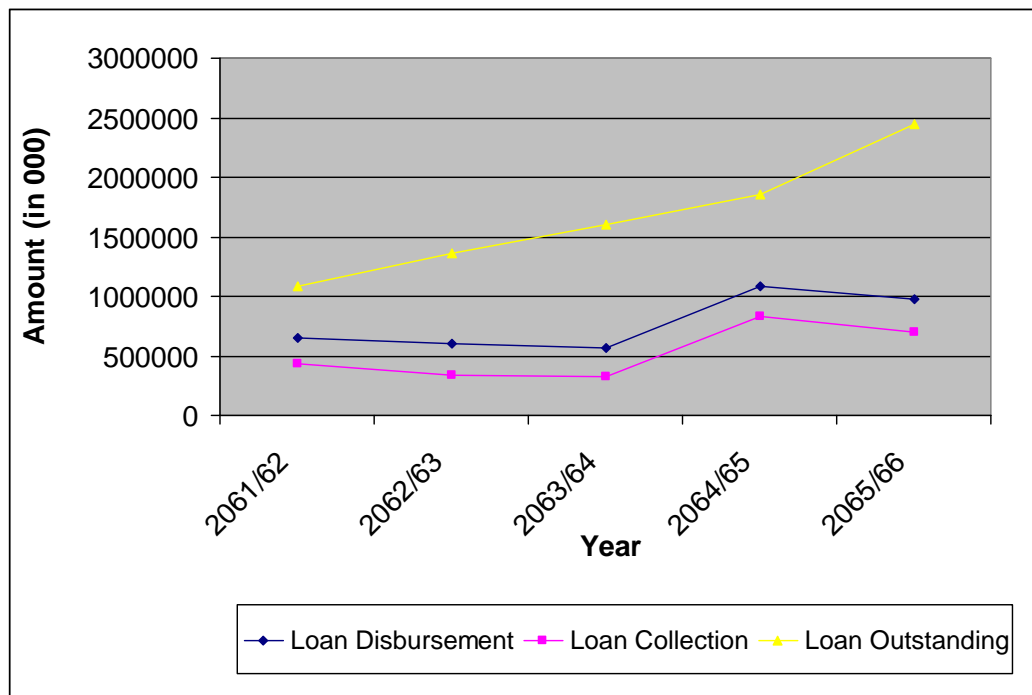
The above table exhibit, loan disbursement was Rs.651605 in the F/Y 2063/2064 and it drop down gradually in the following two year and reached to Rs.607772 with the negative growth rage of -13.77% in the F/Y 2063/64. Then it increased with the highest growth rate of 66.82% in the F/Y 2064/65 and it fall slightly in the F/Y 2065/66 and reached Rs.979951 with the growth rate of 50.39%.

Actual loan collection amount also shows the same trend as of loan disbursement. It was lowest Rs.327328 in the F/Y 2063/64 and increased in the next year to be the highest Rs. 835533 in the F/Y 2064/66 with the growth rate of 194.21%. Then it decreased in the following year with the growth rate of 1563.00%

Loan outstanding amount is in increased in the increasing trend. It gradually increased from Rs.1088981 in the F/Y 2061/62 to Rs.1850038 in the F/Y 2064/65. Then it increased dramatically in the following year to reach Rs.2449494 with the growth rate of 224.93%.

The percentage of loan collection to disbursement decreased in the second year than the first year. Then the ratio gradually increased till 2064/65 to reach the highest ratio of 76.87% then it decreased in the following year with the ratio to reach 71.56%. The percentage of loan collection to outstanding was in decreasing trend except for the F/Y 2064/65 with the highest ratio of 45.16% and decreased in the following year with the ratio of 28.63%

The coefficient of correlation value is calculated between loan disbursement and collection is +0.9950, which is highly positively correlated. Therefore, the coefficient of correlation shows significant relationship between loan disbursement and collection. Similarly, the coefficient of correlation value is calculated between loan outstanding and collection is 0.3098, which is positively correlated. Therefore, the coefficient of correlation shows significant relationship between loan outstanding and collection of Manufacturing purpose.

4.4.5 Actual Loan Disbursement, Collection and Outstanding of Metal Production, Machineries and Fittings Purpose

ADBL grants loan for Metal Production, Machineries and Fittings Purpose as well. Loan categorized under this purpose are different loans related to production of metal products, machineries of different kind and also the fittings of the metals and machineries products.

Table 4.7

Actual Loan Disbursement, Collection and Outstanding of Metal Production, Machineries and Fittings Purpose

(in 000)

F/Y	Disbursement		Collection		Outstanding		% of Collection	
	Amount	Growth rate%	Amount	Growth rate%	Amount	Growth rate%	To Disb.	To Out.
2061/62	99099	-	89455	-	385259	-	90.27	23.22

2062/63	186943	88.64	168571	88.44	403631	4.77	90.17	41.76
2063/64	173814	75.39	165838	85.39	411607	6.84	95.41	40.29
2064/65	72044	-27.30	60071	-32.85	423580	9.95	83.38	14.18
2065/66	1050	-98.94	1370	-98.47	102493	-73.40	130.48	1.34

Source: Financial Statement of ADBL from 2061/62 to 2065/66

Fig.4.7
**Position of Actual Loan Disbursement, Collection and Outstanding of Metal
Production, Machineries and Fittings Purpose**
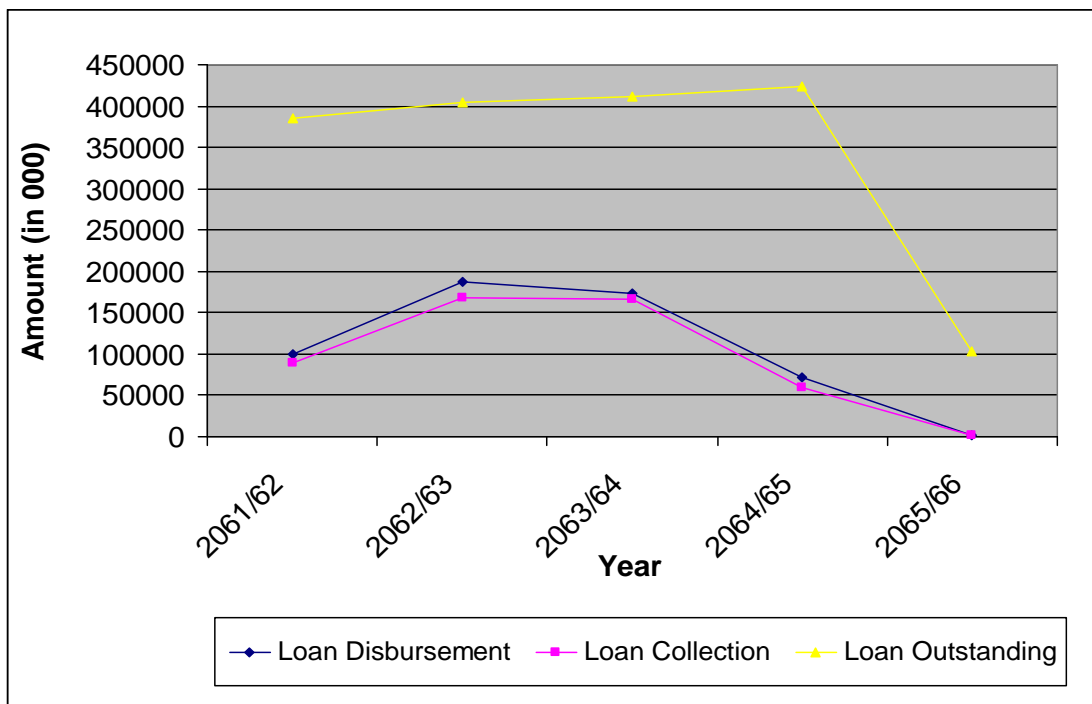
In the above table, loan disbursement has increased from Rs.99099 to Rs.186943 in the F/Y 2061/62 to 2062/63. Then it drop down throughout the study period to reach Rs.1050 with the negative growth rate of -98.94% in the F/Y 2065/66.

Actual loan collection follows the same trend as of loan disbursement. It was highest Rs.168571 in the F/Y 2062/63 with the growth rate of 88.44% then it drop down throughout study period to reach Rs.1.53 in the F/Y 2065/66 with the negative growth rage of -98.47%

Actual loan outstanding gradually increased from Rs.385259 to Rs.423580 in the F/Y 2061/62 to 2064/65 respectively. Then in the following year it dramatically dipped to Rs.102493 in the F/Y 2065/66 with negative growth rate of -73.40%

The percentage of loan collection to disbursement for Metal Production, Machineries and Fittings is in increasing trend except for the F/Y 2064/65 with the lowest ratio of 83.38. The ratio was highest in the F/Y 2065/66 with 130.48%. The percentages of loan collection to outstanding increased from F/Y 2061/62 to 2063/64 to reach the ratio of 40.29% from 23.22 but decreased in the following two years with ratio of 14.18% and 1.34% in the F/Y 2064/65 and 2065/66 respectively.

The coefficient of correlation value is calculated between loan disbursement and collection is +0.9981, which is highly positively correlated. Therefore, the coefficient of correlation shows significant relationship between loan disbursement and collection. Similarly, the coefficient of correlation value is calculated between loan outstanding and collection is 0.3357, which is positively correlated. Therefore, the coefficient of correlation shows significant relationship between loan outstanding and collection of Metal Production, Machineries and Fittings purpose.

4.4.6 Actual Loan Disbursement, Collection and Outstanding of Transportation Tools Production Purpose

ADBL grants loan for Transportation Tools Production also. Loan categorized under this heading are loan provided for tools production for the transportation purpose.

Table 4.8

Actual Loan Disbursement, Collection and Outstanding of Transportation Tools Production Purpose

(in 000)

F/Y	Disbursement		Collection		Outstanding		% of Collection	
	Amount	Growth rate%	Amount	Growth rate%	Amount	Growth rate%	To Disb.	To Out.
2061/62	24346	-	25725	-	102827	-	105.66	25.02

2062/63	43787	79.85	47039	82.85	99575	-3.16	107.43	47.24
2063/64	43024	76.72	46276	79.89	96323	-6.33	107.56	48.04
2064/65	32216	32.33	34971	35.94	93568	-9.00	108.55	37.37
2065/66	9	-99.96	53	-99.79	93524	-9.05	588.89	0.06

Source: Financial Statement of ADBL from 2061/62 to 2065/66

Fig.4.8
**Position of Actual Loan Disbursement, Collection and Outstanding of
Transportation Tools Production Purpose**
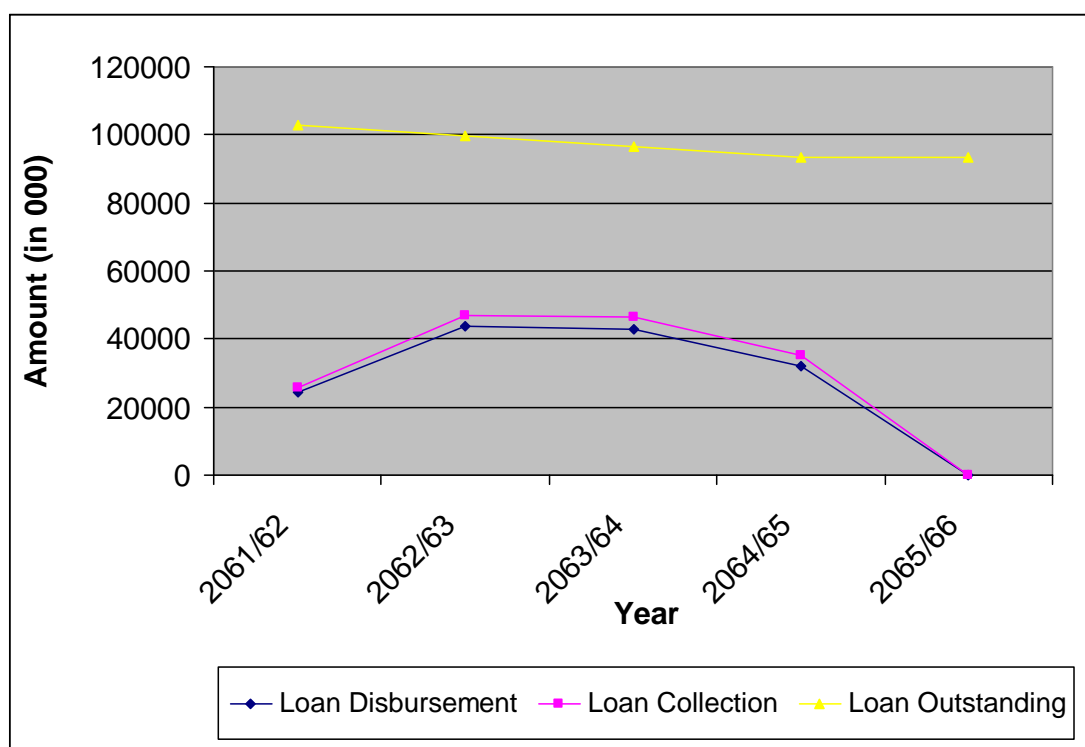
In the above table, loan disbursement has increased from Rs.24346 to Rs.43787 in the F/Y 2061/62 to 2062/63. Then it drop down throughout the study period to reach Rs.9 with the growth rate of 0.04% in the F/Y 2065/66.

Actual loan collection follows the same trend as of loan disbursement. It was highest Rs.47039 in the F/Y 2062/63 with the growth rate of 82.85% then it drop down throughout study period to reach Rs.53 in the F/Y 2065/66 with the growth rage of 0.21%

Actual loan outstanding gradually decreased through out the study period. It was Rs.102827 in the F/Y 2061/62 and decreased with the negative growth rate in the following recording Rs.99575, Rs.96323, Rs.92568 and Rs.93524 in the F/Y 2062/63 to 2065/66 respectively.

The percentage of loan collection to disbursement for Transportation Tools Production is in increasing trend. From 105.66% in the F/Y 2061/62 it increased throughout the study period to reached 588.89% in the F/Y 2065/66. The percentage of collection to outstanding was 25.02% in the F/Y 2061/62 and increased in following two year with 47.24% and 48.04% in the F/Y 2062/63 and 2063/64 respectively. Then it decreased to 37.37% and 0.06% in the year 2064/65 and 2065/66 respectively.

The coefficient of correlation value calculated between loan disbursement and collection is +0.9999, which is highly positively correlated. Therefore, the coefficient of correlation shows significant relationship between loan disbursement and collection. Similarly, the coefficient of correlation value calculated between loan outstanding and collection is 0.0159, which is very weakly positively correlated. Therefore, the coefficient of correlation shows significant relationship between loan outstanding and collection of Transportation Tools Production purpose.

4.4.7 Actual Loan Disbursement, Collection and Outstanding of Transport, Media and Public Utility Service Purpose

ADBL grants loan for Transport, Media and Public Utility Service Purpose as well. Loan categorized under this heading are loan provided for different media related works, Transport vehicle like bus, trucks, tempo, Van and Rickshaw and other Transport related loans.

Table 4.9

Actual Loan Disbursement, Collection and Outstanding of Transport, Media and Public Utility Service Purpose

(in 000)

F/Y	Disbursement		Collection		Outstanding		% of Collection	
	Amount	Growth rate%	Amount	Growth rate%	Amount	Growth rate%	To Disb.	To Out.
2061/62	128033	-	180360	-	699567	-	140.87	25.78
2062/63	169239	32.18	272778	51.24	596028	-14.80	161.18	45.77
2063/64	164817	28.73	268356	48.79	492489	-29.60	162.82	54.49
2064/65	187286	46.28	206672	14.59	473103	-32.37	110.35	43.68
2065/66	104653	-18.26	152004	-15.72	425752	-39.14	145.25	35.70

Source: Financial Statement of ADBL from 2061/62 to 2065/66

Fig.4.9
Position of Actual Loan Disbursement, Collection and Outstanding of Transport, Media and Public Utility Service Purpose
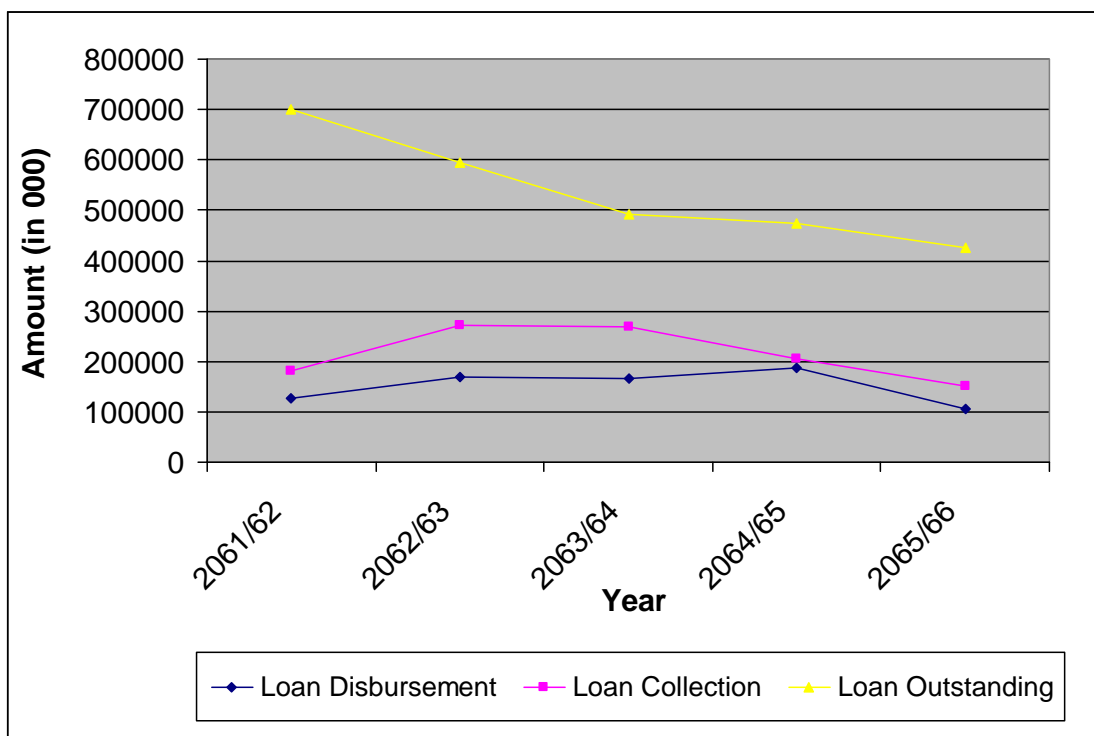
In the above table, loan disbursement follows the fluctuating trend. The lowest actual loan disbursement amount of Transport, Media and Public Utility Service purpose is Rs.104653 thousand in F/Y 2065/2066 and the highest loan disbursement amount of Transport, Media and Public Utility Service purpose is Rs.187286 thousand in the F/Y 2064/2065. The lowest growth rate on loan disbursement is -18.26% in F/Y 2065/2066 and the highest is 46.28% in F/Y 2064/2065.

Loan collection amount was Rs.180360 in the F/Y 2061/62 then increased in the F/Y 2062/63 with the Rs.272778. Thereafter it decreased in the following years to reach Rs.152004 with the negative growth rate of -15.72% in the year 2065/66.

Actual loan outstanding decreased in the whole study period. It was highest in the F/Y 2061/62 with Rs.699567 and decreased in the following years to Rs.596028, Rs.492489, Rs.473103 and Rs.425752 in the F/Y 2062/63 to 2065/66 respectively. It reached the negative growth rate of -39.14% in the F/Y 2065/66.

The percentage of loan collection to disbursement for Transport, Media and Public Utility Service is in increasing trend except in the F/Y 2064/65. It was highest in the F/Y 2063/64 with 162.82% and lowest in the following year with Rs.110.35. Similarly, the percentage of loan collection to disbursement was also increasing trend till 2063/64 with 54.49% but it decreased to 43.68% and 35.70% in the F/Y 2064/65 and 2065/66 respectively.

The coefficient of correlation value calculated between loan disbursement and collection is +0.7249, which is positively correlated. Therefore, the coefficient of correlation shows significant relationship between loan disbursement and collection. Similarly, the coefficient of correlation value calculated between loan outstanding and collection is 0.0309, which is very weakly positively correlated. Therefore, the coefficient of correlation shows significant relationship between loan outstanding and collection of Transport, Media and Public Utility Service purpose.

4.4.8 Actual Loan Disbursement, Collection and Outstanding of Wholesaler and Retailer Purpose

ADBL grants loan for Wholesaler and Retailer Purpose also. Loan categorized under this heading are loan provided to buy and sales of different Agricultural Products, Consumers Product, Warehousing, Export and Import Trade.

Table 4.10

Actual Loan Disbursement, Collection and Outstanding of Wholesaler and Retailer Purpose

(in 000)

F/Y	Disbursement		Collection		Outstanding		% of Collection	
	Amount	Growth rate%	Amount	Growth rate%	Amount	Growth rate%	To Disb.	To Out.
2061/62	8772736	-	8456900	-	9609044	-	96.40	88.01
2062/63	8301644	-5.37	8944054	5.76	8966634	-6.69	107.74	99.75
2063/64	8785656	0.15	8799062	4.05	8953228	-6.82	100.15	98.28
2064/65	12481659	42.28	11771276	39.19	9663611	0.57	94.31	121.81
2065/66	13323832	51.88	12676725	49.90	10310718	7.30	95.14	122.95

Source: Financial Statement of ADBL from 2061/62 to 2065/66

Fig.4.10
Position of Actual Loan Disbursement, Collection and Outstanding of Wholesaler and Retailer Purpose
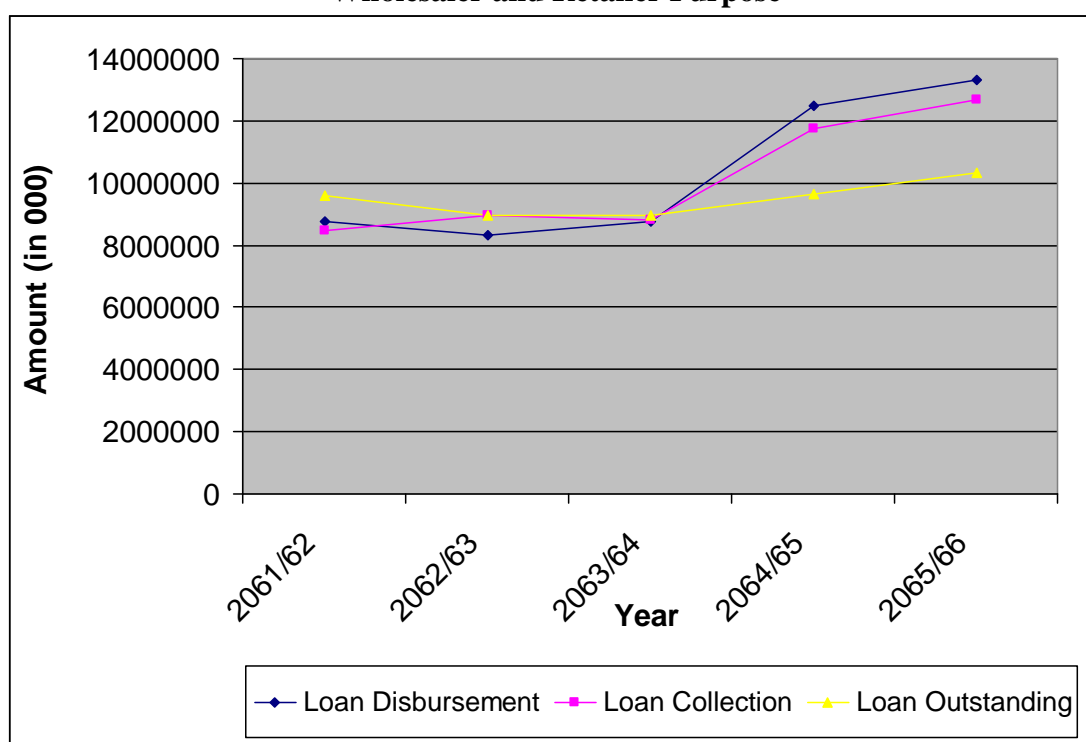
In the above table, loan disbursement is Rs.8772736 thousand in the F/Y 2061/62 and decreased in the following year to Rs.8301644. Then for the whole study period the loan disbursement is in increasing trend to reach the highest of Rs.13323832 thousand with the growth rate of 561.88% in the F/Y 2065/66.

Actual loan collection amount is in also increasing trend except for the F/Y 2063/64 where the collection totaled to Rs.8799062 thousand. Then it increased to Rs.11771276 and Rs.12676725 thousand with the growth rate of 39.19% and 149.90% in the F/Y 2064/65 and F/Y2065/66 respectively.

Loan outstanding amount slightly decrease from F/Y 2061/62 to 2063/64 with the negative growth rate of -6.69 and -6.82. But after that the Outstanding Loan increased each year to reach Rs.9663611 and Rs.10310718 thousand with the growth rate of 0.57% and 7.30% in the F/Y 2064/65 and 2065/2066 respectively.

The percentages of loan collection to disbursement for Wholesaler and Retailer Purpose are more than 90% throughout the study period. The ratios were 96.40%, 107.74%, 100.15%, 94.31% and 95.41% for the F/Y 2061/62 to 2065/66 respectively. Similarly, the percentages of loan collection to disbursement are 88.01%, 99.75%, 98.28%, 121.81% and 122.95% from the F/Y 2061/62 to 2065/66 following the increasing trend except for the F/Y 2063/64.

The coefficient of correlation value calculated between loan disbursement and collection is +0.9864, which is positively correlated. Therefore, the coefficient of correlation shows significant relationship between loan disbursement and collection. Similarly, the coefficient of correlation value calculated between loan outstanding and collection is 0.4140, which is positively correlated. Therefore, the coefficient of correlation shows significant relationship between loan outstanding and collection of Wholesaler and Retailer Purpose.

4.4.9 Actual Loan Disbursement, Collection and Outstanding of Finance, Insurance and Fixed Assets Purpose

ADBL grants loan for Finance, Insurance and Fixed Assets Purpose also. Loan categorized under this heading are loan provided for insurance of different products, Fixed Assets financing and others related to financing.

Table 4.11

Actual Loan Disbursement, Collection and Outstanding of Finance, Insurance and Fixed Assets Purpose

(in 000)

F/Y	Disbursement		Collection		Outstanding		% of Collection	
	Amount	Growth rate%	Amount	Growth rate%	Amount	Growth rate%	To Disb.	To Out.
2061/62	398616	-	408326	-	815536	-	102.44	50.07
2062/63	682867	71.31	623423	52.68	874980	7.29	91.29	71.25
2063/64	635023	59.31	613317	50.20	896686	9.95	96.58	68.40
2064/65	306657	-23.07	340815	-16.53	862528	5.76	111.14	39.51
2065/66	324420	-18.61	459568	12.55	727380	-10.81	141.66	63.18

Source: Financial Statement of ADBL from 2061/62 to 2065/66

Fig.4.11
Position of Actual Loan Disbursement, Collection and Outstanding of Finance, Insurance and Fixed Assets Purpose
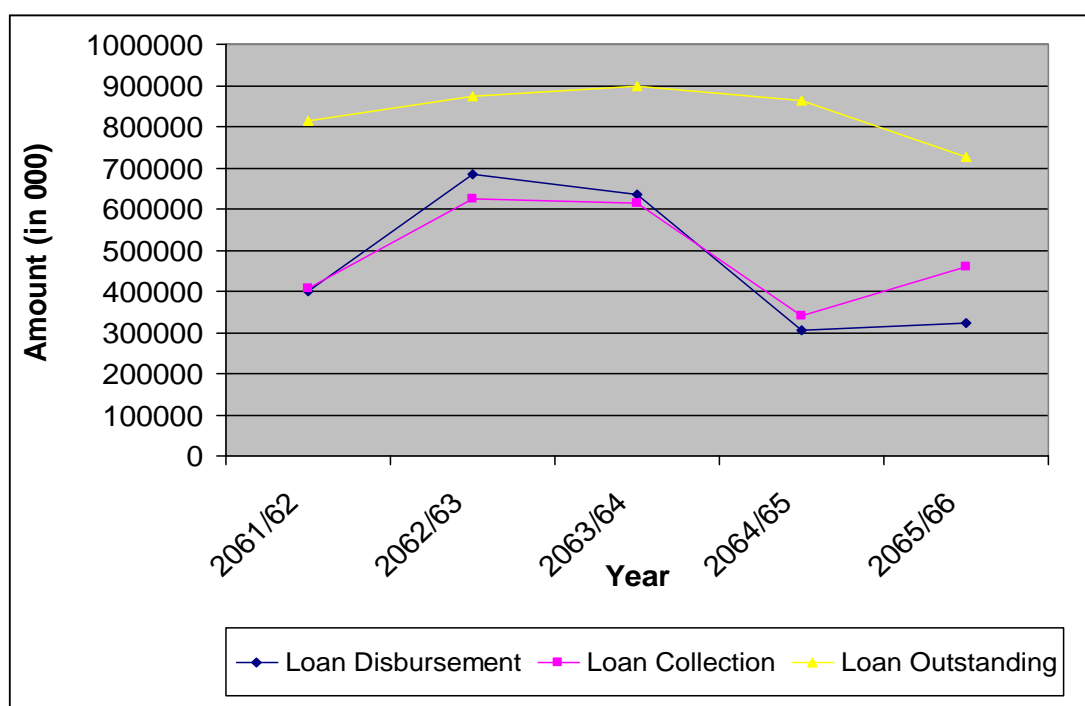
In the above table, loan disbursement has fluctuating trend. It is Rs.398616 thousand in the F/Y 2061/62 which increased in the F/Y 2062/63 to Rs.682867. Then it decreases in the following two years and reached to Rs.306657 thousand and increased in the F/Y 2065/66 to Rs.324420 thousand.

Actual loan collection amount increased from Rs.408326 to Rs.623423 thousand from the F/Y 2061/62 to 2062/63. Then it decreased till the year 2064/65 to reach Rs.340815 thousand and it increases in the F/Y 2065/66 to Rs.459568 thousand with the growth rate of 112.55.

Loan outstanding amount increased in the first three year of the study period. It was Rs.815536, Rs.874980 and Rs.896686 thousand from the F/Y 2061/62 to 2063/64 respectively. Then it decreased till the end of the study period to mark Rs.727380 thousand in the F/Y 2065/66.

The percentages of loan collection to disbursement for Finance, Insurance and Fixed Assets are always more than 90% throughout the study period. It decreased from 102.44% in the F/Y 2061/62 to 91.29% in the F/Y 2062/63. Then it increased till the end of the study period to reach 141.66% in the F/Y 2065/66. The percentage of loan collection to outstanding increased from 50.07% to 71.25% in the F/Y 2061/62 to 2062/63. Then it decreased in the following two years of the study period and increased in the F/Y 2065/66 with 63.18% ratio.

The coefficient of correlation value calculated between loan disbursement and collection is +0.9387, which is highly positively correlated. Therefore, the coefficient of correlation shows significant relationship between loan disbursement and collection. Similarly, the coefficient of correlation value calculated between loan outstanding and collection is 0.0659, which is weakly positively correlated. Therefore, the coefficient of correlation shows significant relationship between loan outstanding and collection of Finance, Insurance and Fixed Assets purpose.

4.4.10 Actual Loan Disbursement, Collection and Outstanding of Service Industry Purpose

ADBL grants loan for Service Industry Purpose also. Loan categorized under this heading are loan provided for different service industries like Tourism, Hotels, Resorts and Restaurant, Travel.

Table 4.12

Actual Loan Disbursement, Collection and Outstanding of Service Industry Purpose

(in 000)

F/Y	Disbursement		Collection		Outstanding		% of Collection	
	Amount	Growth rate%	Amount	Growth rate%	Amount	Growth rate%	To Disb.	To Out.
2061/62	943093	-	781297	-	1150328	-	82.84	67.92
2062/63	1304076	38.28	1023767	31.03	1430637	24.37	78.51	71.56
2063/64	1210232	28.33	1007171	28.91	1633698	42.02	83.22	61.65
2064/65	1095305	16.14	905698	15.92	1823305	58.50	82.69	49.67
2065/66	1001480	6.19	961223	23.03	1863562	62.00	95.98	51.58

Source: Financial Statement of ADBL from 2061/62 to 2065/66

Fig.4.12
Position of Actual Loan Disbursement, Collection and Outstanding of Service Industry Purpose
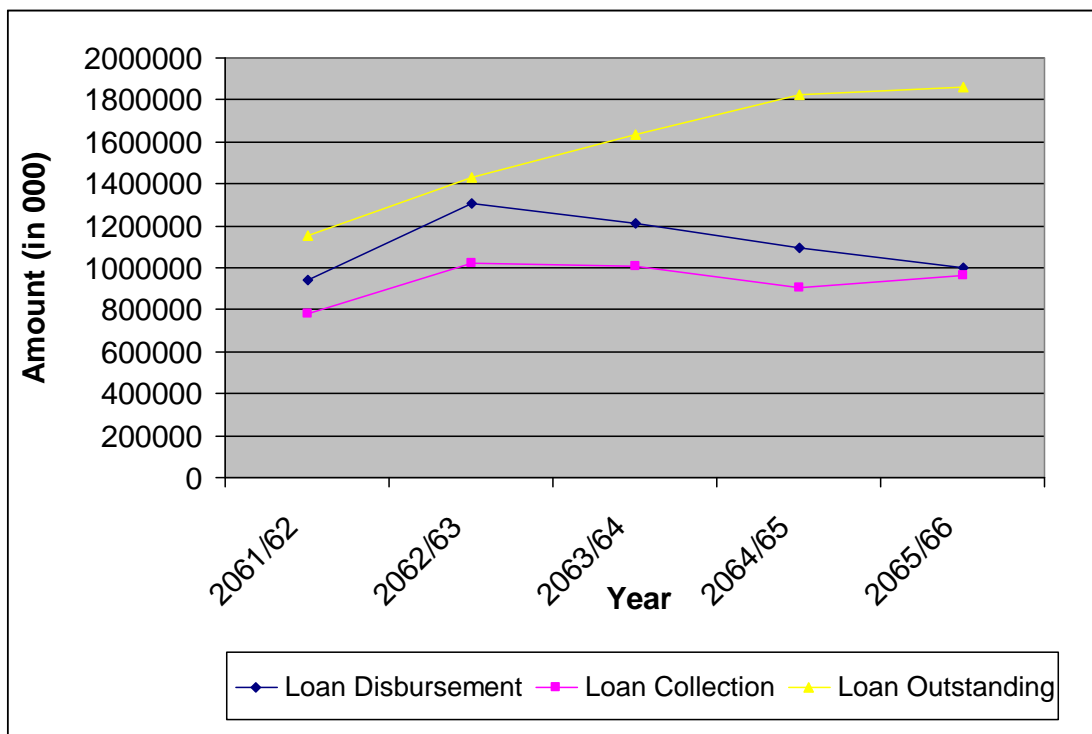
In the above table, loan disbursement increase from Rs.943093 to Rs.1304076 thousand in the F/Y 2061/62 and 2062/63. Then it decreased throughout the study period and reached to Rs.1001480 thousand in the F/Y 2065/66.

Actual loan collection amount is Rs.781297 thousand in the F/Y 2061/62 which increases to Rs.1023767 thousand in the following year. Then it decreases to Rs.1007171 and Rs.905698 thousand in the F/Y 2063/64 and 2064/65 respectively and it increases to Rs.961223 thousand in the F/Y 2065/66 with the growth rate of 123.03%.

Loan outstanding amount increases throughout the study period with Rs.1150328 thousand in the F/Y 2061/62 which increases to reach Rs.1863562 thousand in the F/Y 2065/66 with the growth rate of 62.00%.

The percentages of loan collection to disbursement of Service Industry are 82.84%, 7851%, 83.22%, 82.69% and 95.89% from F/Y 2061/62 to 2065/66 respectively. The lowest percentage of loan collection to disbursement is 82.69% in F/Y 2064/65 and the highest is 95.98% in F/Y 2065/66. The percentages of loan collection to outstanding of Service Industry are 67.92%, 71.56%, 61.65%, 49.67% and 51.58% from F/Y 2061/62 to 2065/66 respectively. The lowest percentage of loan collection to outstanding is 49.67% in F/Y 2064/65 and the highest is 71.56% in F/Y 2062/63.

The coefficient of correlation value calculated between loan disbursement and collection is +0.8241, which is highly positively correlated. Therefore, the coefficient of correlation shows significant relationship between loan disbursement and collection. Similarly, the coefficient of correlation value calculated between loan outstanding and collection is 0.2417, which is positively correlated. Therefore, the coefficient of correlation shows significant relationship between loan outstanding and collection of Service Industry purpose.

4.4.11 Actual Loan Disbursement, Collection and Outstanding of Other Service Industry Purpose

ADBL grants loan for Other Service Industry Purpose also. Loan categorized under this heading are loan provided for different service industries like Hospital, Clinics and other health related organization, Education, Sports & Entertainment, Employment, Environment Saving and all other service related loans.

Table 4.13

Actual Loan Disbursement, Collection and Outstanding of Other Service Industry Purpose

(in 000)

F/Y	Disbursement		Collection		Outstanding		% of Collection	
	Amount	Growth rate%	Amount	Growth rate%	Amount	Growth rate%	To Disb.	To Out.
2061/62	1376159	-	1092928	-	1066630	-	79.42	102.47
2062/63	1754931	27.52	1410900	29.09	1410661	32.25	80.40	100.02
2063/64	1629137	18.38	1388028	27.00	1651770	54.86	85.20	84.03
2064/65	1320202	-4.07	1038244	-5.00	1933728	81.29	78.64	53.69
2065/66	2024222	47.09	1615400	47.80	2342550	119.62	79.80	68.96

Source: Financial Statement of ADBL from 2061/62 to 2065/66

Fig.4.13
Position of Actual Loan Disbursement, Collection and Outstanding of Other Service Industry Purpose
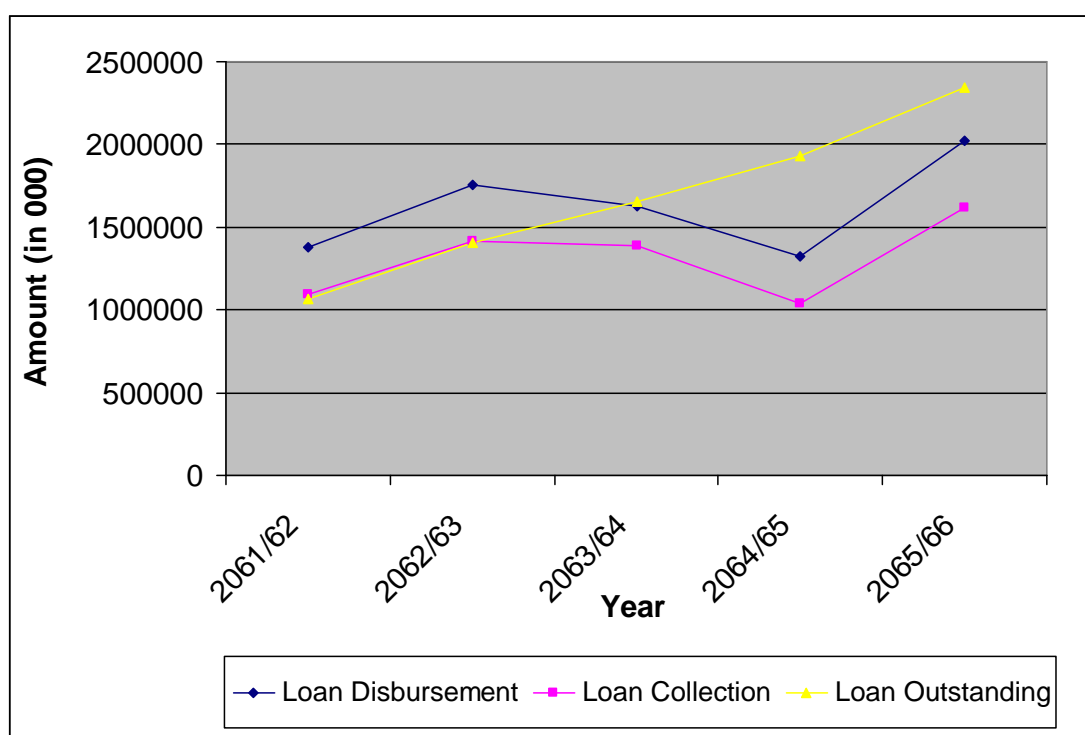
In the above table, loan disbursement has increased from Rs.1346159 to Rs.1754931 thousand in the F/Y 2061/62 to 2062/63. Then it drop down gradually till the F/Y

2064/65 to reach Rs.1320202 thousand and increased in the last year to Rs.2024222 thousand with the growth rate of 47.09%.

Actual loan collection amount is Rs.1092928 thousand in the F/Y 2061/62 which increases in the following year then decreased till the F/Y 2064/65 before increasing to Rs.1615400 thousand with the growth rate of 47.80%.

The amount of loan outstanding increases throughout the study period with Rs.166630 thousand in the F/Y 2061/62 to reach Rs.2342550 thousand in the year 2065/66 with the growth rage of 219.62%.

The percentages of loan collection to disbursement for Other Service Industry are 79.42%, 80.40%, 85.20%, 78.64% and 79.80% from the F/Y 2061/62 to 2065/66 respectively. The lowest percentage of loan collection to disbursement is 78.64% in F/Y 2064/65 and the highest is 85.20% in F/Y 2063/64. The percentages of loan collection to outstanding Other Service Industry are 102.47%, 100.02%, 84.03%, 53.69% and 68.96% from F/Y 2061/62 to 2065/66 respectively. The lowest percentage of loan collection to outstanding is 53.69% in F/Y 2064/65 and the highest is 102.47% in F/Y 2061/62.

The coefficient of correlation value calculated between loan disbursement and collection is +0.9854, which is highly positively correlated. Therefore, the coefficient of correlation shows significant relationship between loan disbursement and collection. Similarly, the coefficient of correlation value calculated between loan outstanding and collection is 0.5013, which is positively correlated. Therefore, the coefficient of correlation shows significant relationship between loan outstanding and collection of Other Service Industry purpose.

4.4.12 Actual Loan Disbursement, Collection and Outstanding of Consumer Loan Purpose

ADBL grants loan for Consumer Loan Purpose also. Loan categorized under this heading are loan provided for personal, family and household purposes.

Table 4.14

Actual Loan Disbursement, Collection and Outstanding of Consumer Loan Purpose

(in 000)

F/Y	Loan Disbursement		Loan Collection		Loan Outstanding		% of Collection	
	Amount	Growth rate%	Amount	Growth rate%	Amount	Growth rate%	To Disb.	To Out.
2061/62	766711	-	576253	-	1111200	-	75.16	51.86
2062/63	1122668	46.43	1045116	81.36	1188752	6.98	93.09	87.92
2063/64	1105726	44.22	1028174	78.42	1266304	13.96	92.99	81.19
2064/65	380436	-50.38	287205	-50.16	1359535	22.35	75.49	21.13
2065/66	1139874	48.67	514407	-10.73	1985002	78.64	45.13	25.91

Source: Financial Statement of ADBL from 2061/62 to 2065/66

Fig.4.14
Position of Actual Loan Disbursement, Collection and Outstanding of Consumer Loan Purpose
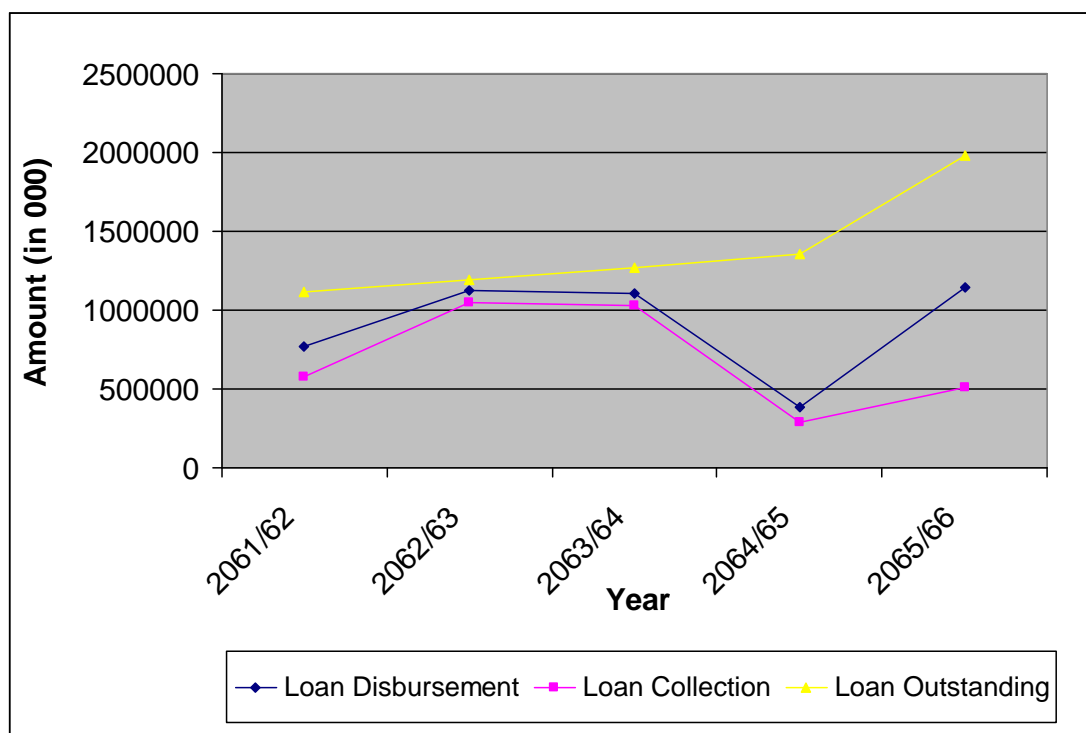
In the above table, loan disbursement is Rs.766711 thousand in the F/Y 2061/62 and increased in the F/Y 2062/63 to Rs.1122668 thousand with the growth rate of

146.43%. Then it decreased till 2064/65 to Rs.380436 thousand before it increased in the F/Y 2065/66 to Rs.1139874 thousand with the highest growth rate of 48.67%.

Actual loan collection amount is Rs.576253 thousand in the F/Y 2061/62 with increase to Rs.1045116 in the year 2062/63 with the growth rate of 81.36%. Then it decreases to Rs.287205 in the F/Y 2064/65 and increased to Rs.514407 thousand in the F/Y 2065/66.

Loan outstanding amount is in increasing trend throughout the study period. It was Rs.1111200, Rs.1188752, Rs.1266304, Rs.1359535 and Rs.1985002 from the F/Y 2061/62 to 2065/66. The highest growth rate is 78.64% in the F/Y 2065/66.

The percentages of loan collection to disbursement for Consumer Loan are 75.16%, 93.09%, 92.99%, 75.49% and 45.13% from F/Y 2061/62 to 2065/66 respectively. The lowest percentage of loan collection to disbursement is 45.13% in the F/Y 2065/66 and the highest is 93.09% in F/Y 2062/63. The percentages of loan collection to outstanding Consumer Loan are 51.86%, 87.92%, 81.19%, 21.13% and 25.91% from F/Y 2061/62 to 2065/66 respectively. The lowest percentage of loan collection to outstanding is 21.13% in F/Y 2064/65 and the highest is 87.19% in F/Y 2062/63.

The coefficient of correlation value is calculated between loan disbursement and collection is +0.7492, which is positively correlated. Therefore, the coefficient of correlation shows significant relationship between loan disbursement and collection. Similarly, the coefficient of correlation value is calculated between loan outstanding and collection is -0.2034, which is negatively correlated. Therefore, the coefficient of correlation shows insignificant relationship between loan outstanding and collection of Consumer Loan purpose.

4.4.13 Actual Loan Disbursement, Collection and Outstanding of Others Purpose

ADBL grants loan for Other Purpose than all the above mention purposes. Loan categorized under this heading are bills purchase, special loans, Fixed Deposit Mortgage, Demand Loan, Overdraft, Cash loan etc.

Table 4.15

Actual Loan Disbursement, Collection and Outstanding of Others Purpose

(in 000)

F/Y	Loan Disbursement		Loan Collection		Loan Outstanding		% of Collection	
	Amount	Growth rate%	Amount	Growth rate%	Amount	Growth rate%	To Disb.	To Out.
2061/62	8115134	-	7323495	-	627270	-	90.24	1167.52
2062/63	8011883	-1.27	6019410	-17.81	2619743	317.64	75.13	229.77
2063/64	7073213	-12.84	6992985	-4.51	2699971	330.43	98.87	259.00
2064/65	11151398	37.41	10708904	46.23	3142465	400.97	96.03	340.78
2065/66	13441064	65.63	12815305	74.99	3768224	500.73	95.34	340.09

Source: Financial Statement of ADBL from 2061/62 to 2065/66

Fig.4.15
Position of Actual Loan Disbursement, Collection and Outstanding of Others Purpose
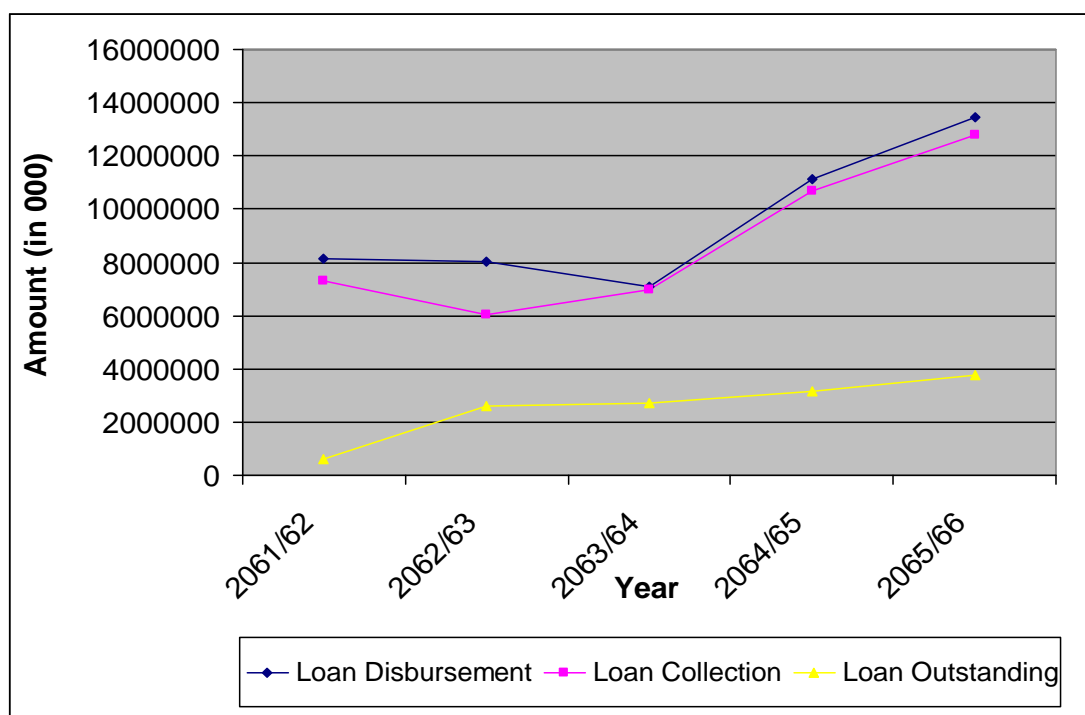
In the above table, loan disbursement has decreased in the first three years of the study period. It increased to Rs.11151398 thousand in the F/Y 2064/65 and again increased to Rs.13441064 thousand in the F/Y 2065/66 with the growth rate of 65.63%.

Actual loan collection amount is Rs.7323495 thousand in the F/Y 2061/62 and decreased to Rs.6019410 thousand in the F/Y 2062/63. Then it increased throughout the study period to reach Rs.12815305 thousand in the F/Y 2065/66.

Loan outstanding amount is in increasing trend throughout the study period. It was Rs.627270, Rs.2619743, Rs.2699971, Rs.3142465 and Rs.3768224 from the F/Y 2061/62 to 2065/66. The highest growth rate is 500.73% in the F/Y 2065/66.

The percentages of loan collection to disbursement for Others purpose are 90.24%, 75.13%, 98.87%, 96.03% and 95.34% from F/Y 2061/62 to 2065/66 respectively. The lowest percentage of loan collection to disbursement is 75.13% in F/Y 2062/63 and the highest is 98.87% in F/Y 2063/64. The percentages of loan collection to outstanding Others purpose are 1167.52%, 229.77%, 259.00%, 340.78% and 340.09% from F/Y 2061/62 to 2065/66 respectively. The lowest percentage of loan collection to outstanding is 229.77% in F/Y 2062/63 and the highest is 1167.52% in F/Y 2061/62.

The coefficient of correlation value calculated between loan disbursement and collection is +0.9686, which is highly positively correlated. Therefore, the coefficient of correlation shows significant relationship between loan disbursement and collection. Similarly, the coefficient of correlation value calculated between loan outstanding and collection is 0.0923, which is weakly positively correlated. Therefore, the coefficient of correlation shows significant relationship between loan outstanding and collection of Other purpose.

4.5 ACTUAL LOAN DISBURSEMENT, OUTSTANDING AND COLLECTION OF DEVELOPMENT REGION – WISE

ADBL grants loan in different purpose of all five development regions. The purpose of division of five development regions is to develop all regions equally to achieve sustainable economic growth rate and distribute return equally people of that area by granting agricultural/ rural credit and also to reduce regional economic imbalances. Actual loan disbursement, outstanding and collection of eastern development region, central development region and far western development region, mid western

development region and far western development region are given below:

4.5.1 Actual Loan Disbursement, Collection and Outstanding of Eastern Development Region

Table 4.16

(in 000)

F/Y	Loan Disbursement	Loan Collection	Loan Outstanding	% of Collection	
				To Disbursement	To Outstanding
2061/62	4601477	4103064	6785771	89.17	60.47
2062/63	5302114	4795504	7292381	90.45	65.76
2063/64	5030036	4883207	7439210	97.08	65.64
2064/65	5558206	5457573	7236947	98.19	75.41
2065/66	6154472	6400065	6991354	103.99	91.54

Source: Financial Statement of ADBL from 2061/62 to 2065/66

Fig.4.16

Position of Actual Loan Disbursement, Collection and Outstanding of Eastern Development Region
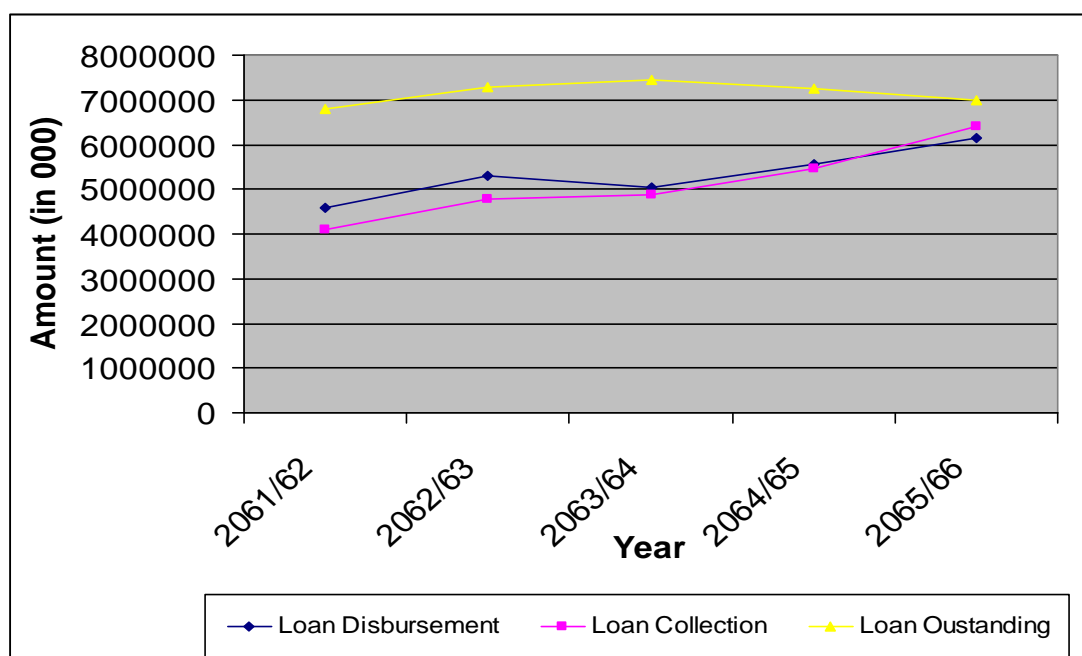
The above table shows, the amount of loan disbursement in the increasing trend except in the F/Y 2063/64 with Rs.5050036. Then it increased to Rs.5558206 and

Rs.6154472 thousand in the F/Y 2064/65 and 6065/66 respectively. The lowest loan disbursement is Rs.4601477 in the F/Y 2061/62.

The loan collection is in increasing trend throughout the study period. It is Rs.4103064 thousand in the F/Y 2061/62 and increased each year to reach Rs.6400065 thousand in the F/Y 2065/66.

The loan outstanding increased in the first three year of the study period. It is Rs.6785771, Rs.7292381 and Rs.7436210 thousand in the F/Y 2061/62 to 2063/64 respectively. Then in the last two year of the study period it decrease to Rs.7236747 and Rs.6991354 thousand in the F/Y 2064/65 and 2065/66 respectively.

The percentage of loan collection to loan disbursement increased each year nearly over 90% ratio each year. It was lowest of 89.17% in the F/Y 2061/62 and highest of 103.99% in the F/Y 2065/66. The percentage of loan collection to loan outstanding is also in increasing trend except in the F/Y 2063/64 with 65.64%. It was highest of 91.54% in the F/Y 2065/66.

4.5.2 Actual Loan Disbursement, Collection and Outstanding of Central Development Region

Table 4.17

(in 000)

F/Y	Loan Disbursement	Loan Collection	Loan Outstanding	% of Collection	
				To Disbursement	To Outstanding
2061/62	14305105	13700145	13544320	95.77	101.15
2062/63	15366121	14486704	14423737	94.28	100.44
2063/64	14484187	13938679	14969245	96.23	93.12
2064/65	18761307	16993320	17016773	90.58	99.86
2065/66	22328246	20383253	18961766	91.29	107.50

Source: Financial Statement of ADBL from 2061/62 to 2065/66

Fig.4.17

Position of Actual Loan Disbursement, Collection and Outstanding of Central Development Region
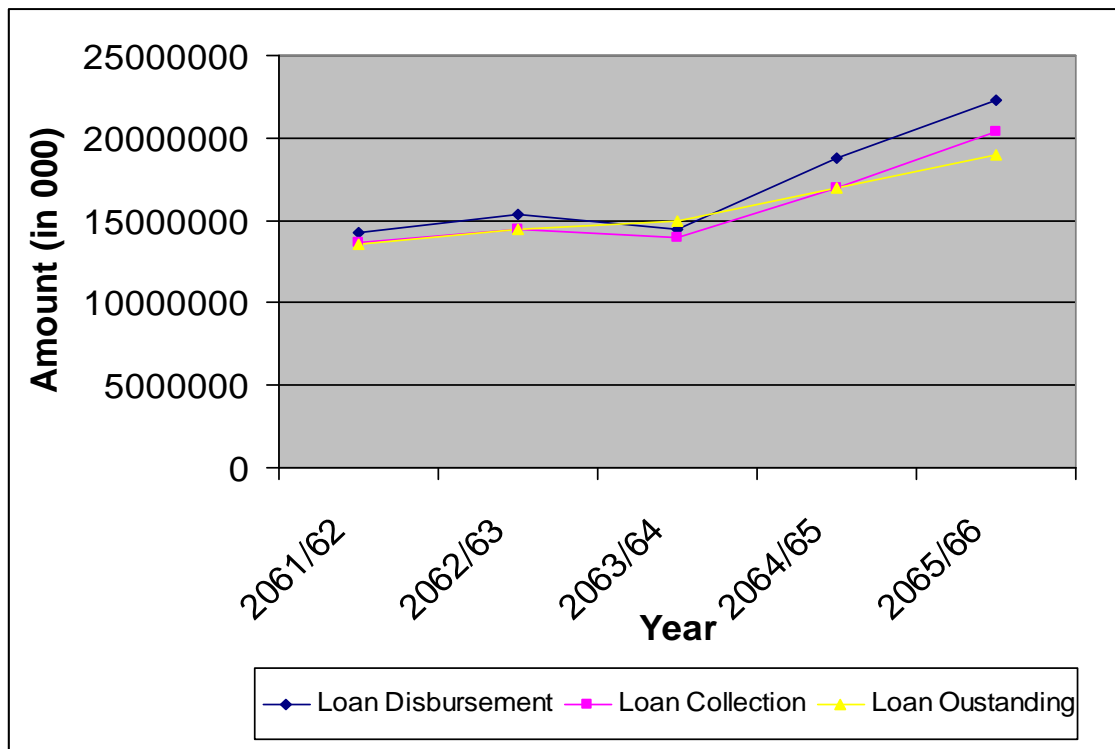
The above table exhibits the increasing trend of loan disbursement except in the year 2063/64. It is lowest Rs.14305102 thousand in the F/Y 2061/62 and increased each year to reach Rs.22328246 thousand in the F/Y 2065/66 which is the highest amount.

Similarly the loan collection also follows the same trend as of loan disbursement. It is Rs.13700154 and Rs.14486704 thousand in the F/Y 2061/62 and 2062/63 respectively. Then it decreased to Rs.13938679 thousand in the F/Y 2063/64 and increased in the F/Y 2064/65 and 2065/66 to Rs.16993320 and Rs.20383253 respectively.

The loan outstanding is in increasing trend. It is Rs.13544320 thousand in the F/Y 2061/62 which is the lowest amount and increased each year throughout the study period to reach the highest amount of Rs.18961766 thousand in the F/Y 2065/66.

The percentage of loan collection to loan disbursement is in fluctuating trend. It is 95.77% in the F/Y 2061/62. It fluctuated throughout the study period with the lowest ratio of 90.58% in the F/Y 2064/65 and highest ratio of 96.23% in the F/Y 2063/64. Similarly, the percentage of loan collection to loan outstanding decreased from

101.15% to 100.44% and 93.12% from the year 2061/62 to 2063/64. Then it started increasing in the following year reaching 99.86% and 107.50% in the F/Y 2064/65 and 2065/66 respectively.

4.5.3 Actual Loan Disbursement, Collection and Outstanding of Western Development Region

Table 4.18

(in 000)

F/Y	Loan Disbursement	Loan Collection	Loan Outstanding	% of Collection	
				To Disbursement	To Outstanding
2061/62	5566008	5106446	5921358	91.74	86.24
2062/63	6006439	5598201	6329596	93.20	88.44
2063/64	6632210	6217026	6744780	93.74	92.18
2064/65	7645932	7257973	7140235	94.93	101.65
2065/66	8649427	8407920	7381742	97.21	113.90

Source: Financial Statement of ADBL from 2061/62 to 2065/66

Fig.4.18

Position of Actual Loan Disbursement, Collection and Outstanding of Western Development Region
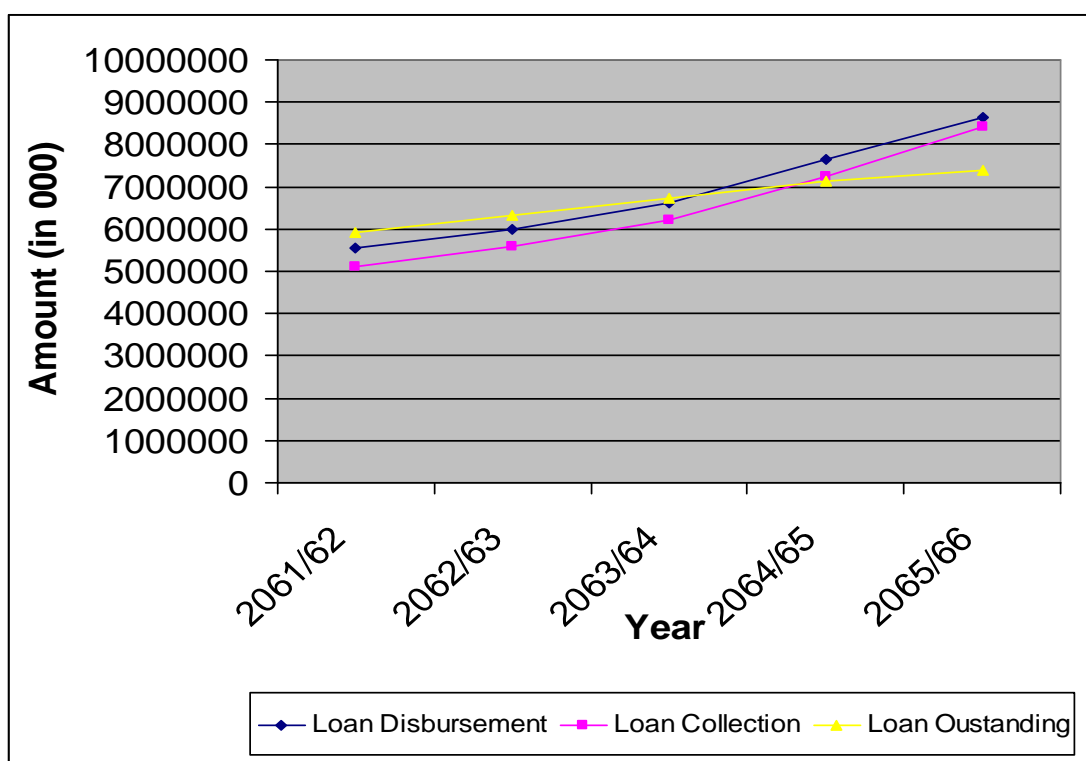
In the above table, loan disbursement, collection and outstanding is in increasing trend each year throughout the study period.

The loan disbursement is Rs.5566008 thousand in the F/Y 2061/62 and increased each year to reach Rs.8649427 thousand in the F/Y 2065/66. Similarly, the loan collection is Rs.5106446 thousand in the F/Y 2061/62 which increases each year to reach Rs.8407920 thousand in the F/Y 2065/66 whereas the loan outstanding is Rs.5921358 thousand in the F/Y 2061/62 which also increase to reach Rs.7381742 thousand in the F/Y 2065/66.

The percentage of loan collection and loan disbursement increased each year recording more than 90% ratio each year. It is 91.74% in the F/Y 2061/62 and increased in the following years to reach 93.20%, 93.74%, 94.93% and 97.21% in the F/Y 2062/63 to 2065/66 respectively. The percentage of the loan collection to loan outstanding also increased each year. It is 86.24% in the year 2061/62 and increased in the following years to reach 88.44%, 92.18%, 101.65% and 113.90% in the F/Y 2062/63 to 2065/66 respectively.

4.5.4 Actual Loan Disbursement, Collection and Outstanding of Mid Western Development Region

Table 4.19

(in 000)

F/Y	Loan Disbursement	Loan Collection	Loan Outstanding	% of Collection	
				To Disbursement	To Outstanding
2061/62	1863694	1686637	2281617	90.50	73.92
2062/63	2045019	1916874	2409762	93.73	79.55
2063/64	2090470	1987616	2512616	95.08	79.11
2064/65	2407630	2303160	2623696	95.66	87.78
2065/66	2595995	2602454	2617237	100.25	99.44

Source: Financial Statement of ADBL from 2061/62 to 2065/66

Fig.4.19

Position of Actual Loan Disbursement, Collection and Outstanding of Mid Western Development Region
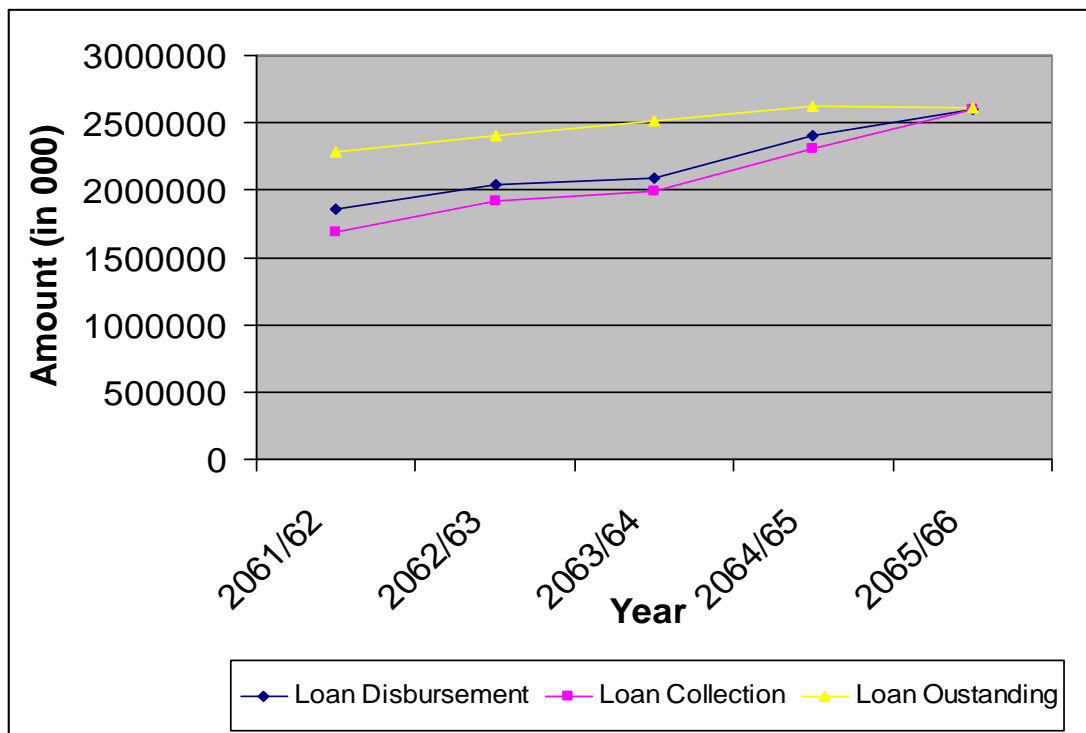
In the above table the loan disbursement and collection are in increasing trend. Similarly the loan outstanding is also in increasing trend except in the year 2065/66.

The loan disbursement is Rs.1863694 thousand in the F/Y 2061/62 with increased each year to reach Rs.2045019, Rs.2090470, Rs.2407630 and Rs.2595995 thousand in the F/Y 2062/63 to 2065/66 respectively. Similarly, the loan collection is Rs.1686637 thousand in the F/Y 2061/62 with increased each year to reach Rs.1916874, Rs.1987616, Rs.2303160 and Rs.2602454 thousand in the F/Y 2062/63 to 2065/66 respectively. The loan outstanding amount reached Rs.22281617, Rs.2409762, Rs.2512616 and Rs.2623696 thousand from the F/Y 2061/62 to 2064/65 respectively. Then in the last year it decreases to Rs.2617237 thousand in the F/Y 2065/66.

The percentage of loan collection and loan disbursement increased each year recording more than 90% ratio each year. It is 90.50% in the F/Y 2061/62 and increased in the following years to reach 93.73%, 95.08%, 95.66% and 100.25% in the F/Y 2062/63 to 2065/66 respectively. The percentage of the loan collection to loan outstanding also increased each year except in the F/Y 2063/64. It increased from 73.92% to 79.55% in the F/Y 2061/62 and 2062/63 respectively but decreased to 79.11% in the F/Y2063/64. Then it increases to 87.78% and 99.44% in the F/Y 2064/65 and 2065/66 respectively.

4.5.5 Actual Loan Disbursement, Collection and Outstanding of Far Western Development Region

Table 4.20

(in 000)

F/Y	Loan Disbursement	Loan Collection	Loan Outstanding	% of Collection	
				To Disbursement	To Outstanding
2061/62	1919225	1693458	2776008	88.24	61.00
2062/63	1894196	1814934	2855270	95.82	63.56
2063/64	1048619	1129371	2774518	107.70	40.71
2064/65	1962891	2159591	2587067	110.02	83.48
2065/66	2186964	2425027	2349004	110.89	103.24

Source: Financial Statement of ADBL from 2061/62 to 2065/66

Fig 4.20

Position of Actual Loan Disbursement, Collection and Outstanding of Far Western Development Region
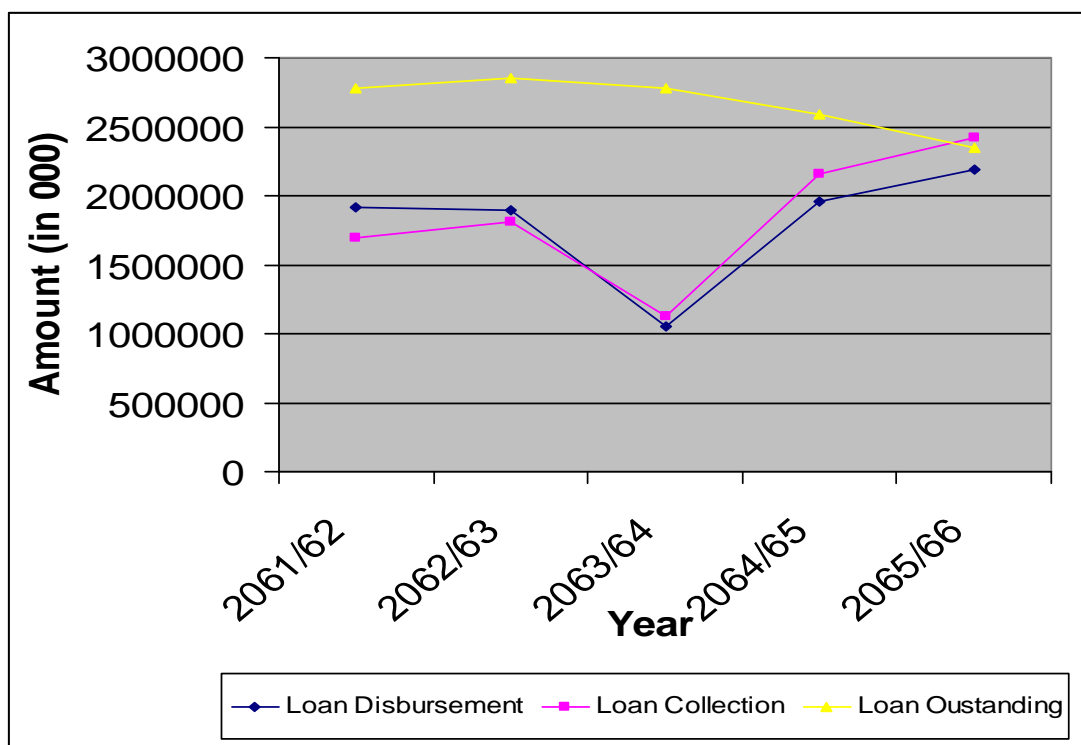
In the above table, the loan disbursement is Rs.1919225 thousand in the F/Y 2061/62 which decreases to Rs.1894196 and Rs.1048619 thousand in the F/Y 2062/63 and 2063/64 respectively. Then it increases in the following two years to Rs.1962891 and Rs.2186964 thousand. The loan collection increased from Rs.1693458 to Rs.1814934 thousand in the F/Y 2061/62 to 2062/63 and decreased in the following year to Rs.1129371 thousand. Then it increases to Rs.2159591 and Rs.2425027 thousand in the F/Y 2064/65 and 2065/66 respectively. The loan outstanding increased from Rs.2776008 to Rs.2855270 thousand in the F/Y 2061/62 to 2062/63. Then it decreased throughout the study period to reach Rs.2774518, Rs.2587067 and Rs.2349004 thousand in the F/Y 2063/64 to 2065/66 respectively.

The percentage of loan collection and loan disbursement increased each year. It is 88.24% in the F/Y 2061/62 and increased in the following years to reach 95.82%, 107.70%, 110.02% and 110.89% in the F/Y 2062/63 to 2065/66 respectively. The percentage of the loan collection to loan outstanding also increased each year except in the F/Y 2063/64. It increased from 61.00% to 63.56% in the F/Y 2061/62 and

2062/63 respectively but decreased to 40.71% in the F/Y2063/64. Then it increases to 83.48% and 103.24% in the F/Y 2064/65 and 2065/66 respectively.

4.6 ANALYSIS OF PRIMARY DATA OBTAINED FROM BORROWERS

The primary data is obtained by some questionnaire, where the borrower's opinion is presented. There are 11 questions asked to the borrowers of ADBL. There are 50 samples taken from those borrowers, who have received loan from ADBL and some of them are not interested to pay and some of them are unable to pay their loan.

4.6.1 Supervision and monitoring by ADBL:

The officials of the ADBL supervise the borrowers and monitor in the frequent time interval. Regarding this, we asked the respondent to know whether the officials of ADBL supervise and monitor or not.

Table 4.21
Supervision and monitoring by ADBL

Supervision and Monitor	Frequency	Percent
Yes	46	92.00
No	4	8.00
Total	50	100.00

The officials of ADBL do supervision and monitoring. Among 50 respondents, 46 respondents (92%) replied that the officials of ADBL supervise and monitor the borrowers and remaining 4 respondents (8%) replied that they did not supervise and monitor.

4.6.2 Problem of taking /paying loan from ADBL:

Before granting loan, the borrower needs to follow several processes. So to know whether they feel any problems while taking loan from ADBL the respondents are asked on this regard.

Table 4.22

Problem of taking /paying loan from ADBL

Problem	Frequency	Percent
Yes	8	16.00
No	42	84.00
Total	50	100.00

Among 50 respondents, 42 respondents (84%) replied that they did not face any problem while taking/ paying loan from ADBL and remaining 8 respondents (16%) replied that they face problem while taking loan from ADBL.

4.6.3 Harassment in Paper Document

Before granting loan, the bank has to arrange various documents to ensure the payment of principal and interest amount of loan granted. So to know whether the paper document maintain is harassing, the respondents are asked on this regard.

Table 4.23
Harassment in Paper Document by ADBL

Harassment	Frequency	Percent
Yes	15	30.00
No	35	70.00
Total	50	100.00

Among 50 respondents, 15 respondent (30%) feels that the process of paper document is harassing where as 35 respondent (70%) doesn't feel any harassing in the process of paper document.

4.6.4 Satisfaction in Mortgage Value

To ensure the payment of loan by the Borrower, the bank keeps mortgage after the valuing it. So to know whether the valuation done by bank is satisfactory, the respondents are asked on this matter.

Table 4.24
Satisfaction in Mortgage Value

Satisfied	Frequency	Percent
Yes	40	80.00
No	10	20.00
Total	50	100.00

Among 50 respondents, 40 respondents (80%) replied that they are satisfied with the value of the mortgage while 10 respondents (20%) replied that they are not satisfied.

4.6.5 Time to Disburse Loan

The bank takes certain time for loan approval after it receives the application form. Thus, to know how many days will be the best time to disburse credit, the respondents are asked on this matter.

Table 4.25
Time to Disburse Loan

Time Interval	Frequency	Percent
5-10 days	15	30.00
11-20 days	33	66.00
above 20 days	2	4.00
Total	50	100.00

Among 50 respondents, 15 respondent (30%) replied that the appropriate time to disburse loan is 5 – 10 days of the application received by the bank whereas 33 respondent (66%) replied that the appropriate time is 11 – 20 days, similarly just 2 respondent $%) replied the appropriate time to be above 20 days.

4.6.6 Current interest rate charge by ADBL:

ADBL charges different interest rates on loans taken by borrowers. Regarding the interest rate, the borrowers are asked whether the rate of interest of charged by ADBL is satisfactory or not.

Table 4.26
Current interest rate changed by ADBL

Satisfied	Frequency	Percent
Yes	7	14.00
No	43	86.00
Total	50	100.00

Among 50 respondents, 43 respondents (86%) replied that they were not satisfied by the current interest rate charge by ADBL and remaining 7 respondents (14%) satisfied by the current interest rate charged by ADBL.

4.6.7 Service charges of ADBL:

ADBL takes the service charges on the loan amount given to the borrowers. The borrowers are asked whether the service of ADBL is reasonable or not.

Table 4.27
Service charges of ADBL

Reasonable	Frequency	Percent
Yes	3	6.00
No	47	94.00
Total	50	100.00

ADBL charges the service charge in the approved loan amount to the borrowers. Among 50 respondents, 3 respondents (6%) replied that the service charge of the ADBL is satisfactory comparing to other banks and 47 respondents (94%) replied that the service charged by ADBL is not satisfactory. Respondent suggested removing the service charge because this types of charge increase cost of production. Question with ADBL Officer, he told that every banks will charge this type of charge but compare with other banks, they charge the service charge very low.

4.6.8 Interest Discount of ADBL:

Interest rebate is given by ADBL to borrowers who pay monthly interest to bank. Respondents were asked whether they knew about the interest discount granted by ADBL or not.

Table 4.28
Interest Discount of ADBL

Knew	Frequency	Percent
Yes	50	100.00
No	0	0.00
Total	50	100.00

All 50 respondents (100%) replied that they knew and understand interest discount of ADBL. They said that the interest discount of ADBL has motivated them to pay interest in time.

4.6.9 Best Time to Follow up after Due date

To examine the best time within which the bank should follow up for recovery after due date, the respondents have been asked on this regard.

Table 4.29
Best Time to Follow up after Due date

Time Limit	Frequency	Percent
within a week	15	30.00
within two weeks	23	46.00
with in a month	10	20.00
one month onwards	2	4.00
Total	50	100.00

Among 50 respondent, 15 respondent (30%) replied that the best time to follow up for the recovery after the due date would be within a week after due date. 23 respondent (46%) replied that the best time would be within two weeks, 10 respondent (20%) replied that the best time would be within a month and just 2 respondent (4%) replied that the best time would be one month onwards.

4.6.10 Not to or Delayed Payment of Loan:

Sometimes borrowers who take loan from ADBL are unable to pay loan in time due to different causes, the respondents were asked on this regards.

Table 4.30
Not to or delayed payment of loan

Causes of not to/ delayed payment of loan	Frequency	Percent
Inadequate income	17	34.00
Misuses of loan	11	22.00
Political influence	6	12.00
Lack of marketability of product	5	10.00
Because of over valuation of loan	0	0.00
None problems	11	22.00
Total	50	100.00

Among 50 respondent, 17 respondent 34% replied that they are unable/delayed to pay loan because of inadequate income, 11 respondent (22%) replied it is due to misuse of the loan, 6 respondent (12%) replied because of political influence, 5 respondents (10%) replied due to lack of marketability of product and 11 respondent (22%) didn't have any specific problem for the delayed payment.

4.6.11 Priority for expenditure of income:

The borrowers use their income generated from their business for different purpose. The borrowers were asked regarding the priority of the expenditure of their income.

Table 4.31

Priority for expenditure of the income

Priority on expenditure	Frequency	Percent
To fulfill family requirement	35	70.00
Reinvest in your own business	8	16.00
Saving for future	4	8.00
To invest in other business	3	6.00
Total	50	100.00

Among 50 respondent, 35 respondent (70%) replied that they give priority fro expenditure of the income to fulfill family requirement, 8 respondent (16%) used reinvest in own business, 4 respondent (8%) used to save for future and 3 respondent (6%) used in other business of their agricultural income.

4.7 MAJOR FINDINGS FROM THE STUDY

4.7.1 Findings obtained from secondary data

4.7.1.1 Findings from Actual loan disbursement, collection and outstanding

Both the actual disbursement and collection follows same trend. It increases every year except the F/Y 2063/64. The growth rate of both the disbursement and the outstanding is steadily growing after 2063/64. And the collection and disbursement are positively correlated so the increase in the disbursement also increases in the collection. The loan outstanding is in increasing trend from 2061/62 to throughout the study period. But the growth rate in which the loan outstanding is increasing is lower than disbursement and collection which ultimately lowered the amount of the loan outstanding then disbursement and collection in the final year.

4.7.1.2 Findings from actual loan disbursement, collection and outstanding of purpose wise

Agriculture is one of the widely accepted occupations of Nepalese people. But because of the unavailability and decreasing fertile land due to the urbanization the people doing the agriculture had decreased which ultimately decreased the disbursement of the loan in this sector. Beside the increase in the year 2062/63 the disbursement has decreased throughout. The loan collection has increased every year except in the year 2063/64. Similarly the outstanding has decreased each year beside 2063/64. The bank has been able to decrease the outstanding amount from Rs.10435864 in F/Y 2061/62 to Rs.8997398 in the F/Y 2065/66.

The loan disbursement, collection and outstanding for mineral purpose all are in very much fluctuating in whole study period. Similarly the ratio of the collection to disbursement and the collection to outstanding also fluctuated throughout.

The loan disbursement for production purpose decreased till the F/Y2063/64 then it increased dramatically in the last two year of the study period reaching 96.08% of growth rate in the F/Y 2065/66. Both the loan collection and outstanding decreased only in the F/Y 2063/64 but the growth rate of the collection is higher than the outstanding.

Both the loan disbursement and collection for the manufacturing purpose follows the same trend. It decreases in the first two year of the study period then increased in the F/Y 2064/65 and again decreased in the final year whereas the loan outstanding for the manufacturing purposes has increased every year with very high growth rate. The amount of the loan outstanding is very high comparing to loan disbursement and collection.

The loan disbursement and collection for the Metal Production, Machineries and Fittings also follows the same trend. It increased in the F/Y 2062/63 and decreased rest of the study period. The amount of the loan outstanding is very high comparing to loan disbursement and collection till 20/64/65 but in the final year of the study the amount of loan outstanding has fallen dramatically although the loan outstanding amount is higher and loan disbursement and collection.

Both the loan disbursement and collection for Transportation Tools Production purpose increased from the F/Y 2061/62 to 2062/63 thereafter both decreased gradually till 2064/65 and dipped down dramatically in the F/Y 2065/66 with negative growth rate of 99.96% and 99.79%. The amount of loan outstanding is very high throughout the study period. But the loan out standing has decreased slowly throughout the study period. The ratio of loan collection to loan outstanding is very low

The loan disbursement amount for Transport, Media and Public Utility Service Purpose fluctuated throughout the study period whereas the loan collection increased in the F/Y 2062/63 then it decreases gradually throughout. The ratio of loan collection to loan disbursement is over 100% in whole study period. The loan outstanding also decreased in whole study period. It fall dramatically till 2063/64 and then it gradually decreased thereafter till 2065/66.The ratio of loan collection to loan outstanding is quite low with the highest ratio of 54.49% in the F/Y2063/64.

Both the loan disbursement and collection fluctuated between Rs.8.3 to Rs.8.9 billion approximately till 2063/64. But after that it loan disbursement and collection for the Wholesaler and Retailer Purpose has increased dramatically and reach Rs.13 billion approximately in the year 2065/66. The loan outstanding has decreased till the F/Y 2063/64 then it slowly increased in the year 2064/65 and 2065/66. The ration of both the collection to disbursement and collection to outstanding is very high with more than 90% approximately each year.

Both the loan disbursement and collection for Finance, Insurance and Fixed Assets Purpose has increased dramatically from the F/Y 2061/62 to 2062/63 then it decreases in the following two years dropping very rapidly and in the F/Y 2065/66 it increases than in the F/Y2064/65. The loan outstanding increased gradually from 2061/62 to 2063/64 then it decreases till 2065/66. The ratio of the loan collection and loan disbursement is very high with more than 90% each year.

The loan disbursement for Service Industry Purpose increased in the F/Y 2062/63 then it decreased throughout the study period. The loan collections follows the

fluctuating trend with the increase in the first year then decrease in the two following years and again increase in the last year of the study period. The loan outstanding has increased throughout the study period with 62% growth rate in the F/Y 2065/66.

The loan disbursement for Other Service Industry Purpose increased in the F/Y 2062/63 then it decreased throughout the study period. The loan collections follows the fluctuating trend with the increase in the first year then decrease in the two following years and again increase in the last year of the study period. The loan outstanding has increased throughout the study period with 119.62% growth rate in the F/Y 2065/66.

Both the loan disbursement and loan collection for Consumer Loan Purpose has fluctuating trend throughout the study period. It dramatically decreased from the F/Y 2063/64 to 2064/65 and rose with the very high growth in the F/Y 2065/66. The loan outstanding has gradually increased from the F/Y 2061/62 to 2064/65 then it dramatically increased in the last year of the study period.

Both the loan disbursement and loan collection for Others Purpose has decreased in the first year of the study period then in the following year the loan disburse has further decreases whereas the loan collection has increase with low rate. Then in the last two years of the study period both has increased with the rapid growth rate. The loan outstanding has a gradual increment throughout the study period. The ratio of the loan collection to loan outstanding is very high.

4.7.1.3 Findings from Actual Loan Disbursement, Collection and Outstanding of Development Region Wise:

The loan disbursement and loan collection of the Eastern Development region has the increasing trend except in the F/Y 2063/64. The loan outstanding increases in the first two years and then decreased in the last two years of the study period. The ratio of the loan collection to loan disbursement is approximately over 90% percent throughout the study period whereas the ratio of loan collection to loan outstanding is just over

60% recording the highest of 91.54%. Among the five development regions, the Eastern development region has the second highest loan disbursement amount.

The loan disbursement and loan collection of the Central Development region has the increasing trend except in the F/Y 2063/64. The loan outstanding has increased gradually throughout the study period. The ratio of both the loan collection to loan disbursement and loan collection to loan outstanding is very high with more than 90% in each year of the study period. The Central Development Region has the highest loan disbursement among the other development region.

All the loan disbursement, loan collection and loan outstanding are in the increasing trend in the Western Development Region. The ratio of the loan collection to loan disbursement and loan collection to loan outstanding is very high. This region is in the third place as per the amount of the loan disbursed.

All the loan disbursement, loan collection and loan outstanding are in the increasing trend in the Mid-Western Development Region except the loan outstanding in the F/Y 2065/66. The ratio of the loan collection to loan disbursement and loan collection to loan outstanding is also very high. This region is in the fourth place among the five development region as per the amount of the loan disbursed.

The loan disbursement and loan collection in the Far-Western Development Region is very much fluctuating. Both have rapidly decreased in the F/Y 2063/64 and then dramatically increased in the next year of the study period. The loan outstanding is in decreasing trend throughout the study period except for the F/Y 2062/63. The ratio of the loan collection to loan disbursement is very high recording more than 88% in each year whereas the ratio of the loan collection to loan outstanding is very much fluctuating with the highest ratio of 103.24% and lowest ratio of 40.71%.

4.7.2 Findings from Primary Data

92% of the borrowers have replied that they are supervised and monitored by ADBL. Majority of the borrowers i.e. 84% of the borrowers replied that they faces no

problems while taking and paying loan from ADBL. And majority of the borrowers have very much positive attitude towards the ADBL.

Although the paper document is a long process, 70% replied that they don't face any harassment during the paper document process. Similarly, most of the borrowers are satisfied with the mortgage value provided bank, only 20% respondents are unsatisfied with the mortgage value.

Regarding the time to disburse loan, most of the borrowers replied that the appropriate time is 11 – 20 days to disburse loan after the application received by the bank. Similarly, the borrower replies that the appropriate time to follow up after the due date is within two weeks after the due date.

Majority of the borrowers are unsatisfied by the interest rate charge and the service charge taken by the bank. But the bank allows the interest discount to the good borrowers who pay the loan amount in timely basis.

The borrowers have different reasons for the delayed payment of the loan and the main causes are inadequate income, misuses of loan and political influence.

70% of the borrowers use their income in fulfilling the family requirements. Only 8% reinvest in own business, 4% save for the future and 3% invest in other business.

CHAPTER-V

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 SUMMARY

The economic development of every country is always measured by its economic indicators. Therefore, every country has given emphasis on the development of its economy. Nowadays the financial institutions are viewed as catalyst in the process of the economic growth. The mobilization of domestic resources is one of the key factors in the economic development of a country.

Banking sector plays an important role in the economic development of the country. Commercial banks are one of the vital aspects of this sector, which deals with the process of channeling the available resources in the needed sector. It is the intermediary between the deficit and surplus of financial resources. Financial institutions like banks are necessity to collect scattered savings and put them into productive channels. In the absence of such institutions it is possible that the saving will not be safely and profitably utilized within the country.

The well-managed investing activities of bank enhance the economic health of the country because the loan provided by bank supports the growth of new business, which in turn uplift the economic activities of the country. At present, there are 26 commercial banks operating in Nepal. Although agricultural development bank has started its banking operation as development bank, now it has enhanced its operation toward the commercial banking.

The research is about the Loan Management of ADBL. It covers loan disbursement, loan collection and loan outstanding. Banks collect deposit from people and lend it to make profit. They charge interest rates higher than they pay to the borrowers. The bank provides various types of loan to various sectors. The lending function of the bank does not complete in giving away loans in various sectors, timely collection of

loan disbursed is equally important. Therefore, loan management of bank is crucial to the profitability of the bank.

ADBL was established in 2024 B.S. as a development bank in its initiation. The enactment of Bank and Financial Institution Ordinance (BAFIO) in February 2004 abolished all Acts related to financial institutions including the ADBN Act, 1967. In line with the BAFIO, ADBL has been incorporated as a public limited company on July 14, 2005. Thus, ADBL operates as a "A" category financial Institution under the legal framework of BAFIO and the Company Act, 2053.

ADBL provides loan to agricultural sector, industries and trade, priority and deprived sector and even to individuals. The bank has followed the rules and regulation of NRB. The bank has proved its strength by fairly competing in a cutthroat competitive market without violation the rules and regulations. The lending functions have been smoothly handled by the bank despite the adverse circumstances of the economy.

The loan disbursement and loan collection of ADBL is inconsistence till F/Y 2063/64 but after that but the loan disbursement and loan collection has increased throughout the study period with positive growth rate. The loan outstanding is consistent throughout but the growth rate of the loan outstanding is lower than the loan disbursement and loan collection. The loan outstanding amount is always greater than the loan disbursement and collection till F/Y 2064/65 but in the last year of the study period the loan outstanding has dropped below than loan disbursement and collection which is a positive sign of the proper recovery system. Further, the five years period data have been forecasted in which the loan disbursement and loan collection has increased in near about same growth rate. Also the loan outstanding has positive growth rate but the growth rate is lower than the loan disbursement and collection.

The study in this context was mainly focused on the performance of the bank in term of management of loan. The performance of the bank was reviewed with the past performance of the same and analyzed systematically. The data used for the study was obtained from secondary sources. The data were then analyzed with the help of various tools like, comparisons and statistics like trend analysis. The data were then

presented in tabular as well as in graphical form that can be easily understood and interpreted by the user.

5.2 CONCLUSION

Management of loan is one of the most important functions of commercial bank. Only the collection of deposit doesn't end the functions of a bank. Utilizing the fund is must for good earning. Most of the activities of the banks are related with loan management. If the bank manages the loan disbursement and collection activities better, it gets the good performance on earning. If the disbursed loan cannot recover in time, the bank should bear huge amount of loss. So, the loan management of ADBL is not only necessary but also compulsion for better performance of the organization. If ADBL initiates to the appropriate management of loan certainly it will cops its objectives successfully.

The overall analysis of the study proves that ADBL has been performing its function of loan management (i.e. loan disbursement and loan collection) satisfactory and doing well in recent years as the loan disbursements and collections are nearly in same trend. Similarly, the outstanding amount is also in increasing trend but lower than the loan disbursement and collection. The bank enter in commercial bank around 5 years ago, but until it is same as before even after entering in the commercial bank. So the bank should do more exercise and practice to bear more responsibility of their clients. The bank should invest its deposit collection in different productive sector which will give good return. Also the bank has to adapt different modern technology and use them in their operation so that to compete in the market.

ADBL is running through the guideline of NRB and its supervision and direction is always accepted by it. After 43 years of establishment ADBL has just been incorporated as a public limited. It operates as "A" category financial institution under the legal framework of BAFIO and a company act 2053. Now, ADBL is working as a private company, bearing many constraints. It is going to change its lending, recovery and collection policy by time to time in near future. So that we can hope that it will disburse loan to the needy area as prescribed by the government and demand of its

borrower and strictly accept and work under the direction and supervision given by NRB.

5.3 RECOMMENDATIONS

The loan disbursement and loan collection have increased in high positive growth rate in a similar trend which is positive for the bank. On the other hand the loan outstanding is also increasing trend but the growth rate is lower than the loan disbursement and collection which results that the amount of loan outstanding lower than the loan disbursement and collection. It refers that the amount disbursed has been collected in short run which results the low return and need to search for the re-investment. So the bank should invest in the productive sector for long term for the higher returns.

The loan outstanding amount is in upward trend. But the growth rate is lower than loan disbursement and loan collection. In general, loan outstanding amount must increase with the increment in loan disbursement and loan collection which shows the positive sign. So, the bank should do practice to maintain parallel upward trend. And the bank should make effective policy to collect and disburse the loan.

The relationship between loan disbursement and loan collection are strongly positive correlated. That is better for profitability of the organization.

The disbursement in the production purpose loan has improved in the recent year. The loan collection and outstanding is also in the increasing trend. This shows very positive sign. The bank should find the productive sector and invest in such interest earning and low risk business.

The outstanding in the manufacturing purpose loan is very high whereas the loan disbursement and loan collection is very inconsistent throughout. The bank should implement the proper recovery system to collect the loan outstanding and identify more efficient manufacturing industry to invest for better return in the future.

The wholesale and retail purpose loan covers the largest amount of loan disbursement. As the wholesale and retail is fostering in Nepal in recent days the investment in this sector is huge. The positive side to the bank is loan collection is also huge in this sector and it has boosted in the same ratio as of the disbursement which ultimately decreased the ratio of the outstanding loan. But bank should not forget that the investment has been mostly for short term loan in the sector and proper identification of the borrower from their past performance should be fairly evaluated while disbursing the loan.

The loan disbursement and loan collection both are very much fluctuating in the Finance, Insurance and Fixed Assets Purpose loan and the amount of outstanding is very high comparing to the disbursement and collection. The bank should exercise strict recovery system and should do the proper and scientific valuation of the collateral.

Loan should be given only after checking that the borrower can repay it through the cash flow generated from the operating activities. However the bank wants to ensure that their loan is repaid even incase of failure of business. To prevent the loss, the bank takes collateral for recovery of loan. So, the bank should collect proper valuation of collateral.

Bank must examine the borrowers past repayment records and corrective action must be taken immediately to restrict those borrowers who are able but not repay their due loans. On the other hand, borrowers who are really unable to repay their dues, repayment schedule must be rearranged after scrutinizing the exact cause of inability.

Now ADBL has changed into public limited, it should maintain the new commercial loan other than agricultural loan to attract more customers relating to agro and non-agro business. The bank should introduce major programs as per the customers demand these days such as consumer banking, home loans, study loan, vehicle loans, credit car facilities, online banking, ATM card etc. These facilities are provided by the foreign and joint venture banks, which made ADBL to lag behind.

Political influences in loan disbursement should be avoided as it may lead worse condition to the bank's loan management process.

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WEB SITES

⟩ **www.nrb.org.np**

⟩ **www.adbl.gov.np**

ANNEX

ANNEXURE – I

Request Letter

Dear Sir/Madam,

I am a student of Shankar Dev Campus. I am conducting a research on a topic *"Loan Management on Agricultural Development Bank Ltd.",* in partial fulfillment for the requirement of Degree of Master of Business Studies (MBS). I request you to fill up these questionnaires from your side, which can be helpful for me to conduct the research on this topic. Your information will be treated confidentially and will be used in this research paper only. I would be grateful to you for the contribution of your valuable time and effort.

Name : _____

Please tick the best option

1. Do the officials of ADBL supervise and monitor your business?

   Yes   No

2. Do you face any problems from the officials of the ADBL while taking/paying loan?

   Yes   No

3. Is the paper document maintained by commercial banks to disburse loan is harassing?

   Yes   No

4. In your opinion, is the valuation done by the commercial banks for mortgage value is satisfactory?

   Yes   No

5. In your opinion, how many days should the bank take to disburse loan from the date of application received?

   5-10 days   10-20 days   Above 20 days

6. Is the current rate of interest charged by the ADBL is satisfactory?

   Yes   No

7. Is service and other charges by ADBL to farmers are reasonable?

        Yes   No

8. Do you know about current interest discount of ADBL?

        Yes   No

9. If the borrower is having with overdue outstanding, the bank should start follow up;

        Within a week   Within two weeks

        Within one month   After one month onwards

10. Which one of the following factor led you not to pay the loan taken from ADBL?

        i.   Because of inadequate income from agri-business

        ii.   Because of political influence

        iii.   Because of misuse of loan

        iv.   Lack of marketability of product

        v.   Because of overvaluation of loan

        vi.   None Problems

11. Which one of the following factors do you use/expend from your income?

        i.   Reinvest in your own business

        ii.   To fulfill family requirement

        iii.   To invest in other business

        iv.   Saving for future

1. Calculation of Correlation between Actual Loan Disbursement and Collection

in billion

F/Y	X	x= (X-$\overline{X}$)	x^2	Y	y=(Y-$\overline{Y}$)	y^2	xy
2061/62	28.26	-5.03	25.26	26.29	-5.20	27.04	26.13
2062/63	30.61	-2.67	7.11	28.61	-2.88	8.28	7.67
2063/64	29.29	-4.00	15.97	28.16	-3.33	11.11	13.32
2064/65	36.34	3.05	9.33	34.17	2.68	7.19	8.19
2065/66	41.92	8.63	74.54	40.22	8.73	76.20	75.37
	X = 166.41		x2 = 132.21	Y = 157.45		y2 = 129.82	xy = 130.69

Now,

$$\overline{X}\ X\frac{X}{n} = \frac{166.41}{5} = 33.28 \qquad \overline{Y}\ X\frac{Y}{n} = \frac{157.45}{5} = 31.49$$

$$r\ X\frac{xy}{\sqrt{x^2}\sqrt{y^2}} = \frac{130.69}{\sqrt{132.21}\ |\ \sqrt{129.82}} = 0.9975$$

2. Calculation of Correlation between Actual Loan Outstanding and Collection

In billion

F/Y	X	x= (X-$\overline{X}$)	x^2	Y	y=(Y-$\overline{Y}$)	y^2	xy
2061/62	31.31	-3.48	12.14	26.29	-5.20	27.04	18.12
2062/63	33.31	-1.48	2.20	28.61	-2.88	8.28	4.27
2063/64	34.44	-0.35	0.12	28.16	-3.33	11.11	1.18
2064/65	36.60	1.81	3.28	34.17	2.68	7.19	4.86
2065/66	38.30	3.51	12.31	40.22	8.73	76.20	30.62
	X = 173.97		x^2 = 30.05	Y = 157.45		y^2 = 129.82	xy = 59.04

Now,

$$\overline{X} = \frac{X}{n} = \frac{173.97}{5} = 34.79 \qquad \overline{Y} = \frac{Y}{n} = \frac{157.45}{5} = 31.49$$

$$r = \frac{xy}{\sqrt{x^2}\sqrt{y^2}} = \frac{59.04}{\sqrt{30.05} \mid \sqrt{129.82}} = 0.9453$$

3. Calculation of Correlation between Actual Loan Disbursement and Collection for Agricultural Purpose

in billion

F/Y	X	x= (X-$\overline{X}$)	x^2	Y	y=(Y-$\overline{Y}$)	y^2	xy
2061/62	3.96	-0.70	0.50	4.17	-0.82	0.68	0.58
2062/63	5.63	0.97	0.93	5.95	0.96	0.92	0.93
2063/64	5.30	0.63	0.40	4.79	-0.20	0.04	-0.13
2064/65	4.78	0.11	0.01	4.81	-0.18	0.03	-0.02
2065/66	3.65	-1.01	1.02	5.24	0.25	0.06	-0.25
	X = 23.32		x^2 = 2.86	Y = 24.96		y^2 = 1.74	xy = 1.11

Now,

$$\overline{X} = \frac{X}{n} = \frac{23.32}{5} = 4.66 \qquad \overline{Y} = \frac{Y}{n} = \frac{24.96}{5} = 4.99$$

$$r = \frac{xy}{\sqrt{x^2}\sqrt{y^2}} = \frac{1.11}{\sqrt{2.86} \mid \sqrt{1.74}} = 0.4983$$

4. Calculation of Correlation between Actual Loan Outstanding and Collection for Agricultural Purpose

in billion

F/Y	X	x= (X-$\overline{X}$)	x^2	Y	y=(Y-$\overline{Y}$)	y^2	xy
2061/62	10.44	0.29	0.08	4.17	-0.82	0.68	-0.24

F/Y	X		x² =	Y		y² =	xy =
2062/63	10.11	-0.04	0.00	5.95	0.96	0.92	-0.04
2063/64	10.62	0.47	0.22	4.79	-0.20	0.04	-0.09
2064/65	10.58	0.43	0.19	4.81	-0.18	0.03	-0.08
2065/66	9.00	-1.15	1.33	5.24	0.25	0.06	-0.29
	X = 50.75		x² = 1.82	Y = 24.96		y² = 1.74	xy = -0.73

Now,

$$\overline{X} X \frac{X}{n} = \frac{50.75}{5} = 10.15 \qquad \overline{Y} X \frac{Y}{n} = \frac{24.96}{5} = 4.99$$

$$r X \frac{xy}{\sqrt{x^2}\sqrt{y^2}} = \frac{Z0.73}{\sqrt{1.82} \mid \sqrt{1.74}} = -0.4112$$

5. Calculation of Correlation between Actual Loan Disbursement and Collection for Minerals Purpose

in million

F/Y	X	x= (X-$\overline{X}$)	x²	Y	y=(Y-$\overline{Y}$)	y²	xy
2061/62	1.60	-0.28	0.08	1.85	-0.36	0.13	0.10
2062/63	3.90	2.01	4.06	3.10	0.89	0.79	1.79
2063/64	3.73	1.85	3.40	3.05	0.84	0.71	1.55
2064/65	0.02	-1.86	3.47	0.06	-2.15	4.63	4.01
2065/66	3.65	-1.01	1.02	5.24	0.25	0.06	-0.25
	X = 9.42		x² = 13.94	Y = 11.05		y² = 6.88	xy = 6.10

Now,

$$\overline{X} X \frac{X}{n} = \frac{9.42}{5} = 1.88 \qquad \overline{Y} X \frac{Y}{n} = \frac{11.05}{5} = 2.21$$

$$r X \frac{xy}{\sqrt{x^2}\sqrt{y^2}} = \frac{6.10}{\sqrt{13.94} \mid \sqrt{6.88}} = 0.6232$$

6. Calculation of Correlation between Actual Loan Outstanding and Collection for Minerals Purpose

in million

F/Y	X	$x = (X - \overline{X})$	x^2	Y	$y = (Y - \overline{Y})$	y^2	xy
2061/62	1.78	-0.47	0.22	1.85	-0.36	0.13	0.17
2062/63	2.58	0.33	0.11	3.10	0.89	0.79	0.29
2063/64	3.26	1.01	1.02	3.05	0.84	0.71	0.85
2064/65	3.22	0.98	0.95	0.06	-2.15	4.63	-2.10
2065/66	0.40	-1.85	3.42	3.00	0.79	0.62	-1.46
	X = 11.24		x^2 = 5.72	Y = 11.05		y^2 = 6.88	xy = -2.24

Now,

$$\overline{X} X \frac{X}{n} = \frac{11.24}{5} = 2.25 \qquad \overline{Y} X \frac{Y}{n} = \frac{11.05}{5} = 2.21$$

$$r X \frac{xy}{\sqrt{x^2}\sqrt{y^2}} = \frac{Z 2.24}{\sqrt{5.72} \mid \sqrt{6.88}} = -0.3571$$

7. Calculation of Correlation between Actual Loan Disbursement and Collection for Production Purpose

in million

F/Y	X	$x = (X - \overline{X})$	x^2	Y	$y = (Y - \overline{Y})$	y^2	xy
2061/62	3.02	-0.54	0.29	2.75	-0.54	0.30	0.29
2062/63	2.79	-0.76	0.58	2.77	-0.53	0.28	0.40
2063/64	2.60	-0.95	0.91	2.72	-0.58	0.33	0.55
2064/65	3.45	-0.11	0.01	3.17	-0.13	0.02	0.01
2065/66	5.92	2.36	5.59	5.08	1.78	3.16	4.20
	X = 17.78		x^2 = 7.38	Y = 16.50		y^2 = 4.09	xy = 5.47

Now,

$$\overline{X} X \frac{X}{n} = \frac{17.78}{5} = 3.56 \qquad \overline{Y} X \frac{Y}{n} = \frac{16.50}{5} = 3.30$$

$$r X \frac{xy}{\sqrt{x^2}\sqrt{y^2}} = \frac{5.47}{\sqrt{7.38} \mid \sqrt{4.09}} = 0.9948$$

8. Calculation of Correlation between Actual Loan Outstanding and Collection for Production Purpose

in million

F/Y	X	x= (X-$\overline{X}$)	x^2	Y	y=(Y-$\overline{Y}$)	y^2	xy
2061/62	4.21	-0.23	0.05	2.75	-0.54	0.30	0.12
2062/63	4.24	-0.20	0.04	2.77	-0.53	0.28	0.11
2063/64	4.12	-0.32	0.10	2.72	-0.58	0.33	0.18
2064/65	4.39	-0.05	0.00	3.17	-0.13	0.02	0.01
2065/66	5.23	0.79	0.63	5.08	1.78	3.16	1.41
	X = 22.20		x^2 = 0.83	Y = 16.50		y^2 = 4.09	xy = 1.83

Now,

$$\overline{X} X \frac{X}{n} = \frac{22.20}{5} = 4.44 \qquad \overline{Y} X \frac{Y}{n} = \frac{16.50}{5} = 3.30$$

$$r X \frac{xy}{\sqrt{x^2}\sqrt{y^2}} = \frac{1.83}{\sqrt{0.83} \mid \sqrt{4.09}} = 0.9965$$

9. Calculation of Correlation between Actual Loan Disbursement and Collection for Manufacturing Purpose

in billion

F/Y	X	x= (X-$\overline{X}$)	x^2	Y	y=(Y-$\overline{Y}$)	y^2	xy

2061/62	0.65	-0.13	0.02	0.43	-0.10	0.01	0.01
2062/63	0.61	-0.17	0.03	0.33	-0.19	0.04	0.03
2063/64	0.56	-0.22	0.05	0.33	-0.20	0.04	0.04
2064/65	1.09	0.31	0.10	0.84	0.31	0.10	0.10
2065/66	0.98	0.20	0.04	0.70	0.18	0.03	0.04
	X = 3.89		x^2 = 0.23	Y = 2.63		y^2 = 0.21	xy = 0.22

Now,

$$\overline{X} = \frac{X}{n} = \frac{3.89}{5} = 0.78 \qquad \overline{Y} = \frac{Y}{n} = \frac{2.63}{5} = 0.53$$

$$r = \frac{xy}{\sqrt{x^2}\sqrt{y^2}} = \frac{0.22}{\sqrt{0.23}\ |\ \sqrt{0.21}} = 0.9950$$

10. Calculation of Correlation between Actual Loan Outstanding and Collection for Manufacturing Purpose

in billion

F/Y	X	x= (X-$\overline{X}$)	x^2	Y	y=(Y-$\overline{Y}$)	y^2	xy
2061/62	1.09	-0.58	0.34	0.43	-0.10	0.01	0.06
2062/63	1.36	-0.31	0.09	0.33	-0.19	0.04	0.06
2063/64	1.60	-0.07	0.01	0.33	-0.20	0.04	0.01
2064/65	1.85	0.18	0.03	0.84	0.31	0.10	0.06
2065/66	2.45	0.78	0.61	0.70	0.18	0.03	0.14
	X = 8.35		x^2 = 1.08	Y = 2.63		y^2 = 0.21	xy = 0.32

Now,

$$\overline{X} = \frac{X}{n} = \frac{8.35}{5} = 1.67 \qquad \overline{Y} = \frac{Y}{n} = \frac{2.63}{5} = 0.53$$

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$$r \: X \frac{xy}{\sqrt{x^2} \sqrt{y^2}} = \frac{0.32}{\sqrt{1.08} \mid \sqrt{0.21}} = 0.6718$$

11. Calculation of Correlation between Actual Loan Disbursement and Collection for Metal Production, Machineries and Fittings Purpose

in ten million

F/Y	X	x= (X-$\overline{X}$)	x²	Y	y=(Y-$\overline{Y}$)	y²	xy
2061/62	9.91	-0.75	0.56	8.95	-0.76	0.58	0.57
2062/63	18.69	8.04	64.57	16.86	7.15	51.14	57.46
2063/64	17.38	6.72	45.19	16.58	6.88	47.30	46.23
2064/65	7.20	-3.45	11.93	6.01	-3.70	13.68	12.78
2065/66	0.11	-10.55	111.39	0.14	-9.57	91.57	100.99
	X = 53.30		x² = 233.64	Y = 48.53		y² = 204.27	xy = 218.04

Now,

$$\overline{X} \: X \frac{X}{n} = \frac{53.30}{5} = 10.66 \qquad \overline{Y} \: X \frac{Y}{n} = \frac{48.53}{5} = 9.71$$

$$r \: X \frac{xy}{\sqrt{x^2} \sqrt{y^2}} = \frac{218.04}{\sqrt{233.64} \mid \sqrt{204.27}} = 0.9981$$

12. Calculation of Correlation between Actual Loan Outstanding and Collection for Metal Production, Machineries and Fittings Purpose

in ten million

F/Y	X	x= (X-$\overline{X}$)	x²	Y	y=(Y-$\overline{Y}$)	y²	xy
2061/62	38.53	3.99	15.96	8.95	-0.76	0.58	-3.04
2062/63	40.36	5.83	34.01	16.86	7.15	51.14	41.70
2063/64	41.16	6.63	43.95	16.58	6.88	47.30	45.59
2064/65	42.36	7.83	61.26	6.01	-3.70	13.68	-28.95

2065/66	10.25	-24.28	589.62	0.14	-9.57	91.57	232.36
	X = 172.66		x^2 = 744.79	Y = 48.53		y^2 = 204.27	xy = 287.67

Now,

$$\overline{X} \, X \, \frac{X}{n} \; = \frac{172.66}{5} \; = 34.53 \qquad\qquad \overline{Y} \, X \, \frac{Y}{n} \; = \; \frac{48.53}{5} \; = 9.71$$

$$r \, X \frac{xy}{\sqrt{x^2} \, \sqrt{y^2}} \; = \; \frac{287.67}{\sqrt{744.79} \; | \; \sqrt{204.27}} \; = 0.7375$$

13. Calculation of Correlation between Actual Loan Disbursement and Collection for Transportation Tools Production Purpose

in million

F/Y	X	x= (X-$\overline{X}$)	x^2	Y	y=(Y-$\overline{Y}$)	y^2	xy
2061/62	24.35	-4.33	18.75	25.73	-5.09	25.89	22.03
2062/63	43.79	15.11	228.33	47.04	16.23	263.29	245.19
2063/64	43.02	14.35	205.85	46.28	15.46	239.11	221.86
2064/65	32.22	3.54	12.53	34.97	4.16	17.29	14.72
2065/66	0.01	-28.67	821.82	0.05	-30.76	946.17	881.80
	X = 143.38		x^2 = 1287.28	Y = 154.06		y^2 = 1491.74	xy = 1385.60

Now,

$$\overline{X} \, X \frac{X}{n} \; = \frac{143.38}{5} \; = 28.68 \qquad\qquad \overline{Y} \, X \frac{Y}{n} \; = \; \frac{154.06}{5} \; = 30.81$$

$$r \, X \frac{xy}{\sqrt{x^2} \, \sqrt{y^2}} \; = \; \frac{1385.60}{\sqrt{1287.28} \; | \; \sqrt{1491.74}} \; = 0.9999$$

14. Calculation of Correlation between Actual Loan Outstanding and Collection for Transportation Tools Production Purpose

in million

F/Y	X	x= (X-$\overline{X}$)	x^2	Y	y=(Y-$\overline{Y}$)	y^2	xy
2061/62	102.83	5.66	32.08	25.73	-5.09	25.89	-28.82
2062/63	99.58	2.41	5.82	47.04	16.23	263.29	39.13
2063/64	96.32	-0.84	0.71	46.28	15.46	239.11	-13.00
2064/65	93.57	-3.60	12.93	34.97	4.16	17.29	-14.95
2065/66	93.52	-3.64	13.25	0.05	-30.76	946.17	111.95
	X = 485.82		x^2 = 64.77	Y = 154.06		y^2 = 1491.74	xy = 94.32

Now,

$$\overline{X} X \frac{X}{n} = \frac{485.821}{5} = 97.16 \qquad\qquad \overline{Y} X \frac{Y}{n} = \frac{154.06}{5} = 30.81$$

$$r X \frac{xy}{\sqrt{x^2}\sqrt{y^2}} = \frac{94.32}{\sqrt{64.77} \mid \sqrt{1491.74}} = 0.3034$$

15. Calculation of Correlation between Actual Loan Disbursement and Collection for Transport, Media and Public Utility Service Purpose

in ten million

F/Y	X	x= (X-$\overline{X}$)	x^2	Y	y=(Y-$\overline{Y}$)	y^2	xy
2061/62	12.80	-2.28	5.19	18.04	-3.57	12.73	8.12
2062/63	16.92	1.84	3.40	27.28	5.67	32.20	10.46
2063/64	16.48	1.40	1.96	26.84	5.23	27.38	7.33
2064/65	18.73	3.65	13.31	20.67	-0.94	0.88	-3.42
2065/66	10.47	-4.62	21.30	15.20	-6.40	41.00	29.55
	X = 75.40		x^2 = 45.16	Y = 108.02		y^2 = 114.18	xy = 52.05

Now,

$$\overline{X} X \frac{X}{n} = \frac{75.40}{5} = 15.08 \qquad \overline{Y} X \frac{Y}{n} = \frac{108.02}{5} = 21.60$$

$$r X \frac{xy}{\sqrt{x^2}\sqrt{y^2}} = \frac{52.05}{\sqrt{45.16} \mid \sqrt{114.18}} = 0.7249$$

16. Calculation of Correlation between Actual Loan Outstanding and Collection for Transport, Media and Public Utility Service Purpose

in ten million

F/Y	X	x= (X-$\overline{X}$)	x^2	Y	y=(Y-$\overline{Y}$)	y^2	xy
2061/62	69.96	16.22	263.02	18.04	-3.57	12.73	-57.86
2062/63	59.60	5.86	34.39	27.28	5.67	32.20	33.27
2063/64	49.25	-4.49	20.16	26.84	5.23	27.38	-23.49
2064/65	47.31	-6.43	41.33	20.67	-0.94	0.88	6.02
2065/66	42.58	-11.16	124.63	15.20	-6.40	41.00	71.48
	X = 268.69		x^2 = 483.52	Y = 108.02		y^2 = 114.18	xy = 29.43

Now,

$$\overline{X} X \frac{X}{n} = \frac{268.69}{5} = 53.74 \qquad \overline{Y} X \frac{Y}{n} = \frac{108.02}{5} = 21.60$$

$$r X \frac{xy}{\sqrt{x^2}\sqrt{y^2}} = \frac{29.43}{\sqrt{483.52} \mid \sqrt{114.18}} = 0.1252$$

17. Calculation of Correlation between Actual Loan Disbursement and Collection for Wholesaler and Retailer Purpose

in billion

F/Y	X	x= (X-$\overline{X}$)	x^2	Y	y=(Y-$\overline{Y}$)	y^2	xy
2061/62	8.77	-1.56	2.43	8.46	-1.67	2.80	2.61

F/Y							
2062/63	8.30	-2.03	4.13	8.94	-1.19	1.41	2.41
2063/64	8.79	-1.55	2.39	8.80	-1.33	1.77	2.06
2064/65	12.48	2.15	4.62	11.77	1.64	2.70	3.53
2065/66	13.32	2.99	8.94	12.68	2.55	6.49	7.62
	X = 51.67		x^2 = 22.52	Y = 50.65		y^2 = 15.16	xy = 18.22

Now,

$$\overline{X} X \frac{X}{n} = \frac{51.67}{5} = 10.33 \qquad \overline{Y} X \frac{Y}{n} = \frac{50.65}{5} = 10.13$$

$$r X \frac{xy}{\sqrt{x^2}\sqrt{y^2}} = \frac{18.22}{\sqrt{22.52}\ |\ \sqrt{15.16}} = 0.9864$$

18. Calculation of Correlation between Actual Loan Outstanding and Collection for Wholesaler and Retailer Purpose

in billion

F/Y	X	x= (X-$\overline{X}$)	x^2	Y	y=(Y-$\overline{Y}$)	y^2	xy
2061/62	9.61	0.11	0.01	8.46	-1.67	2.80	-0.18
2062/63	8.97	-0.53	0.29	8.94	-1.19	1.41	0.63
2063/64	8.95	-0.55	0.30	8.80	-1.33	1.77	0.73
2064/65	9.66	0.16	0.03	11.77	1.64	2.70	0.27
2065/66	10.31	0.81	0.66	12.68	2.55	6.49	2.06
	X = 47.50		x^2 = 1.28	Y = 50.65		y^2 = 15.16	xy = 3.51

Now,

$$\overline{X} X \frac{X}{n} = \frac{47.50}{5} = 9.50 \qquad \overline{Y} X \frac{Y}{n} = \frac{50.64}{5} = 10.13$$

$$r X \frac{xy}{\sqrt{x^2}\sqrt{y^2}} = \frac{3.51}{\sqrt{1.28}\ |\ \sqrt{15.16}} = 0.7973$$

19. Calculation of Correlation between Actual Loan Disbursement and Collection for Finance, Insurance and Fixed Assets Purpose

in ten million

F/Y	X	x= (X-$\overline{X}$)	x^2	Y	y=(Y-$\overline{Y}$)	y^2	xy
2061/62	39.86	-7.09	50.27	40.83	-8.08	65.23	57.26
2062/63	68.29	21.34	455.18	62.34	13.43	180.45	286.60
2063/64	63.50	16.55	273.92	61.33	12.42	154.32	205.60
2064/65	30.67	-16.29	265.23	34.08	-14.83	219.85	241.48
2065/66	32.44	-14.51	210.53	45.96	-2.95	8.72	42.84
	X = 234.76		x^2 = 1255.14	Y = 244.54		y^2 = 628.58	xy = 833.78

Now,

$$\overline{X} X \frac{X}{n} = \frac{234.76}{5} = 46.95 \qquad\qquad \overline{Y} X \frac{Y}{n} = \frac{244.54}{5} = 48.91$$

$$r X \frac{xy}{\sqrt{x^2}\sqrt{y^2}} = \frac{833.78}{\sqrt{1255.14} \mid \sqrt{628.58}} = 0.9387$$

20. Calculation of Correlation between Actual Loan Outstanding and Collection for Finance, Insurance and Fixed Assets Purpose

in ten million

F/Y	X	x= (X-$\overline{X}$)	x^2	Y	y=(Y-$\overline{Y}$)	y^2	xy
2061/62	81.55	-1.99	3.95	40.83	-8.08	65.23	16.06
2062/63	87.50	3.96	15.65	62.34	13.43	180.45	53.14
2063/64	89.67	6.13	37.53	61.33	12.42	154.32	76.11
2064/65	86.25	2.71	7.35	34.08	-14.83	219.85	-40.19

2065/66	72.74	-10.80	116.73	45.96	-2.95	8.72	31.90
	X = 417.71		x² = 181.21	Y = 244.54		y² = 628.58	xy = 137.01

Now,

$$\overline{X} X \frac{X}{n} = \frac{417.71}{5} = 83.54 \qquad \overline{Y} X \frac{Y}{n} = \frac{244.54}{5} = 48.91$$

$$r X \frac{xy}{\sqrt{x^2}\sqrt{y^2}} = \frac{137.01}{\sqrt{181.21} \mid \sqrt{628.58}} = 0.4060$$

21. Calculation of Correlation between Actual Loan Disbursement and Collection for Service Industry Purpose

in ten million

F/Y	X	x= (X-$\overline{X}$)	x²	Y	y=(Y-$\overline{Y}$)	y²	xy
2061/62	94.31	-16.77	281.38	78.13	-15.45	238.81	259.22
2062/63	130.41	19.32	373.41	102.38	8.79	77.33	169.93
2063/64	121.02	9.94	98.79	100.72	7.13	50.89	70.91
2064/65	109.53	-1.55	2.41	90.57	-3.01	9.08	4.68
2065/66	100.15	-10.94	119.59	96.12	2.54	6.45	-27.77
	X = 555.42		x² = 875.59	Y = 467.92		y² = 382.56	xy = 476.97

Now,

$$\overline{X} X \frac{X}{n} = \frac{555.42}{5} = 111.08 \qquad \overline{Y} X \frac{Y}{n} = \frac{467.92}{5} = 93.58$$

$$r X \frac{xy}{\sqrt{x^2}\sqrt{y^2}} = \frac{476.97}{\sqrt{875.59} \mid \sqrt{382.56}} = 0.8241$$

22. Calculation of Correlation between Actual Loan Outstanding and Collection for Service Industry Purpose

in ten million

F/Y	X	x= (X-$\overline{X}$)	x^2	Y	y=(Y-$\overline{Y}$)	y^2	xy
2061/62	115.03	-43.00	1848.81	78.13	-15.45	238.81	664.46
2062/63	143.06	-14.97	224.01	102.38	8.79	77.33	-131.61
2063/64	163.37	5.34	28.51	100.72	7.13	50.89	38.09
2064/65	182.33	24.30	590.49	90.57	-3.01	9.08	-73.22
2065/66	186.36	28.33	802.34	96.12	2.54	6.45	71.92
	X = 790.15		x^2 = 3494.15	Y = 467.92		y^2 = 382.56	xy = 569.64

Now,

$$\overline{X} X \frac{X}{n} = \frac{790.15}{5} = 158.03 \qquad \overline{Y} X \frac{Y}{n} = \frac{467.92}{5} = 93.58$$

$$r\, X \frac{xy}{\sqrt{x^2}\sqrt{y^2}} = \frac{569.64}{\sqrt{3494.15}\mid \sqrt{382.56}} = 0.4927$$

23. Calculation of Correlation between Actual Loan Disbursement and Collection for Other Service Industry Purpose

in ten million

F/Y	X	x= (X-$\overline{X}$)	x^2	Y	y=(Y-$\overline{Y}$)	y^2	xy
2061/62	137.62	-24.48	599.13	109.29	-21.62	467.30	529.13
2062/63	175.49	13.40	179.56	141.09	10.18	103.63	136.41
2063/64	162.91	0.82	0.67	138.80	7.89	62.30	6.48
2064/65	132.02	-30.07	904.37	103.82	-27.09	733.63	814.54
2065/66	202.42	40.33	1626.44	161.54	30.63	938.20	1235.28
	X = 810.47		x^2 = 3310.18	Y = 654.55		y^2 = 2305.06	xy = 2721.84

Now,

$$\overline{X} X \frac{X}{n} = \frac{810.47}{5} = 162.09 \qquad\qquad \overline{Y} X \frac{Y}{n} = \frac{654.55}{5} = 130.91$$

$$r X \frac{xy}{\sqrt{x^2}\sqrt{y^2}} = \frac{2721.84}{\sqrt{3310.18} \mid \sqrt{2305.06}} = 0.9854$$

24. Calculation of Correlation between Actual Loan Outstanding and Collection for Other Service Industry Purpose

in ten million

F/Y	X	x= (X-$\overline{X}$)	x^2	Y	y=(Y-$\overline{Y}$)	y^2	xy
2061/62	106.66	-61.44	3775.34	109.29	-21.62	467.30	1328.24
2062/63	141.07	-27.04	731.20	141.09	10.18	103.63	-275.27
2063/64	165.18	-2.93	8.58	138.80	7.89	62.30	-23.12
2064/65	193.37	25.27	638.37	103.82	-27.09	733.63	-684.35
2065/66	234.26	66.15	4375.59	161.54	30.63	938.20	2026.12
	X = 840.53		x^2 = 9529.08	Y = 654.55		y^2 = 2305.06	xy = 2371.62

Now,

$$\overline{X} X \frac{X}{n} = \frac{840.53}{5} = 168.11 \qquad\qquad \overline{Y} X \frac{Y}{n} = \frac{654.55}{5} = 130.91$$

$$r X \frac{xy}{\sqrt{x^2}\sqrt{y^2}} = \frac{2371.62}{\sqrt{9529.08} \mid \sqrt{2305.06}} = 0.5060$$

25. Calculation of Correlation between Actual Loan Disbursement and Collection for Consumer Loan Purpose

in ten million

F/Y	X	x= (X-$\overline{X}$)	x^2	Y	y=(Y-$\overline{Y}$)	y^2	xy

F/Y	X	x= (X-$\overline{X}$)	x^2	Y	y=(Y-$\overline{Y}$)	y^2	xy
2061/62	76.67	-13.64	185.97	57.63	-11.40	129.91	155.43
2062/63	112.27	21.96	482.18	104.51	35.49	1259.43	779.27
2063/64	110.57	20.26	410.64	102.82	33.79	1142.05	684.82
2064/65	38.04	-52.26	2731.60	28.72	-40.30	1624.30	2106.40
2065/66	113.99	23.68	560.70	51.44	-17.58	309.14	-416.34
	X = 451.54		x^2 = 4371.09	Y = 345.12		y^2 = 4464.84	xy = 3309.59

Now,

$$\overline{X} = \frac{X}{n} = \frac{451.54}{5} = 90.31 \qquad\qquad \overline{Y} = \frac{Y}{n} = \frac{345.12}{5} = 69.02$$

$$r = \frac{xy}{\sqrt{x^2}\sqrt{y^2}} = \frac{3309.59}{\sqrt{4381.09} \mid \sqrt{4464.84}} = 0.7492$$

26. Calculation of Correlation between Actual Loan Outstanding and Collection for Consumer Loan Purpose

in ten million

F/Y	X	x= (X-$\overline{X}$)	x^2	Y	y=(Y-$\overline{Y}$)	y^2	xy
2061/62	111.12	-27.10	734.19	57.63	-11.40	129.91	308.83
2062/63	118.88	-19.34	374.06	104.51	35.49	1259.43	-686.37
2063/64	126.63	-11.59	134.22	102.82	33.79	1142.05	-391.52
2064/65	135.95	-2.26	5.12	28.72	-40.30	1624.30	91.18
2065/66	198.50	60.28	3634.20	51.44	-17.58	309.14	-1059.94
	X = 691.08		x^2 = 4881.79	Y = 345.12		y^2 = 4464.84	xy = 1737.82

Now,

$$\overline{X} = \frac{X}{n} = \frac{691.08}{5} = 138.22 \qquad\qquad \overline{Y} = \frac{Y}{n} = \frac{345.12}{5} = 69.02$$

$$r = \frac{xy}{\sqrt{x^2}\sqrt{y^2}} = \frac{1737.82}{\sqrt{4881.79} \mid \sqrt{4464.84}} = -0.3722$$

27. Calculation of Correlation between Actual Loan Disbursement and Collection for Others Purpose

in billion

F/Y	X	$x=(X-\overline{X})$	x^2	Y	$y=(Y-\overline{Y})$	y^2	xy
2061/62	8.12	-1.44	2.08	7.32	-1.45	2.10	2.09
2062/63	8.01	-1.55	2.39	6.02	-2.75	7.58	4.26
2063/64	7.07	-2.49	6.18	6.99	-1.78	3.16	4.42
2064/65	11.15	1.59	2.54	10.71	1.94	3.75	3.09
2065/66	13.44	3.88	15.07	12.82	4.04	16.35	15.70
	X = 47.79		x^2 = 28.26	Y = 43.86		y^2 = 32.94	xy = 29.55

Now,

$$\overline{X} X \frac{X}{n} = \frac{47.79}{5} = 9.56 \qquad \overline{Y} X \frac{Y}{n} = \frac{49.86}{5} = 8.77$$

$$r X \frac{xy}{\sqrt{x^2}\sqrt{y^2}} = \frac{29.55}{\sqrt{28.26} \mid \sqrt{32.94}} = 0.9686$$

28. Calculation of Correlation between Actual Loan Outstanding and Collection for Others Purpose

in billion

F/Y	X	$x=(X-\overline{X})$	x^2	Y	$y=(Y-\overline{Y})$	y^2	xy
2061/62	0.63	-1.94	3.78	7.32	-1.45	2.10	2.82
2062/63	2.62	0.05	0.00	6.02	-2.75	7.58	-0.13
2063/64	2.70	0.13	0.02	6.99	-1.78	3.16	-0.23
2064/65	3.14	0.57	0.33	10.71	1.94	3.75	1.11

2065/66	3.77	1.20	1.43	12.82	4.04	16.35	4.84
	X = 12.86		x^2 = 5.56	Y = 43.86		y^2 = 32.94	xy = 8.40

Now,

$$\overline{X} \times \frac{X}{n} = \frac{12.86}{5} = 2.57 \qquad \overline{Y} \times \frac{Y}{n} = \frac{43.86}{5} = 8.77$$

$$r \times \frac{xy}{\sqrt{x^2}\sqrt{y^2}} = \frac{8.40}{\sqrt{5.56} \mid \sqrt{32.94}} = 0.6208$$

Calculation of Trend Line

Disbursement

Year	Time Period (x)	Disbursement (y)	x^2	xy
2061/62	1	28.26	1	28.26
2062/63	2	30.61	4	61.22
2063/64	3	29.29	9	87.87
2064/65	4	36.36	16	145.44
2065/66	5	41.92	25	209.60
	x=15	y=166.44	x^2=55	xy=532.39

For this method we have a equation

y = a + bx

Where,

y=net profit

x = time period

n = 5 (number of years)

a and b= constant parameters which are to be estimated. The parameter b gives the measure of annual increase in Disbursement. The unknown parameter a and b are estimated by solving the following two equation based on the principle of least square.

y = na + b x------ii

xy = a x + b x^2----iii

Substituting the value in eqn. ii and iii We have,

166.44= 5a + 15b -------------iii

532.39=15a + 55b -----------iv

Multiplying equation iii by 3 and solve them

499.32 X15a Γ 45b

532.39 X15a Γ 55b

$$\frac{Z \qquad Z \quad Z}{Z33.07 \qquad X \quad Z10b}$$

Or, 10b = 33.07

Or, b = 3.31

Substituting the value of b in equation iii

166.44 = 5a + 15b

166.44 = 5a + 15 × 3.31

166.44 = 5a + 49.65

Or, a = 23.36

Now substituting the value of constant a & b in equation (i) we get

y = 23.36 + 3.31x

From the equation, now we can obtain the forecast of the net profit for next five year.

Forecast for next five year

Year	Time Period (x)	y = a + bx	Forecasted Net Profit
2066/67	6	y = 23.36 + 3.31× 6	43.22
2067/68	7	y = 23.36 + 3.31 × 7	46.53
2068/69	8	y = 23.36 + 3.31 × 8	49.84
2069/70	9	y = 23.36 + 3.31 × 9	53.15
2070/71	10	y = 23.36 + 3.31 × 10	56.46

Calculation of Trend Line

Collection

Year	Time Period (x)	Collection (y)	x^2	xy
2059/60	1	26.29	1	26.29
2060/61	2	28.61	4	57.22
2061/62	3	28.16	9	84.48
2062/63	4	34.17	16	136.68
2063/64	5	40.22	25	201.10
	x=15	y=157.45	x^2=55	xy=505.77

For this method we have a equation

y = a + bx

Where,

y=net profit

x = time period

n = 5 (number of years)

a and b= constant parameters which are to be estimated. The parameter b gives the measure of annual increase in collection. The unknown parameter a and b are estimated by solving the following two equation based on the principle of least square.

y = na + b x------ii

xy = a x + b x^2----iii

Substituting the value in eqn. ii and iii We have,

157.45= 5a + 15b -------------iii

505.77=15a + 55b -----------iv

Multiplying equation iii by 3 and solve them

472.35 X15a Γ 55b

505.77 X15a Γ 45b

Z   Z   Z
_____

Z33.42   X   Z10b

Or, 10b = 33.42

Or, b= 3.34

Substituting the value of b in equation iii

157.45 = 5a + 15b

157.45 = 5a + 15 × 3.34

157.45 = 5a + 50.10

Or, a = 21.47

Now substituting the value of constant a & b in equation (i) we get

y = 21.47 + 3.34x

From the equation, now we can obtain the forecast of the net profit for next five year.

Forecast for next five year

Year	Time Period (x)	y = a + bx	Forecasted Net Profit
2064/65	6	y = 21.47 + 3.34 × 6	41.51
2065/66	7	y = 21.47 + 3.34 × 7	44.85
2066/67	8	y = 21.47 + 3.34 × 8	48.19
2067/68	9	y = 21.47 + 3.34 × 9	51.53
2068/69	10	y = 21.47 + 3.34 × 10	54.87

Calculation of Trend Line

Outstanding

Year	Time Period (x)	Outstanding (y)	x^2	xy
2059/60	1	31.31	1	31.31
2060/61	2	33.31	4	66.62
2061/62	3	34.44	9	103.32
2062/63	4	36.60	16	146.40
2063/64	5	38.30	25	191.50
	x=15	y=173.96	x^2=55	xy=539.15

For this method we have a equation

y = a + bx

Where,

y=net profit

x = time period

n = 5 (number of years)

a and b= constant parameters which are to be estimated. The parameter b gives the measure of annual increase in outstanding. The unknown parameter a and b are estimated by solving the following two equation based on the principle of least square.

y = na + b x------ii

xy = a x + b x^2----iii

Substituting the value in eqn. ii and iii We have,

173.96= 5a + 15b -------------iii

539.15=15a + 55b -----------iv

Multiplying equation iii by 3 and solve them

521.88 X15a Γ 55b

539.15 X15a Γ 45b

Z   Z   Z

Z17.27   X   Z10b

Or, 10b = 17.27

Or, b= 1.73

Substituting the value of b in equation iii

173.96= 5a + 15b

173.96 = 5a + 15 × 1.73

173.96 = 5a + 25.95

Or, a = 29.60

Now substituting the value of constant a & b in equation (i) we get

$$y = 29.60 + 1.73x$$

From the equation, now we can obtain the forecast of the net profit for next five year.

Forecast for next five year

Year	Time Period (x)	y = a + bx	Forecasted Net Profit
2064/65	6	y = 29.60 + 1.73 × 6	39.98
2065/66	7	y = 29.60 + 1.73 × 7	41.71
2066/67	8	y = 29.60 + 1.73 × 8	43.44
2067/68	9	y = 29.60 + 1.73 × 9	45.17
2068/69	10	y = 29.60 + 1.73 × 10	46.90