

# CHAPTER- I

## INTRODUCTION

### 1.1 Background of the Study

The wave of rising expectation and ambition of people in the present context of society, realized the need for socio-economic development in the nation building process. The government felt to import a dynamic role and charge the public sector with greater responsibility in fulfilling national goals and objectives. With this realization the government mushroomed into a number of establishments like agriculture, banking was seen as major industry to uplift the economic conditions of public, and country and the world as well. Therefore the government was forced to adopt a liberal economic policy regarding operation of banks. About the financial liberalization process it and said that “the interest rate deregulation curtailment or elimination of direct credits, lifting entry and exit barriers for financial intermediaries, restricting of banking system and institution for regulatory and supervisory mechanism is some of the key components of such liberalization”. This led to the influx of commercial banks in Nepal.

Some time in past the gold smith used to store people’s goods and charge nominal rate against the deposit. At that time, people deposited their gold and valuable goods for the security rather than earning. An efficient system of financial institution is obviously necessary not only for industrialization but also help for optimum utilization of financial resources of the community and economic prosperity “Tejrath Adda “ is the father of modern banking system in Nepal which delivered a good service to government staffs and general public. In reality the concept of modern banking was introduced when “Nepal Bank Limited” was established in 1994 B.S. NBL carried out the functions as a commercial bank. The mobilization and implementation of efficient and effective monetary policy to upgrade the banking system was essential. For that Nepal Rastra Bank was established in 2013 B.S. As per Nepal Rastra bank act 2013 B.S. Since

2013 B.S. it has been functioning as the government's bank and has contributed to the growth of financial sector. Up to this date 32 commercial bank, 88 development banks and 79 financial companies are providing service as financial institution in Nepal.

Nepal's economy is agro based. Over 80 percent of the economically active population depends up on agricultural for livelihood. Contribution of agricultural sector to the gross domestic production of Nepal is about 40 percent. Due to poverty Nepalese people could not adopt modern system of cultivation. To provide the easy loan for development the agricultural sector and their people, the government established the ' agricultural development bank.' The main objectives of the bank were well development of agricultural sector and boost of the economic condition of the people who are involved in the agriculture. Prior to this bank, other to commercial banks, one central bank and one Development Corporation was established. The ADBL was established in 2024 B.S. as a development bank with 50 million initial capitals. Where 51% paid up capital invested by government and remaining capital invested by NRB and public enterprise and from general public and other organization. The bank was established as 'B' class bank it had certain sector to invest. The bank was mainly focused to invest in Agriculture sector. ADBL has registered as company Ltd in 2062-3-21 as per company act 2053.it got the license of 'A' class bank from NRB in 2062-12-3. Since that date, the bank is providing services to its clients as commercial bank. "its capital structure and ownership are as follows before and after the convert in company. The ownership of changing structure will distribute in future."

## Capital Structure

(In: hundred millions)

Particular	Before Convert in Company	After Convert in Company
<b>Authorized capital</b>	2	12
<b>Issued capital</b>	1.5859	11.20
<b>Paid up capital</b>	1.5859	---
<b>Pref. share Capital</b>	--	8.70
<b>General share</b>	--	2.50

Source: Journal of ADBL "Souvenir Organization", 2063 B.S.

## Ownership Structure

Particular	Before Convert in Company	After Convert in Company
<b>Nepal Government</b>	94.37%	65%
<b>Organizational enterprises</b>	0.167%	---
<b>Public enterprises</b>	0.033%	---
<b>General Public</b>	----	30%
<b>Others</b>	5.43%	---
<b>Personnel</b>	----	5%

Sources: Journal of ADBL "Souvenir Organization". 2063 B.S.

Bank is one of the most reliable financial institutions. It collects huge amount of deposit from clients and disburse the funds as loan investment. Without disburse the fund which is collected in bank, any bank can't earn and run smoothly. The most important task of the bank or any financial institutions is to utilize or proper management of available fund. In the market, there are so many investment areas. A lot of clients want to take loan from bank. But a bank should invest in that area and person where the interest amount and principle would recover easily. These all things are covered by "Loan Management". Loan

management means disbursement of deposit fund in beneficial sectors as well as priority sector as per NRB directive and recover them in time properly. It is most important task for the bank or financial institutions. A bank should invest those sectors where the investment wouldn't be bad debt. If the fund would turn in to bad debt, the bank will lose huge amount of fund. So the bank should manage appropriate amount of loan loss provision. It reduces the high amount loss in one single time period. Thus, loan management is one of very essential as well as crucial task.

## **1.2 Focus of study**

The study is mainly focused on the most important function of a bank about loan management. It analyses the loan disbursement and recovery of ADBL. It also management. It analyses the loan disbursement and recovery of ADBL. It also analyses. Details about loan disbursement criteria and condition of ADBL, the position of the bank with respect to the efficiency in providing loan. The loan recovery condition of the bank. It has been attempted to study the fact related to the loan be it disbursement or collection.

## **1.3 Statement of the problem**

The bank cannot live without managing its liquidity position. This liquidity position depends on the management of disbursement loan in time and their self-standing capacity or all expenses. A bank or any financial institute can disburse necessary amount to their borrowers and collect the entire disbursement amount in time if there is a good loan management system without effective and proper loan management on enterprise can accomplish its predetermined goals and objectives. Hence, it is the life blood of any financial institutions.

It is good and positive matter to all Nepalese that we can get loan from that kind of bank .but the ADBL's program sufficient to provide adequate loan for all Nepalese ?Why the banks are only opened on the urban areas ?why don't they want to expand their branch in the rural and remote area? What is the problem for this?

This research paper attempts to show the effective application of loan management within the conceptual framework of loan disbursement and collection procedure. Beside this the present study, intends to explore the following basic reach question seeks to bridge banking instructions.

- What is the process of loan disbursement in ADBL?
- What is the situation of outstanding loan?
- How the banks manage loan recovery?
- How should the bank manage the loan?
- What is the relationship between loan disbursement and recovery?

#### **1.4 Objectives of the study**

To complete any work systematically, there must have some certain set of specific objectives. The basic objective of the study will be analyzing the loan management aspect. Which is related to disbursing loan and their recovery? For that the study is to analyze and examine efficiency and effectiveness in disbursing and recovering the loan of ADBL. To achieve, the following specific objectives have been set.

- To study and analyze the achievement of sector wise loan disbursement and collection of ADBL.
- To measure the relationship between loan disbursement and recovery.
- To evaluate the association between deposit collection and loan disbursement.
- To examine the loan disbursement, collection and outstanding of ADBL.
- To suggest some remedies for improving loan disbursement and collection procedure of ADBL.

#### **1.5 Significance of study**

ADBL is one of the major financial institutions supporting to the rural and urban people for institutional credit. Many lending agencies are present in Nepal but agricultural financing problem has not been solved yet. In other words ADBL

is contributing more than 79 percentage of institutional credit to the rural populace by strengthen its network in all over the country. Non-institutional financing still now 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 collection procedures so that all Nepalese farmers and other entrepreneur can get some knowledge about receiving the institutional credit form ADBL easily.

In the context of Nepal, very few studies and research have been made related to loan disbursement and collection procedure of ADBL. Out of this, there is some importance of the study.

- To the bank (ADBL)
- To the targeted entrepreneur and farmers.
- To the policy makers
- To the interested person and scholars.

## **1.6 Limitation study**

Today world is dynamic, every things existing here are of limit character. Likewise, this study is also surrounded by limitations. This study is for the partial fulfillment of MBS course of TU, so it may not be useful for the other aspects. The limitations of the study are as follows:

- Though there are thirty two commercial Bank operating in Nepal, this study consider only one Commercial Bank, i.e. agriculture Development Bank Ltd. For the study.
- The study period covers only 5 years (2064/065-2067/68).
- This study focuses mainly on loan management function of ADBL.
- The data used in the study is only secondary based on the information provided by the bank.

## **1.7 organization of the study**

This study has been comprised into five chapters into five chapters, each devoted to some aspects loan management of ADBL, the title of each chapters are summarized and the contents of each of these chapters of this study are briefly mentioned here.

### **Chapter: 1 Introduction**

This chapter deals with the meaning of bank, background of ADBL, statement of problem, objectives, importance and organization of the study.

### **Chapter 2: Review of Literature**

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

### **Chapter 3: Research Methodology**

The third chapter, research methodology deals with research design, period covered, types and sources of data, data collection procedure, method of analysis and analytical tools used.

### **Chapter 4: Data presentation and Analysis**

In this chapter collected data through various sources have been presented. It mainly consist the analysis of various types of data regarding disbursement and collection as well as recovery rate of ADBL.

### **Chapter 5: Summary, Conclusion and Recommendations**

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

## **CHAPTER- II**

### **REVIEW OF LITERATURE**

This chapter review of literature deals with loan management. Review of literature is the preliminary search. This helps us to generate and refine our research idea on loan disbursement and collection (loan management). Many researchers have conducted their research in the field of banking company especially financial performance. Find mobilization policy etc, beside these, there are some books articles, and other relevant study concern with the loan management. But still the loan management aspect of ADBL has not been found. Some of the relevant studies. Their objective findings and theoretical review have been reviewed under this chapter. To insure the precious, lucid and concrete view about the stated topic, the entire review work is divided in to the point wise, which is given below:

- Review of conceptual framework.
- Review of previous related studies.

#### **2.1 Review of conceptual framework**

In this section, various books are reviewed that are written by different writers that make clear about the conceptual foundation of loan management. It helps to assess new idea by examining views of different writers and scholars.

##### **2.1.1 Bank**

Banks are those financial intermediaries who accept deposit and grants loan. In other words bank may be defined as financial mediator accepting deposits and granting loans offers the widest menu of service of any financial institution. Certainty bank can be identified by the functions they perform in the economy. "Indeed many financial institutions including security dealer brokerage firm mutual funds and insurance companies are trying to be similar as possible to bank in the services they offer."

Bank plays the vital role in developing the economy of the country. It is a resource mobilizing which accepts deposit from various sources and invests such accumulated resources in the field of agriculture. Trade, commerce, industry, tourism etc. "The banking sector is largely responsible for collecting household saving in term of different sectors of economy. By lending their resource in small scale industries under intensive banking program has enabled the banks to share in the economic growth of economy (Peter S. Rose, 2002:2).

### **2.1.2. Agricultural Development Bank Limited**

Agricultural Development bank Limited (ADBL) is an autonomous organization largely owned by Government of Nepal. The bank has working as a premier rural credit institution since the last three decades. Hence, rural finance is the principal operational area of ADBL. Besides, it has also been executing small farmers Development program (SFDP), the major poverty alleviation program launched in the country. Furthermore, the bank has also been involved in commercial banking operations since 1984.

Established in 1968 as an Agricultural Development Bank. Nepal but at present Agricultural Development Bank limited (ADBL) is a specialized agricultural and rural credit institution. This provides varied types of credit. Among them livestock credit has a considerable share for income generation activities. Of the outstanding loan Rs.22.19 billion, livestock loan comes to more than Rs. 3.98 billion (18%) as of 062\63 (mid July 2006), (ADBL/Finance and account Division 063). Particularly for the poor ADBL provides live stock credit through Small Framer Development Program (SFDP) a pioneer poverty alleviation program of the Government in Nepal. Most of the small farmers raise cow and buffalo for milk production. Some of the small farmers have to face serious problem due to loss of their animals and they have to be indebted instead of improving their economic condition. In the same way, ADBL has also faced

problem in loan recovery due to animal's death (Souvenir Organization.2063:208)

### **2.1.3 Commercial Banking program**

ADBL initially opened its banking units attached with branches and sub-branch offices working in rural as well as urban areas aimed to provide banking facilities along with agricultural credit. Due to cost factor, the bank started to close down rural units gradually since 1989. The bank first established banking offices at Ratanapark in 1984 and other more than 40 offices in urban areas.

Initially, the bank aimed at collecting deposits as a source of found to meet the increasing agricultural credit demand in rural sector. However, strengthen the resource base of bank, compensate the loss incurred by development banking offices situated in rural areas and maintain liquidity the bank started commercial banking lending operation form 1991.It provides the loan in various activities through the different form such overdraft, business loan, industrial loan, contract loan, hire purchasing loan and serviced loan. In addition to acceptance of deposit, commercial banks deliver the following services as well:

- Issue of Bank Guarantee
- Fax Transfer services
- Draft and Mail transfer services
- Collection of cheque ,draft & Bills

### **2.1.4 Meaning and Definition of Loan**

Webster's Dictionary define loan as "something lent; esp. a sum of money lent, often for a specified period and repayable with interest" (Michael Agnes, 2000:821). Financial institutions loan money out of deposits, they have received. They must increase money by advancing loan since they get interests on deposit. It is apt to provoke: Deposits are children of loans are the children of deposits.

Loan is financial assets resulting from the delivery of cash or other assets by a lender to a borrower in return for an obligation repay on specified date or demand. The bank or financial institutions lend the fund as investment which fund is called loan: banks do not keep cent percent reserve against deposit for meeting the demand of depositors. The excess reserve than depositors is granted as loan investment from banks. So, the term of loan play an improvement role in banking sector.

### **2.1.5 Concept of Loan Management**

Loan and advance dominate the assets side of the balance sheet of any bank, similarly, earnings from such loans and advances occupy a major space in income statement of the bank. Lending can be said to be the raison d'être of a bank. However, it is very important to be remained that most of the bank failure in the world are due shrinkage in the value of loan and advance (Dahal and Dahal, 2002:114). So the management of loan is the major task for any banks and financial institutions. Let's bifurcate the term loan management in order to deliver the meaningful sense about the topic. Cambridge international of English dubbed the term 'loan' as above and the 'management' is the control and organization of something. In other word "the management of a company is/ are the group of people responsible for and controlling and organizing it". So, loan management means proper meaning, organizing and controlling of lending money from the bank.

The 'loan management' term concerned matters are being presented as: loan administration involves the creation and management of risk assets, the process of lending takes into consideration the people and system required for the evaluation and approval of loan request, negotiation of terms, documentation, disbursement, administration of outstanding loans and workouts, knowledge of the process and awareness of its strength and weakness are important in setting objective and goals for lending activities and for allocating available funds to various lending function such as commercial, installment and mortgage portfolios (Johnson and Johnson, 1940).

From that we can conclude that loan management refers to systematic identification of needy on 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.

### **2.1.6 Type of Loan**

Banks makes a wide variety of loans to a wide variety of customers for many different purposes. For customers the cause of loan purchasing may be investment in business purchasing automobiles, taking dream reactions, pursuing college education, constructing home and office building etc. on the basis of loan purpose, bank loan can be divided into seven board categories (Singh, 2063)

#### **1. Real Estate Loan**

It is the credit extended to purchase or improve real property, such as land building. Such loans are secured by real property Land, buildings and other structure. Real estate loan include long term loan to finance the purchase of farmland, houses, apartments commercial structure and foreign properties.

#### **2. Financial Institution Loan**

It is the credit extended to banks and other financial service providers. Mostly, finance companies, insurance companies credit banks, co-operative firm saving and credit firms are the customers of financial institution loan provided by bank.

#### **3. Agricultural Loans**

Agricultural loan are the credit extended to support firm and branch operations. This loan is extended to assist in planting and harvesting crops,

storing crops and marketing them. Agricultural loan also support the feeding and care of livestock.

#### **4. Commercial and Industrial Loan**

Commercial and industrial loan are extended to business firms to support the production and distribution of their products and services. It is granted businesses to cover. Such express as purchasing inventories, paying taxes and meeting payrolls too.

#### **5. Individual Loans**

This is the loans extended to private individuals for private and household purposes. Generally, 'individuals' loans are extended to finance the purchase of automobiles, appliance (TV, computer set, washing machine, refrigerator etc.). Customer can also use individual loans for medical care personal expenses.

#### **6. Miscellaneous Loan**

All those not classified above included in this category. Higher education loan, marriage loan, dreams tour loan can be included in miscellaneous loans.

#### **7. Lease Financing Receivables**

Bank can lend physical equipment to the customer, in addition to money lending. People do not buy the heavy and costly equipment that is seldom needed for them. For example: curser machine, pressing machine and other plants use for constructions etc. they prefer to get them on pledge. Banks by such equipment and vehicles and provide on lease to customers.

#### **2.1.7 Objectives of the Sound Loan Policy**

Considering the importance of lending to individual bank and also the society it serve, it is imperative that the bank meticulously 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 not discrimination while dealing with borrower by one officer of 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.

### **2.1.8 Criteria for providing loan**

Setup of well established criteria for disbursing advances and loan is the most essential to survive, thrive and enlargement of the banks. Loan should not be allowed to allow demanding parties. Actions and inactions taken in haunch to flow loan and advances without systematic, scientific and through study cum analysis may lead to ditch. Ergo well defined and setup criteria to grant loan must be visible to the personnel. These are positively demonstrated below: (Klisee, 1987).

- **Personal Character**

Intensive analysis of loan demander is essential to determine loan disbursement policy: person's character must be studied to know the intention to pay loan. There practice to repay loan creditworthiness, habit to use acquired fund, past trend regarding the receipt and payment of loan are to be reviewed. Dubious person's proposal should not be accepted.

- **Capacity**

Whether the person is capable in making contract Act 2056 or not should be checked out at first considering the patent and expertise of person in concerned failed, decision about the flow of loan is to be taken.

- **Capital**

Examination of loan demander is apt to match his demand with his status and business. This ultimately helps to know the amount of money he/she needs as investment. Indeed their financial feasibility should be stronger than their demand to get the faith of the lenders.

- **Security**

Priority should be given to readily marketable and handy collateral. Decision about the flow of loan is made considering nature of business and types of securities proposed. Accept loans having securities above and near about and denies the loan proposal containing inferior quality security.

- **Credit information**

It is appropriate to get the information relating with loan proponent from the person or businessmen working together in the concerned sectors. Credit information denotes knowing whether he is black listed or not his capacity and his demand etc. if information obtain is satisfactory, the proposal will be accepted and will be rejected in reserve plight.

- **External Environment**

External environment of industry of business shown by loan proponent needs to be evaluated on the eve of providing loan to know the facts about use of right business. It is pivotal to evaluate external environment of business where business originates, thrives and survives since modification of external environment is almost impossible in accordance with motto and plight.

### **2.1.9 Loan Approval Process**

Loan approving authentic approves only after being convinced that the loan will be recovered along with interest. There may not be the same procedure for all kinds of loan. The process of accepting loan to industry or merchant differs with each other. Similarly, the approving process of loan concerning to primary sector and bigger project is also not similar. Approval of wrong loan proposal makes lending institution a death knell. It entails the following sequences--

- Application
- Conducting the interview (loan purpose, amount of loan, repayment source, history of business, banking relationship)
- Credit analysis (historical analysis, character, capacity conditions, collateral and capital)
- Forecast and risk rating system
- Return
- Liquidation
- Creditworthiness and debt structure
- Preparation of credit report.

### **2.1.10 Element of Effective Loan Policy**

Loan policy should be effective for the well management of loan, without the effective loan policy, loan management of a bank cannot be effective. For effective loan policy, the following elements should be continued in the loan policy as suggested by the Federal Deposit Insurance Corporation of United States: (Singh, 2003).

- **Characteristic of a Good Loan Portfolio**

The loan should specify the characteristic of good loan portfolio for the bank in terms of types, maturities, size and quality of loans.

- **Specification of lending Authority**

The specification of the lending authority should be given to each loan officer and committee. This helps to measure the maximum amount and type of loan that each person and committee can approve.

- **Line of Responsibility**

There should be the line of responsibility in making assignment and reporting information within the loan department.

- **Operating Procedures**

Appropriate operating procedure should be defined clearly for soliciting, reviewing, evaluating and making decision customer loan applications.

- **Documentation**

All documentation should be required for loan determination clearly. That is to accompany each loan application and bank's credit file. Basically, financial statement, security and agreements are the main documents to be attached with loan file.

- **Line of Authority to Review Credit Files**

There should be clear line of authority within the bank, detailing who is responsible for maintaining and reviewing the bank's credit files.

- **Collateral Guidelines**

All essential guidelines should be established for taking, evaluating and perfecting loan collateral.

- **Loan Procedure**

There should be perfect policy and procedures for setting loan interest rate and terms and the terms for repayment of loans.

- **Quality Standards**

There should be statement of quality standards application to all loans.

- **Loan Limit**

The perfect upper for total loan outstanding should be determined in the loan management. It specifies the maximum ratio of total loans to total assets allowed. Bank loan policy must be flexible due to continuing changes in economic conditions and fully documented and the reason why a variance from the loan policy was permitted should be listed in the loan file. The violation of a bank's loan policy should be infrequent events.

### **2.1.11 Necessary Documents While Receiving Loan from ADBL**

The following documents are needed while receiving the loan from ADBL-----

- Copies of ownership certificate of land or building, receipt of land revenue and citizenship of Nepal citizen.
- Blue print of land or building.
- Firm registration certificate.
- Acceptance of owners while taking the collateral of other person
- Credit information from other related financial institutions
- Cost estimate of the project
- Quotation of the machinery while procuring it for the project
- Two copies passport size photo of client.
- Scheme and feasibility study report etc.

### **2.1.12 Lending Conditions**

Whenever banks offer credit facilities to the borrowers, it is always subject to the terms and conditions stipulated in the section letter. Bank being the creditor

tries to insert the stringent conditions while the borrowers request the bank for lenient ones. If the borrower can shop around, he succeeds in getting loan at lenient conditions. In short, every loan is sanctioned subject to certain conditions which can be lenient or stringent depending upon the bargaining capacity of the bank and the borrower, but no way detrimental to the interest of the bank. Generally, bank sanctions loan containing all or any of the following terms and conditions: -----

- Interest rate
- Repayment frequency
- Disbursement frequency
- Expiry of the facility
- Commitment fee
- Documentation
- Penal interest rate
- Drawing power
- Submission of statement/reports(types and frequency)
- Bank's right of inspections (with or without notice)
- Bank's right to call back the facilities
- Right of borrower to take loan from other financial institutions.

### **2.1.13 Pricing of Loan**

Pricing commercial loan is a vague process that needs estimating. The return of the bank should earn on a particular loan and then forming a loan agreement that will generate the desired return.

The yield of loan covers not only the interest rate charged for borrowed funds but also the charged bank makes for commitment and compensating balance. In certain case, service fee income also falls under total return.

The interest rate can either be fixed or variable rate term to check evaluation in the general level of interest that increase bank's cost of fund loan will be made

on fixed rate if there is no possibility of rise in interest rate major pricing terms are (subedi, 2003).

- **Fixed Rate**

Fixed interest rate is agreed at organization until maturity if there is no chance of in cline in rate of interest.

- **Variable Rate**

Depending on the basis rate varying interest rate is installed. It is classified as:

-prime base: Highest graded customer obtains it.

-prime plus: Prime rate plus a fixed percentage is charged under it.

-prime times: Under it the rate will amount by the multiple and prime rate time fixed multiple.

- **Commitment Fees**

It is levied by bank to customer for agreement to availed fund. It is charged on used and unused portion of a credit line.

- **Compensating Balances**

It is deposit balance to be kept as per the deed of lender until the over of loan period. It is to be kept on average rather than at a strict minimum.

## **2.2 Review of Previous Related Studies**

Some of relevant reviews of literature from journal, newspaper and text book are presented below within periphery of this research to known enough news this original were.

### **2.2.1 Review of Book**

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 for 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 farmers 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, 1978).

The main principles of a sound balancing loan may be summed up in the three words: safety, liquidity and profitability. It is obvious that unless a loan yield income, it will be foolish on the part of the banker to part with the possession of his money and undertake the trouble and expenses involved in ensuring the safety of its recovery. Moreover, it is essential for a bank to earn income to be able to meet its operational expenses and to pay divided to its shareholders. The question of safety requires no collaboration, unless the money lent is safe and sure to come back, the lending banker will drift in to bankruptcy. As regards liquidity, it has been noted that deposits provide almost the whole of the resource available for being lent out. Bank deposits are subjects to a continuous process of turnover, the banker will not be in a position to meet demands for withdraw of deposits and consequently, will be forced out of business (Mitra, 1996:239).

Let's bifurcate the term loan management in to the two separate terms: loan and management in order to deliver the meaningful sense about the topic: Oxford advanced Learners' Dictionary dubbed the term loan a, "a thing that is lent, especially a sum of money" (Oxford Learner's Dictionary, 1997) similarly,

the term management is defined as “ The control and making decisions in a business or similar organization: and further says “the process of dealing with or controlling people or thing”(Oxford Learner’s Dictionary, 1997).

Book named “Banking management” say that 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).

A government bank established either by the government for (certain) balanced developed of that country or private sector tries to do they should necessary funds them. But we needed to know what are their functions duties and responsibility. We also describe their policies, strategies and procedures for long run effectiveness. This should be under stable point.

General Principal of development bank is to provide loan to needy persons/ group who want to develop their socio-economic condition. The Government Bank will serve such people by providing loans. A development bank must care the operation of the landed. Their supervision and inspections should play a significant role after disbursement the loan to them”. So an important task of a development financial institution is to establish close and constructive contracts with its clients (Diamond William, 1960).

### **2.2.2 Review of Journal**

Among the reviewed of articles from various journal pertaining to the study, the major and mostly contributing to the study have been outlined below.

Sunil Chopra in his article “Role of Foreign Banks in Nepal” published in Nepal Rastra Bank Samachar about the joint Venture banks in Nepal has concluded that the existence of the joint venture banks in Nepal seems crucial as they have been playing an increasingly dynamic and vital role in the economic development of the country that will undoubtedly go increasing with time (Chopra, 1989).

The expansion of commercial banks branches in rural areas have been repaid after the initiation of peace process in the country following the people’s movement II in April 2006. The NBR has also issued new directives relating to the opening up branches by commercial banks, which helped expand bank branches from a number of 452 in mid July 2007 2010, excluding one hundred bank branches of Agriculture Development Bank (ADBN) involved in non banking transactions.

The expansion of bank branches by commercial banks is concentrated in the urban areas. For example, the number of bank branches in Kathmandu valley increased by 24.6 percent in the review year from the total branches of 157 as at mid July 2011 to 172 as at mid July 2012 followed by the expansion in the Terai region, by 22.8 percent from 242 branches as at mid July 2010 271 branches as at mid-July 2012. Realizing the concentration of banking activities in the urban areas the newly issued directive required commercial bank to open a branch outside the Kathmandu valley for opening a branch within the valley (Nepal Rastra Bank, 2007/08).

It is especially concerned on some issue that needs to be taken area of while carrying out these reform programs. These issues broadly classified into external or structural and internal or operational like shifting and replication of all bank head offices from the present regional political center to other viable and business centre will automatically help to reduce overstaffing and posting problem in all bank head offices and help them to achieve sound working

condition. It is very help for loan disbursement and collection department of the bank. Due to this loan disbursement and collection department staff can get direct contract with the real client of the banks in the market which helps them to achieve sound working condition in the management of loan (Bista, 2063).

Some analysis says banking is nothing but management of risk. Banks are exposed to mainly credit operational market and liquidity risk. Taking risk by choice not by chance is the main mantras of banking unfortunately; risk management system in all those banks was poor due to poor corporate government. Like most other public sector enterprise, government owned banks were not professionally run resulting in huge non-performing loans (NPL). Similarly, NBBL, NCC and LBL have negative net worth due to under interference of the promotes\directors in credit operational causing huge NPL (Dahal, 2009).

Banks and financial institutions while providing margin lending to the concerned borrowers on the security of share of the listed companies in Nepal stock Exchange limited are required to follow certain provision. In the first place, the amount of margin lending to be provided on the security of share is limited to the fifty percent of the average price of closing price of at least 180 working days or fifty percent of the current market price, whichever is lower. The amount if margin lending once accepted to the borrower can't be further extended through revaluation of the share under securities. If the amount of the margin lending exceeds the stipulated limit of 50 %, the lending should be regulated to the limit of 50%, or the maturity period of the margin lending should not be more than a year and such lending should not be more than a year and such lending is not allowed for renewal, rescheduling and restructuring. Thirdly, banks and financial institutions, which have a level of capital less than that fixed by the NBR, have negative net worth, are deloused by Nepal stock exchange Ltd, and are unable to complete annual audit even after one year from the end of the fiscal years (NRB,2008).

### 2.2.3 Review of Thesis

There are various dissertations about loan management of banks written by various researchers in the past years. Some of the dissertations are about the loan disbursement and collection of commercial banks but rarely are there any about Agricultural Development Bank limited. However, these are several dissertations written in the past which are close to the topic some of such dissertations are reviewed here.

Ritcha Sharma (2005) has submitted a thesis named “Loan Disbursement and Collection of NBBL” to Central Department of TU. The main objective of this study is to evaluate loan disbursement and loan collection condition of Nepal Bangladesh Bank Limited. The general objectives of this study are as follow.

- To analyze the trend of very year’s deposit collection.
- To measure total amount of loan disbursed out of total deposit.
- To analyze the status of loan disbursed.
- To measure the status of loan recovery out of total loan disbursed.

By taking these objectives, the researcher find following in her thesis,

- The deposit collected by the bank during the six year period is in increasing trend. The highest percentage increase in increasing in deposit collection in the years 1999 i.e. by 75.56%. Similarly, the amount of loan disbursed has increase every year except in 2003.
- The loan disburse by NBBL is also affected by factors other than the amount the of deposit collected like the poor economic state with less investment of opportunities. HMG regulation provision.
- NBBL disburses highest amount of overdraft loan then other types of the non specific nature of overdraft loan.
- The amount of loan recovered every year has increased with each subsequent year but the percentage increase does not follow the same increasing trend.

- The loan which are easier to recover include specific loan like hire purchase, housing, education loan etc. because of the selected group of customers.
- NBBL has followed NRB directives and lent almost 12% each year in priority and deprived sector.
- The deposit collected and the loan disbursed increase or decrease irrespective of the increase or interest rate as it has been analyzed by comparative study of the rate of interest and the amount of deposit collected and loan disbursed.

Punya Prashad KHanal (2006) has submitted a thesis named “A study of loan Management of Agricultural Development Bank Nepal” to Central department of TU. The main objectives of the study are below

- 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.

Basudev Dev Sigdel (2006) has submitted a thesis named "A study on loan management of ADBL." to central Department of TU. 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 has study the major finding about disbursement and recovery management are 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 063/64 it is increasing trend. Because of significant relationship existed increase in loan disbursement increase loan collection?
- Actual loan disbursement of loan 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.

Prem Raj Dawadi (2007) has submitted a thesis named “Loan Management of Banking Company” (A case study of ADBL) to Central Department of TU. 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 loan disbursement and recovery.

Major finding about loan management of ADBL are as follows

- 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 portion 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 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 crores.

- The non performing assets of the bank is highest in 2064/65 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.

Devendra Prasad Lekhak (2009) has submitted a thesis named “Loan policy of Agricultural Development Bank of Nepal” to Central Department of TU. The main objective of the study is to evaluate the loan policy of ADBL. The general 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.

By taking these objectives, the researcher find following in this thesis

- 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.

- Collection rate was highest in Tea and Coffee followed by marketing and lowest in irrigation. The average annual growth rate of loan collection is 35.91%.

Reena Shrestha (2010) has submitted a thesis named " Loan Disbursement and Recovery of Joint Venture Banks Under Nepal Rastra Bank Directives". ( A comparative study of Everest Bank Limited and Himalayan Bank Limited). to Center dedepartment of TU.The main objective of the study are:

- To evaluate and analyze the process of the total loan investment , recovery and outstanding of EBL and HBL under NRB directives.
- To examine the different types of loan disbursed by sample banks.
- To analyze the loan loss provision by EBL and HBL.
- To suggest recommend on the basis of major findings.

The major findings of the study are summarized below:

- Loan and Advances to shareholder's Equity ratio have gained the significant importance in measuring the capital fund. The highest loans and advances to shareholders equity ratio is 8.79% for EBL and 5.74% for HBL. EBL has been able to generate high volume of loan and advances from capital fund than HBL.
- EBL has high consistent recovery ratio i.e. from 0.9420 to 0.9710 from F/Y 2005/06-2009/10 respectively but the recovery ratio of HBL has highly increased i.e. 0.8184 to 0.9636 from 2005/06-2009/10 respectively.
- Among these different types of loan, the highest amount disbursed every year HBL is overdraft and working capital loan. Overdraft covers around% of the total loan given out every year. Among these different types of loan , the highest amount disbursed every Year EBL is Construction and Production loan. EBL has rapidly increased its loan on other sector i.e.% to 24.6% from F/Y 2004/05 to 2009/10.

### **2.3 Research Gap**

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. In other words, there has to be continuity in research. This continuity in research is ensured by linking the present study with the past research studies. To fulfill this gap, this research is selected. To complete this research work: many books, journals, articles and various published and unpublished dissertations are followed as a guideline to make the research easier and smoother. In this regard, here the researcher is going to analyze the different procedures of management, which is considered only on ADBL. In this thesis, some loan security aspects are also included to clarify the disbursement and collection of loan aspects. Recent five years data (FY 2056/57-2062/63) has been used to get a more accurate conclusion. Secondary data obtained from face-to-face interaction with the employees of ADBL.

This study has used all possible financial and statistical tools to cover the objective of this study. Correlation coefficient to check the relationship between the sampled variables, coefficient of determination to know the dependency of dependent variable on independent variable and hypothesis test (T-test) to prove significant or insignificant between correlation variables is used in this study. Hence, this study is significantly different from previous studies. Effort on this particular subject will be found properly genuine and it will be recognized as a valuable study in this particular subject.

## **CHAPTER- III**

### **RESEARCH METHDOLOGY**

#### **3.1 Introduction**

Research methodology is the overall framework for how to conduct. Process, analyze and present data on table and diagrams to find answer of this research problem questions\ objectives. It may be understood as a science of studying how research is done scientifically. In it the various steps that are generally adopted by research problem along with the logic behind them. The basic objective of this study is to highlight the loan management of ADBL.

Research methodology describes the methods of process applied in the entire study. This research is concerned with primary and secondary data. For the purpose of achieving the objective the following research methodology has been purposed. This include research design, population and sample source of data, data collection technique and data analysis tools.

#### **3.2 Research Design**

Research design is an organized approach and not a collection of loose, unrelated part. It is an integrated system that guides the researcher in formulating, implementing and controlling the study. Useful research design can produce the answer to the proposed research questions. The research design is thus an integrated frame that guides the researcher in planning and executing the research integrated frame that guides the researcher in planning and executing the research works.

Research design is the plan, structure and strategy of investigation conceived so as to obtain answer to research questions and control variance. The plan is the overall scheme or program of research. It includes an outline of what the investigator will do from writing the hypothesis and their operational implication to the final analysis of data (Wolf and pant, 2007:92). To achieve the

goal of the study, the study has used descriptive and statistical research design. This study is made to study the loan management of ADBL. So far the purpose of the study it has used descriptive and Analytical method.

Descriptive research design involves the systematic collection and presentation of data to give a clear picture of a particular situation. This studies attempt to obtain a complete and accurate description of a situation. To fulfill the objective of this study, the case of none and delayed repayment of loan ADBL has to be analyzed for that the descriptive type of research design is adopted.

### **3.3 Population and Sample**

All of commercial banks, Development banks and Financial institutions such as co-operative, NGOS i.e. micro finance institutions are considered a population and here only ADBL is taken as a sample for research purpose.

### **3.4 Nature and Source of Data**

Source of Secondary data are used in this research

#### **I. Secondary Source of Data**

Secondary source of data are the information received from books, journals, newspaper, reports, official records etc. the major source of secondary data are as follows:

- NRB Directives
- Annual general reports of ADBL
- Journal of ADBL's Union
- National newspapers, journals and Magazines

### **3.5 Data collection procedure**

Data collection is the most important part of the research, consists of obtaining information from some body's hand. It is therefore very difficult activity of the whole research process. In order to collect the required data from the

official the record of the ADBL, the researcher has visited the bank many times personally.

Published documents, books articles, magazine are collected from central library and SDC library. For the primary source personal observation and interviews methods are used.

### **3.6 Data Analysis Tools**

After the collection of data, data analysis is performed. For the purpose of data analysis, statistical tools are used to make the analysis more effective, convenient, reliable and authentic. To evaluate the financial condition and solving the problem of the analytical tools can be used.

For the purpose of the study, all collected primary as well as secondary data are arranged, scanned tabulated under various heads and then descriptive and statistical analysis have been carried out to enlighten the study. In this study correlation regression trend analysis hypothesis is being used under statistical analysis beside this proper tabular format and diagrams are interpreted and explained where never necessary. Financial tools and statistical tools are explained as below, which are used in study.

#### **3.6.1 Statistical tools**

For supporting the study statistically tools such as correlation coefficient, regression, trend analysis hypothesis table diagrams, have been used under it.

##### **a. Correlation Analysis**

Correlation analysis measures the relationship between the variables. There are several methods of measuring correlation. In this research, Karl Pearson's correlation is used Karl Pearson correlation is simply denoted by the symbol 'r'. The closer 'r' is +1b to -1, the relationship between the variables and the closer is to 0, the less close the relationship study of the correlations between two makings. in this research, the correlation between two variables is examined applying following formula;

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

Where,

X and Y are two variables

R=coefficient of variations

N= No. of observation

Also, in this research probable error is calculated to measure the extent of dependent variable that can be explained by the independent variable. Probable error (PE) is calculated as following

$$PE = \frac{1-r^2}{\sqrt{x}}$$

Where,

PE=probable Error

### **b. Regression Analysis**

Regression equation is the least square relation of dependent variable in respect to independent variable. In this study collection is termed as dependent variable and disbursement is assumed as independent variable. The parameter of regression equation indicates the fixed volume of dependent variable when independent variable is zero and changes in independent variable with per rupee change in independent variable. In the study an attempt will be made to measure the changes in collection with a change in loan disbursement. The normal regression equation is;

Let the line between the dependent variable 'Y' and the independent variable's' be represented by

$$Y=a+bx..... (I)$$

Where,

a=value of y when X=0

b=amount of change that comes y for a unit change in X or slope of line.

To determine the straight line, we have to determine the value of 'a' and 'b'. To find the value of 'a' and 'b' we have to solve the following equation.

$$\sum Y = na + b \sum X$$

$$\text{And, } \sum XY = a \sum X + b \sum X^2$$

Where,

n=No. of Observation

Test of Hypothesis

Hypothesis is a conjectural statement about the relationship between two or more variables. Which needs to be investigated for the truth by valid and reliable data? The research of this study t-test is shown the effectiveness of planning and project department of the ADBL because test is operated to measure that there is any significant different in target and achievement of loan collection and disbursement of the bank. The hypothesis of this research work is; Null Hypothesis (H<sub>0</sub>): There is no significant difference between the mean ration of Targeted and actual loan disbursement.

Alternative Hypothesis (H<sub>1</sub>): There is significant difference between the mean ratio of target and actual loan disbursement.

Test statistic under H<sub>0</sub>, the test statistic;

$$|t| = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{S^2 \left( \frac{1}{N_1} + \frac{1}{N_2} \right)}} \sim t_{N_1 + N_2 - 2}$$

Where,

$\bar{X}_1$  =mean of Targeted Amount

$\bar{X}_2$  =mean of Actual Amount

N<sub>1</sub>=No. of observation of Target

N<sub>2</sub>=No. Of observation of Actual

S<sup>2</sup>=Combined population variance

$$S^2 = \frac{1}{N_1 + N_2} [\sum (X_1 - \bar{X}_1)^2 + \sum (X_2 - \bar{X}_2)^2]$$

Decision: If calculated  $|t| \leq$  tabulated t, Null hypothesis will accept otherwise rejected null hypothesis in favor of alternatives hypothesis.

**Tables**

A table is presentation of data in row and column form. The presentation of table is concerned with labeling techniques to make the context clear. The raw data collected should be tabulated so that it will be revealing. The better the organization and sequencing of that data, the better it will be revealing. If the data is displayed in table form, it becomes easier for its analysis.

**Figure**

The term figure usually includes graphs and charts. These presentation help clarify and understand the data at a glance. In other words, figure assists to the reader in other words, figure assists to the reader in understanding the subject.

# **CHAPTER- IV**

## **DATA PRESENTATION AND ANALYSIS**

### **4.1 Introduction**

As explained earlier in the chapter first the core theme of the study is to have a correct insight about loan management (disbursement and collection) of Agriculture Development Bank Limited (ADBL). The data collected for the study have been depicted in tabular form and analyzed with the help of pictorial and diagrammatic presentation, Trend analysis, correlation arithmetic mean, standard deviation coefficient of variation followed by hypothesis testing. For achieving the stated objective analysis is being conducted for five year period (i.e. from 2062/063 to 2067/68).

In this chapter, data collected from various sources have been presented and analyzed to study the various dimensions of the problem of the study so that the objectives of the study are fulfilled.

### **4.2 Analysis of Sector wise Loan Disbursement**

Loan disbursement refers to identifying data investing source of fund in the forms of loan and advances to capitalize prospects opportunities and action done for that. Lending money as loan and advances is not just giving aims to the beggars. Hence it requires wise and rational practices.

#### **4.2.1 Statement of Sector wise Loan Disbursement**

To evaluate the lending performance of banks, it is important to know how much amount is disbursed out of total deposit. ADBL has disbursed loan in different sector. In this section the disbursement of loan on different sector are analyzed. The sector wise loan disbursements of ADBL are given below:

Table 4.1  
Status of Sector Wise Loan Disbursement

(Amount in Rs'000')

<b>FY</b>	<b>063/64</b>	<b>064/65</b>	<b>065/66</b>	<b>066/67</b>	<b>067/068</b>	<b>Total</b>
<b>Sector</b>						
<b>Agriculture</b>	5196201	5629288	5296964	477613	5369200	21969266
<b>Mine</b>	4803	3899	3770	23	-	16878
<b>Production</b>	2579735	2794892	2602296	3445626	4707300	16129849
<b>Construction</b>	562286	607772	561890	1086978	2429900	5761919
<b>Metal Product Machinery and Agriculture Tools</b>	172642	186943	173814	72044	184700	947681
<b>Transportation inst. Production &amp; Installation</b>	40405	43787	43024	32216	47048	243350
<b>Transportation Comm. Public Utility Service</b>	156254	169239	164817	187286	160800	980979
<b>Whole Sales &amp; Seller</b>	7662914	8301644	8785656	12481659	13478800	49870780
<b>Finance and Insurance Fixed Assets</b>	630100	682867	635023	306657	512100	3341720
<b>Service Industries</b>	1619045	1754931	1210232	1095305	980900	8137811
<b>Other Service</b>	1199731	1304076	1629137	1320202	234400	14920129
<b>Consumer Loan</b>	1036980	1122668	1105720	380436	390900	4982961
<b>Other</b>	7394486	8011883	7073213	11151398	8459700	48838210
<b>Total</b>	28255582	30613889	29285522	36335966	36955748	161443707

Source: Annual Report of ADBL

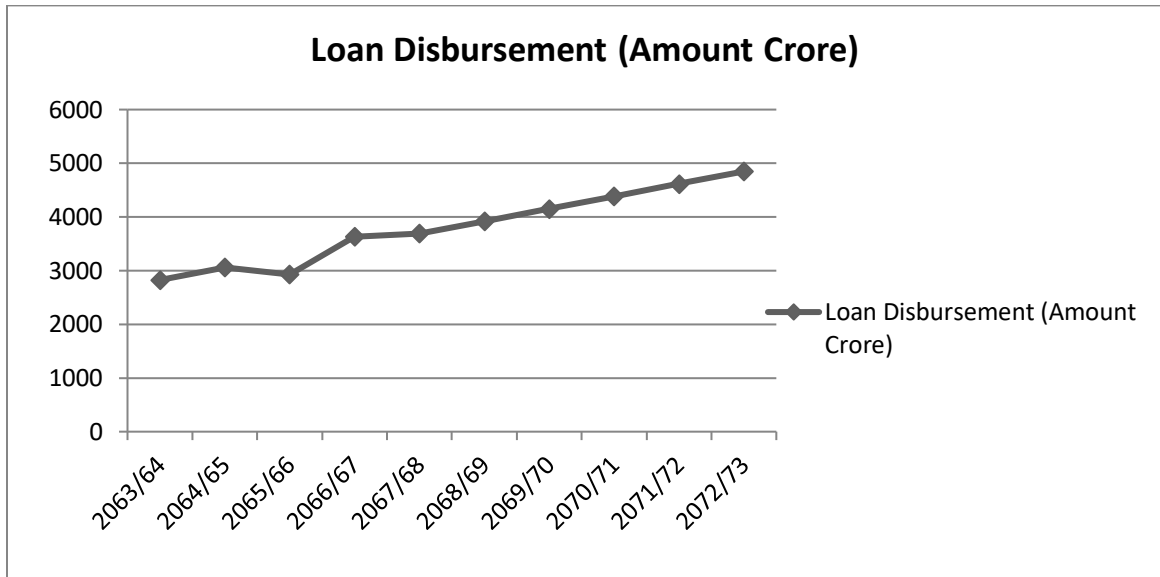
The table no. 4.1 shows the sector and amount of loan disbursed every year from 2063/064 to 2067/068. The total amount of loan disbursement has been divided into thirteen categories. Such types of loan are being introduced to attract customers of different occupation and interest and also conclude from above disbursement table (table No. 4.1) that the contribution of the mine sector has a little less than other sector.

The trend of loan disbursement in most of loan category is fluctuating. Some other category has increasing trend in Loan disbursement. Among these different types of loans the highest amount disbursed every year is wholesale and seller's loan. The above table shows that there is a remarkable different in the amount of loan given as wholesale and seller's loan. It covers around 33% of the total loan given by the bank in considerable period. The bank provides least amount of loan in mine and transportation instrument production and installation sector. In this category the trend of loan disbursement is highly fluctuated. This shows that the bank cannot attract such type of customers.

#### **4.2.2 Trend Analysis of Loan Disbursement**

The trend forecast of the total amount of disbursed every year has been made by using trend analysis technique. The following trend line shows the projection of the total amount disbursed of ADBL up to 2071/72. The calculation of trend forecast has been presented has been presented in appendix-1

**Figure 4.1**  
**Trend of Loan Disbursement**



Source: Appendix-I

The figure 4.1 shows the trend analysis of loan disbursement of ADBL 2063\64 to 2072\73. The loan disbursement of the bank is in increasing trend if other things remain constant. According to the trend forecast. The loan disbursement in the fiscal year 2068\69 will be Rs. 3922.54641core. In 2069/70 it will be Rs. 4153.7705 crore, in 2070/71 it will be Rs.4384.99485crore, in 2071\72 it will be Rs. 4616.21894 and in FY 2072/73 it will be Rs. 4847.44303 crore.

#### **4.2.3 Ratio Analysis of Cash and Bank Balance to Total Deposit.**

Analysis of organization through all major four types of ratios provides view about the overall performance of the organization. Here all ratios are not shown. It is not possible also. Hence only related ratio is giving more places here to calculate the financial ration of total deposit.

**Table 4.2**  
**Cash and Bank Balance to Total Deposit**

Fiscal Year	Amount in '000'		Ratio
	Cash & Bank Balance	Total Deposit	
2063/64	3035000	27223000	11.14%
2064/65	4768900	29631800	16.09%
2065/66	3689400	32416400	11.38%
2066/67	4017140	32553800	12.34%
2067/68	2910800	26107000	11.15%
Mean			12.42%
S.D.(σ)			1.89%
C.V.			15.22%

Source: Annual Report of ADBL

$$\sigma = \frac{\sqrt{\sum (X - \bar{X})^2}}{n}$$

$$CV = \frac{\sigma}{\bar{X}}$$

$$\text{Mean } (\bar{X}) = \frac{\sum X}{n}$$

According to table no. 4.2 cash and bank balance to total deposit ratios of ADBL haven't been highly fluctuated. But, here in FY 065\66 & 067/68 cash and bank balance of ADBL is a little fluctuated because all year ratios of cash and bank balance to total deposit are near to average ratio. The cash and bank balance of the bank is high. This seems that the bank can make payment easily to the depositor as per their demand. The cash and bank balance of the bank is higher than NRB directives so we can conclude that easily. The mean, standard derivation and coefficient of variation of the ratio are only 12.42%, 1.89% and 15.22% respectively from consistency stand point; ADBL has 84.78% consistency in this ratio. Hence cash and bank balance to total deposit ratio of ADBL is satisfactory.

#### 4.2.4 Analysis of Loan Disbursement Target and Achievement

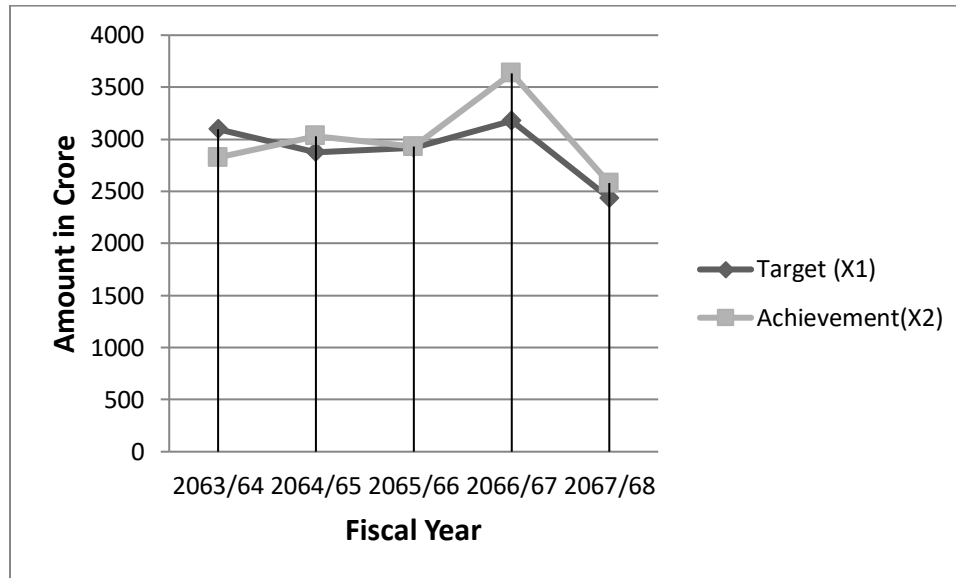
The bank has its own system to disburse loan to different sector. It has followed the budgetary system of operation. There is a planning and project department, which formulates the plan and fixes the target of disbursement from each fiscal year. Here we will show the target and achievement of loan disbursement of the ADBL. The bank has fixed the loan disbursement target at the beginning of the fiscal year and it evaluates the achievement of the ADBL is presented in the following table and diagram.

**Table 4.3**  
**Loan Disbursement Target and Achievement**

Fiscal year	Amount in '000'		Variation Amount	Variation Percentage
	Target(X <sub>1</sub> )	Achievement(X <sub>2</sub> )		
2063/64	30965238	28255582	(2709656)	-9.42
2064/65	28770450	30313889	1843439	6.41
2065/66	29192034	29285522	93488	3.20
2066/67	31770120	36332866	4565846	14.37
2067/68	24362572	25783569	1420997	5.83

Source: Annual Report of ADBL

**Figure 4.2**  
**Loan Disbursement Target and Achievement**



Source: Table no. 4.3

Table no 4.3 and figure no shows that, the loan disbursement target and achievement of year 2062/63 to 2066/67. The table and figure shows that a loan disbursement target was not meet in fiscal year 2063/64 to 2067/68. The table and achievement of loan disbursement in other fiscal year is above then the target during the study period. The variation percentage of 2063/64 is negative and other fiscal year variations are positive. The deviations of loan disbursement are -9.42%, 6.41%, 3.20%, 14.37%and 5.83% to targeted loan disbursement during the study period respectively. From that projected amounts for loan disbursement is a little good as compare with achievement. To test signification variation of targeted and actual loan disbursement, t-test can be used the calculation of all figure has been drawn from appendix-2.

Here, Amount in Crore

$$\bar{X}_1=2901.2082$$

$$\bar{X}_2=3005.4904$$

$$S^2=118710.3876$$

$$n_1=5$$

$n_2=5$

Now,

Null Hypothesis ( $H_0$ ): There is no significance difference between the ratio of targeted and loan disbursement.

Alternative Hypothesis ( $H_1$ ): There is significance difference between the mean ratio of targeted and actual loan disbursement.

Test Statistics, Under  $H_0$

$$\begin{aligned} |t| &= \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{S^2 \left( \frac{1}{n_1} + \frac{1}{n_2} \right)}} \\ &= \frac{2901.2082 - 3005.4904}{\sqrt{118710.3876 \left( \frac{1}{5} + \frac{1}{5} \right)}} \\ &= \frac{104.2822}{217.9086} = 0.478 \end{aligned}$$

Level of significance = 5 % (Most commonly used)

The tabulated value of 't' for degree of freedom at 5% level of significant is 2.306 which is greater than calculation value of 't' i.e. 0.478. So, null hypothesis is accepted. That means there is no significant difference between the targeted and actual loan disbursement. So according to t- test the ADBL's targeted and actual loan disbursement is not significance difference.

Above analysis concluded that, there is a good planning and projection in ADBL to disburse a loan. They can formulate the real plan of loan disbursement. They are doing well so the bank has a good performance in disbursing loan

#### **4.2.5 Analyze the Relation between Deposit Collection and Loan Disbursement**

Bank or financial institution not only collect deposit but also disburse the loan. Without disbursing as loan investment the bank can earn anything. From that we can say deposit collection is the main source of loan disbursement. But sometimes loan disbursement is greater than deposit collection because of collection of previous year's due or interest collection. So, the bank are

intermediaries where deposit collection from client and provide loan and advances to client. So there are some relation between deposit collection and loan disbursement.

#### **4.2.5.1 Comparison between Loan Disbursement and Deposit Collection**

To evaluate the landing performance of banks, it is important to know how much amount is being disbursed out of total deposit. Disbursement of loan is made out of the deposit collected. So loan disbursement is related with deposit collection. The amount of loan disbursement should be according to the amount of deposit collection. In practice, sometimes loan disbursement is higher than deposit collection because of collection of loan and collection of due amount of previous year. In the following table it has been tried to show the comparative study between loan disbursement and deposit collection of ADBL.

**Table 4.4**  
**Comparative Study of Loan Disbursement and Deposit Collection**  
**Amount in Rs. '000'**

Fiscal Year	Amount of Deposit	% Change Deposit Collection.	Amount of loan Disbursement	% Change in loan Distribution
2063/064	26107000	-	25783569	-
2064/65	27223000	4.27	28255582	9.59
2065/66	29631800	8.85	30613889	8.35
2066/67	32416400	9.40	29285522	-4.34
2067/68	32553800	4.24	36335966	24.07

Source: Annual Report of ADBL

In table no 4.4, the change in amount of deposit collection and loan disbursement of ADBL are shown during the study period of 2063/64 to 2067/68. The amount of deposit collection is in increasing trend up to 2065/66 but in year 2066/67 but in year 2067/68 it is decreasing and also the amount of loan

disbursement is in decreasing trend up to fiscal year 2065/66 & 2067/68. But 2066/67 it is in increasing trend. From table the researcher can conclude that the amount of deposit collection and loan disbursement are not in same way because the deposit collection is in increasing trend but loan disbursement is not same we can also see the amount of loan disbursement is more than deposit collection because of the bank also collect the amount from other source.

#### 4.2.5.2 Coefficient of Correlation between Loan and Disbursed and Deposit Collection

These tools, coefficient of correlation measure the degree of relationship between these two variables, loan disbursement and deposit collections. In this analysis, deposit is independent variable 'X' and loan is dependent variable 'Y'. the main reason of finding out the coefficient of correlation between these two variables is to justify whether deposit collected is significantly used as loan disbursed or not. The table below shows the value 'Y' and 'r<sup>2</sup>', probable Error (P.E.) and 6PE between deposit and loan of ADBL for the period studied.

**Table No. 4.5**  
**Coefficient of Correlation between Deposit Collected and Loan Disbursed of ADBL**

Coefficient of correlation	Coefficient of Determination (r <sup>2</sup> )	Probability Error (P.E.)	Test=6PE
0.7707	0.5940	0.1225	0.735

Source: Appendix-7

Table 4.5 shows that the coefficient of correlation between deposit collection and loan disbursement, the correlation coefficient is 0.7707 which shows the positive relationship between these two variables. It also shows that there is utilization of deposit collection in loan disbursement by the bank. The coefficient of determination is 0.5940 which depicts that 59.40% of the dependent variable i.e. loan disbursement has been influenced by the independent variable i.e. deposit collection.

Loan disbursement and deposit collection are positively correlated which shows that an increase in total deposit leads to increase in loan disbursed. During the period from 2063/64 to 2067/68, the trend of percentage increase in deposit collection to the percentage increase in loan disbursement is fluctuating. Normally, a higher coefficient of correlation between deposit collection and loan disbursement is a good sign until the deposit follows an increasing trend. But once the deposit suffers, loan and advance will also be adversely affected. ADBL is not failed in mobilizing its deposit collection.

Probability Error (P.E.) is calculated to be 0.1225 and 6PE is 0.732. The value of correlation coefficient  $\rho$  is more than 6PE which reveals that there is significant relation between total deposit collected and loan disbursed.

### **4.3 Recovery Management of Disbursed Loan**

The success of a bank doesn't depend only on the extension of more amount of credit. The recovery of extended credit is equally important. In fact, timely recovery of loan is the crucial things of the lending function of a bank. Hence, quality of credit is more vital than exploiting new opportunities sound recovery of disbursed loan enhances financial institutions to release more of which ensures day to day. Operation and long run survival of such institution to fulfill stated objectives to analyze the recovery management of ADBL, which have been studied as below:

### 4.3.1 Statement of Loan Collected by ADBL

**Table No. 4.6**  
**Amount of Loan Collected by Bank**

Amount in Rs '000'

Fiscal year	Amount of loan Collected	Increase/Decrease in Amount	Increase/Decrease in percentage
2063/64	25134271	-	-
2064/65	26289732	1155461	4.60
2065/66	28612235	2322503	8.83
2066/67	28155899	(456336)	-1.59
2067/68	34171617	6015718	21.36

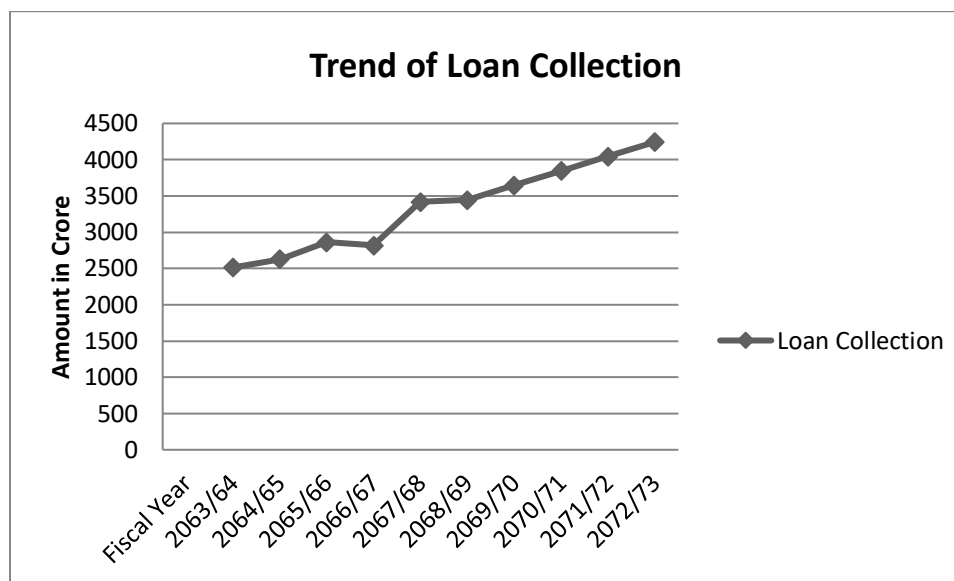
Source: Annual Report of ADBL

From table no 4.6 the amount of loan collected in every year from 2063\64 to 2067/2068 are shown and also the collection of loan is slightly fluctuated in every year other than year 2066/67 the amount increase in year 2067/68 is Rs 6015718 thousand. In year 2066/67 the amount decreases by Rs. 456343 thousand. The trend of loan recovery is in fluctuating rate. In percentage the amount of loan recovery has increase and decrease by 4.60%, 8.83%,-1.59% and 21.36% respectively during the study period of 2063/64 to 2067/68.

### 4.3.2 Trend Analysis of Loan Collection

The trend of total collected loan in coming year is analyzed using the trend analysis. The following trend line shows the projection of total loan collected of ADBL up to coming five year. The projection of loan collection amount depends upon the previous year's movement of collection amount. The calculation of trend forecast has been presented in appendix-iii

**Figure No.4.3**



Source: Appendix-3

Figure no 4.3 shows the trend analysis of loan collection of ADBL, during the study period and forecasting period (2063/64 to 2072/73). The figure shows that the loan collected by this bank is in increasing trend rather than fiscal year 2066/67; in this year the loan collected by this bank is in slightly decreasing trend. According to the trend forecast, then loan collection trend upcoming five year are scheduled in the trend line above. The loan collection amount will be Rs. 3445.5009 crore, 3644.9095 crore, 3844.3188 crore, 4043.7267 crore and 4243.1353 crore respectively for 2068/69, 2069/70, 2070/71, 2071/72 and 2072/73 according to the trend forecast

### **4.3.3 Analysis of Loan collection Target and Achievement**

ADBL has its own system to collect loan from different sector. It has followed the budgetary system of operation. There is a planning and project department, which formulates the plan and fixes the target of loan collection for every fiscal year. Here, the researcher will evaluate the target and achievement of loan collection by bank loan collection target and achievement of loan collection by bank can be presented in below by using table and bar diagram.

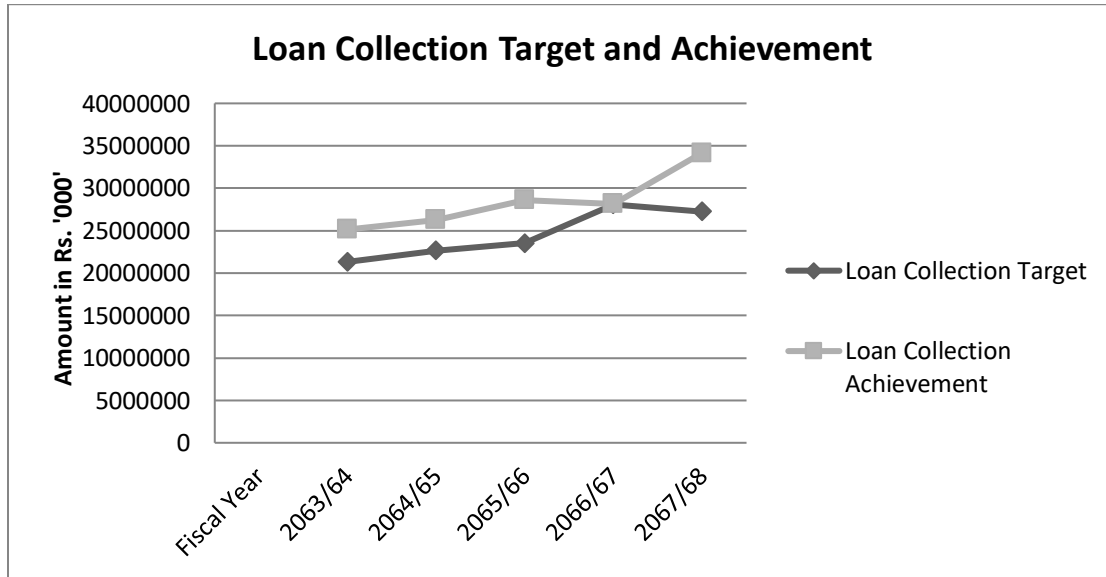
**Table 4.7**  
**Loan Collection Target and Achievement**

Amount in Rs. '000'

Fiscal Year	Loan Collection		Variation Amount	Variation Percentage
	Target	Achievement		
2063/64	21321450	25134271	3812821	17.88
2064/65	22662639	26289732	3627093	16.00
2065/66	23519943	28612235	5092292	21.65
2066/67	28083233	28155899	3347576	13.49
2067/68	27241412	34171617	6930205	25.44

Source: Annual report of ADBL

**Figure No. 4.4**



Source: Table 4.7

Table 4.7 and figure 4.4 shows that both actual and targeted loan collections of loan are in every year during study period. According to above table loan collection of disburse loan is in increasing and decreasing ratio in fiscal year 2065/66 and 2066/67, increasing ratio of collection is higher than other fiscal year Achievement of loan collection in all year is above than the target during the

study period. The variation percentage of every fiscal year is positive. The deviation of loan disbursement is 17.88%, 16.00%, 21.65%, 13.49% and 25.44% to target loan collection during the study period 2063/64 to 2067/68 respectively. The variation between actual and targeted increase in 3<sup>rd</sup> and 5<sup>th</sup> year and variation in actual loan collection to targeted loan collection a statistical technique (t-Test) can be used as below. The calculation of all figures has drawn from appendix-4

Null Hypothesis (H<sub>0</sub>): There is significant different between the mean ration of targeted and actual loan collection.

Alternative Hypothesis (H<sub>1</sub>): There is significant different between the mean ration of targeted and actual loan collection.

Test of Statistics,

$$\begin{aligned}
 |t| &= \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{S^2 \left( \frac{1}{N_1} + \frac{1}{N_2} \right)}} \\
 &= \frac{2391.0753 - 2847.2751}{\sqrt{86027.3470 \left( \frac{1}{5} + \frac{1}{5} \right)}} \\
 &= \frac{456.1998}{\sqrt{34410.9388}} \\
 &= \frac{456.1998}{185.5018} \\
 &= 2.46
 \end{aligned}$$

Hence, the tabulated value of |t| for 8 degree of freedom at 5% level of significant is 2.306, which is less than the calculated value of |t| i.e. 2.46. So, Null hypothesis is rejected these means alternative hypothesis is accepted. That means there is significant difference between the targeted and actual loan collection. In other words, the ADBL's targeted and actual loan collections significantly different.

Above analysis concluded that, there is no good planning and projection in ADBL. This cannot formulate the real plan of loan collection. They are not doing well. So that the bank should do more exercise in this department to do a well forecast.

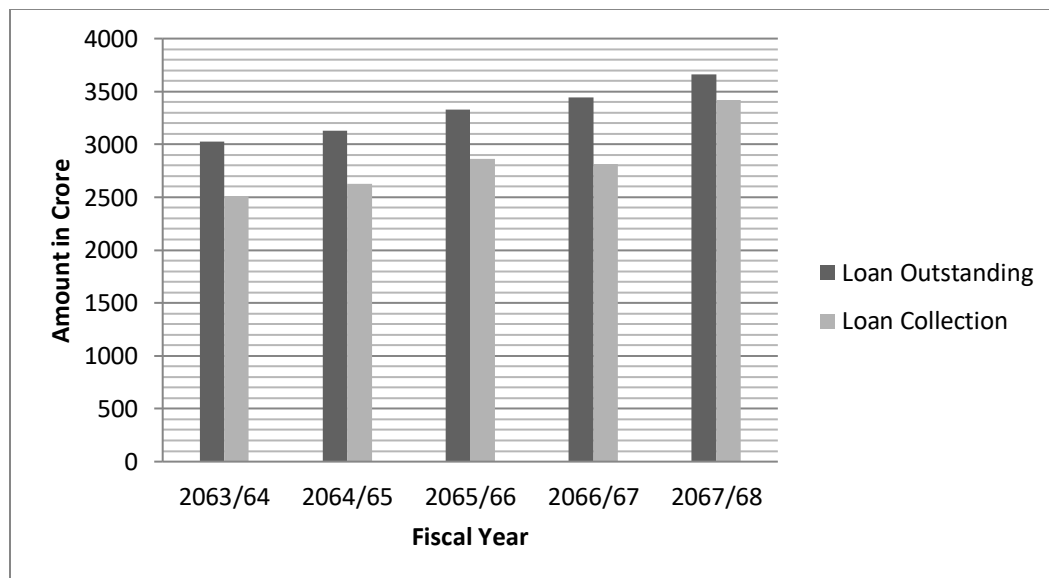
#### 4.3.4 Compare of Loan outstanding with Loan Collection

**Table 4.8**  
**Loan Outstanding Loan Collection**

Fiscal Year	Loan Outstanding	Inc./Dec.%	Loan Collection	Inc./Dec.%
2063/64	30245021	-	25134271	-
2064/65	31309024	3.52	26289732	4.60
2065/66	33310720	6.39	28612235	8.83
2066/67	34440396	3.39	28155899	-1.59
2067/68	36604718	6.28	34171617	21.36

Source: Annual Report of ADBL

**Figure 4.5**  
**Loan Outstanding and Collection**



Source: Table no 4.8

Figure no 4.5 and table no 4.8 shows that the loan outstanding amount and collection amount during the study period 2063/64 and 2067/68. The amount of loan outstanding increasing in every year but in fluctuation trend, but amount of loan collection is in increasing or decreasing trend in fiscal year 2066/67 it is in decreasing trend. It is decrease by 1.59% than fiscal year 2065/66. The amount of loan outstanding increasing with recovery amount. It is because loan disbursement amount increasing every year.

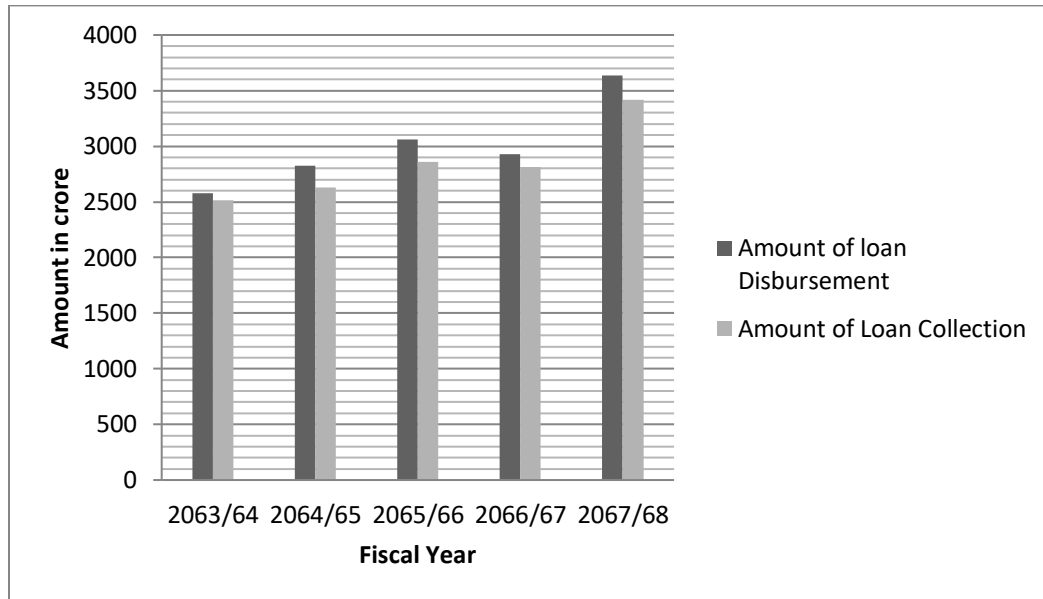
#### **4.4 Study of Relationship between Loan Disbursement and Recovery/Collection**

Loan collection is related with loan disbursement. The amount of loan recovery should be according to the amount of loan disbursed. To run and earn smoothly, any financial institution should be recover a disbursed loan in time. Bank, first of all disburses the Loan then after recover it. Without disburse the loan, there would not be loan collection amount. So, the loan amount to be collect is increasing with loan disbursement amount generally which express that there is certain relationship between loan disbursement and loan collection. In the following, it has been tried to study the loan disbursement and collection of ADBL comparatively.

##### **4.4.1 Loan Collection and Disbursement**

To study the relationship and recover performance of banks it is important to know how much amount of loan recovers out of the total loan disbursed. Loan collections to loan disbursement of ADBL show the relationship and recover performance which is presented as below in the figure.

**Figure 4.6**  
**Loan Disbursement and Collection**



Source: Table 4.9

The figure no 4.6 display the amount of loan collection in comparison to the amount of loan disbursement. The amount of loan collection are Rs. 2513.4271 crore, 2628.9732 crore, 2861.2235 crore and 3417.1617 crore likewise the amount of loan disbursement are Rs. 2578.3569 crore, 2825.5582 crore, 3061.3889 crore, 2928.5522 crore and 3633.5966. The amount of loan disbursement is fluctuating sometimes in increasing trend and sometime in decreasing trend because of the deposit collection. Loan collection is also in same trend like loan disbursement, increasing or decreasing trend because of increasing or decreasing trend of loan disbursement. From figure we can see the distance of loan disbursement is always a little greater than loan collection. So it is a good condition that the figure emphasis the good relation between loan disbursement and loan collection of ADBL during the study period.

#### 4.4.2 Comparative study of Loan Disbursement and Collection of ADBL

Loan collection is related with loan disbursement. The amount of loan recovery should be according to the amount of loan disbursed. In the following table it has been tried to study the loan disbursement and loan collection by ADBL comparatively during the study period.

**Table 4.9**  
**Comparative study of Loan Disbursement and loan collection**

Amount in Rs. '000'

Fiscal Year	Amount of loan Disbursement	% change in Loan	Amount of Loan Collection	% change in Loan Collection
2063/64	25783569	-	25134271	-
2064/65	28255582	9.59	26289732	4.60
2065/66	30613889	8.35	28612235	8.83
2066/67	29285522	-4.34	28155899	-1.59
2067/68	36335966	24.07	34171617	21.36

Source: Annual Report of ADBL

Table 4.9, shows the comparison between the loan disbursement and collection of ADBL. It has been revealed that the loan in each other from 2063/64 to 2067/68 has been recovered proportionately as per the loan disbursed. In 2064/65 the loan disbursement has been increased by 9.59% then after increased only 8.35% in 2065/66 but in year 2066/67 it is decrease by -4.34% and at last fiscal year 2067/68 it is increase by 24.07% it is higher than other fiscal year which shows that the percentage increasing or decreasing in loan disbursement in fluctuating trend. Similarly, the percentage increase in loan collection in year 2064/65 by 4.60% than after increased by 8.83% in year 2063/64. But in year 2066/67 it is decreased by -1.59% and at last fiscal year 2067/68 it is increase by 21.36% it is also higher than other fiscal year. Table

shows that the loan disbursement and collection in 2067/68 are fluctuating higher than other fiscal year.

#### 4.4.3 Coefficient of Correlation between Loan Disbursement and Loan Collection

In order to find out whether the loan disbursed has been significantly recovered or not, this method of analysis is adopted. The relationship between the variables loan disbursement and loan collection is found out by calculating the coefficient of correlation between these two variables. In this calculation, loan disbursement is independent variable (X) and loan collection is dependent variable (Y). The table shows the relationship between X and Y variables as below.

**Table 4.10**

#### **Coefficient of Correlation between Loan Disbursement and Loan Collection**

Coefficient of Correlation(r)	Coefficient of Determination ( $r^2$ )	Probability Error(P.E)	Test = 6PE
0.9915	0.9831	0.0051	0.0306

Source: Calculation Appendix-5

Table no. 4.10 shows that the coefficient of correlation between loan disbursement and loan collection. The correlation coefficient is 0.9915 which shows the strong positive relationship between these two variables. It also shows that there is well collection of loan disbursed by the bank. The coefficient of determination ( $r^2$ ) is 0.9831 which depicts that 98.80% of the dependent variable i.e. loan collection has been influenced by the independent variable i.e. loan disbursement. Loan disbursement and collection are strongly positive correlated which shows that an increase in total loan disbursement leads to increase in loan collection during the study periods, the trend of percentage increase in loan disbursement to the percentage increase in loan collection is fluctuating but not

highly. A higher coefficient of correlation between loan disbursement and collection is a good sign. ADBL is successful in collecting the loan disbursed.

Probability Error (P.E) is calculated to be 0.0051 and 6PE is 0.0306. The value of 'r' more than 6PE which reveals that there is significant relationship between total loans disbursed and loan collected or recovered.

#### **4.4.4 Regression Analysis between Loan Outstanding on Loan Disbursement and Loan Collection**

The Regression analysis in the general sense the estimation of the unknown value of one variable from the know value of other variables. It is especially used in business and economic to study the relationship between two or more variables that are related causally.

The analysis of the relationship of Loan outstanding on loan disbursement and collection based on the historical data in this section. Here in the analysis the loan outstanding independent variable which is denoted as  $X_1$ ? Loan disbursement and loan collection are independent variables which are denoted as  $X_2$  and  $X_3$  respectively. From where we can find the regression line  $X_1$  and  $X_2$  and  $X_3$  calculation of regression equation line  $X_1$  on  $X_2$  and  $X_3$  from appendix-6.

Which is,

$$X_1 = a + b_1 X_2 + b_2 X_3$$

$$X_1 = 1302.0089 + (-0.4281) X_2 + 1.16 X_3$$

The above regression equation shows the relationship of loan outstanding on loan disbursement and loan collection from where we can find there is not a good relation between loan outstanding with loan disbursement and loan collection. The slope coefficient of -0.4281 of  $X_2$  means that the marginal propensity to loan outstanding decrease by a rupee. On the average loan outstanding will goes down by Rs. 0.4281, like this if the value and loan collection increase by a rupee. On average loan outstanding will goes up by Rs. 1.16, but it is not in practical. In practice the amount of loan outstanding should be decrease

with increasing in loan collection amount. But here the real amount of loan outstanding is increasing every year. Another value of 'a' is 1302.0089 means that the average value of loan outstanding would be Rs 1302.0089 crore, if the loan disbursement and loan collection amount are zero.

**Table 4.11**  
**Loan Disbursement Loan Collection and Loan Outstanding of ADBL**

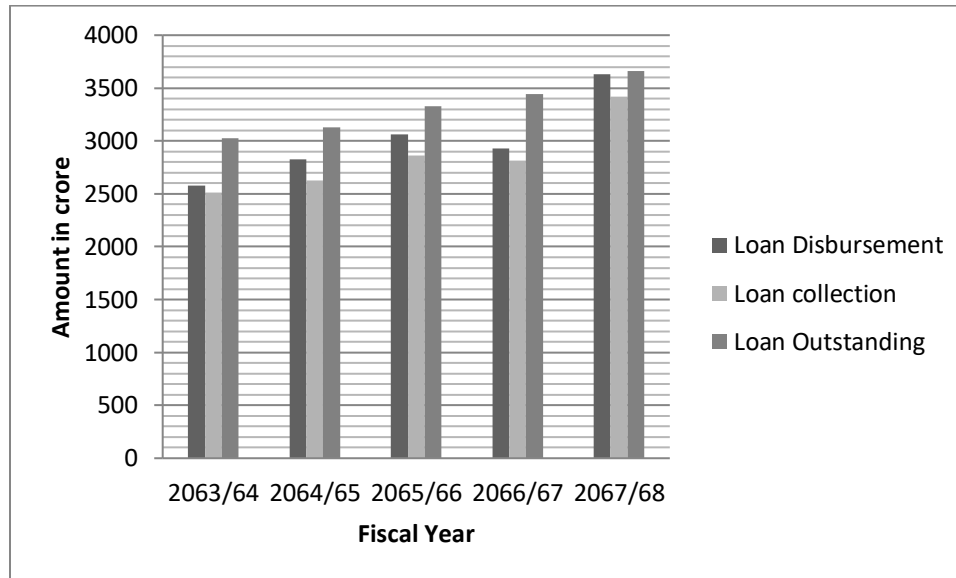
Amount in Rs. '000'

Fiscal Year	Loan Disbursement	Loan collection	Loan Outstanding
2063/64	25783569	25134271	30245021
2064/65	28255582	26289732	31309024
2065/66	30613889	28612235	33310720
2066/67	29285522	28155899	34440396
2067/68	36335966	34171617	36604718

Source: Annual Report of ADBL

Table 4.11 shows the amount of loan disbursement, loan collection and loan outstanding during the study period. The trend of loan disbursement, collection and outstanding are fluctuating in increasing or decreasing. The loan disbursement is sometimes increasing and sometimes in decreasing trend. Loan collection also some trend but loan outstanding is always increasing trend. The loan outstanding amount is increase even the loan collection amount is increasing even the loan collection amount is increase. It is because of the high level of increasing in loan disbursement amount.

**Figure 4.7**  
**Loan Outstanding, Collection and disbursement**



Source: Table 4.11

The figure 4.7 shows the relationship of loan disbursement, loan collection and loan outstanding of ADBL. In figure amount of loan outstanding is always higher than amount of loan disbursement and loan collection. And amount of loan collection is always less than other. In figure all, amount of loan disbursement, collection and outstanding is in increasing trend. Amount of loan collection and loan outstanding is in increasing trend because of amount of loan disbursement is also in increasing trend during the study period.

### 4.5 Major Findings

Most of the activities of the bank are related with Loan management. It plays the major role in profitability of the organization. It is highly complicated task in the bank and financial institution. Loan management requires effective loan disbursement and loan collection. Here we discuss about the major finding of loan management of ADBL during the study period.

- The sector wise loan disbursement of ADBL is divided in to thirteen categories. The uncategorized loan of ADBL is including in other sector.

The highest portion of the loan is disbursed in wholesale and seller sector. In average 33% of the total loan disbursed in this category. The bank provides least amount of loan in mine and transportation instrument production and installation sector.

- The loan disbursement amount can be forecasted through historical data. Here the researcher forecast five year after the study period. The amount of loan disbursement will be Rs. 3669.53261, 3890.87996, 4112.22731, 4333.57466 and 4554.92201 crore in years 2068/69, 2069/70, 2070/71, 2071/72, 2072/73 respectively, if the historical trend is continues.
- From deposit collection the average cash and bank balance of the bank is 12.42% with total deposit. And the standard deviation and coefficient of variation of this ratio during the study period are 1.89% and 15.22% respectively. The deposit collection of bank is in increasing trend but some time it fluctuates highly.
- Achievement of loan disbursement is more than targeted amount in the study period rather than year 2063/64. In 2063/64 achievement is slightly less than targeted amount. The calculated value of t-test is 0.478 and the tabulated value of 5% level of significance with 8 degree of freedom is 2.306. So, there is no significance difference between actual and target loan disbursement according to t-test of ADBL loan disbursement.
- The amount of deposit collection is in increasing trend. In year 2066/67 its increasing rate is higher than other fiscal year, it s increase by 9.40% and the lowest increasing percentage of loan collection is 4.24% in year 2067/68. Likewise, the amount of loan disbursement was increased by 24.07% in year 2067/68. It is the highest percentage. The lowest increasing percentage of loan disbursement is in year 2067/68. It is not in

increasing rate. It is in decreasing rate by 4.34% during the study period of this research.

- Generally, loan disbursement is depended in to deposit collection but not in all time. So the deposit collection is independent variable. The correlation coefficient between these two variables is 0.7707. Like this coefficient of determination, probability error and 6PE are 0.5940, 0.1225 and 0.735 respectively. This shows the positive relationship between these two variables, loan disbursement and deposit collection.
- During the study period, the highest amount of loan collection of ADBL is in 2067/68. And amount of loan collection is also increased in same year 2067/68, where the loan collection amount is increase by 21.36%. The lowest percentage of loan collected in year 2066/67 in the fiscal year it is in negative that means in this year it is in decreasing trend.
- The loan collection amount is forecasted for coming five year after the study period. The amount of loan collection will increase by Rs. 199.4086 crore every year. The projected amounts will Rs 3445.5009, 3644.9095, 3844.3181, 4243.1353 crore in year 2068/69,2069/70,2070/71,2071/72 and 2072/73 respectively.
- Actual amount of loan collection is always higher than targeted loan collection of ADBL during the study period. The calculation value of t-test is 2.46 and the tabulated value at 5% level of significance with 8 degree of freedom is 2.306. Here the calculated value of t-test is higher that tabulated value. So, there is significance difference between actual and target loan collection amount.

- The amount of loan outstanding is increase highest percentage in year. 2063/64 by 6.39%. The amount of loan outstanding of ADBL is Rs 3024.5021, 3130.9024, 3331.0720, 3444.0396and 3660.4718 crore in year 2068/69, 2069/70, 2070/71, 2071/72 and 2072/73 respectively.
- From the comparative study of loan disbursement and collection we can find the change trend in percentage. The loan disbursement is increased by 24.07% and loan collection is increased by 21.36% in fiscal year 2065/66, which are the highest percentage change in their section during the study period. In year 2066/67 loan disbursement and collection is decrease by 4.34% and 1.59%, which are the lowest increasing percentage rate during the study period.
- Loan collection amount is dependent variable because it depends upon loan disbursement. The correlation coefficient between these two variables is 0.9915, which express strong positive relationship between these variable. The coefficient of determination, probability error and 6PE are 0.39831, 0...000051 and 0.030006 respectively.
- In general, loan outstanding depends upon loan disbursement and loan collection amount from analysis of multiple regression analysis we can find that there is not a good relation between loan outstanding with loan disbursement and loan collection. If the amount charges in two variables by Re. 1 the loan outstanding amount will be changed by 0.4281 and 1.16 respectively. The average value of loan outstanding would be Rs. 1302.0089 crore. If the loan disbursement and loan collection amount are zero.

## **CHAPTER- V**

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

The research is about the loan management of ADBL. The objective of the study is to show the sector wise loan disbursement. To examine the loan disbursement, collection and outstanding, to measure the association between deposit collection and loan disbursement, to measure the relationship between loan disbursement and recovery management and to suggest some remedies for improving loan disbursement and collection procedure of ADBL. For the fulfillment of these objectives various articles, books, unpublished dissertations were studied as literate review. Relevant data was presented and analyzed in the fourth chapter. During the study, it was found out that the bank lends to agricultural sector, industries and trade, priority and deprived sector and even to individuals. It was found that the bank has followed the rules and regulation 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.

#### **5.1 Summary**

Commercial bank plays an important role for economic development of the country as they provide capital for the development of industry, trade as well as agriculture by disbursing the saving collects as deposits from public. The primary objectives of such banks are to earn profit by granting loan and advances to people associated with various field. The economic health's of the country depend upon the well management of the bank investment presently. There are thirty two commercial banks are providing banking services. ADBL was established in 2024 BS as Development bank. The bank is converting in to 'A' class commercial bank in 2062. Which is 18<sup>th</sup> commercial bank in Nepal? The

main objectives of the bank is to boost up the economic prosperity of the nation through being reliable and qualitative banking and financial intermediaries in all over the country by providing services in agriculture, industry, business, service etc sector.

The research is about the lending function of ADBL. It covers both loan disbursement and loan collection. 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 in equally important. Therefore, loan management of bank is crucial to the profitability of the bank.

Research methodology describes the methods of process applied in the entire study. This research concerned with secondary data. For the purpose of achieving the objective the following research methodology has been purposed. This include research design, population and sample source of data, data collection technique and data analysis tools. All of commercial banks. Development banks and development institutions such as co-operative. NGOs I.e. micro finance institutions are considered a population and here only ADBL is taken as a sample for research purpose. Research design is an integrated system that guides the researcher in formulating, implementing and controlling the study, to fulfill the objective of this study, the case of non and delayed repayment of loan in ADBL has to be analyzed for that the descriptive type of research design is adopted. This process of analysis is adopted to see the trend situation of loan disbursement and collection of ADBL from the year 2063/64 to 2067/68 secondary data are collected from published documents like books, articles, magazines collected from central library and NCC library. For the source personnel observation and interviews methods are used after the collection of data, data analysis is performed in this study correlation regression, trend analysis, hypothesis is being used under statistical analysis. Besides this proper

tabular formats and diagrams are interpreted and explained wherever necessary the bank disbursed the highest portion of loan in wholesale and sector. In average around 33% of the total loan disbursement is disbursed in this sector. In some fiscal year. ADBL has disbursed hundred percentage amount of deposit collection to loan and sometimes it is higher than deposit collection because of their good collection policy and bank's higher capital. The amount of total loan disbursement and deposit collection is increasing trend during the study period. But the trends of these amounts are fluctuating from the analysis of target and actual loan disbursement we can find the ratio of target amount is less than actual amount of loan disbursed. But there is significance difference between target and actual loan disbursement.

The condition of loan collection of ADBL is good. In the case of loan collection the targeted amount is always less than actual amount of loan collection. So it is good for the bank. From t-test. We concludes that the, there is significance difference between target and actual loan collection. The loan collection amount is increasing proportionately with increasing in loan disbursement amount. The amount of loan outstanding of a bank is also increasing trend, it is always increase but the trend of these amount are fluctuating. The relationship between loan disbursement and loan collection is positive. So, there is significant relationship between them. We can also say that the bank recovered that the amount of loan easily.

## **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 needed 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 certainty it will cope its set objectives successfully. This study is just a small part of fulfill the partial requirement of MBS. But which can help to improved and requires attention to bring some improvement in loan management of ADBL. From above study the following conclusion which are derived from major finding are given:

- From the study the highest portion of sector wise loan disbursement is in wholesale and seller sector. And the lowest portion of disbursement is in mine and transportation instrument production and installation sector. The percentage change in all loan disbursement are fluctuating either increasing or decreasing trend.
- The amount of cash and bank balance of ADBL is in increasing trend but the ratios with respect to total deposit are fluctuating. There is 84.78% consistency on this ratio. It has also 12.42% and 1.89% of mean standard deviation respectively.
- The amount of loan disbursement is not in same trend. Sometimes it is increased and sometime decreased. From trend analysis we can concludes that the loan disbursement amount will be increased by Rs 221.34735 crore every year. If all things remain constant, loan disbursement would be Rs 4554.92201 crore in coming fifth years.
- Generally, the bank gains achievement than their target in some fiscal year not in all. Both the ratio of amount is not in same trend. Out of one fiscal year 2064/65, the targeted amounts are always less than actual achievement. By using hypothesis t-test we can find the calculated value of 't' is less than tabulated value of 't' at 5% level of significant with 8 degrees of freedom. Hence there is no significant difference between actual and target loan disbursement.

- The amount of loan collection is also same trend, sometimes increasing and sometimes decreasing. In year 2066/67 it is decrease by 1.59% and after these years it is highly increase by 21.36%. It shows the loan collection is highly fluctuating.
- The amounts of all year target loan collection are less than actual loan collection. Both amounts are not in same trend. To find the significant difference between them, we use t-test. The calculate value of 't' is higher than tabulated value of 't'. Hence there is significance difference between target and actual loan collection.
- The amount of deposit collection is in increasing trend in every year but amount of loan disbursement is in increasing or decreasing trend. With comparing loan disbursement with deposit collection by using coefficient of correlation it reveals that there is significance relationship between them. The coefficient of correlation between deposit collection and loan disbursement is 0.7707.
- The loan outstanding amounts are increasing with increasing in loan collection amount. Which is not seem in realistic. The loan outstanding amount should be reduced with increasing in loan collection amount. Loan disbursement amount is in increasing ratio. So, the loan outstanding amount is also increasing with loan collection amount of ADBL.
- The coefficient of correlation between loan disbursement and loan collection is strongly positive. The coefficient of determination 0.9831 shows that 98.80% of loan collection amount depends on loan disbursement. The coefficient of correlation is greater than 6PE hence there is significant relationship between them.

- Generally, loan outstanding depends upon loan disbursement and loan collection amount. But in analysis loan outstanding is in increasing trend and loan disbursement and collection is also increasing trend not in all time. Sometimes it is in decreasing trend. Which shows the there is not good relationship between loan outstanding, Disbursement and collection. If one rupee changes in loan disbursement and collection, the loan outstanding amount would changes by Rs. 0.4281 and 1.16 respectively. If in average the value of loan outstanding would be Rs. 1302.008 crore, the amount of loan disbursement and loan collection amount are nil.

### **5.3 Recommendations**

The followings are the recommendation for ADBL based on the study carried out.

- The study has revealed the performance of ADBL in loan disbursement and collection is good. But the fact that the increasing in deposit collection. The loan disbursement and loan collection are in highly fluctuating trend not be overlooked. So the bank recommended to identifying the reason behind their fluctuating pattern and working for ensuring that deposit and loan follow a smooth and regular increment.
- The ADBL has high amount of cash and bank balance. The bank can easily meet the clients as per their demand. But the high amount of cash and bank balance could not be beneficial for the bank. So the bank should keep the optimum level of cash and bank balance.
- The loan disbursement trend is in increasing trend but not in same. Sometimes it is in decreasing trend so the bank should maintain the increasing trend. The bank should rapidly grow in loan disbursement amount.

- The amount of loan disbursement target is always less than actual achievement rather than no fiscal year which seems that the organization cannot make effective target. So the bank should do more exercise for effective and real target.
- The trend of loan collection is in increasing trend which is good for the organization, but the collection trend should increase with loan disbursement.
- The target of loan amount is always less than actual achievement rather than one fiscal year during the study period. The bank should make well target for loan collection. Effective target made3 effective implementation.
- The correlation coefficient between loan disbursement and deposit collection is positive. Which is green signal for the organization? The bank should try to increase the relationship for better improvement.
- The relationship between loan disbursement and loan collection are strongly positive correlated. That is better for profitability of the organization.
- The loan outstanding amount is in increasing trend. But it is not same loan disbursement and loan collection. In general, loan outstanding amount is increase with loan disbursement and loan collection is better. So, the bank should do practice to maintain same trend of increasing. And the bank should make effective policy to collect and disburse the loan.
- To achieve all the objectives of ADBL the efficient loan management is essential. The management of loan in ADBL is not only necessary but also compulsory, for better performance of the organization. If ADBL initiates

steps to the appropriate management of loan. Certainly it will attain its set objectives successfully.

- Most of the people of our country live in rural area. They are not benefited from the banking service. Generally, our assumption is that, ADBL's is one of the banks, which give service to the rural area's people. But in practice it is not shown. So the bank should create a desirable level of network so that the people of all sector and areas are provided with the banking services. There are thirty six commercial banks in our country. All of the other commercial banks are already introduced with modern technology working system. But the bank only starts computerize system. To be the competitive bank, the bank should start E-Banking ,card system, ATM card service, any bank transaction service etc. in this time fast and well service of the bank attracts more customers,. So the bank should adopt new technology and service to be a successful bank in the nation.

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# APPENDICES

## Appendix-I

### Trend of the Loan Disbursement

Amount in

Million

Fiscal Year	Year(X)	Loan Disbursed (Y)	XY	X <sup>2</sup>
2063/64	-2	2578.3569	-5156.7138	4
2064/65	-1	2825.5582	-2825.5582	1
2065/66	0	3061.3889	0	0
2066/67	1	2928.5522	2928.5522	1
2067/68	2	3633.5966	7267.1932	4
Sum	0	15027.4528	2213.4734	10

Here, actual trend equation of the linear trend is  $Y=a+bX$

The normal equations are:

$$\sum Y = na + b \sum X$$

$$\sum XY = a \sum X + b \sum X^2$$

Now, putting the value of normal equations from the above table

$$15027.4528 = 5a + b0$$

$$2213.4734 = a0 + 10b$$

Then,

$$a = \frac{15027.4528}{5} = 3005.49056 \quad \text{and} \quad b = \frac{2213.4735}{10} = 221.4735$$

Thus the required trend is

$$Y = 3005.49056 + 221.34735X$$

Forecasting the total disbursement for the upcoming five years.

Amount in crore

$$2068/069 = 3005.49056 + 221.34735 * 3 = 3669.53291$$

$$2069/070 = 3005.49056 + 221.34735 * 4 = 3890.87996$$

$$2070/071 = 3005.49056 + 221.34735 * 5 = 4112.87996$$

$$2071/072 = 3005.49056 + 221.34735 * 6 = 4333.57466$$

$$2072/073 = 3005.49056 + 221.34735 * 7 = 4554.92201$$

**Appendix-ii**  
**Targeted and Actual Loan Disbursement**

Amount in

crore

Fiscal Year	Loan Disbursement		$(X_1 - \bar{X}_1)^2$	$(X_2 - \bar{X}_2)^2$
	Target( $X_1$ )	Achievement( $X_2$ )		
2063/6 4	2436.2572	2578.3569	216179.432 4	182443.026 8
2064/6 5	3096.5238	2825.5582	38148.1836	32375.5966
2065/6 6	2877.0450	3061.3881	583.8602	3124.5529
2066/6 7	2919.2034	2928.5522	323.8272	5919.4866
2067/6 8	3177.0120	3633.5966	76067.7361	394517.398 5
Sum	14506.041 4	15027.4528	331303.039 5	618380.061 4

Here,

$$\bar{X}_1 = \frac{\sum X_1}{n} = \frac{14506.0414}{5} = 2901.2082$$

$$\bar{X}_2 = \frac{\sum X_2}{n} = \frac{15027.4528}{5} = 3005.4904$$

$$\sum (X_1 - \bar{X}_1) = 331303.0395$$

$$\sum (X_2 - \bar{X}_2) = 618380.0614$$

$$S^2 = \frac{1}{n_1 + n_2} [\sum (X_1 - \bar{X}_1)^2 + (X_2 - \bar{X}_2)^2]$$

$$= \frac{1}{5+5-2} [331303.0395+618380.0614]$$

$$= \frac{1}{8} \times 949683.1009$$

$$= 118710.3876$$

### Appendix-iii

#### Trend Analysis of Loan Collection

Amount in Crore

Fiscal Year	Year (X)	Loan Collection (Y)	XY	X <sup>2</sup>
2063/64	-2	2513.4271	-5026.8542	4
2064/65	-1	2628.9732	-2628.9732	1
2065/66	0	2861.2235	0	0
2066/67	1	2815.5899	2815.5899	1
2067/68	2	3417.1617	6834.3234	4
Sum	0	14236.3754	1994.0859	10

We know that,

The actual trend equation of the linear trend is  $y = a + bX$

The two normal equations are:

$$\sum Y = na + b\sum X$$

$$\sum XY = a\sum X + b\sum X^2$$

Putting the value of normal equation from the above table

$$\sum Y = na + b\sum X$$

$$\text{Or, } 14236.3754 = 5a + 0$$

$$a = \frac{14236.3754}{5} = 2854.2751$$

And,

$$\sum XY = a\sum X + b\sum X^2$$

$$1994.0859 = 0 + 10b$$

$$b = \frac{1994.0855}{10} = 199.4086$$

Thus, the required trend is  $y = 2847.2751 + 199.4086$

Forecasting the loan collections for the upcoming five year.

$$2068/69 = 2847.2751 + 199.4086 \times 3 = 3445.5009$$

$$2069/70 = 2847.2751 + 199.4086 \times 4 = 3644.9095$$

$$2070/71 = 2847.2751 + 199.4086 \times 5 = 3844.3181$$

$$2071/72 = 2847.2751 + 199.4086 \times 6 = 4043.7267$$

$$2072/73 = 2847.2751 + 199.4086 \times 7 = 4243.1353$$

## Appendix – IV

### Targeted and Actual Loan Collection

Amount in

Crore

Fiscal year	Loan Collection		$(X_1 - \bar{X}_1)^2$	$(X_2 - \bar{X}_2)^2$
	Target( $X_1$ )	Achievement $X_2$		
2062/63	2132.1450	2513.4271	67044.90	111454.4811
2063/64	2266.2639	2628.9732	15577.8856	47655.7195
2064/65	2351.9943	2861.2235	1527.3246	194.5579
2065/66	2480.8323	2815.5899	8056.3190	1003.9519
2066/67	2724.1412	3417.1617	110932.8937	324770.7369
Sum	11955.3767	14236.3754	203139.3229	485079.4533

Here:

$$\bar{X}_1 = \frac{\sum X_1}{n} = \frac{11955.377}{5} = 2391.0753$$

$$\bar{X}_2 = \frac{\sum X_2}{n} = \frac{14236.3754}{5} = 2847.2751$$

$$\sum (X_1 - \bar{X}_1)^2 = 203139.3229$$

$$\sum (X_2 - \bar{X}_2)^2 = 485079.4533$$

$$\begin{aligned}
 S^2 &= \frac{1}{n_1 + n_2 - 2} [\sum (X_1 - \bar{X}_1)^2 + \sum (X_2 - \bar{X}_2)^2] \\
 &= \frac{1}{(5+5-2)} [203139.3229 + 485079.4533] \\
 &= 86027.3470
 \end{aligned}$$

## Appendix-v

### Coefficient of correlation between Loan disbursement and Loan Collection

Amount

in crore

Fiscal year	Loan disbursed (X)	Loan Collection(Y)	X <sup>2</sup>	Y <sup>2</sup>	XY
2062/63	2578.3569	2513.4271	6647924.304	6317315.787	6480512.106
2063/64	2825.5582	2628.9732	7983779.142	6911500.086	7428316.783
2064/65	3061.3889	2861.2235	9372101.997	8186599.917	8759317.863
2065/66	2928.5522	2815.5899	856417.9885	7927546.485	8245600.996
2066/67	3633.5966	3417.1617	13203024.25	11676994.08	12416587.13
Sum	15027.4528	14236.3754	45783247.68	41019956.36	43330335.88

We know that,

$$\text{Coefficient of correlation}(r) = \frac{n \sum XY - \sum X \sum Y}{\sqrt{n \sum X^2 - (\sum X)^2} \sqrt{n \sum Y^2 - (\sum Y)^2}}$$

$$= \frac{5 \times 43330335.88 - 15027.4528 \times 14236.3754}{\sqrt{5 \times 45783247.68 - (15027.4528)^2} \sqrt{5 \times 41019956.36 - (14236.3754)^2}}$$

$$= \frac{2715220033}{\sqrt{3091900.744} \sqrt{2425397.27}} = \frac{2715220.033}{2738446.206} = 0.9915$$

The correlation coefficient of loan disbursement and loan collection ( r ) = 0.9915

Collection of probability Error

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

$$= 0.6745 \times \frac{1-(0.9915)^2}{\sqrt{5}}$$

$$= 0.6745 \times \frac{0.0169}{2.2361} = 0.0051$$

Where,

n = Numbers of year

P.E. = Probability error

The multiple regression equation of  $X_1$  on  $X_2$  and  $X_3$  (using deviation from actual mean) is

$$X_1 = a + b_1X_2 + b_2X_3 \dots\dots\dots (i)$$

Where,

$$x_1 = X_1 - \bar{X}_1, x_2 = X_2 - \bar{X}_2, x_3 = X_3 - \bar{X}_3$$

Value of  $b_1$  and  $b_2$  can be determined by solving following two normal equations

$$\sum X_1X_2 = b_1\sum X_2^2 + \sum X_2X_3$$

$$365169.7735 = 618380.0614b_1 + 543044.0094b_2 \dots\dots\dots (ii)$$

$$\sum X_1X_3 = b_1\sum X_2X_3 + b_2\sum X_3^2$$

$$330186.2818 = 543044.0094b_1 + 485079.4533b_2 \dots\dots\dots (iii)$$

Now,

Solving the equation (ii) and (iii)

$$1983032579 = 335807579b_1 + 2948967961b_2$$

$$2041806132 = 3358075879b_1 + 2999634621b_2$$

---


$$-58773553 = -50666660b_2$$

$$\therefore b_2 = \frac{58773553}{50666660} = 1.16$$

Putting the value of  $b_2$  in equation (ii)

$$365169.7735 = 618380.0614b_1 + 543044.0094 \times 1.16$$

$$618380.0614b_1 = -264761.270$$

$$b_1 = -0.4281$$

Substituting the value of  $b_1$  and  $b_2$  in (i), we get multiple regression equation of  $x_1$  on  $x_2$  and  $x_3$  using deviation from means as:

$$X_1 - \bar{X}_1 = b_1(X_2 - \bar{X}_2) + b_2(X_3 - \bar{X}_3)$$

$$X_1 - 3318.1976 = -0.4281(X_2 - 3005.4904) + 1.16(X_3 - 2847.2751)$$

Now,

$$X_1 - \bar{X}_1 = -0.4281(X_2 - \bar{X}_2) + 1.16(X_3 - \bar{X}_3)$$

$$X_1 - 3318.1976 = -0.4281(X_2 - 3005.4904) + 1.16(X_3 - 2847.2751)$$

$$X_1 - 3318.1976 = -0.4281X_2 + 1286.6504 + 1.16X_3 - 3302.8391$$

$$X_1 = 1302.00890 - 0.4281X_2 + 1.16X_3$$

**Appendix – vii**  
**Coefficient of correlation between Deposit Collection and Loan Disbursement**

Amount

in crore

Fiscal Year	Deposit Collection (X)	Loan Disbursement (Y)	X <sup>2</sup>	Y <sup>2</sup>	XY
2063/64	2610.70	2578.3569	6815754.49	6647924.304	673116.359
2064/65	2722.30	2825.5528	7410917.29	7983779.142	7692017.088
2065/66	2963.18	3061.3889	8780435.712	9372101.997	9071446.361
2066/67	3241.64	2928.5522	10508229.89	8576417988	9493311.954
2067/68	3255.38	3633.5966	10597498.94	13203024.25	1182873.70
Sum	14793.20	15027.4528	44112836.32	45783247.68	44816829.46

We know that,

$$\text{Coefficient of Correlation (r)} = \frac{n \sum XY - \sum X \sum Y}{\sqrt{n \sum X^2 - (\sum X)^2} \sqrt{n \sum Y^2 - (\sum Y)^2}}$$

$$= \frac{5 \times 44816829.46 - 14793.20 \times 15027.4528}{\sqrt{5 \times 44112836.32 - (14793.20)^2} \sqrt{5 \times 45783247.68 - (15027.4528)^2}}$$

$$= \frac{224084147.30 - 22230114.80}{1313.550 \times 1758.3801} = \frac{1780032.539}{2309721.411} = 0.7707$$

∴ The correlation coefficient of deposit collection and loan disbursement

$$(r) = 0.7707$$

Calculation of probability Error

$$\text{P.E.} = 0.6745 \times \frac{1 - (0.7707)^2}{\sqrt{n}} = \frac{0.2739}{2.2361} = 0.1225$$

Where,

N = Number of Year

P.E. = Probability Error

## Appendix –VI

### Regression Analysis of Loan Outstanding on Disbursement and Collection

Amount in Crore

Fiscal Year	Loan Outstanding (x <sub>1</sub> )	Loan Disbursement (X <sub>2</sub> )	Loan Collection (X <sub>3</sub> )	x <sub>1</sub> = (X <sub>1</sub> - $\bar{X}_1$ )	x <sub>2</sub> = (X <sub>2</sub> - $\bar{X}_2$ )	x <sub>3</sub> = (X <sub>3</sub> - $\bar{X}_3$ )	x <sub>1</sub> x <sub>2</sub>	x <sub>2</sub> x <sub>3</sub>	x <sub>1</sub> x <sub>3</sub>	X <sub>2</sub> <sup>2</sup>	X <sub>3</sub> <sup>2</sup>
2063/64	3024.5021	2578.3569	2513.4271	-293.6955	-427.1335	-333.848	125447.1868	142597.6647	98049.6553	182443.0268	11145.4871
2064/65	3130.9024	2828.5582	2628.9732	-187.2952	-179.9322	-218.3019	33700.4372	39279.5411	40886.8980	32375.5966	47655.7195
2065/66	3331.0730	3061.3889	2861.2235	12.8744	55.8985	13.9484	719.6596	779.6946	179.5773	3124.5529	194.5579
2066/67	3444.0396	2928.5522	2815.5899	125.842	-76.9382	--31.6852	-9682.057	2437.8022	-3987.3289	5919.4866	103.9519
2067/68	3660.4718	3633.5966	3417.1617	342.2742	628.1062	569.8866	214989.5471	357949.3068	195057.4801	394517.3985	324770.7369
Total	16590.9878	15027.4528	14236.3754	-	-		365169.7735	543044.0094	330186.2818	618380.0614	485079.4533

$$\bar{X}_1 = \frac{16590.9875}{5} = 3318.1976$$

$$\bar{X}_2 = \frac{152027.4528}{5} = 3005.4904$$

$$\bar{X}_3 = \frac{14236.3754}{5} = 2847.2751$$

**Appendix-viii**  
**Agricultural Development Bank Limited**  
**Account Division**  
Progress Report of F/Y 2063/64 to 2067/68

Amount in crore

S.N	Particular	2063\64		2064\65		2065\65		2066\67		2067\68	
		Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
1	Disbursement	243625.72	257835.69	309652.38	282555.82	287704.50	306138.89	291920.34	292855.22	317701.20	363359.66
2	Principle collection	21324.50	251342.71	226626.39	262897.32	235199.43	286122.35	28083.23	281558.99	272414.12	34176.17
3	Interest collection	-	-	53036	39152	62083	40335	65387	46230	65223	60898
4	Outstanding	-	302450.21	-	313090.24	-	333107.20	-	344403.96	-	366047.18
5	Deposit collection	-	261070	-	272230	303757	296318	330950	324164	355795	325538

