CHAPTER - I
INTRODUCTION

1.1 Background of the Study

In general "Bank" means the place where transaction of money is dealt. It performs the main task of accepting deposit, honoring customer drawing against such deposit on demand and lending or investing the surplus deposit until they are required for repayment. This is only the part of function performed by modern Banks. Various scholars have differently defined Bank. Some of them are listed below.

As per **Kent** "Bank is an organization whose principle operation are concerned with accumulation of temporarily idle money of general public for the purpose of advancing to other for expenditure."

As per **Banking Regulation Act of India** "Banking means accepting for the purpose of lending or investment of deposit of money from the public repayable on demand or otherwise, and withdraw able by cheque, draft or otherwise."

As per **US Law** "Any institution offering deposit subject to withdrawal on demand and making loan of commercial or business nature is a Bank Definition given above is applicable to all types of financial intermediaries. In fact, 'Bank' now days do large number of financial transaction while 'financial institutions' are authorized to do limited transaction only. Hence the Bank can be defined as a 'financial departmental store', which renders a host of financial services beside taking deposit and giving loans.

In Nepal three types of banks are running
- Central Bank
- Commercial Bank &
- Development Bank

Commercial Bank

A commercial bank is a business organization that receives and holds deposits of funds from others, provides loans or extends credits and transfers funds by written order of deposits. Therefore, a commercials bank is an institution that accepts deposits from the publics and in turn advances loans by creating credit. Commercials banks play vitals role in the formations of capitals in favor of economics growth in the country. They assist in making capitals and flow of fund within the country simultaneously.

Commercial Bank Act of Nepal (1974) has defined that " A commercial bank is such, which exchanges money, deposits money, accept deposits, grant loans and performs commercial banking functions and which is not a bank meant for co-operative, agriculture and industries or for such specific purpose".

American Institute of Banking (1972) has defined commercial bank as a corporation, which accepts demand deposits subject to check and makes short-term loans to business enterprise, regardless of the scope of its other services." This act has laid emphasis on the functions of commercial bank while defining it. Commercial banks provide short-term debts necessary for trade and commerce. They take deposits from the public, and grant loans in different forms. They discharge various functions on behalf of their customers and are paid for their services.

Commercial banks, as financial institutions, perform a number of internal functions. Among them, providing credit is considered as most important one. According to H.D. Crosse (1963), "Commercial banks are very risky one. For this, commercial banks have to pay due consideration while formulating investment policy regarding loan investment. Investment policy is one facet of the overall spectrum of policies that guide banks investment operations".

All of the 29 commercial banks regarding the list as follow:

Table 1.1

List of Licensed Commercial Banks

S.No	Name of Bank	Operation Date
1	Nepal Bank Ltd	1937/11/15
2	Rastriya Banijya Bank Ltd	1966/01/23
3	Agricultural Development Bank Ltd	1968/01/02
4	NABIL Bank Ltd	1984/07/16
5	Nepal Investment Bank Ltd	1986/02/27
6	Standard Chartered Bank Nepal Ltd	1987/01/30
7	Himalayan Bank Ltd	1993/01/18
8	Nepal SBI Bank Ltd	1993/07/07
9	Nepal Bangladesh Bank Ltd	1993/06/05
10	Everest Bank Ltd	1994/03/12
11	Bank of Kathmandu Ltd	1995/03/12
12	Nepal credit and Commerce Bank Ltd	1996/10/14
13	NMB Bank Ltd	1996/11/26
14	Lumbini Bank Ltd	1998/07/17
15	Nepal Industrial and Commerce Bank Ltd	1998/01/21
16	Machapuchhre Bank Ltd	2000/10/03
17	Development Credit Bank Ltd.	2001/01/23
18	Kumari Bank Ltd	2001/04/03
19	Laxmi Bank Ltd	2001/04/03
20	Sidhartha Bank Ltd	2002/12/24
21	Global Bank Ltd	2007/01/02
22	Citizen Bank International Ltd	2007/06/21
23	Prime Commercial Bank Ltd	2007/09/24
24	Sunrise Bank Ltd	2007/10/12
25	Bank of Kathmandu	2007/10/12
26	KIST Bank Ltd	2009/05/07
27	Janata Bank Ltd.	2010
28	Mega Bank Ltd.	2010
29	Commerce & Trust Bank Ltd.	2010

Out of above listed Commercial Banks that are operating their activities in Nepal;
The Kumari Bank Limited has been selected for the study.

Management Information System support for information collection and support for the decision making. Management Information System (MIS), is information system, typically computer based, that are used within an organization. We can describe an information system as "A system consisting of the network of all communication channels used within an organization".

MIS is one important supportive part of an organization. Like this way a commercial Bank, Kumari Bank Limited using MIS for different purpose but I mention here about loan management.

1.1.1 Management Information System

Management information systems are primarily meant for providing information from the data after processing them. The information systems do not generate data. The data are generated collected, recorded, stored, processed and retrieved after it has been generated by business operations in an organization. Management information systems (MIS) are information systems typically computer based, that are use within an organization. World net describes an information system as "a system consisting of the network of all communication channels used within an organization". A management information system may also be defined as "a system that collects and processes data (Information) and provides it to managers at all levels who use it for decision making, planning, program implementation, and control." An information system is comprised of all the components that collects, manipulates, and disseminates data or information. It usually includes hardware, software, people, communications systems such as telephone lines, and the data itself. The activities involved include inputting data, processing of data into information, storage of data and information, and the loan ion of outputs such as management reports. Information systems are designed for supplying information to managers in the areas of marketing, finance, loan ion, personnel, materials, logistics, etc.

1.1.2 Introduction to Kumari Bank and Loan Management

Kumari Bank Limited is very familiar with Information Technology from the beginning. This bank using computer system for each department as possible and collect information for the decision. Lets know, how Kumari Bank Limited use computer for loan management.

Kumari Bank Limited, came into existence as the fifteenth commercial bank of Nepal by starting its banking operations from Chaitra 21, 2057 B.S (April 03, 2001) with an objective of providing competitive and modern banking services in the Nepalese financial market. The bank has paid up capital of Rs. 1,304,935,920.00 of which 70% is contributed from promoters and remaining from public. Authorized Capital Rs.1,600,000,000.00. The number of branches outside of valley are 19 and 9 branches are in valley.

On August 17, 2010 Kumari Bank Limited, in partnership with Leapfrog Technology, a US based Software Company, launched "Kumari Mobile Cash", a revolutionary service that uses mobile phones to provide access to financial services on August 17, 2010. Through this revolutionary product, we plan to deliver financial services in a new and innovative way to all Nepalese, including those that do not have access to banking services, in a fast, secure and low cost manner. We intend to leverage the ubiquity of mobile phones to bring financial access to all, and stress that one does not have to have a bank account at all to use this service.

The first of its kind in Nepal, this service pioneers the "mobile wallet" concept, which allows users to store cash balances in their mobile phones. Users are then able to deposit and withdraw cash from their mobile phones, and use the stored cash value to remit to anyone, anytime, anywhere, with the push of a few buttons.

At present, this service is available through all of Kumari Bank's 28 branches and 189 authorized agent locations nationwide.

Kumari Bank Limited has been providing wide - range of modern banking services through 28 points of representations located in various urban and semi urban part of the country, 19 outside and 9 inside the valley. The bank is pioneer in providing some of the latest / lucrative banking services like E – Banking and sms banking services in Nepal. The bank always focus on building sound technology driven internal system to cater the changing needs of the customers that enhance high comfort and value. The adoption of modern Globus Software, developed by Temenos NV, Switzerland and arrangement of centralized data base system enables customer to make highly secured transactions in any branch regardless of having account with particular branch. Similarly the bank has been providing 365 days banking facilities.

Visa debit card, which is accessible in entire VISA linked ATMs (including 23 own ATMs) and POS (Point of Sale) terminals both in Nepal and India, has also added convenience to the customers. The bank has been able to get recognition as an innovative and fast growing institution striving to enhance customer value and satisfaction by backing transparent business practice, professional management, co rporate governance and total quality management as the organ zational mission.

The key focus of the bank is always center on serving unfulfilled needs of all classes of customers located in various parts of the country by offering modern and competitive banking products and services in their door step. The bank always prioritizes the priorities of the valued customers.

1.1.2.1 Mission Statement

At Kumari, our mission has always been to be the preferred financial partner, by continuing to deliver innovative products and services to our customers, while

cultivating an environment that promotes good corporate governance, proactive risk management practices, and corporate social responsibility. Our mission is achieved through the knowledge and dedication of our people, leading to superior results for our stakeholders, while contributing to our nation's financial sector and to its economic welfare. KBL Innovations:

1.1.2.2 Auto Sweep

A revolutionary concept for the first time in Nepal with a growth option to the checking account holder of transferring their excess balance to Time/Call deposit account.

1.1.2.3 SMS Banking

We take the pride to be the first bank in the history of Nepal to start a mobile banking service. The bank has facilitated this service to our customers with the sole objective of being an additional channel with a crucial role of responding to their inquiries and transactional information via SMS messaging.

1.1.2.4 Internet Banking

The first ever commercial bank in the country to provide 'Internet Banking service" to its customers. This service has allowed the bank to streamline the services it offers to customers. It allows customers the flexibility to take control of banking activities via the internet. Further it has enabled our core customers to transact with us from any corner of the world and made their job simpler.

Kumari Bank limited started using computerized systems. Kumari Bank limited. started using these systems to save time and reduce costs. Even though these computerized systems are rather expensive, in the long run they saved companies money. The companies saved money by making or loan of services by a computerized system by reducing paper usage and employee overtime. Since

employees did not have to spend their time doing paper work, they could do their jobs faster and more efficient. Kumari Bank limited Allows their systems to grow gradually, adding new equipment or software as the need arises. Sometimes different functions, such as marketing and finance, each enter the same or related data into a system separately, duplicating effort. Separate information 'silos' can each hold some information – but bringing it together to get the whole picture can be difficult. This can cause confusion or frustration for customers, suppliers or employees. Integrated online computerized system has not only brought the Kumari Bank limited closer together, but it has allowed the nation's economy to become a single interdependent system.

1.1.2.5 Term Loan

We finance capital expenditures of Small / Medium / Large-scale companies in the form of Term Loan for periods in excess of 1 year. All loans for tenures above one year are generally secured by first charge on fixed assets or current assets of the borrower with an acceptable asset cover.

1.1.2.6 Short Term Loan

We finance capital expenditures of Small / Medium / Large-scale companies in the form of Term Loan for periods less than 1 year.

1.1.2.7 Hire Purchase

Purchase of office equipment, vehicles, machinery etc is possible through our Hire Purchase Schemes. We shall also consider below various other consumer loan schemes for your deserving executives.

1.1.2.8 Vehicle Loan

Do you remember … the four-wheeler that you always dreamt of owning? Don't you always imagine the thrill of owning that dream machine? If you are a salaried

individual, professional or an entrepreneur, this is your opportunity to get behind that wheel. We finance up to 80% of the cost of the vehicle that is new or will be less than 7 years old at the time of final maturity of the loan. All we need is proof of your income and/or reference/guarantee from your employer/individual acceptable to us.

Depending on your income and the car you choose to buy, a loan of NPR 300,000.00 to NPR 5,000,000.00 can be availed of at a very competitive rate of interest. Repayments are calculated on an Equal Monthly Installment (EMI) basis that goes easy on your monthly budget. And the tenor is kept flexible to suit your need: you can take a minimum of 12 months or a maximum of 60 months to repay. You also have an option of prepaying your loan and all you will be charged is a low 1% on the outstanding amount. So, if you are 25 years (or more) of age or have been in business for at least 2 years, walk in to our nearest office and get an auto loan approved for a nominal processing fee. We guarantee a decision on your application within 48 hours of receipt of your completed application. Our credit & marketing officers will be pleased to provide further information.

Terms & Conditions
- Registration of the vehicle will be in the Bank's name
- Bank reserves the right to call for additional Registered Mortgage over land and / or building.
- First Repayment Date is from the subsequent month of initial drawdown
- Repayment is to be made in Equal Monthly Installments (Interest + Borrowings) which will not exceed 50% of the borrower's monthly earnings.

1.1.2.9 Home Loan

Are you looking to own a residential property? Do you need money for extension of your house? Or do you feel like renovating or restoring your old house or are

you short of money in constructing your new house? Or did you just see this gorgeous apartment building you don't seem to get your mind off? How about being an owner of it…? Well, your search for a complete house ends here. If you are a salaried individual, professional or an entrepreneur, this is your opportunity to own that dream house.

We finance up to 60% of the cost of the purchase/construction/renovation of land/house within municipal boundaries. All we need is proof of your income and/or reference/guarantee from your employer/individual acceptable to us.

Depending on your income and your need, a loan of NPR 500,000.00 to NPR 4,000,000.00 can be availed of at a very competitive rate of interest. Repayments are calculated on an Equal Monthly Installment (EMI) basis that goes easy on your monthly budget.

Drawdown is allowed on a phase-wise manner to minimize your interest burden. In some cases, you may even qualify for a moratorium on principle repayment for up to 6 months. And the tenor is kept flexible to suit your need: you can take a minimum of 12 months or a maximum of 120 months to repay. You also have an option of prepaying your loan and all you will be charged is a low 1% on the outstanding amount.

So, if you are 25 years (or more) of age or have been in business for at least 2 years, walk in to our nearest office and get a home loan approved for a nominal processing fee. We guarantee a decision on your application within 48 hours of receipt of your completed application.

Our credit & marketing officers will be pleased to provide further information.

Terms & Conditions

) Property being mortgaged should be located within municipal boundaries of Kathmandu Valley and in other residential / commercial sector of developing areas within 40 KMs from the heart of Kathmandu (Hanuman Dhoka) like Godavari, Nagarkot, Bhaktapur, Dhulikhel, Kakani etc and must have motorable access.

) As security, the Bank shall have the First Legal Mortgage on freehold property (land + building) valued by Bank's approved valuer with extended value (Distress value as valued by the Bank's valuer) not less than the 100% of financed amount.

) Bank reserves the right to call for additional Registered Mortgage over land and / or building.

) First drawdown is allowed only after injection of investment portion of the Borrower is confirmed and subsequent drawdown is allowed in phase-wise manner upon receipt of application from the Borrower with details of estimated costs and confirmation of the Bank's values of utilization of previously drawn amount.

) First Repayment Date is from the subsequent month of initial drawdown in case of ready built houses / refinance of owned houses while a moratorium period of six months will be provided in case of construction / renovation or expansion.

) Repayment is to be made in Equal Monthly Installments (Interest + Borrowings) which will not exceed 50% of the borrower's net monthly earnings. Monthly net savings in case of Self-employed individuals must be 5 times of EMI.

) Property being mortgaged should be insured against fire, earthquake, flood etc with a banker's clause.

1.1.2.10 Consumer Product Financing

Aren't you tired of seeing your old furniture in your drawing room, haven't you seen them there since you were little, weren't you awed to see that magnificently done house? Ever thought of replacing them with the latest furniture? What about watching the latest movie in your own home theatre? Need a laptop for your child who's undergoing a management degree?

We at KBL help you finance a range of consumer durables and household equipments like televisions, furniture, personal computers, music systems, air conditioner, microwave ovens, refrigerator, washing machines, etc.

If you are a salaried individual, professional or an entrepreneur, this is your opportunity to own all those stuff that will add to your neighbors' envy.

We finance up to 70% of the cost of a range of consumer products. All we need is proof of your income and/or reference/guarantee from your employer/individual acceptable to us.

Depending on your income and your need, a loan of NPR 100,000.00 to NPR 500,000.00 can be availed of at a very competitive rate of interest. Repayments are calculated on an Equal Monthly Installment (EMI) basis that goes easy on your monthly budget.

And the tenor is kept flexible to suit your need: you can take between 12 to 24 months to repay. You also have an option of prepaying your loan and all you will be charged is a low 1% on the outstanding amount.

So, if you are 25 years (or more) of age or have been in business for at least 2 years, walk in to our nearest office and get a consumer product finance approved

for a nominal processing fee. We guarantee a decision on your application within 48 hours of receipt of your completed application. Our credit & marketing officers will be pleased to provide further information.

Terms & Conditions

- Monthly net savings in case of self-employed individuals must be 5 times of EMI.
- Repayment period not to exceed Borrower's balance / tenor of service upto retirement in case of Employees / Salaried Employees
- As security, Hypothecation of assets financed in bank's name is needed and personal guarantee of employer in case of salaried individuals.
- Assets being hypothecated should be insured against theft, fire, earthquake, flood etc with a banker's clause.
- Repayment is to be made in Equal Monthly Installments (interest + principal) not to exceed 75% of borrower's net income in case Salaried / Self Employed Individuals.
- A processing fee of 1% will be charged on the Financed Amount.

1.1.2.11 Education Loan

Haven't you always wanted the best education for your child? If your ward wishes to pursue a professional course (like Medicine, Engineering, Management etc), in Nepal or in a foreign land but you are short of funds to meet the upfront monetary requirement to get him/her into the college of your choice……. worry no more. Here at KBL, we have a solution. You can avail of an education loan to finance higher education of your son or daughter.

If you are a salaried individual, professional or an entrepreneur, this is your opportunity to brighten your child's future. We finance up to 60% of the cost of tuition and admission.

All we need is proof of your income and/or reference/guarantee from your employer/individual acceptable to us.

Depending on your income and your need, a loan of NPR 150,000.00 to NPR 800,000.00 can be availed of at a very competitive rate of interest. Repayments are calculated on an Equal Monthly Installment (EMI) basis that goes easy on your monthly budget.

And the tenor is kept flexible to suit your need: you can take a minimum of 12 months or a maximum of 60 months to repay. You also have an option of prepaying your loan and all you will be charged is a low 1% on the outstanding amount.

So, if you are 25 years (or more) of age or have been in business for at least 2 years and are looking for finance to enable your ward pursue a professional course, walk in to our nearest office and get an education loan approved for a nominal processing fee. We guarantee a decision on your application within 48 hours of receipt of your completed application.

Our credit & marketing officers will be pleased to provide further information.

Terms & Conditions

- Registered Mortgage over land and building within municipal boundaries.
- Property being mortgaged should be located within municipal boundaries and must have a motorable access.
- Monthly net savings in case of self-employed individuals must be 5 times of EMI.
- Repayment period not to exceed Borrower's balance / tenor of service upto retirement in case of Employees / Salaried Employees

⟩ Repayment is to be made in Equal Monthly Installments (interest + principal) not to exceed 75% of borrower's net income in case Salaried / Self Employed Individuals.

⟩ A processing fee of 1% will be charged on the Financed Amount.

1.1.2.12 Travel Loan

What about surprising your family this year by taking them to Bali…? Or what about rewarding yourself with a six-night-seven-day holiday to Australia? After all, you have worked very hard to get here….. You deserve a break! If you are a salaried individual, professional or an entrepreneur, this is your opportunity to pursue that leisure trip this year. We finance up to 70% of the cost of ticket and tour expenses.

All we need is proof of your income and/or reference/guarantee from your employer/individual acceptable to us.

Depending on your income and your need, a loan of NPR 50,000.00 to NPR 300,000.00 can be availed of at a very competitive rate of interest. Repayments are calculated on an Equal Monthly Installment (EMI) basis that goes easy on your monthly budget.

You can repay the loan over a period of 12 months. You also have an option of prepaying your loan and all you will be charged is a low 1% on the outstanding amount.

So, if you are 25 years (or more) of age or have been in business for at least 2 years and are looking for options for traveling, walk in to our nearest office and get a travel loan approved for a nominal processing fee. We guarantee a decision on your application within 48 hours of receipt of your completed application.

Our credit & marketing officers will be pleased to provide further information.

Terms & Conditions

⟩ Corporate Guarantee of business houses in case of business executives.

⟩ Monthly net savings in case of self-employed individuals must be 5 times of EMI.

⟩ Repayment period not to exceed Borrower's balance / tenor of service up to retirement in case of Employees / Salaried Employees

⟩ Repayment is to be made in Equal Monthly Installments (interest + principal) not to exceed 75% of borrower's net income in case Salaried / Self Employed Individuals.

⟩ A processing fee of 1% will be charged on the Financed Amount

1.1.2.13 Bills Discounting/Purchase

At times when you are in urgent need of money but have only outstation checks and documents in your possession, we purchase/discount your checks/documents and provide you instant cash.

Service Charges

Export Credit

⟩ **Pre-Shipment Credit**

Pre-shipment Credit is offered to exporters by way of packing credit to enable them to finance purchase/import of raw materials, processing and packing of the goods meant for exports.

⟩ **Post-Shipment Credit**

Post-shipment Credit is offered to exporters to finance export sales receivables after the date of shipment of goods till the date of realization of export proceeds.

1.1.2.14 Import Credit / Trust Receipt (TR) Loan

Import Credit facility is offered to importers to meet funding requirement from the port of discharge to either a custom point or warehouse of the importer.

1.1.2.15 Loan Syndication

If your credit need is a large one, we arrange Loan Syndication by involving other banks with which we have working relationships.

1.2 Focus of the Study

Quick decision play vital role for the career build up. Quick decision has to take in right time in right place and right decision. After discussion about this subject matter to so many related person of this Kumari Bank Limited and suggested for the effective loan order entry and processing system. Here are so many factors which tends to profit getting effective loan order entry and processing system, which I present some models related positive impact and negative impact. which shows perfect decision . Having the strong level of management , strong team of board of director ,Huge amount of demand How it is getting profit, however there is one of the important role of computerize system which keep accurate record in the Kumari Bank limited each year .

1.3 Statement of the Problem

1. It is a statistical statement about the values of one or more parameters of the population.
2. After setting the hypothesis, it is necessary to test the reliability of such statistical statements.
3. For this purpose, an experiment is conducted by using sample information and the hypothesis is rejected if the results obtained are improbable under this hypothesis.
4. It should be noted that study of a population characteristics of Kumari Bank Limited is one of the major problems in practice due to some limitations such as time, money and manpower needed.

It plays important role to take decision**.** Test of hypothesis is to make decision about the null hypothesis. For this, a representative sample is selected. Based on the observed information, calculate the value of appropriate test statistic. Compare this calculated test statistic with the critical value. Reject null if calculated test statistic is greater than critical value and accept otherwise.

1.4   Objectives of the Study

⟩ To analyses the positive and negative impact of decision through using different models.

⟩ To identify the need of IT for decisions in Kumari Bank limited.

⟩ To examine how to convert theoretical aspect of Decision Support System and Management Information System In Kumari Bank limited.

⟩ To find out the implementation area of IT in Kumari Bank limited.

1.5   Limitation of the Study

Every things have limit on this world but in case of there is no limitation even if , What I feel while preparing this thesis ,Limitation of Time factor , cost factor and lack of understanding the key term of subject matter makes more difficulties to study about any case or research which I mention below in point-wise as much as I fell in difficulties.

⟩ Limitation of Time factor

⟩ Limitation of Cost factor

⟩ Limitation of collecting data not in whole coverage.

⟩ Limitation of collecting data by Primary and secondary method.

⟩ Limitation of understanding of Technical term

1.6   Rational of the Study

This research if different than others due to I prepare it in different pattern, This means I am not unknown about other research how they presented and the pattern

of the thesis. I follow the concept of others also a little. Others research is guide line for me that am why this research is different than others. I used same tools but in different ways and newly.

1.7 Organization of the Study

This research mainly focused five chapters on the behalves of chapter one - Introduction, chapter   two–Literature   Review, chapter three–Research methodology, chapter four – Presentation and Analysis of Data and chapter five – Summary, conclusion and Findings .

Chapter One:	Introduction
Chapter Two:	Literature Review
Chapter Three:	Research Methodology
Chapter Four:	Presentation and Analysis of Data
Chapter Five:	Summary, Conclusion and Recommendation.

Chapter – I: Introduction

Introduction includes the background about the organization and location of the organization also includes mission, aim and objectives of the organization. Organization structure and member are also included in this chapter.

Chapter – II: Literature Review

Literature Review includes about the organizations view of different sight of people or viewed through related person.

Chapter – III: Research Methodology

Research Methodology contains the different types of methods, models and computer network use in Kumari Bank Limited for loan order entry and processing system.

Chapter – IV: Presentation and Analysis of Data

Regarding the data for loan order entry and processing system, other data and diagrammatically study, analytical view of data are presented in this fourth chapter.

Chapter – V: Summary, Conclusion and Recommendations

Summary, conclusion and finding after doing this research and about this title how it is effectible is also presented in this research.

CHAPTER - II

LITERATURE REVIEW

In the chapter review of literature, we review the previous literatures developed in the related subject and topic. Previous thesis, articles, journals etc. are reviewed. From literature review, one should come to know that my topic on problem of research is new one or not, what concepts or ideas have been already found, what type of modification is necessary to the deficiency if it exists to the research etc. Thus, review of literature is essential to develop concepts, information or ideas about the selected topics by studying the relevant materials.

2.1 Conceptual Review

Management Information System

Management Information System is that systems that helps to collects information and generates consolidate and comparatives reports to facilitate the decision making. System that integrated management and information system (hardware, software, database etc.) is called management information system. In another hand MIS is a tools that provide right information at right time to do right decision on the instruction. Conceptual frame work of MIS is presented below (Adhikari, 2007).

Figure 2.1

Conceptual Frame Work of MIS
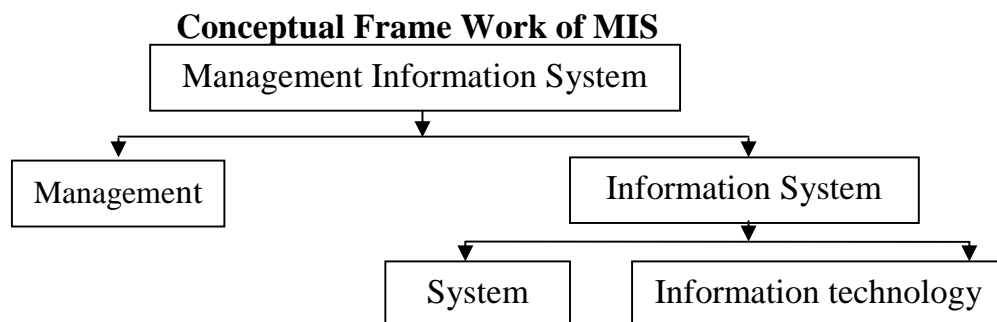
Architectural Framework of Management Information System

The primary function of MIS is to provide accurate, timely and right information to the decision-makers. There are some features for the appropriate MIS. MIS is an organized or planned effort and not the result of some sporadic attempts. The primary function of the MIS is to provide relevant information that assists managers at different levels in organization in decision-making. MIS is form from number of components including hardware, software, manual procedures, models and a database. MIS presents information in current, usable and easily understandable format. MIS is a system of users and machines. The users are as important to the system as are machines (Adhikari, 2007).

Figure 2.2

Architectural Framework of Management Information System
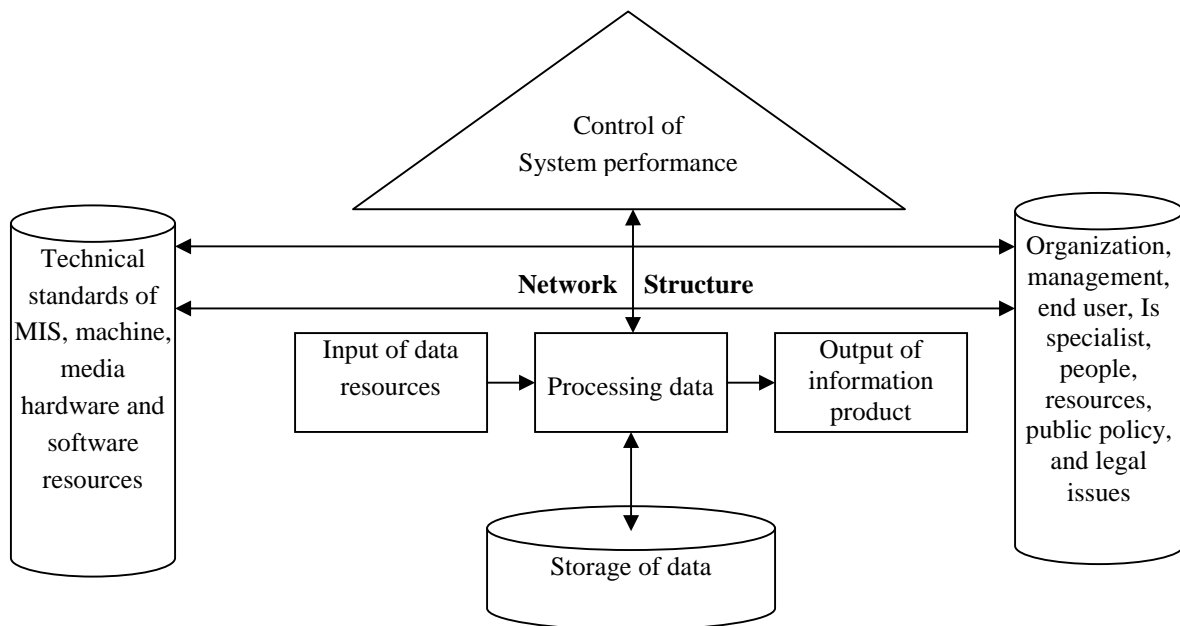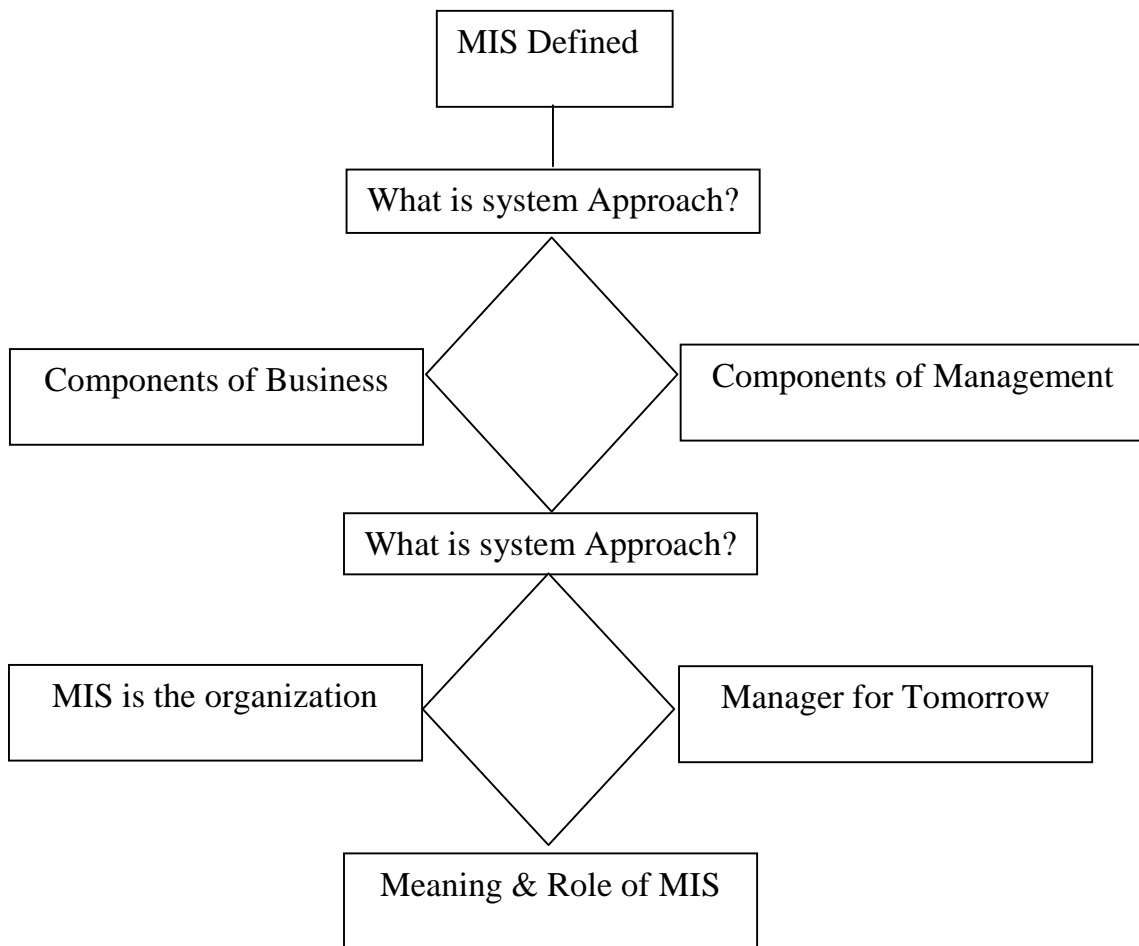

Tactical Information System

Management Information Systems are designed for providing information to important personnel in the organization. These systems make use of the already processed transaction data, which is output from the TPS, and generate information reports after processing data.

Figure 2.3

Tactical Information System

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┌─────────┐    ┌─────────────┐    ┌─────────┐    ┌─────────────┐    ┌─────────┐
│  TPS    │    │ Transaction │    │  MIS    │    │ Management  │    │  MIS    │
│  files  │ →  │ Processing  │ →  │  file   │ →  │ Information  │ →  │ Report  │
│         │    │   System    │    │         │    │   System    │    │         │
└─────────┘    └─────────────┘    └─────────┘    └─────────────┘    └─────────┘
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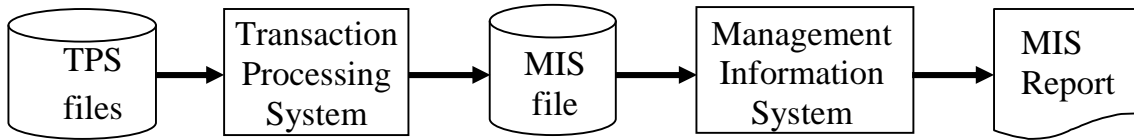
The output of the MIS takes the form of summary reports and exception reports. The summary report accumulates data from several transactions and presents the results in a condensed form (Adhikary, 2007).

The Meaning and Role of MIS

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                    ┌──────────────┐
                    │ MIS Defined  │
                    └──────┬───────┘
                           │
              ┌────────────────────────┐
              │ What is system Approach?│
              └────────────────────────┘
                           ◇
┌──────────────────────┐       ┌──────────────────────────┐
│ Components of Business│  ◇    │ Components of Management │
└──────────────────────┘       └──────────────────────────┘
              ┌────────────────────────┐
              │ What is system Approach?│
              └────────────────────────┘
                           ◇
┌──────────────────────┐       ┌──────────────────────────┐
│ MIS is the organization│  ◇   │   Manager for Tomorrow   │
└──────────────────────┘       └──────────────────────────┘
              ┌────────────────────────┐
              │  Meaning & Role of MIS │
              └────────────────────────┘
```

*(Murdick, Ross & Claggett, 1999)*

Major Roles of MIS in an Organization

) MIS helps in various systems. i.e., Query system, Analysis system, Modeling system and DSS etc.

) MIS helps in strategic planning, management control, operational control and transaction processing etc.

) MIS plays the role of information generation, communication, problem identification and the process of decision making.

) MIS helps in management, administration and operation of the organization.

The Conceptual View of MIS
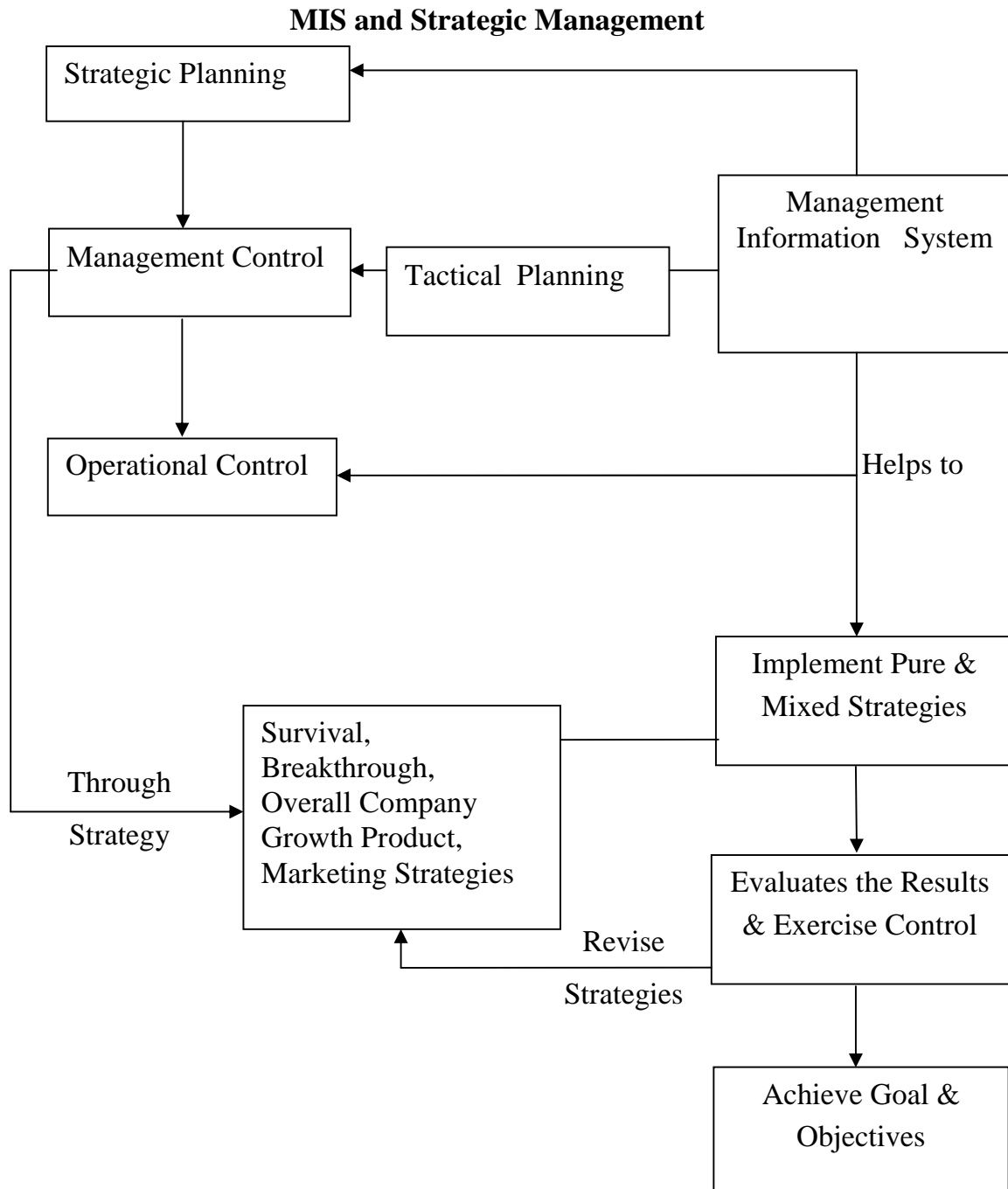
Figure 2.4

Conceptual View of MIS
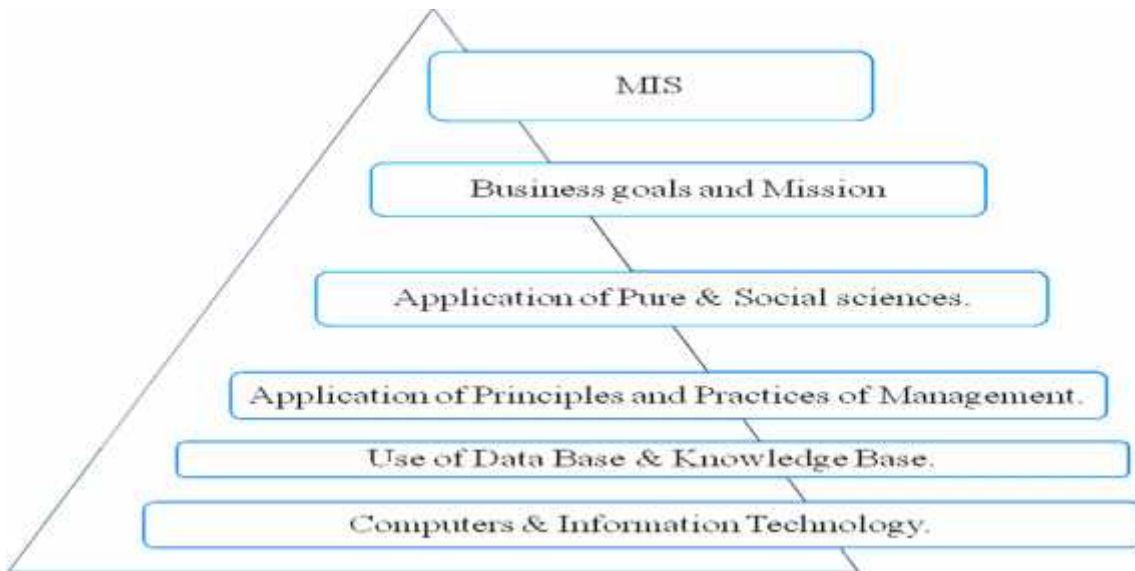
The above figure showed the conceptual view of Management Information System. In the top part Management Information System consists. The operational parts identify the computers and information technology, after this Use of Data Base and Knowledge Base, application of principles and practices of Management after the Use of Data Base and Knowledge Base. The system is like hierarchy

system. Application of Pure and social sciences is one of the most important strategies for rational decisions. Beyond the top level Information system Business goal and mission play vital role (Jawadekar, 2002).

MIS and Strategic Management

Figure 2.5

MIS and Strategic Management

Strategic Planning

| Management Control | ← | Tactical Planning | ← | Management Information System |

| Operational Control | Helps to |

Through Strategy

| Survival, Breakthrough, Overall Company Growth Product, Marketing Strategies |

| Implement Pure & Mixed Strategies |

Revise Strategies

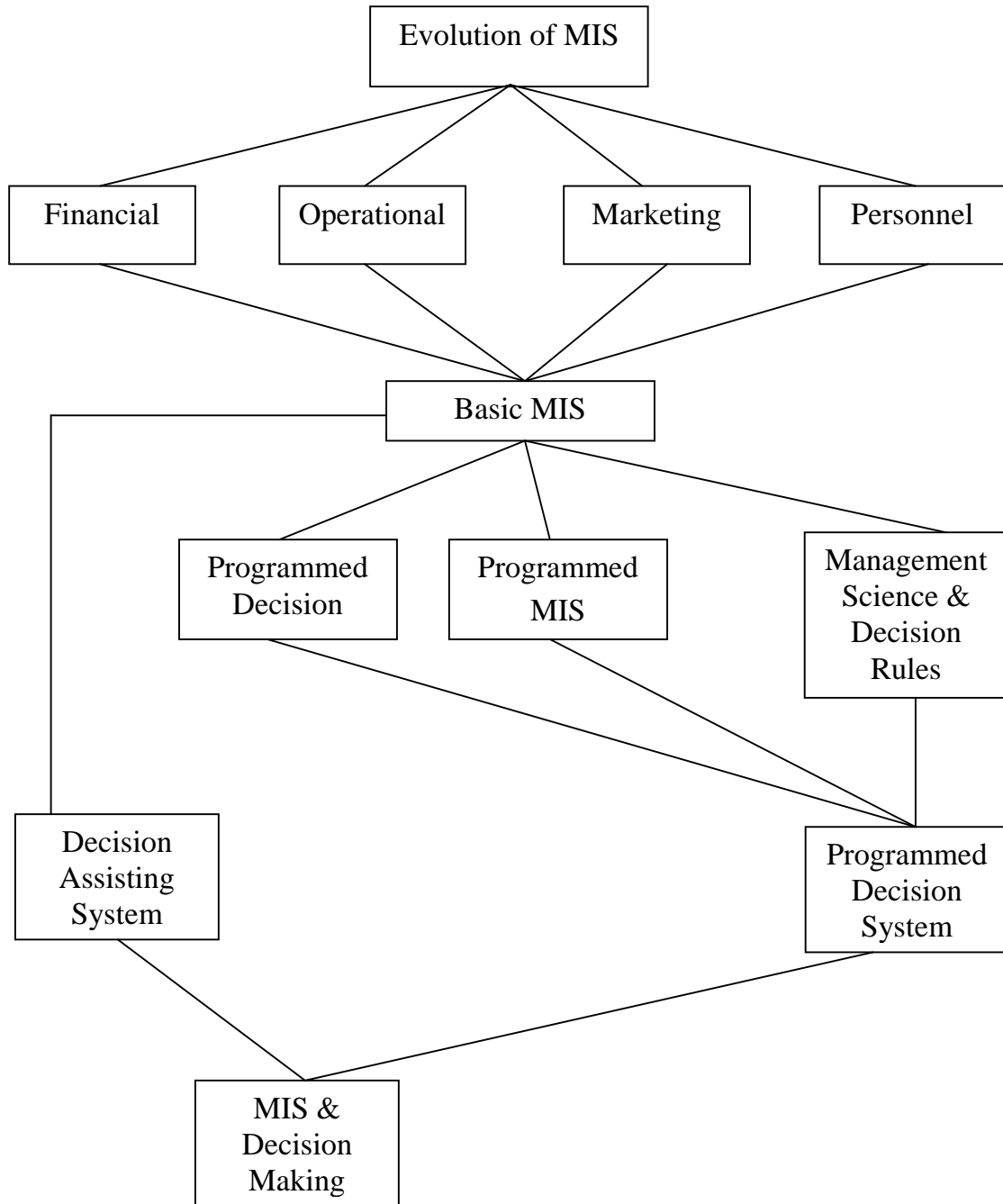| Evaluates the Results & Exercise Control |

| Achieve Goal & Objectives |

In the above diagram the relation between Management Information System and the Strategic Management is shown by figure clearly (Jawadekar, 2002).

Importance of MIS

Today Nepal too had become the full member of WTO (World Trade Organization) and is talking about the globalization. In today's world any identity cannot remain untouched from the other corner of the world as which is directly or indirectly been influenced. The world has become narrower and narrower as the product or service from one part of the globe takes no time to reach the other part. As we too are talking about the free trade area, it has been very competitive world and one has to increase its efficiency to compete. Multinational company (MNC) has started flowing in Nepal which is equipped with latest technology, qualified manpower. To compete with the domestic as well foreign industries and to survive in this competitive world one has to change is present structure. The fast changing scene of liberalization and globalization a management job has become very complex. And do make any decision, one has to take the up to date and timely information either it may be internal or external. It has become very complex task to come in the decision. To overcome this management need to be updated with right information at right time to make the effective decision.

It is understood that information is compared with the blood of the human body whereas MIS is a heart. In the body, the heart supplies the blood to all the part of the body which carries the oxygen and other vital ingredients to each and every cells of the body without which it can not remain alive even a minute. Upon, requirement the heart pumps faster and supplies more blood when needed. It regulates and controls the incoming impure blood process it and again resend to the part of the body. The MIS plays the exactly role in the organization which is a must for a management to make righty decision in righty time.
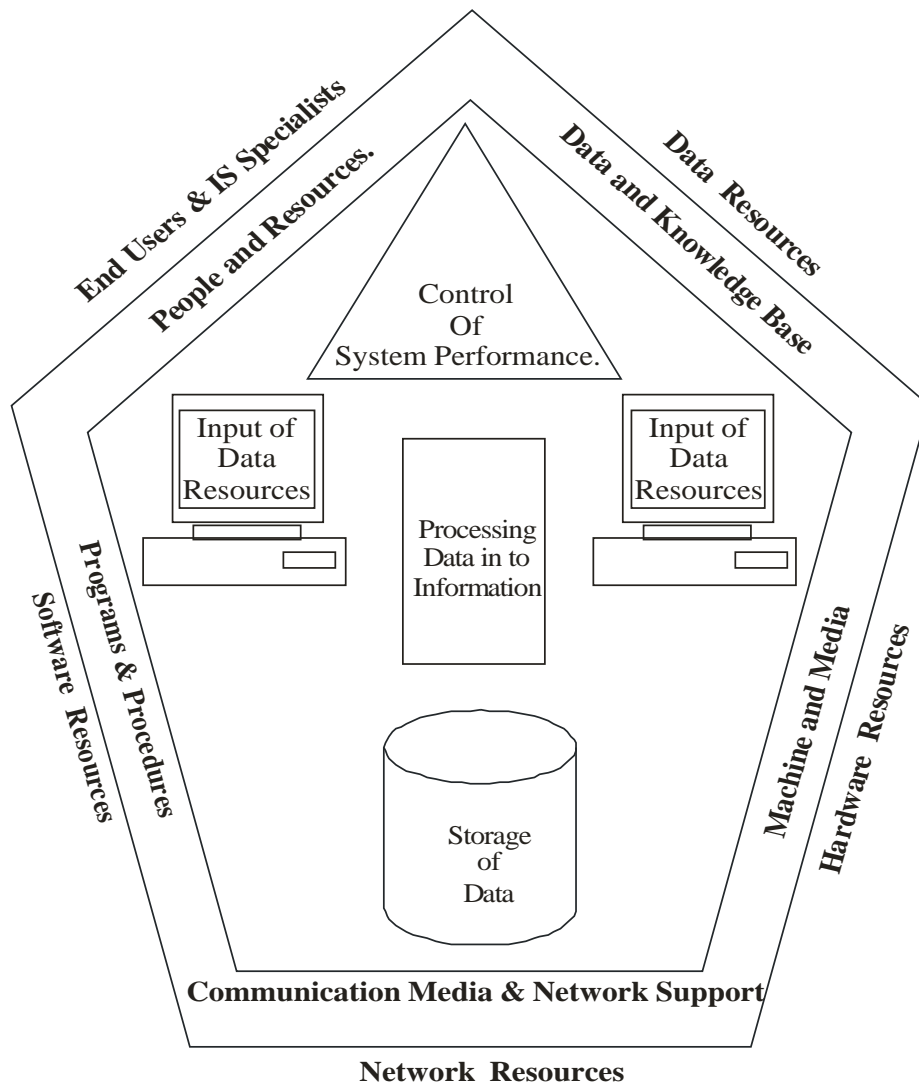
Figure 2.6

Information System for Decision Making

```
                        ┌─────────────────┐
                        │  Evolution of MIS │
                        └─────────────────┘

  ┌──────────┐   ┌──────────────┐   ┌──────────────┐   ┌──────────────┐
  │ Financial │   │  Operational  │   │   Marketing   │   │   Personnel   │
  └──────────┘   └──────────────┘   └──────────────┘   └──────────────┘

                        ┌─────────────────┐
                        │    Basic MIS     │
                        └─────────────────┘

        ┌──────────────┐   ┌──────────────┐   ┌──────────────────┐
        │  Programmed   │   │  Programmed   │   │   Management      │
        │   Decision    │   │     MIS       │   │   Science &       │
        └──────────────┘   └──────────────┘   │   Decision        │
                                               │   Rules           │
                                               └──────────────────┘

  ┌──────────────┐                              ┌──────────────────┐
  │   Decision    │                              │   Programmed      │
  │   Assisting   │                              │   Decision        │
  │   System      │                              │   System          │
  └──────────────┘                              └──────────────────┘

              ┌──────────────┐
              │    MIS &      │
              │   Decision    │
              │   Making      │
              └──────────────┘
```

(Murdick, Ross and Claggett:1999)

MIS provisos relevant information which helps the management for implementation to different business strategies and objectives and helps

management to use the different strategies which present industry needs. MIS helps in strategic planning, management control, operational controls and others. Regular supply of information is imperative to assess the present market opportunity and threats to cope the business as per the environment. As the objective of MIS is to equip the managers white timely, complete, regular and reliable information it has to be in formulation of policy, strategy etc.

Components/ Structure of MIS

Figure 2.7

Components/ Structure of MIS

The above figure illustrates and information system model that expresses a fundamental conceptual framework for the major components and activities of information system (Murdick, Ross and Claggett, 1999).

Hierarchy of Management in Kumari Bank

Level of management means the arranged managerial position in an organization as well as it is the system of dividing the authority and responsibility among the various managerial positions. It is concerned with the classification of superior subordinate relationship in an organization. The level of management depends upon the size and nature of the organization. In Kumari Bank Limited, the hierarchy of management is divided into four levels.

   i.   Top level management

  ii.   Middle level management

 iii.   Lower level management

 iv.   Transaction level management

All levels of management are inter-related with each other and are equally important for the smooth operation of management. Even a small mistake of one level can affect the whole management process

Decision-making is a process of choosing the best alternatives among the available alternatives for the solution of problem raised in the organization. It is a complex task because of the changing and competitive environment, scare resource & time and due to the organizational goals. It involves the entire process of establishing goals, defining activities, searching for alternatives and developing plans. The figure shows the hierarchy of management of Kumari Bank Limited.

Figure 2.8

Hierarchy of Management in Kumari Bank
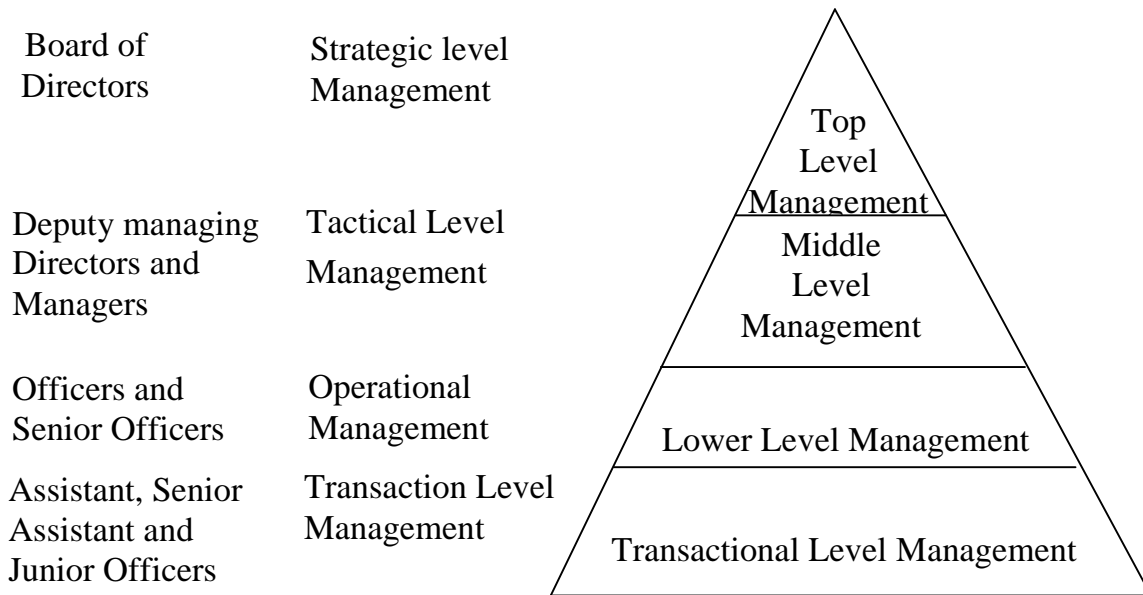
Board of Directors	Strategic level Management	
Deputy managing Directors and Managers	Tactical Level Management	
Officers and Senior Officers	Operational Management	
Assistant, Senior Assistant and Junior Officers	Transaction Level Management	

Top Level Management

Middle Level Management

Lower Level Management

Transactional Level Management

All levels of management are inter-related with each other and are equally important for the smooth operation of management. Even a small mistake of one level can affect the whole management process.

Decision-making is a process of choosing the best alternatives among the available alternatives for the solution of problem raised in the organization. It is a complex task because of the changing and competitive environment, scare resource & time and due to the organizational goals. it involves the entire process of establishing goals, defining activities , searching for alternatives and developing plans.

The hierarchy of management is divided into four levels for performing decisions –making functions. They are strategic planning levels, management controls operation controls level and transaction processing levels (Kumari Bank, Annual Report: 2009).

i) Top Levels Management

The strategic planning level of management of the Kumari Bank Limited consists of board of directors or the directors. It involves in formulating the plans and policies, setting the objectives of the company and decision making on different issues. The success or the failure of the activities of the company depends on the decision of the strategic planning level of management. There will be C.O.E, president, vice –president using different intelligence support system like Decision Support System, Executive Support System, Expert System, & Artificial Intelligence (A.I) (Kumari Bank, Annual Report: 2009).

ii) Middle Levels Management

The management controls level of management is involves in the implementation of the plans and policies prepared by the top level management. It consists of department heads such as departmental directors. This level of management is responsible for the activities performed by each of their department. There will be Director, Manager using different intelligence support system like Management Information System (M.I.S). (Kumari Bank, Annual Report: 2009)

iii) Lower Level Management

The operation control level of management plays the role of bridge between management control level management and the transaction level of management and performs the controls function. Departmental admin, supervisors etc. performs the operational control level management in Kumari Bank Limited. It control the day-to day operations of the transaction level, keeps the record and provides the relevant date to support the management controls level for decision- making. There will be co-ordinator, supervisor, team leader using different intelligence support system like Knowledge Works System (K.W.S) & Office Automation System(O.A.S) (Kumari Bank, Annual Report: 2009).

Transaction Level Management

The transaction level of management is considered on the day-to-day operations, such as production of goods and providing services to the clients. The maintenance supports to the client by the hardware personals, the records of daily transaction, etc tasks are performed to meet the organizational goals / objective. There will be Operational sales Representative, Accountant, Clerk, Financial Analysis, Teach support Representative , Product Workers, Retail Association, Administrative Assistant using different intelligence support system like Transaction Process System(T.P.S) To have deep insight of card business of Kumari, firstly types of card their provisions and steps involved in card management process are discussed. Then trend analysis related to different aspect of Kumari is done (Kumari Bank, Annual Report: 2009).

Commercial Banks and Economic Payment System

Bank is a business establishment that safeguards people's money and uses it to make loans and investment. A bank is an institution that deals with money by accepting various type deposits, disbursing loan and rendering other financial services. In other words, bank is an institution, which deals with money and credit. It is also known as manufacturer of credit and machines for facilitating exchanges. Since banks are rendering a wide range of services to the people of different walks so life, they have become an essential part of modern society.

Thus, bank is a financial organization with aim to accumulate the idle money of the public and advancing them to the profitable sector. In order words it collects money from general public, and they offer attractive interest rate for their deposits. Bank then mobilize their deposit in providing public loans to the business house, industry, agriculture and needy people with an attractive interest rate. In this way, it can be said that the main objective of bank is to mobilize the resources in a productive area after collecting them from different scattered

sources. Thus, a bank through its operation acts as an agent between the saver and investor and generates profit for itself. In this way, a bank plays an imperative role in our economy by providing effective services, efficiently towards the attainment of economic development. Some of the definitions of banks as per different writers are as follows: "A bank is an organization whose principle operations are concerned with the accumulation of the temporarily idle money of the general public for the purpose of advancing to other for expenditure" (Kent, 1978).

"Any institution offering deposits subject to withdrawal on demand and making loans of commercial or business nature is a bank" (U.S. Law, 1960).

"A banker is a dealer in debt in his own and other people. The banker business is to the debt of other people to offer his own to exchange and thereby to credit money" (Geoffray Crowther, 1658).

As per the opinion of Geoffrey Crowther following communities or groups are the ancestors of Banker.

) The Merchant Traders
) Goldsmith
) The Money Lenders

The origin of the word bank is linked to the Italian word "banca", Latin word "bancus", French word "banque" and German word "bank" which means Joint Stock Company. During 1197 and 1247 A.D., the Jain scriptures mentioned the names of two bankers who built the famous Dilwara temple of Mount Abu. "Bank of Venice" was established in Venice, Italy in 1157 A.D. as the first modern bank. The banker of Lombardy was famous in England. Similarly, in 1401 and 1407 A.D. Bank of Barcelona and Bank of Genoa were established. Then banking slowly spread to the rest of Europe.

"In Greece, the temples of Delphi and other safer places acted as store houses for the precious metals before the days of coinage and in later times, they lent out money for public and private purposes at interest though they paid none themselves. Private money changes began with the task of reducing many metallic currencies more or less exactly to a common unit of value and went on to accept money on deposit at interest and to lend it out at higher interest permitting meanwhile draft on them". "Merchants, Goldsmiths and Moneylenders are the ancestors of modern banks" (Geoffrey Crowther).

Bank can be defined as according to the function they perform. A bank is established with the prime objectives of profit maximization. To achieve this, the bank carries out functional activities "Principally, commercial bank accepts deposits, provide loan primarily to business firms thereby facilitating the transfer of funds in the economy.'' Although, yesterday banks were viewed as acceptor of deposits than provider of loan, but modern commercial banks have got to perform overall development of trade, commerce, industry, and agriculture including supports for priority and deprived sectors. The growing banking needs and habits of people has made the banking sector challenging and their operation cannot be under emphasized in present context of market globalization. Hence, a bank is commercial institution licensed as a taker of deposits, concerned mainly with making and receiving payments on behalf of their customers, accepting deposits and providing short-term loans to private individuals accompanies and other organizations. Commercial Banks main objectives is the profit maximization. To achieve this objective commercial banks perform the following functions according to the commercial bank act 1947 and mandatory rules regulations and directives of NRB.(Nepal Rastra Bank, Annual Report; 2008/2009).

Data Processing

It is the term given to the process of collecting data together and converting them into information. The way of doing is manual, semi manual, mechanical or electronic. Electronic data processing can be done by the use o computer. It is mostly associated with business and commercial work. Features of EDP cycle are given below.

Figure 2.9

Data Processing

Data recorded and prepared	⇢	Processing by computer	⇢	Information

Maintained data on storage
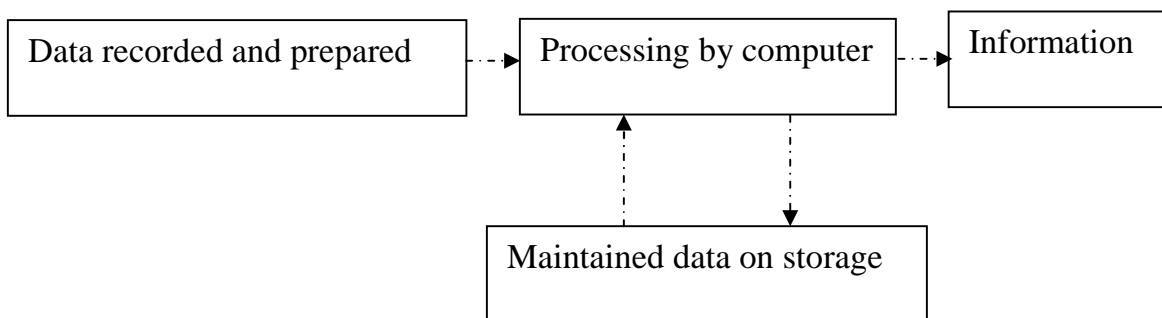
On above EDP, a company might hold details of its employees, name, address, rates etc. On backing storage, data are maintained and updated for the processing. By using the newly input data of data from the storage are processed and produce a set of information in terms of pay slips (Adhikary, 2007).

Online Processing

In online transaction processing, the term online means that the data input device is directly linked to the transaction processing system and the data are processed as soon as it enters into the system. The input device may be at a remote location and be linked to the system by networks or by telecommunication systems. Here, the information is always current since there is little or no time lag between data creation and data processing. Some examples are Information about the loan transaction, railway reservations etc. Online processing is possible because of storage media such as disks that process data in a random order.

Early computer systems relied mainly on batch processing, but the vast majority of systems today use online processing. An online system handles transactions when and where they occur and provides output directly to users.

Because it is interactive, online processing avoids delays and allows a constant dialog between the user and the system. An airline reservations system is a familiar example of online processing.

Online processing also can be used with file – oriented systems. Figure below shows what happens when a customer uses an ATM to inquire about an account balance.

Online processing systems have four typical characteristics:
- The system processes transactions completely when and where they occur.
- Users interact directly with the information system.
- Users can access data randomly.
- The information system must be available whenever necessary to support business functions (Adhikary, 2007).

Batch Processing

In a batch processing system, data is collected and processed in groups, or batches. Although online processing is used for interactive business systems that require immediate data input and output, batch processing can handle other situations more efficiently (Adhikary, 2007).

Kumari and Loan Management

Kumari has very strong and exclusive network branching system within the Kingdom. It is the first bank in Nepal to introduce modern computerized services. It has ABBS (Any Branch Banking System) which facilitates cash and cheque

transaction from any of the Kumari Branches within the valley. It has its own accounting software system called. It provides tele-banking facility to its customer and other branches. It also has an esteemed and extensive correspondent/agency banking relationship with most of the leading banks of the world like Citibank, Amex etc. It also provides International level of services. So, Kumari Bank's Banking technology is computerized and of quick service.

In keeping with the Bank's tradition of providing superior services to its customers as well as to increase its shareholder's return on investment in the long term, KUMARI has already commenced the implementation of a world class banking software developed by a renowned software company. With the activation of this system in all the branches by April 2004, the Bank will be able to further enhance its operating efficiency and offer customer data access and offsite services equal to that offered anywhere (Kumari Bank Limited, Reports; 2009).

2.2 Review of Articles

2.2.1 Kumari Mobile Cash

Kumari Bank, in partnership with Leapfrog Technology, a US based Software Company, launched "Kumari Mobile Cash", a revolutionary service that uses mobile phones to provide access to financial services on August 17, 2010, Through this revolutionary product, we plan to deliver financial services in a new and innovative way to all Nepalese, including those that do not have access to banking services, in a fast, secure and low cost manner. We intend to leverage the ubiquity of mobile phones to bring financial access to all, and stress that one does not have to have a bank account at all to use this service.

The first of its kind in Nepal, this service pioneers the "mobile wallet" concept, which allows users to store cash balances in their mobile phones. Users are then able to deposit and withdraw cash from their mobile phones, and use the stored

cash value to remit to anyone, anytime, anywhere, with the push of a few buttons. At present, this service is available through all of Kumari Bank's 28 branches and 189 authorized agent locations nationwide.

At Kumari, we believe that, mobile phone is not only a medium of connectivity, but also can spur various entrepreneurial activities, which contributes directly to the socio-economic development of the nation. In around 75 years of formal banking era in Nepal, only less than 30% of Nepali population has access to formal financial services. In comparison, the number of mobile phone users in Nepal is currently 75 lakhs within 7 to 8 years of its market penetration, and with an annual growth rate of more than 35%, the number of users by 2014 is projected to reach 1.5 crores. Thus, Kumari Mobile Cash will leverage the proliferation of mobile phones to bring financial services within the reach of every mobile user.

Kumari Mobile Cash will save time, effort and money for everyone in Nepal. For instance, In Nepal, this means, someone does not have to travel by bus for 8 hours to deliver money to family. It means that an elderly woman no longer has to walk for five hours to a remittance agency to withdraw the funds that her son has just sent her.

Initially, we will be offering the following services through Kumari Mobile Cash:
- Deposit Cash into a Mobile Phone
- Withdraw Cash from a Mobile Phone
- Mobile to Mobile Fund Transfer
- Recharge Pre-paid airtime minutes
- Payment of Merchants and Utility Bills
- Transfer funds from/to bank account to mobile

Kumari Bank is thrilled to launch this new service. Not only will it enhance the reliability, efficiency, and convenience of Nepali financial services, it will also make banking possible for all Nepali people.

Bank and Unistream Launched Remittances in Nepal

Moscow based Commercial Bank Unistream and Kumari Bank Limited has launched a joint integration project to provide inbound remittance services in Nepal.

Commercial Bank Unistream is an organizational and operational center for the international money transfer system Unistream. The senders can now send money from any Unistream's location around the globe, and payee can pick up the cash in any branch of Kumari Bank across Nepal. After the completion of all organizational and operational stages, the project is expected to give the clients easy and direct access to the Unistream cash-to cash inbound services in over 300 locations in the country.

The two parties believe that the clients will enjoy convenient, fast, reliable services with affordable rates applied. "Integration with the well known Kumari Bank is a very important step to further build up our network in Asian region where the system has already launched unprecedented projects in China, Bangladesh and Sri Lanka. The system's special interest in Nepal is due to the serious and increasing role the country plays in the world tourism and migration," the Senior Vice President of international development for Unistream, Shekhar Nair said in his comments to the project's commencement.

"As an ambitious and rapidly developing market player, our system puts its best foot forward to actively participate in development of the official regional money transfer market." "Cooperation with Unistream that operates in 95 countries

around the globe helps us provide our clients one more convenient and affordable option expending the product line," said **Radhesh Pant, CEO of Kumari Bank.**

Kumari Bank Ltd has been providing a wide spectrum of modern banking services through its points of locations in various urban and semi urban part of the country. The bank is known for being a pioneer in providing some of the latest and lucrative banking services like E-Banking and SMS Banking services in Nepal. With operational and organizational center in the Moscow-based Commercial Bank Unistream, the money transfer system operates over 190 000 service points world wide. In partnership with over 300 financial institutions, Unistream is known for successful development of its own networks in Russia, UK, Cyprus, Greece and Germany.

Inaugurated 6 (six) New Branches
Kumari Bank Ltd. (KBL) inaugurated 6 (six) new branches in the Western region of the country in Kawasoti, Tulsipur, Nepalgunj, Salyan, Surkhet and Dhangadhi. Mr. Shiva Ratna Sarada, Chairman (Board of Directors) inaugurated the Nepalgunj Branch, Director Mr.Min Bahadur Gurung inaugurated the Surkhet Branch, Director Dr. Sobha Kant Dhakal has inaugurated the Salyan Branch, Director Dr. Rajan B. Paudel inaugurated the Tulsipur Branch, Chief Executive Officer Mr. Radhesh Pant inaugurated the Dhangadi Branch and Mr. Roshan Chandra Gautam, Branch Manager of Narayangadh Branch inagurated Kawosoti Branch.

With a vision to provide access to complete banking services, KBL has commenced its services through the new branches from today, Asadh 27, 2067. With this addition of branches in the western region, KBL now has 27 branches and 22 ATMs in the country.

2.2.2 Kumari Big Savings Khata

Kumari Bank introduces "**Kumari Big Savings Khata** - a flat 10% interest per annum Savings account. At this point in time, we are the only bank offering a double digit rate of interest at the minimum balance requirement of NPR 50,000 only for a Savings product. With the arrival of this new KBL product, customers need not block their money in Fixed Deposit and can rather enjoy the high rate of interest in the Savings product itself. Kumari BIG Savings can be open for a limited time only (till August 17, 2010). Even in the past, to cater to the needs of the masses, Kumari bank has introduced various innovative Savings products like Subha Laxmi- for women; Twinkle Star – for children, 50 plus - for elderly etc. With this new Savings product, Kumari bank intends to give maximum returns on customers' savings.

In comparison to the first nine month of last fiscal year, Kumari bank in the same period of this fiscal year has been able to increase its Net Profit by 27.66%. Similarly, the bank has been able to decrease its Non Performing Loans from 0.82% to 0.64% and its Capital Adequacy Ratio is at 12.67 %. At present, Kumari bank has Service Network of 21 branches and 22 ATM across Nepal. As per its plan of opening 12 new branches this fiscal year, the bank has already opened 5 branches and would be opening 7 more branches outside Kathmandu valley within this fiscal year. Kumari Bank introduces "Kumari Big Savings Khata - a flat 10% interest per annum Savings account. At this point in time, we are the only bank offering a double digit rate of interest at the minimum balance requirement of NPR 50,000 only for a Savings product. With the arrival of this new KBL product, customers need not block their money in Fixed Deposit and can rather enjoy the high rate of interest in the Savings product itself. Kumari BIG Savings can be open for a limited time only (till August 17, 2010).

Remarkable Financial Performance

Kumari Bank Ltd. has remarkable financial performance in the fiscal year 2008-09. The bank has been able to increase the total deposit to NPR 15.710 billion as on July 15, 2009, a growth rate of 23%. Likewise, the bank has invested total loans & advances of NPR 14.7 billion during that period with a positive growth of 28.4%. The operating and net profit of the bank in FY 2008/09 stands at NPR 416 million and NPR 268 million respectively, a positive growth rate of 27 % and 53 % respectively over the previous year. Further, the bank, with its prudent asset management practice, has been able maintain non performing loan of 0.43 %, which is considered as one of the lowest in the industry.

Similarly, the bank has 16 full-fledged branches and one extension counter, offering array of modern banking products and services, located in various parts of the country. Further, the bank has a plan to start operation of 4 new branches inside Kathmandu valley within 3 months.

In order to lead the bank to another dawn of professional banking, the bank has appointed Mr. Radhesh Pant as Chief Executive Officer. Mr Pant was formerly the president of Nepal Banker's Association and the Managing Director of Bank of Kathmandu. The bank is confident that with the appointment of new CEO, stakeholders' expectations shall be met best.

2.2.3 Kumari Smart Fixed Deposit

Kumari bank introduces "Kumari Smart Fixed Deposit" targeted to the individuals only. This account can be opened for a period 1 & 2 years. Effective rate of interest is 9.38%* for two years and 8.84%* for one year. Special feature of this product is that the interest will be credited in customer's checking (saving/ current) account every month ,as a result, one can enjoy the ultimate benefit by planning monthly income on the basis of deposit one makes. The more the deposit

in "Kumari Smart FD", the more is the monthly income (gain). Furthermore, one also continues to get additional interest in his/her savings account, upon the transfer of the interest from the Fixed Deposit every month "Byaj ko Syaj"! Thus, resulting in a gain even more than 9.38%* rate of interest.

2.2.4 Blood Donation Programmer

To celebrate the completion of 6 years of excellence in banking, the staff of Kumari Bank organized a Blood Donation Programme on Chaitra 20th 2063,at its Head Office, Putalisadak Kathmandu. The response to this event was over whelming with 63 staff and clients of the bank donating blood. According to Mr.Rajesh Shrestha- Head Card Department and one of the key organizers to the event announced that this event would be regular feature in the annals of Kumari Bank Limited. Kumari Bank Limited has been actively involved in social activities and had recently organized a health camp at Sindhupalchok, where a team of 15 doctors and 20 nursing staff provided medical assistance to1800 patient of them 1200 were female. On this occasion it was also informed that in first 8 months of the current fiscal year, the bank has been able to make remarkable achievements. During this period, the deposit of the bank increased to Rs.1200million, with Loans & Advances at Rs.900million. The operating profits for this period is Rs.160 million. The Bank also has plans to expand its branch network at Kumaripati (Patan), Durbar Marg, New Bus Park Gongabu (in Kathmandu) and Narayanghat (Chitwan) in the near future. The bank has recently announced 20% Bonus Share for the fiscal year ended 2062/63.and Cash Dividend of 1.05%.

2.3 Review of Related Research Studies

One important factor underlying systems is that information is a corporate asset and should be recognized as such. In classical economic terms the factors of imports were viewed as land, labor and capital in the modern age, there have become the five M'S: man, money, machine, material and management. To

integrate these factors successfully, it is necessary to use information as a sixth factor of imports of petroleum. Although MIS tried to integrate an organization's resources together in a coherent and effective manner, there were shortcomings.

A definition of decision - making activity is often taken for granted and is associated with making a choice among alternatives. Decision – making is the process by which the decision maker moves from a current position to the position in which she or he wants to be. So Decision – making process can be defined as a series of steps that start with an analysis of the information and ultimately culminate in a resolution a selection from the several available alternatives and verification of this selected alternative and verification of this selected alternative to solve the problem understudy (Er. Shankar Nath Adhikary, 2066).

Levels of Decisions

Fundamentally managerial activities and decisions can be segregated in to three categories: those that relate to top. Middle and lower managerial Decision managing at these levels of management has varying degrees in futurity. Strategic palling, Management Palling and Operational Palling. Because the output of and information system is directed toward assisting management in planning and controlling organization activities, it is beneficial to relate the following types of information:

) Strategic
) Tactical
) Operational

To the managerial levels for decision making. Generally. Lower management concerned with operational informational for decision making, while tactical information and strategic information are useful to middle and top management , respectively, for making decision . The type of information supplies has to do with

the activities with which the information is concerned to internal environment of the organization and the external environment which the organization operates.

Figure 2.10

**Levels of Decisions in Kumari Bank**

Information need for Decision

It is general fact that internal information should be more and more summarized as the level of management for which it is prepared rises in the hierarchical structure, with top management receiving overall reports operations for future planning.

Figure 2.11

Types of Information Reports needed by Management Levels for Planning and Control
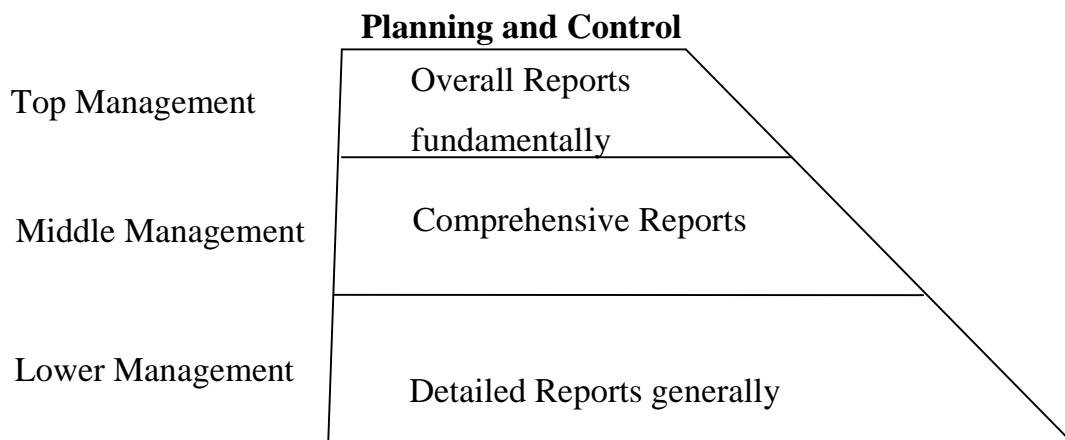
On the other hand, lower echelons of management, being control oriented, receive the most detailed reports. Between top and low management is middle

management, which is planning oriented. All three levels of informational need are illustrated in Figure above. The relationship of types of decisions to the managerial Level – support functions.

Figure 2.12
Examples that depict the relationships of types of decisions to the Managerial Level – Support Function

Managerial Level: Support Function	Types of Decision	Examples
Top management: concerned with strategic planning.	Structured semi-structured unstructured	Plant and warehouse locations Mergers and acquisitions Future produces
Middle management: concerned with managerial control.	Structured semi-structured unstructured	Flexible budgets and cost analysis Forecasting and sales promotion Subcontracting and motivation of personnel
Lower management: concerned with operational control.	Structured semi-structured unstructured	Accounts payable and payroll preparation Accounts receivables and purchasing Customer waiting lines and situations involving group behavior

(Source: Robert J. Thierauf, Ph.D, Xavier University)

Types of Decision

Earlier we have mentioned that decision-making activity is associated with making a choice among alternatives- in fact-making a reasoned choice among alternatives. This activity consists of series of steps that starts with an analysis of the information and ultimately culminates in a resolution i.e. making a selection among available alternatives.

Fundamentally, the decision-making Process can be viewed from two major perspectives

⏐ Quantitative Approach
⏐ Qualitative Approach

Quantitative Framework

In this, the stress is on determining specific values of all parameters of the problem and solving for a specific value or range of values.

Qualitative Framework

State the factors in general term and solve the problem on that basis No attempts to quantify the factors. Both approaches have their own merits and demerits and importance in decision-making. The fundamental approaches of viewing decision-making processes, viz. quantitative and qualitative, can be discussed on three different viewpoints.

Systematic –Intuitive Approach
Thinking – Feeling Approach
Normative – Descriptive Approach

2.3.1 Systematic –Intuitive Approach

Problem solving and Decision making can be viewed in terms of processes through which individuals organize the information they perceive in their environment, bringing to bear habits and strategies of thinking.
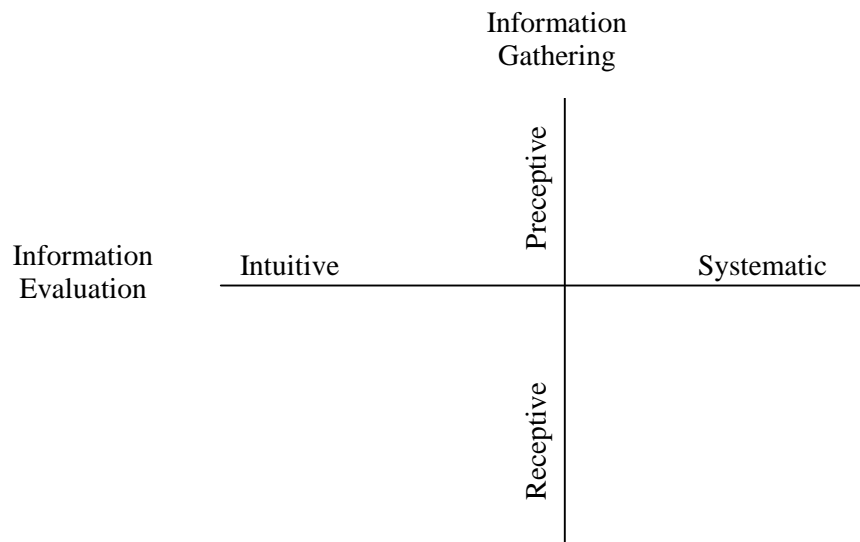
James McKenney and Peter Keen's this view of decision-making is based on: Information gathering and Information evaluation.

2.3.2 Thinking – Feeling Approach

This second way of viewing decision-making approach is by C. G. Jung Thinking types base their decision logical modes of reasoning. In effect, they do not feel comfortable unless they have an analytical, mathematical basis for decision-making. Feeling types make their decision based on extremely personal considerations – their feeling about a particular situation. Thinking types want to depersonalize every situation, objects and person by "explaining them, where as Feeling type want to personalize every situation by stressing their individuality. An individual takes in data by intuition or sensations.

The person may come to conclusion about the data by either a logical, impersonal analysis – thinking, or by subjective, personal process- feeling. Combining the two input modes with two decision-making modes we get four Jungian personality types which are mentions below:

> Sensing – thinking types,
> Sensing - feeling types,
> Intuitive - thinking Type,
> Intuitive – feeling type,

Each type depicts a different mode of operation regarding decision-making process.

2.3.3 Normative- Descriptive Approach

The third approach of viewing decision-making is based in terms of two general types of decision models. These two decision models are now commonly in use. These are normative Model and descriptive model.

The normative framework describes the traditional decision making situation in which a decision maker faces a known set of alternatives and selects a course of action by a rational selection process.

This approach presumes, a decision maker is objectively optimizing a quantifiable measure of decision quality. (This may be a statistical measure because future is never completely known). There is, in other words, a normed scale against which decision can be measured - and it is often assumed, unlimited time and resources to devout to analyzing the decision.

The descriptive framework incorporates adaptive or learning features and the act of choice spans many dimension of behavior, rational as well as non-rational.

Descriptive models, by contrast, attempts to describe the way people really do make decisions. We don't always have agreed upon measures of decision quality, we don't usually have unlimited time and resources to devout to analyze a decision and we often have motivations that can be hard to explain or justify.

2.4   Approach to Problem Solving

Traditional Problem Solving Steps are

> Step 1: Observation

> Step   2: Definition of the Problem

> Step 3: Formulation of Hypothesis

> Step 4: Experimentation

> Step 5: Verification

Herbert Simon's three steps of Problem Solving

> Step 1: Intelligence

> Step 2: Design

> Step 3: Choice

2.5   Approach to Decision Making

There exist several approaches to decision making. Instead of exploring and comparing each one of them we mainly focuses on two approaches viz.

Quantitative Approach to decision Making and Decision centered Approach to decision making.

Quantitative Approach to Decision Making

Step 1: Observation

Step   2: Definition of the real Problem

Step 3: Development of alternative solutions

Step 4: Selection of optimum solution using experimentation

Step 5: Verification of optimum solution through implementation

Step 6: Establishment of proper control over solution

Decision Centered Approach to Decision-making

Step 1: Intelligence

Step   2: Design

Step 3: Choice

Step 4: Implementation

Step 5: Control

(Class Hands Out From Thapa, DSS)

2.6 Research Gap

This research is slightly different then other research or research due to I use here different types of tools like ERD and DFD and model for linear programming which helps to forecast the maximum profit or minimum cost for any company when we take quick decision. All other reaming parts of researches are same except above mention some particular tools. On the basis of ERD types I give one example.

CHAPTER - III
RESEARCH METHODOLOGY

3.1 Research Design

 "Research design is a plan, structure and strategy of investigation conceived so as to obtain answer to research question and to control the variance" (Kerlinger, 1999). Thus, research design is an overall pan or frame work for the collection and analysis of data which provides the frame work for the study, guidelines for the collection and analysis of data.

I designed the research by the help of IT and Loan Department of Kumari Bank Limited and Annually Report 2008/2009. I collected knowledge of venture of Kumari Bank Limited detail data flow diagram and Module of forecasting Loan flows in 2011AD secondary data of Kumari Bank Limited. Others more information I collected from authorized dealer and from head office.

3.2 Population and Sample

Total Commercial banks are in Nepal are approximately 29 out of them Kumari Bank Which I selected for the loan Management. The loan flow of Kumari Bank which is already mentioning in chapter two also, but the loan system and the computerized system is quite different of Kumari Bank Limited.

3.3 Sources of Data

I collected data from different places and differences sources like, visiting on its office, Website, Primary sources and also secondary sources which all are listed below on point wise. The data and information have been collected from different sources. The sources of data and information used in this study are as follows. Without any data, nothing can be studied. So, for any statistical investigation, the

collection of data is most important. The importance of data collection lies in the following facts.

That collected numerical facts can be utilized to examine the problems concerning a field of enquiry in their true prospective, to find out the cause of change and to estimate their probable effects, The statistical methods are also employed as a tool for the comparison between past and present events to throw light on the reason o f change on the social system and for future plans and programmers.

3.3.1 Primary Data Collection

The data which are originally collected by an investigator or an agent for the first time for the purpose of statistical enquiry are known as primary data. The data is thus original in character. These types of data are obtained in the survey and enquiries conducted by government, some individuals, institutions and research bodies. The data which are originally collected by an investigator or an agent for the first time for the purpose of statistical enquiry are known as primary data. The data is thus original in character. These types of data are obtained in the survey and enquiries conducted by government, some individuals, institutions and research bodies.

Data Collected Methods

⟩ Observations

⟩ Questionnaires

⟩ Interview etc

3.3.2 Secondary Data Collection

The main difference between primary and secondary data is only of degree one. Data which are originally collected but obtained from some published or unpublished sources are secondary data. The main difference between primary and

secondary data is only of degree one. Data which are originally collected but obtained from some published or unpublished sources are secondary data. Annual Report 2009/2010. Authorized Web site: www.kumari.org.np Case study Primary Sources: According to Kumari Bank Limited primary data are collected by different related sources like opinion poll, sampling, visiting, accuracy study. Primary Sources: Internal sources, Data are found within a Kumari Bank Limited. External sources, Collected from sources outside the Corporation.

Data Collected Methods

〕 Annual Report 2009/2010
〕 Authorized Web site

3.4 Analytical Tools and Technology

Out of so many tools and technology some appropriated tools and technology I used in this research which I presented below with diagrams and names. Data are collected by using different tools and technique like flow chart, Data flow, Entity relationship etc. For the programmed presentation we can use some tools which are mention below.

   i. Algorithm
   ii. Pseudo code/ structured English
  iii. Flow chart
  iv. Data flow diagram

Algorithm

Manually use tools are algorithm. Step – by – step method of program is called algorithm.

Pseudo Code

To represent the program by using English with some logical expression like the programs. For an example; If condition, loop streak, etc.

Flow Chart

Program are reported in diagrammatically by using standard symbols is called flow chart. This provides the skeleton of the programmers. The rectangular box represent the process of the flow chart or the system. Circular shape or oval shape represent the Start or end the process or the system of flow chart. Parallelogram type symbol represent the input or output of data. Similarly the kite symbols represent the Decision. On this way the flow chart is planned by the information manager or IT manager or engineer. The symbols of Flow charts are presented below:

The Symbols of Flow Charts

Process

Start / End

Input / Output

Decision
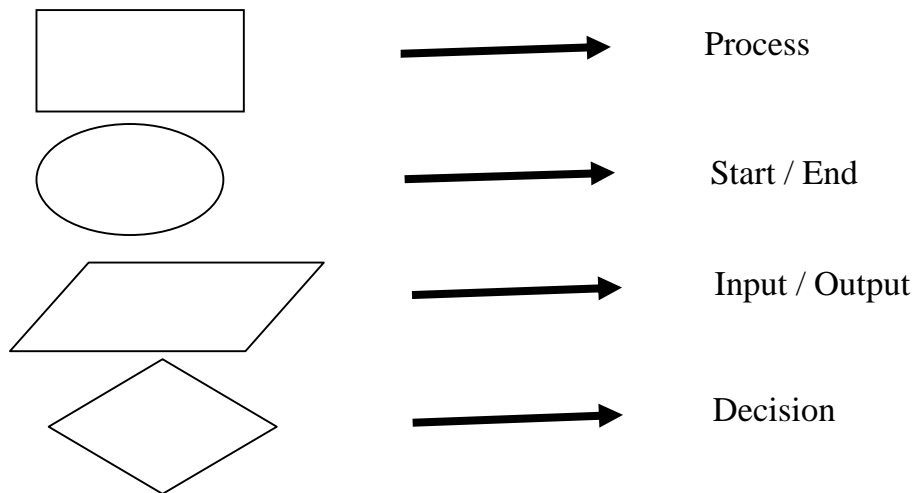
Data Flow Diagram (DFD)

Diagram that represent the flow of information from external entity to the system and vice-versa.

i.   Context level DFD

ii.   DFD systematic flow level.

⌡ 0 level DFD

⌡ 1 level DFD

Context Level DFD

This is one of the most important technique or tools for data collection methods. While preparing this project work or models, I use interviews, questionnaires, and other techniques to gather facts about the system, and they learned how the various people, department, data, and processes fit together to support business operations.

The first step is constructing a set of DFDs is to draw a context diagram. A context diagram is a top-level view of an information system that shows the system's boundaries and scope. To draw a context diagram, I start by placing a single process symbol in the center of the page. The symbol represents the entire information system, and you identify it as process 0. Then I place the internal entities around the perimeter of the page and use data flows to connect the entities to central process. I do not show any data stores in a context diagram because data stores are the internal system. How do I know what internal entities and data flow to place in the context diagram? I begin by reviewing the system requirements to identify all internal data source and destination. During that process, I record the name of the entities the name and the context of the data flows, and the director of the data flow. If I do that carefully, and I do the good job of fact-finding in the previous stage.

Zero Level Data Flow Diagram

A context diagram provides the most generals view of an information system and contain a single process symbol, which is like a black box. To show the detain inside the black box, I create DFD diagram 0. Diagram 0(the digit 0, and not the letter0) zoom in on a context diagram and show major processes, data flow, and data stores. Diagram 0 also represents the eternal entities and data flow that appear in the context diagram.

Process Symbol

A process receives input data and product output that has a different content, form, or both. For instance, the process for calculating pay users two inputs (pay rate and hours worked) to produce one output (total pay). Processes can be very simple or quite complex. In a typical company, processes might include calculating sales trends, filing online insurance claims, ordering Inventory from a supplier's system, or verifying e-mail address for web costumers. Processes contain the business logic, also called business rules that transform the data and produce the required results. The process name identifies specifies function and consists of a verb (and an adjective, if necessary) followed by a singular noun.
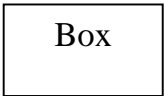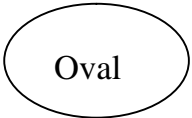
Entities

Process

Storage

Data Flow (unidirectional)

Bi-directional

Duplicate Entity
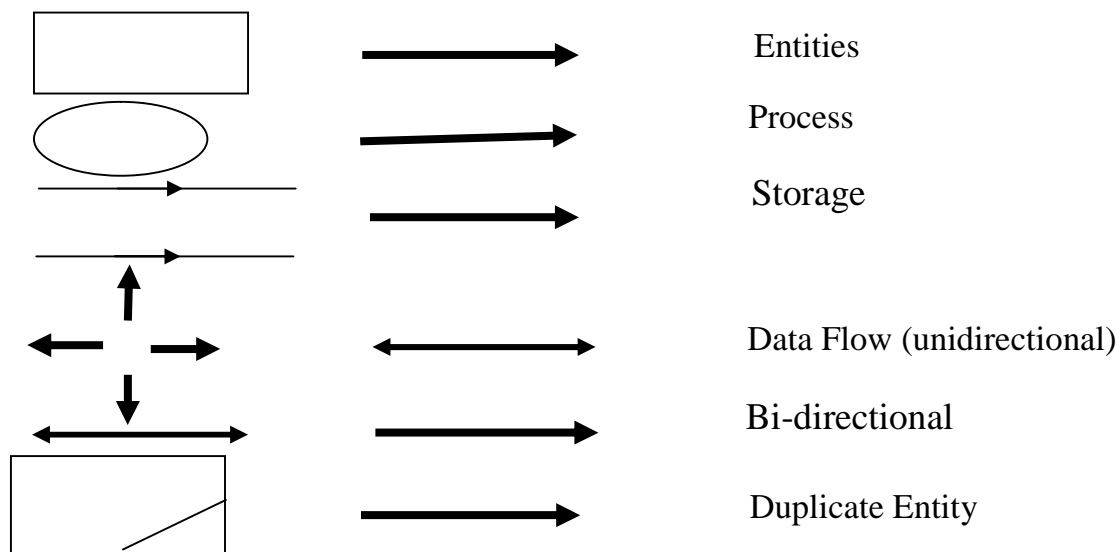
Entity Relationship Diagram (ERD)

Diagram that represents entity set at single entity diagram that perform the object modeling. (Entity = Objective). In the given table below represents the name of entity and comments. This in one most important technique for data collection which is use in widely in Management Information System. To understand the relationships concepts, we have to understand the terms used in explaining the same. They are: entity, attributes, values, key attributes and records.

To provide the control and work with multiple fields certain relationship are generated and present with a diagram called the entity relationship diagram.

Symbols

S.no.	Symbols	Comments
1.	Box	It is used for **entity** representation. It contains objects used in relational database.
2.	Diamond	Diamond represents **relationship.**
3.	Oval	The oval or ellipse is used to represent **attributes** of entities.
4.	Line	It is used to **link** attributes to entity sets and entity set to relationship.

There are three types of relationships between entities. They can be shown in and entity-relation diagram also known as E-R diagram.

〕 One – To – One

〕 One – To – Many

〕 Many – To – Many

3.4.1 Tables and Figures

Some tables and figures are so important for the correct evaluation of the business or the position about the corporation if they are correct. Some important tables and

figures are presented here. Which are so important for the decision making or this research.

Decision Tables

A decision table shows a logical structure, with all possible combinations of conditions and resulting actions. Analysts often use decision tables, in addition to structured English, to describe a logical process and ensure that they have not overlooked any logical possibility.

To create a decision table, follow these steps:

-) Place a heading at the top left that names the table.
-) Enter the conditions under the heading, with one condition per line, to represent the customers status and availability of products.
-) Enter all potential combinations of Y/N (for yes and no) for the conditions. Each column represents a numbered possibility called a rule.
-) Place an X in the action entries area for each rule to indicate whether to accept or reject the order.

Table 3.1

Decision Table

Subject Title	1	2	3	4
Subject 1	Y	Y	N	N
Subject 2	Y	N	Y	N

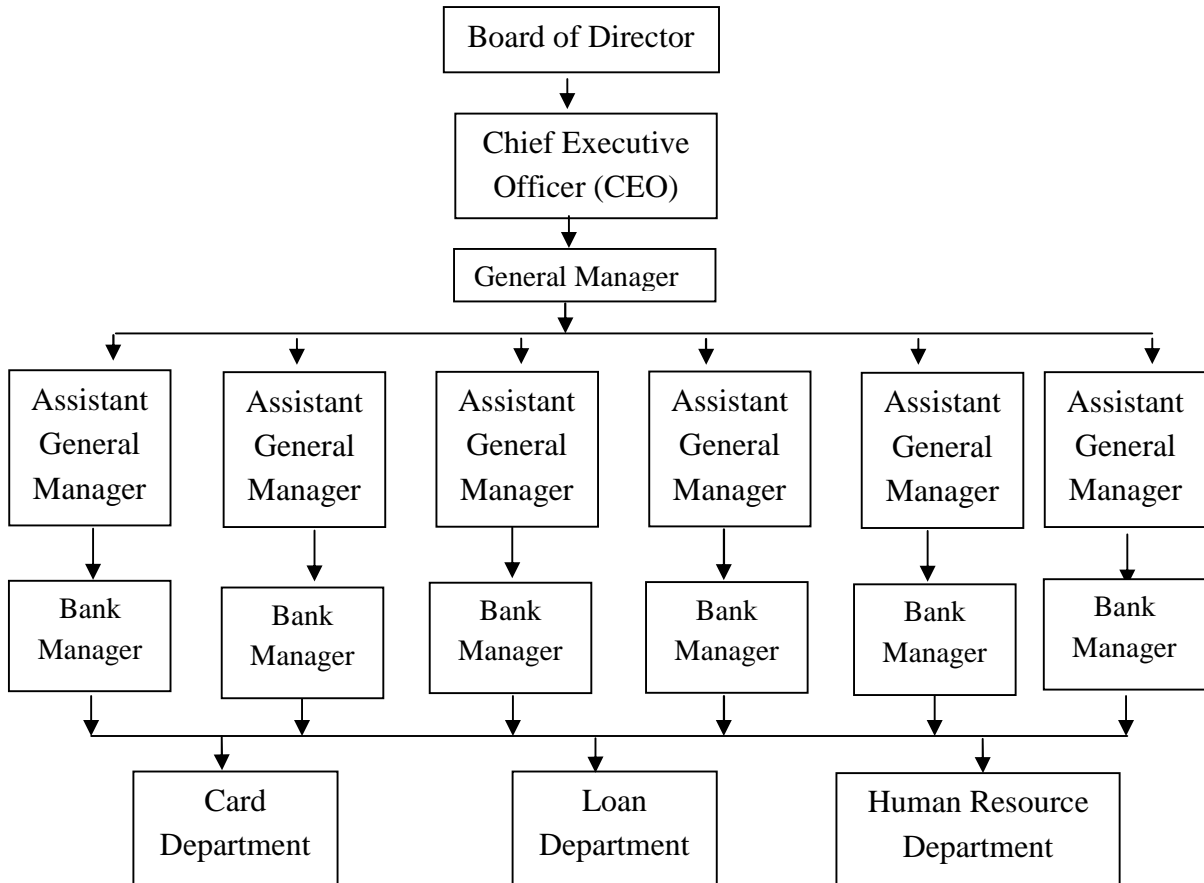On this way decision table is created by computerized system.

CHAPTER - IV

SYSTEM ANALYSIS, DESIGN AND DATA PRESENTATION

4.1 Organization Structure

Every organization is run under one kind of system. System is managed by the organization itself. System is one kind of Mechanism which bound the organization. Under this one important system is Organization chart. Which classified the chart of work and also known as work Division, Which is also known as Organization Chart?
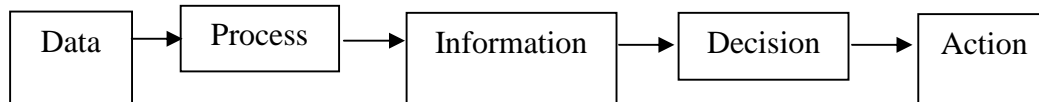
Kumari Bank Limited is also service oriented business. It is also under a Organization Chart which is Prepared below.

Organization Chart of Kumari Bank Limited

```
                        ┌─────────────────┐
                        │ Board of Director│
                        └─────────────────┘
                                 │
                        ┌─────────────────┐
                        │ Chief Executive │
                        │ Officer (CEO)   │
                        └─────────────────┘
                                 │
                        ┌─────────────────┐
                        │ General Manager │
                        └─────────────────┘
                                 │
     ┌──────────┬──────────┬──────────┬──────────┬──────────┐
 ┌────────┐ ┌────────┐ ┌────────┐ ┌────────┐ ┌────────┐ ┌────────┐
 │Assistant││Assistant││Assistant││Assistant││Assistant││Assistant│
 │General ││General ││General ││General ││General ││General │
 │Manager ││Manager ││Manager ││Manager ││Manager ││Manager │
 └────────┘ └────────┘ └────────┘ └────────┘ └────────┘ └────────┘
 ┌────────┐ ┌────────┐ ┌────────┐ ┌────────┐ ┌────────┐ ┌────────┐
 │ Bank   ││ Bank   ││ Bank   ││ Bank   ││ Bank   ││ Bank   │
 │Manager ││Manager ││Manager ││Manager ││Manager ││Manager │
 └────────┘ └────────┘ └────────┘ └────────┘ └────────┘ └────────┘

   ┌──────────┐      ┌──────────┐      ┌──────────────────┐
   │   Card   │      │   Loan   │      │ Human Resource   │
   │Department│      │Department│      │   Department     │
   └──────────┘      └──────────┘      └──────────────────┘
```

4.2 Sources of Information

Information can be defined as the data, which can be organized and presented so that the decision maker may take the necessary action. In other word, information is the result of processing data. The conversion process of data into decision is shown in the figure below:

```
┌────────┐     ┌──────────┐     ┌──────────────┐     ┌──────────┐     ┌──────────┐
│  Data  │ ──▶ │ Process  │ ──▶ │ Information  │ ──▶ │ Decision │ ──▶ │  Action  │
└────────┘     └──────────┘     └──────────────┘     └──────────┘     └──────────┘
```

From the above figure, it is clear that information consists of data that has been retrieved, processed or otherwise used, for informative purposes. Information contains an element of surprise, reduces uncertainty and triggers off action. The main sources of information are primary information and secondary information which is listed in below:

〕 Primary information

〕 Secondary information

Primary Information

Such information which I collected from different sources without direct visiting is primary information.

Secondary Information

That information which is collected through directly visited to the related office is secondary information. No of cards issued through direct Enquire.

Table 4.1

## The Work Completion of Kumari Bank Limited in Fiscal Year 2065/66

(In Rs.10 Lakhs)

Particulars	Fiscal Year 2065/66	Fiscal Years 2064/65	Increase/ Less	
			Rs.	%
Total Assets	18,538.56	15,026.59	3,511.97	23.37
Current Liabilities	15,710.93	12,774.28	2,936.65	22.99
Loan, borrowing	14,795.26	11522.38	3,272.88	28.41
Investment	1,540.83	2,194.16	(653.33)	29.77
Interest Income	1,374.72	957.24	417.48	43.61
Interest Expenses	816.20	498.73	317.47	63.66
Net Interest income	558.52	458.51	100.01	21.81
Others Income	157.85	108.11	49.74	46.01
Others Expenses	302.48	237.71	64.77	27.25
Operating Profit/ Loss	413.89	328.91	84.98	25.84
Net P/L.	261.44	174.93	86.51	49.45

The table is represented about its work completion in 2065/66 Fiscal Year in Rs. Ten lakhs. This is the economical Progress for the year 2065/66.

Figure 4.1

The Work Completion of Kumari Bank Limited in Fiscal Year2065/66
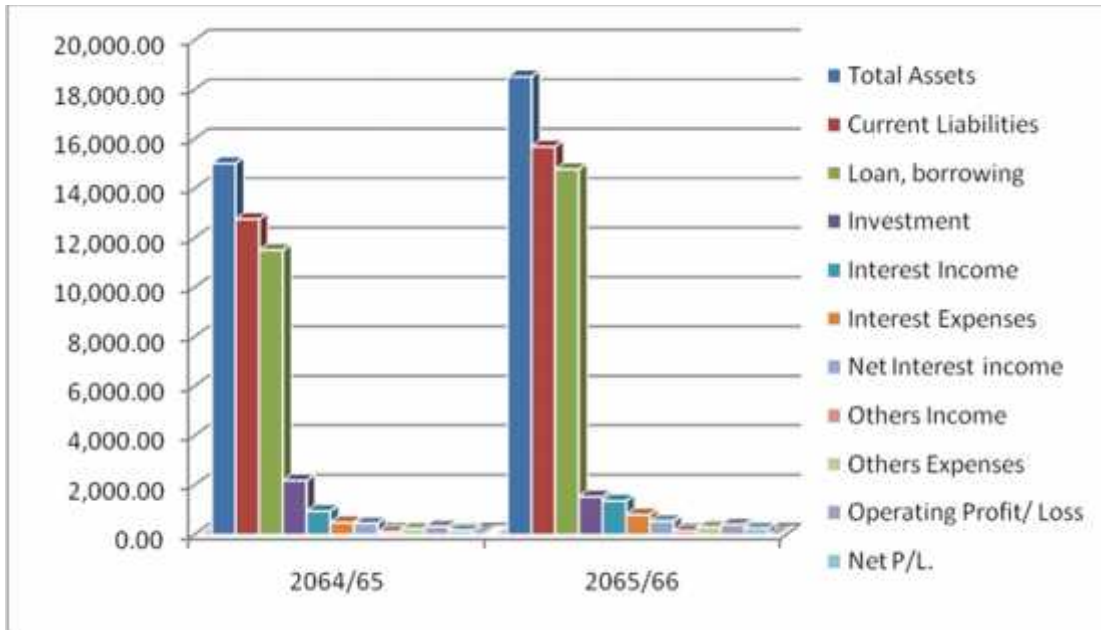
4.3 DFD of Existing System

During the systems analysis phase, we learn how to create a visual model of the information system using a set of data flow diagrams. A data flow diagram (DFD) shows how data moves through an information system but does not show program logic or processing steps. DFDs represent a logical model that shows what the system does, not how it does it. That distinction is important because focusing on implementation issues at this point would restrict your search for the most effective system design. The main process of existing Data Flow Diagram is Loan Department Management. Here are mainly two Entity they are Client and Account holder. There is relation between Process and entity.

4.3.1 Context Level DFD

The first step in constructing a set of DFDs is to draw a context diagram. A contest diagram is a top - level view of an information system that shows the system's boundaries and scope. The main process of existing Data Flow Diagram is Loan Department Management. Here are mainly two entity they are Clients & issuer and Account holder. There is relation between Process and entity.

Figure 4.2
Context Level DFD of Loan Department Management
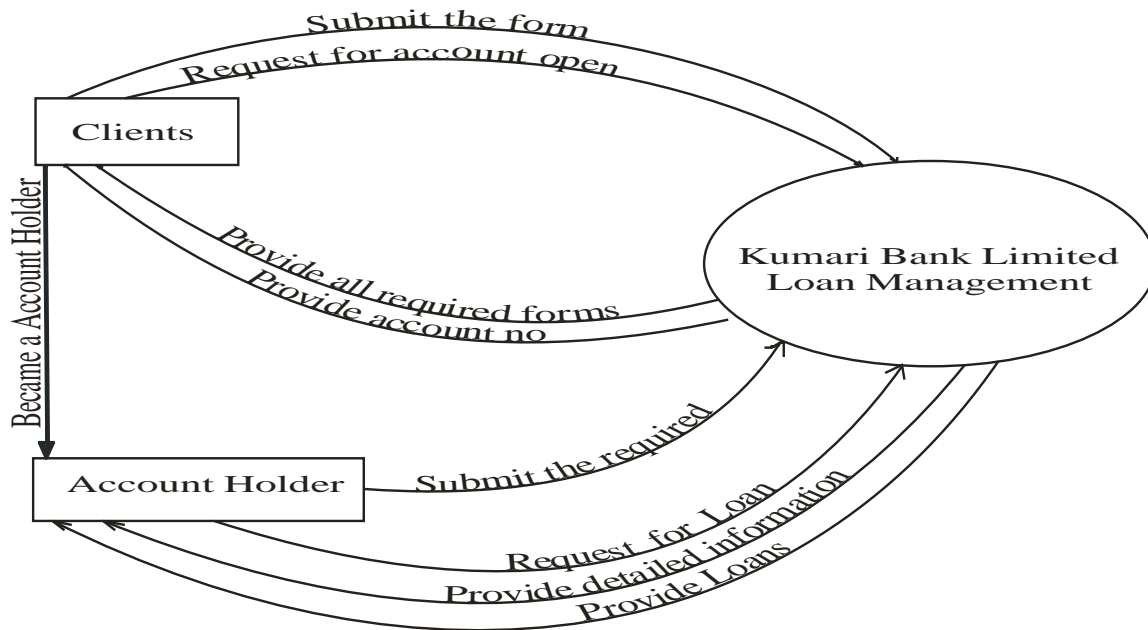
4.3.2 System Level

To show the detain inside the black box, I create DFD diagram 0. Diagram 0(the digit 0, and not the letter0) zoom in on a context diagram and show major process, For the application of the Loan membership first of all applicant should fill a form and submitted to the related department. The database management provides eligibility for this and applicant is granted for the Loan after verifying all necessary documents. Second process for the card granted is after verifying the card. It should be issued by the bank and at last applicant can use of this Loan according to his bank balance he or she can withdraw Loan.

In this System level diagram there are one external entity and four processes. These four processes covering four Data Base File. These all data base file store the detail record and if necessary they collect the require information.

The applicant or the account holder collect loan at last through teller after verifying and issuing data base file. These all data base file correlated data and make easy to work. This is the beneficial of the computer in this era. The function of Data Base File is data flow, and data stores. Diagram 0 also represents the

eternal entities and data flow that appear in the context diagram. A context diagram provides the most generals view of an information system and contain a single process symbol, which is like a black box.

System Level Diagram is the second process of the Data Flow Diagram. System Level Diagram is deeply then context level diagram. The loan Management system of Kumari Bank Limited is detailed in system level diagram which is represented below.

Figure 4.3

System Level

DFD
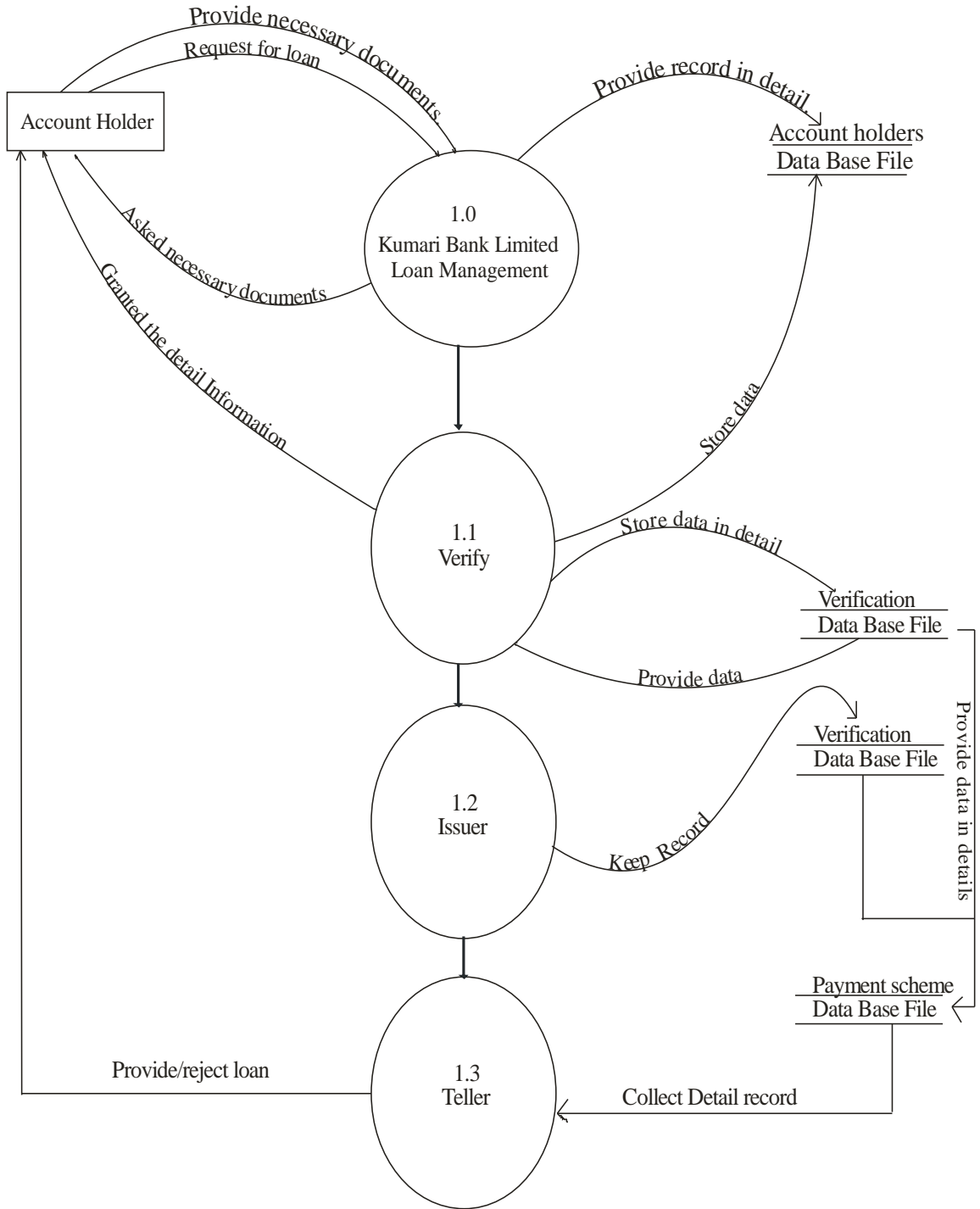
In this context level diagram there are one external entity and four processes. These four processes covering four data file. These all data base file store the detail record and necessary they collect the require information.

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4.4 Analysis of Existing Technology

Technological innovation can take several forms. However Kumari Bank Loan is using different technologies which help to gets the advantages in a particular way.

Supplier – Technology

This technology gives knowledge on how these new technologies might transform business processes in their part of the value chain. This remains the current challenge for organizations in many different sectors in exploiting computer hardware and software developments. Supply is focused on Loan Management.

Scale – Technology

Advantages are gained from economies of scale and learning results from that scale. This Kumari Bank Limited sells the service. The loan providing is one of the most important selling service which is measurable in terms of feasibility if the candidate is eligible for it.

Information – Technology

Such as in financial services, retailing or transporting – where the exploitation of IT is the central strategic issue.

Science – Based Technology

It is still important in many sectors such as pharmaceuticals, electronics, materials and engineering. The strategic challenges are to monitor academic research, develop imports and acquire the resources to achieve commercial – scale production.

Service – Technology

This type of technology is rigid in nature providing standardized service to customer. The main focus of this technology is development and scheduling of human resources for provident service to customer.

Computer technology is most important technology which is used in this corporation.

〕 Personal computers

〕 Software

〕 Communication networks greatly effective for the corporation.

Kumari Bank paying 7,50,000 for the price determination software technology to the plats on net software.

4.5 Limitation of Existing System

Some limitations are mentioned as point based below:

〕 This technology cannot reduce costs expenses.

〕 This technology cannot match the equilibrium point with customers.

〕 Influences by the politics.

〕 This technology cannot predict the actual shrinkage, leakage and loss quantity.

4.6 Major Finding of the Existing System

Table 4.2

Deposited Amount of Kumari Bank

(In Rs.10lkh)

Years	2061/62	2062/63	2063/64	2064/65	2065/66
Deposited	4,900	6,500	10,000	12,000	15,500

Figure 4.4

The Bar Diagram of Deposited Amount in Kumari Bank Limited
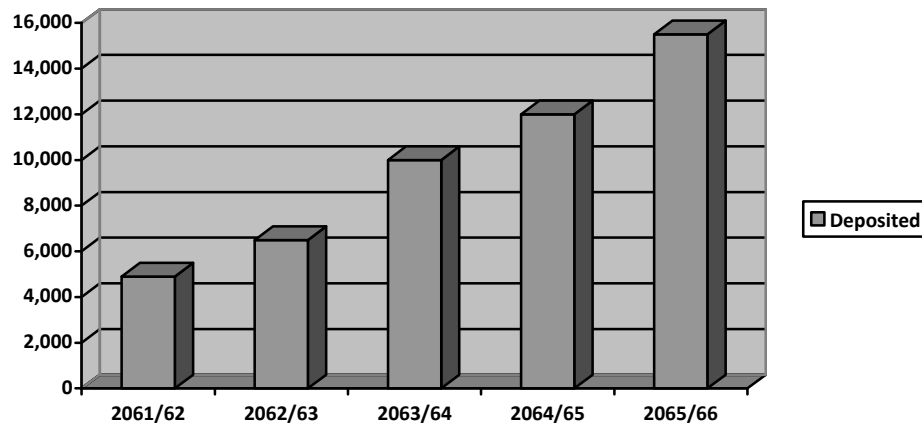
Table 4.3

Loan & Borrowing of Kumari Bank

Years	2061/62	2062/63	2063/64	2064/65	2065/66
Loan and Borrowing	4500	6300	8200	10400	14100

(In Rs.10lkh)

Figure 4.5

Bar Diagram of Loan and Borrowing of Kumari Bank Limited
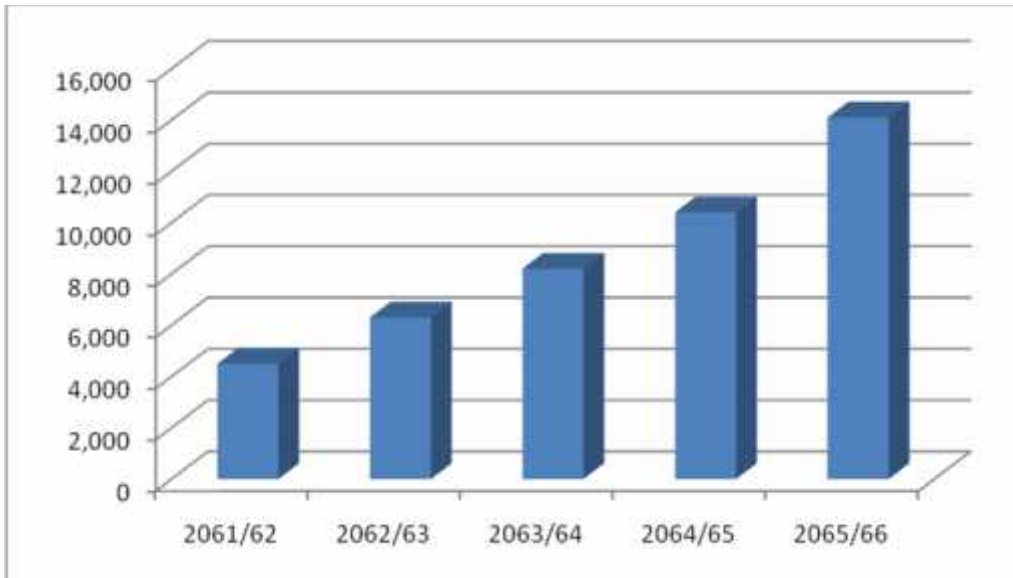
Figure 4.6

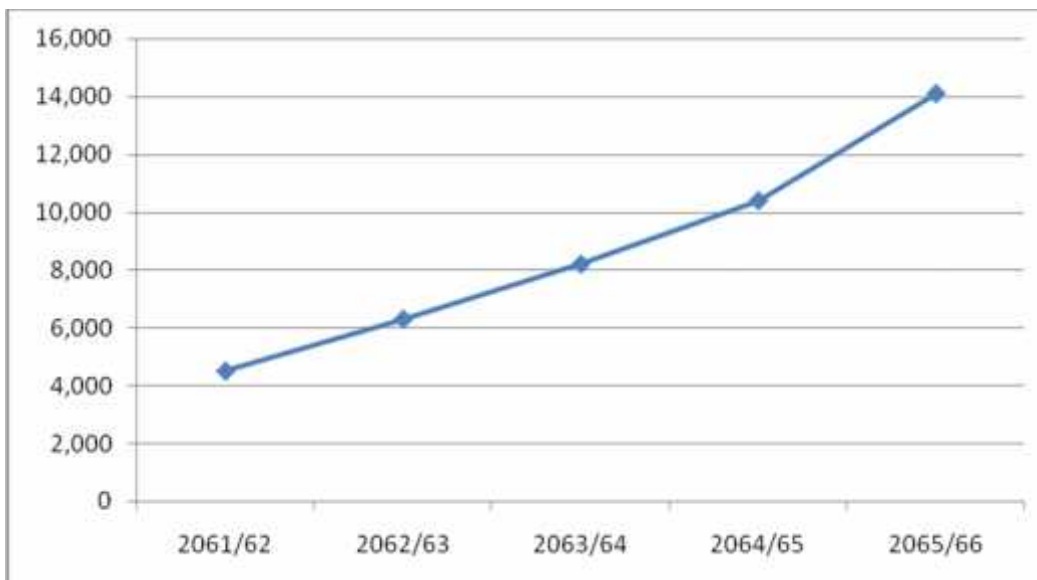**Line Graph of Loan and Borrowing of Kumari Bank Limited**

Figure 4.7

Pie chart of Loan and Borrowing of Kumari Bank Limited
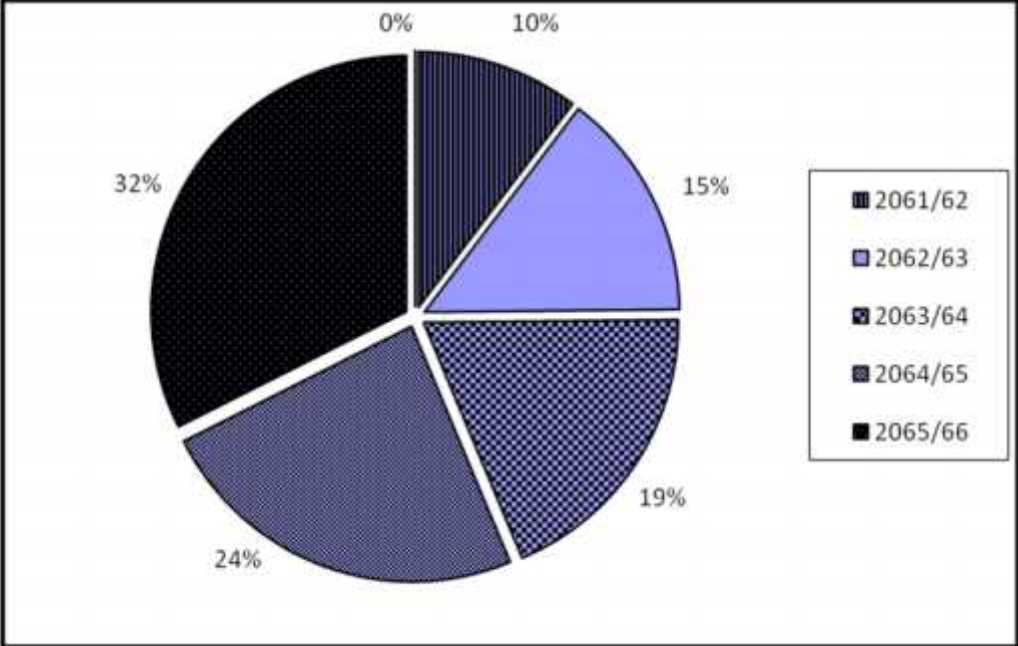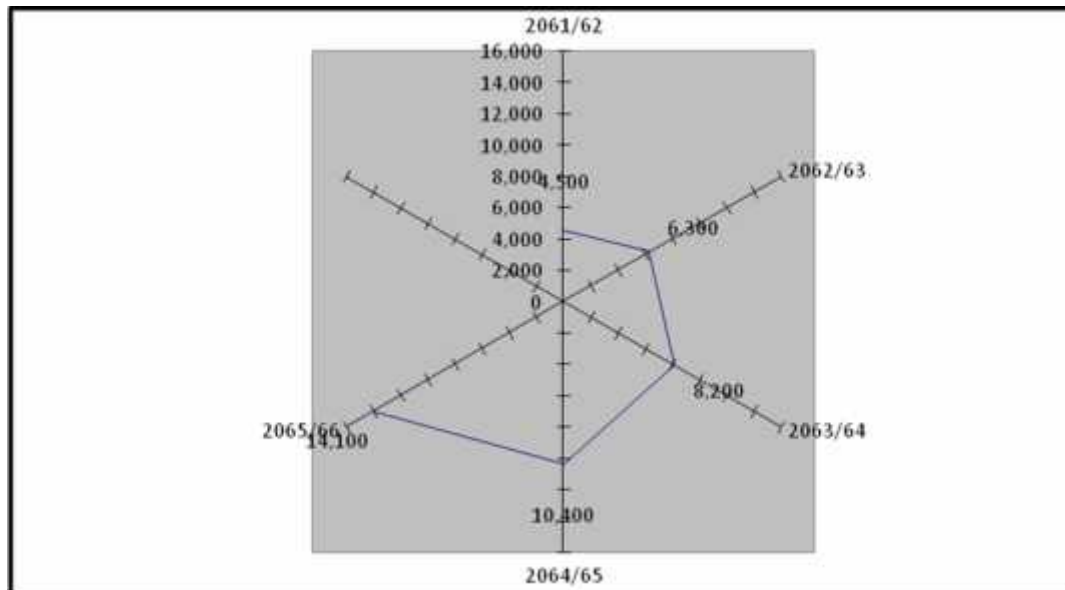
Figure 4.8

Rader Diagram of Loan and Borrowing of Kumari Bank Limited

4.7 Concept of New System or Modify the System

In this new system clients can deposit their money from anywhere. The Loan Management provides Loan for deposit amount in figure. In this new system there is no additional external entity and more effort to collect loan. There is no qui system. This system protects the time factor and provides the board facilities of wide technology.

4.8 Comparison between New and Existing System

There is huge comparison between new system and Existing system. Existing system can only possible for withdraw money but the new system can receive money also. It is quite good for daily saving but may problem for huge deposit. The existing system is traditional system but the new system is worldwide system. In development countries using this system.

4.9 Application Modeling

To estimate the value of economic variable trend line can be use in terms of mathematics form i.e.,

Where,

Y = unknown economic variable

a & b = constant

b = trend line

a = intercept of y

x = Known time variable.

We can use least square method in equation

$$\sum y = na + b\sum x\ldots\ldots\ldots\ldots\ldots\ldots\ldots.(i)$$

$$\sum xy = a\sum x + b\sum x^2\ldots\ldots\ldots\ldots\ldots\ldots.(ii)$$

As $\sum x = 0$,

$$a = \frac{\sum y}{n}$$

$$b = \frac{\sum xy}{\sum x^2}$$

On this way we can determine the value of a and b and substitute the value of a and b in to the y = a + bx equation and we can forecast the value of required time period. I represent here a mathematical model related to this trend line projection or time line, which is belongs to the total loan flow in 2011AD. This is trend line projection which forecast the total loan in 2011AD.

Table 4.4

Forecasting Model of Loan withdrawer in 2011 AD Kumari Bank

Years (X)	Loan Flow(Y)	x = X – 2007	X^2	xy	y_c
2005	4500	-2	4	-9000	4040
2006	6300	-1	1	-6300	6370
2007	8200	0	0	0	8700
2008	10400	1	1	10400	11030
2009	14100	2	4	28200	13360
Total	**Y=43500**	**x=0**	$x^2 = 10$	**xy =23300**	

Let the trend time be

$$Y = a + bx\ldots\ldots\ldots\ldots\ldots\ldots(i)$$

As $x = 0$

$a = \frac{\Sigma y}{n} = 43500/5 = 8700$ Therefore, a = 8700

$b = \frac{\Sigma xy}{\Sigma x^2} = 23300/10 = 2330$, Therefore, b = 2330

From the trend line $Y = a + bx$

$$Y = 8700 + 2330\ (-2) = 4040$$
$$= 8700 + 2330\ (-1) = 6370$$
$$= 8700 + 2330\ (0\ ) = 8700$$
$$= 8700 + 2330\ (1)\ = 11030$$
$$= 8700 + 2330\ (2)\ = 13360$$
$$= 8700 + 2330\ (4)\ = 18020$$

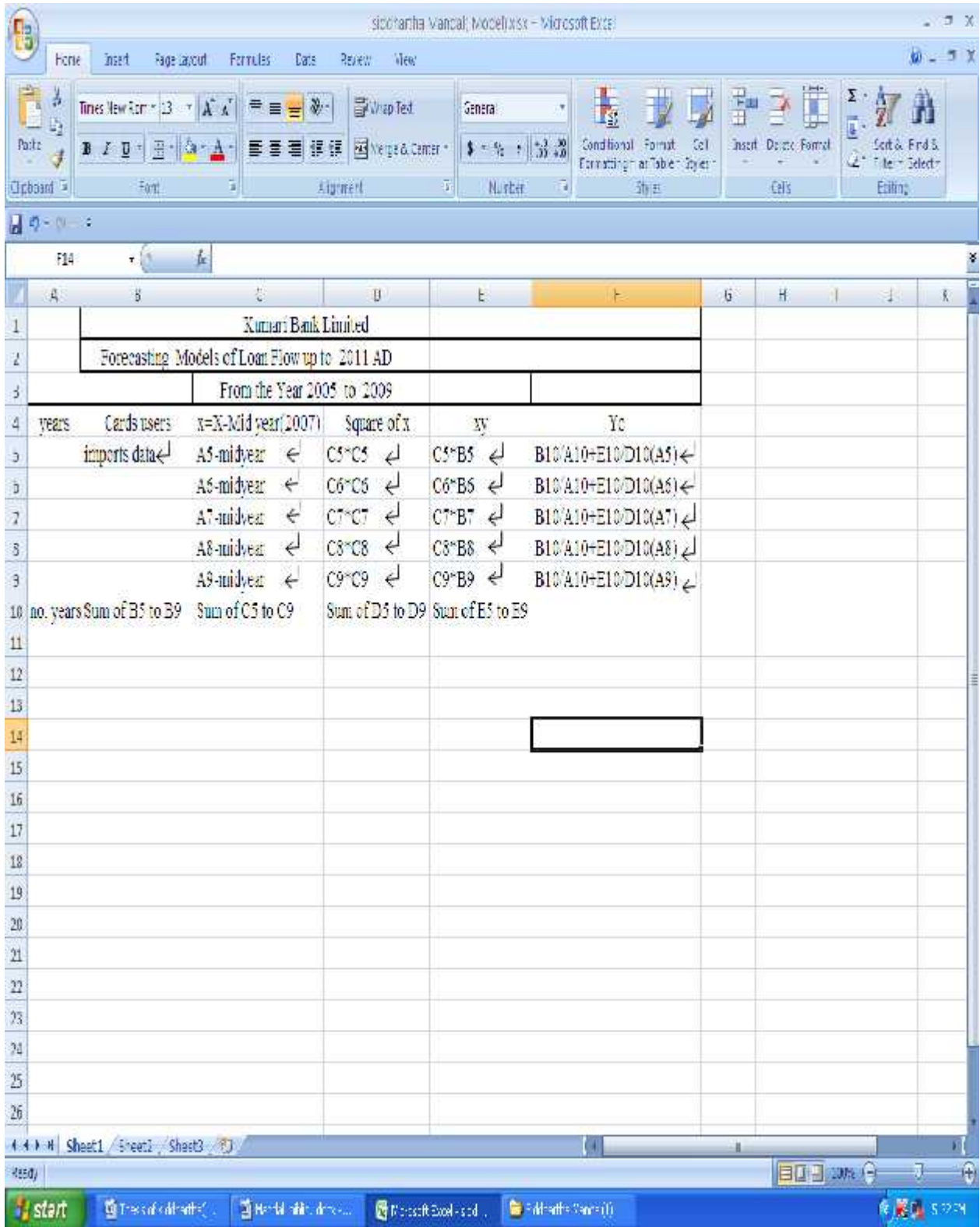Now for the 2011 A.D. Loan flow up to = 8700+2330 (4) = 18020.

In term of ten lakhs the loan flow up 2011 AD to Rs. 180,200,000,000

The line graph forecast the Loan flows in 2011 AD. Total 180,200,000,000 use Loan for different Purpose. The trend line Projection clearly showing the Values of Loan flows in 2011AD. This is one important models for forecasting the values. The given model is prepared on Excel sheet. This is given below.

Figure 4.9

Trend line projection of Loan flow up to 2011 AD
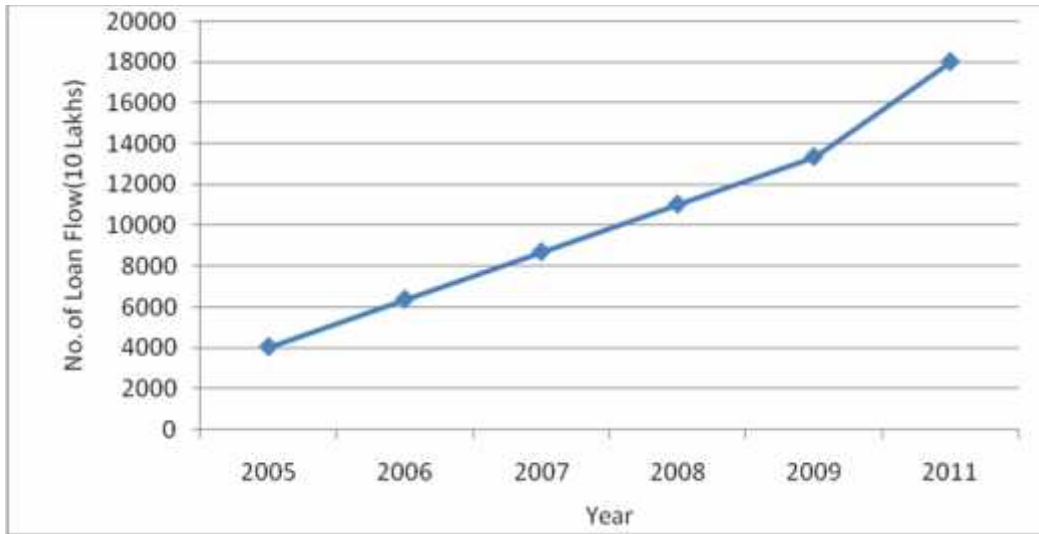
The above trend line projecting forecasting models is prepared under excel sheet which is presented below.

		siddhartha Vandal; Model.xsx - Microsoft Excel					

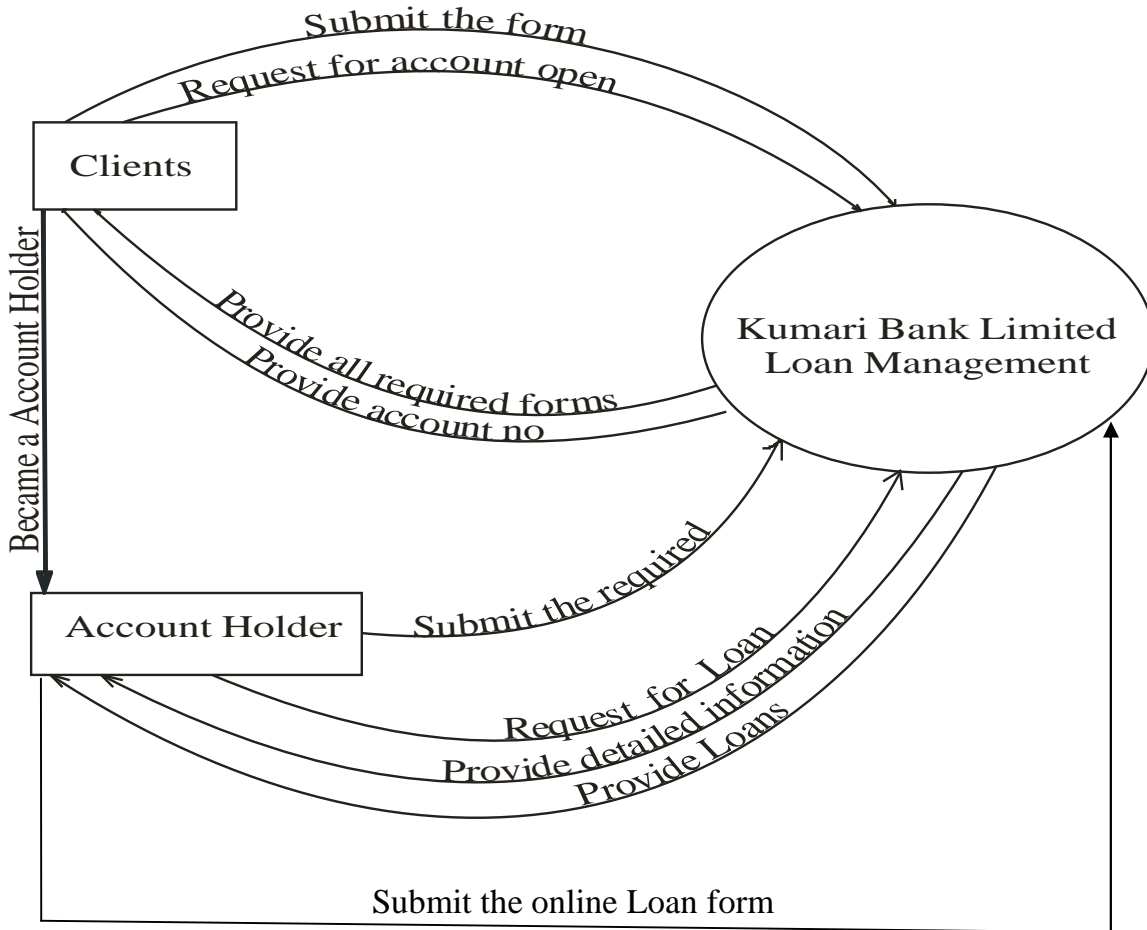| A	B	C	D	E	F	G	H	I	J	K
1		Kumari Bank Limited								
2		Forecasting Models of Loan Flow up to 2011 AD								
3			From the Year 2005 to 2009							
4	years	Cards users	x=X-Mid year(2007)	Square of x	xy	Yc				
5		imports data↵	A5-midyear ←	C5*C5 ↵	C5*B5 ↵	B10/A10+E10/D10(A5)←				
6			A6-midyear ←	C6*C6 ↵	C6*B6 ↵	B10/A10+E10/D10(A6)←				
7			A7-midyear ←	C7*C7 ↵	C7*B7 ↵	B10/A10+E10/D10(A7)↵				
8			A8-midyear ↵	C8*C8 ↵	C8*B8 ↵	B10/A10+E10/D10(A8)↵				
9			A9-midyear ←	C9*C9 ↵	C9*B9 ↵	B10/A10+E10/D10(A9)↵				
10	no. years	Sum of B5 to B9	Sum of C5 to C9	Sum of D5 to D9	Sum of E5 to E9					

4.10 DFD, DD, ERD for New System

The DFD of New system is presented below both context level and system level diagram.

Context Level DFD of New System

**Figure 4.10**

Context Level DFD of New Loan Management

Submit the form

Request for account open

Clients

Became a Account Holder

Provide all required forms

Provide account no

Kumari Bank Limited Loan Management

Account Holder

Submit the required

Request for Loan

Provide detailed information

Provide Loans

Submit the online Loan form

In this system Account holders can fill form in on line system. He or she also granted for the record for deposit money. Systematically it is given as above. In this system the online loan form will be valuable for the time save and far away from the queue system.

System Level DFD of New System

The system level DFD is same as the existing system except the Loan form fulfillment through online which protect the time of account holder and bank. The new system is represent below.

Figure 4.11

System Level DFD of New
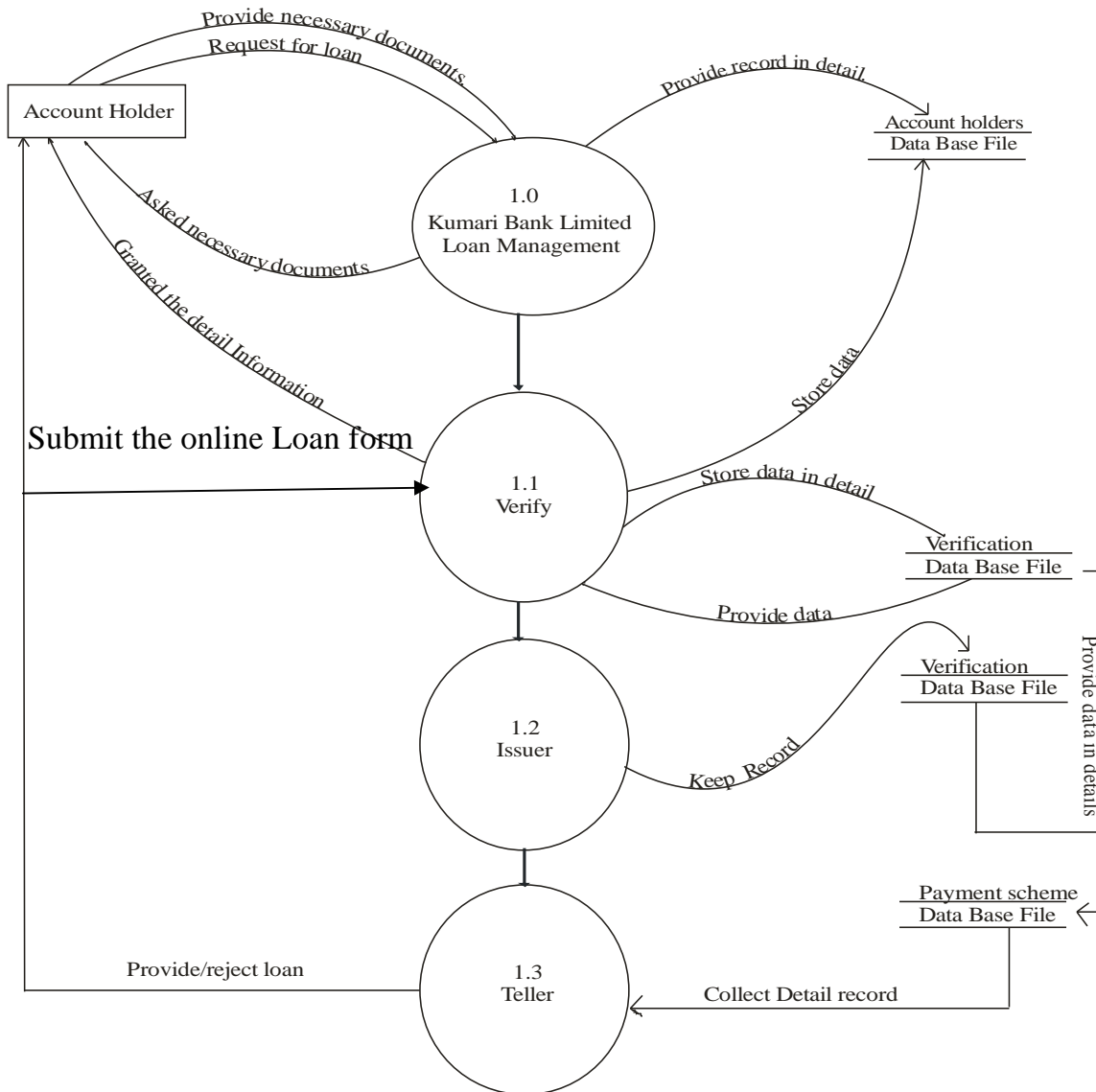
System

There are relation to the Loan managements and account Holder. Which is external entity of the Kumari Bank Limited to the update data for the deposited money and withdraw loan from online system. The update deposited amount

added system provide record to the Payment scheme data base file. And the data base file provide records to Query system levels and this levels provide correct information to the withdraw and deposited department.

On this way the new system keep actual record for the deposited and withdraw of cash.

Data Dictionary

The data dictionary serves as the central storehouse of documentation for an information system. In addition to describing each data element, data flow, data store, record, external entity, and process, the data dictionary documents the relationships among these components. I can obtain many valuable reports from a data dictionary, including the following:

An alphabetized list of all data elements by name

   i. A report by user departments of data elements that must be updated by each department

  ii. A report of all data flows and data stores that use a particular data element.

 iii. Detailed reports showing all characteristics of data elements, records, data flows, processes, or any other selected item stored in the data dictionary.

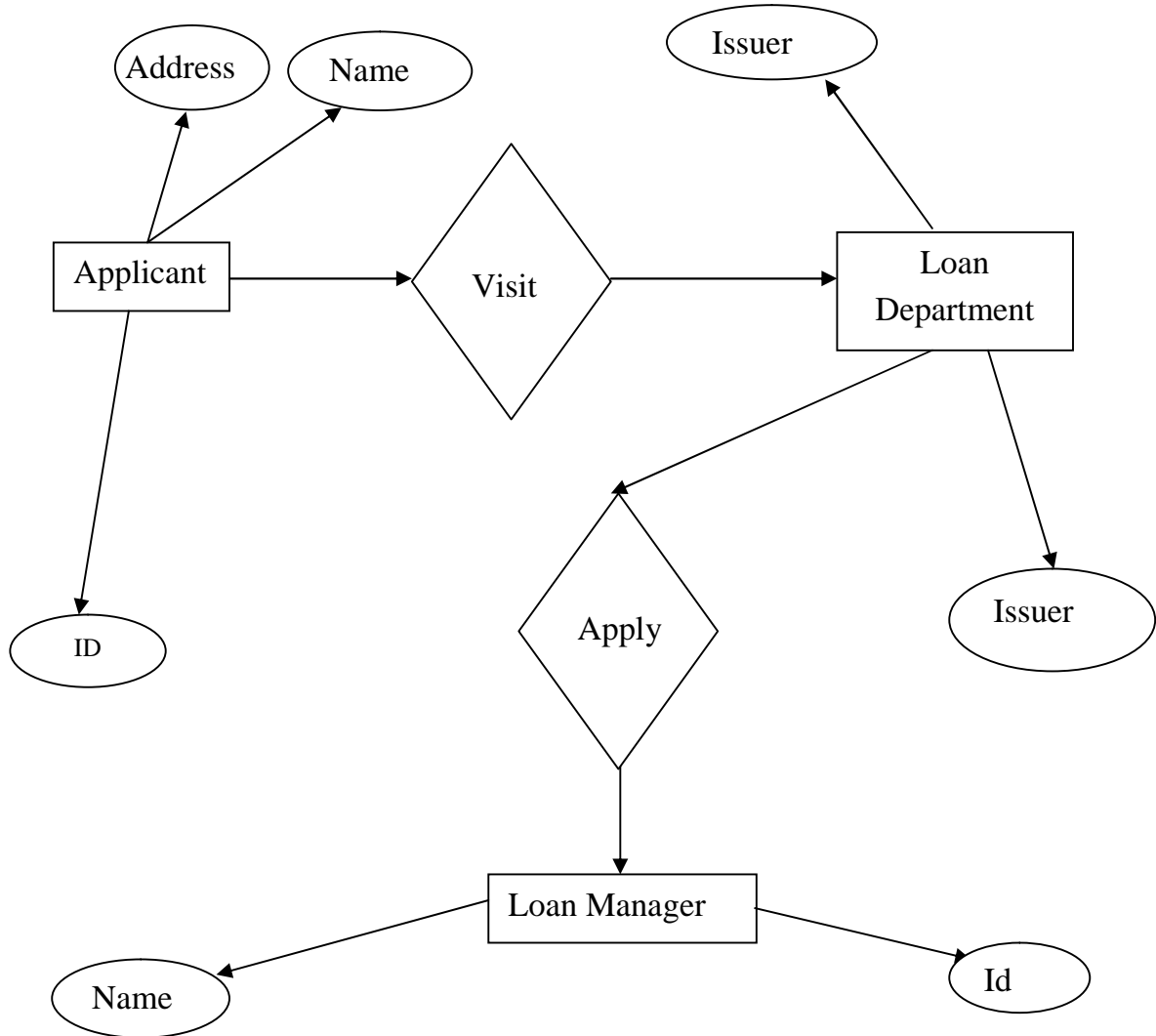Some attributes use and their variable are given below.

Table 4.5

Data Dictionary

Attributes	Variables
Name	Character (40)
Address	Character (40)
ID	Character (10)/Number(10)
Issuer	Character (10)/Number(10)
Loan Manager	Character (10)

ERD for the ERD for Applicant and loan department

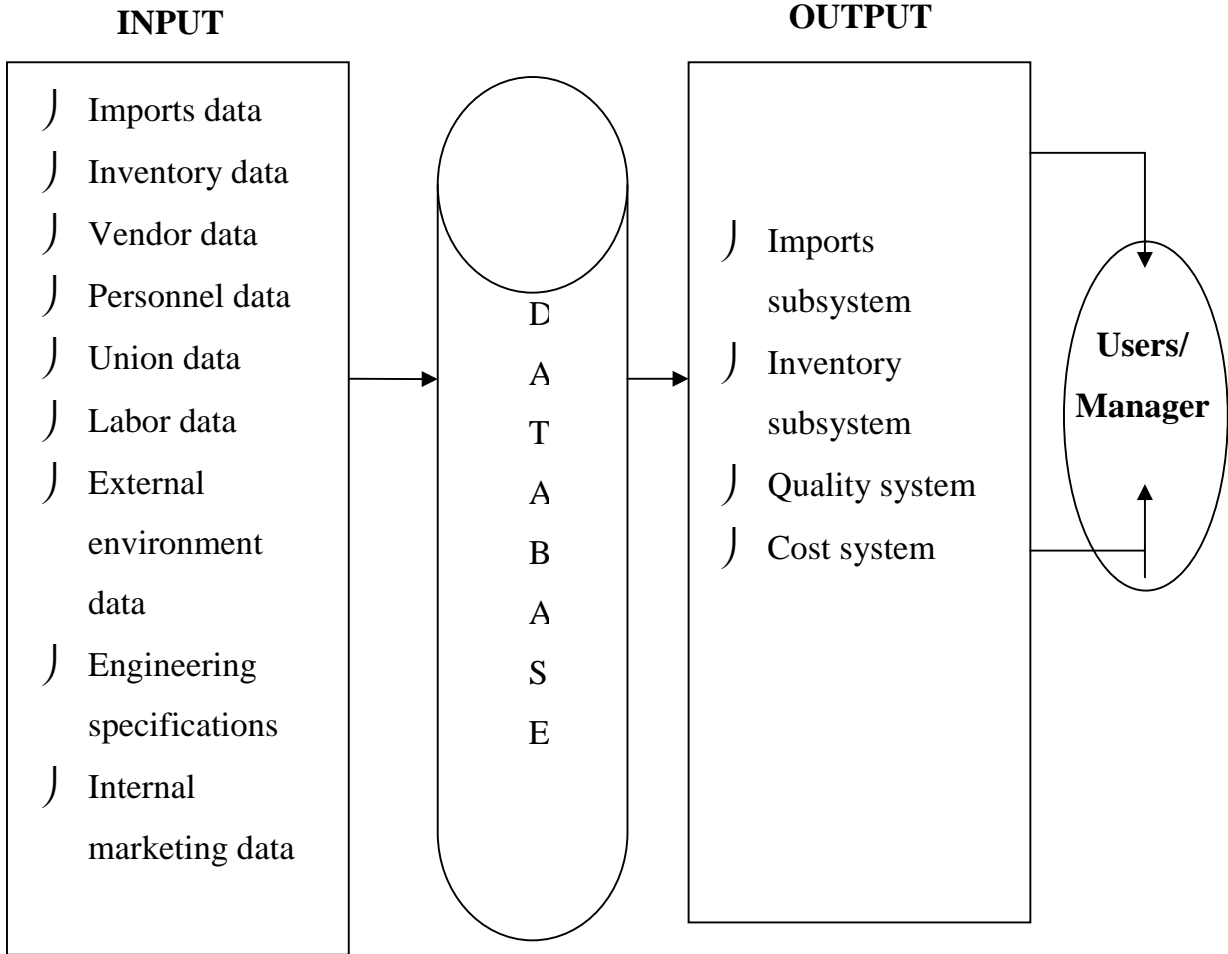Figure 4.12

ERD for Applicant and Loan Department

4.11 Input, Database and Output Design

The objective of statistical process controls to closely monitor imports units at various stages of the imports process, identifying potential problems before they result in defects and adjusting the imports process accordingly through observations. Another promising role for the computer in quality controls is in the area of vision inspection systems, whiter robotics eyes replace humans in the quality control inspection process.

Figure.4.13

Input, Database and Output

INPUT   **OUTPUT**

) Imports data
) Inventory data
) Vendor data
) Personnel data
) Union data
) Labor data
) External environment data
) Engineering specifications
) Internal marketing data

D
A
T
A
B
A
S
E

) Imports subsystem
) Inventory subsystem
) Quality system
) Cost system

Users/ Manager

4.12 Justification of the New System

What about an overall strategy for developing a set of DFD's ? A set of DFD's is a graphical, top-down model, so most analysts first create the context diagram, then diagram 0, then all the child diagrams for diagram0, and so on.

Other analysts, however, follow an alternative bottom – up strategy. With a bottom – up strategy, we first identify all functional primitives, data stores, external entities, and data flows. Then we group processes with others related symbols to develop the lowest – level diagrams. Next, we group those diagrams in

a logical way to form the next higher level. You continue to work our way up until we reach diagram.

Regardless of which strategy we use, we should apply the suggestions and guidelines. The main objective is to ensure that our model is accurate and easy to understand. Reviewing data and process models with users allows we to obtain their feedback and approval for the logical design of the systems.

This new system work on the basis of above description and can predict the actual loss of units while the time of supply and while the time of cells. It predicate the Figure of withdraw and deposited.

4.13 Cost benefits analysis and feasibility analysis of New System

Cost-benefits analysis is the process of comparing the anticipated costs of an information system to the anticipated benefits. Cost-benefit analysis is performed throughout the SDLC to determine the economic feasibility of an information system project and to compare alternative solutions. Many cost-benefit analysis techniques exist. This section covers discussion of only the three most common methods:

  i. Payback analysis.
  ii. Return on investment analysis.
 iii. Present value analysis.

Each of the approaches analyses cost-benefits figures differently, but the objective is the same: to provide reliable information for making decisions.

Payback Analysis

This is the traditional but important method of screening the projects. Normally, investor thinks that when it will receive its investment and compares the period

required receiving the investment with project life. Sometime, investor itself set the period within which it had to recover the investment. In the case of debt financing, investor may consider the maturity period of debt as the period within which has to recover the investment. Thus, the payback period is the expected number of years required to recover the investment of the project.

$$PB = \frac{I}{CF_A}$$

Where,

      I   = investment cash outlay

      CF_A = annual cash flow

      PB   = payback period

Return on Investment

Return on investment is book rate of return on investment. It is based on the average accounting profit and average investment and it is calculated by dividing the average accounting profit by average investment. It is calculated as:

$$ARR = \frac{\overline{EAT}}{\overline{I}}$$

Where,

$$\overline{EAT} = \frac{\sum_{t=1}^{n} EAT_t}{n}$$

$$\overline{I} = \frac{I_0 + I_n}{2}$$

$\overline{EAT}$ = Average Income

$\overline{I}$ = Average Investment

n = Project Life

EAT_t = Earnings after Tax for t number of years.

I_0 = Book Value of the investment at the beginning

I_n = Book Value of the investment at the end of n number of years.

Net Present Value

This is widely used discounted cash flow technique of capital budgeting. The previously discussed methods – payback period and accounting rate of return – co not takes the time value of money in to consideration. But this technique does. While evaluating the capital projects , in this technique, benefits of the project measured in term of cash flow is discounted, in this technique, benefits of the project measured in project is deducted. The remaining value is known as net present value . More precisely net present value of the project is the difference between present value of cash inflow and outflow. Mathematically, it is given by:

$$NPV = \frac{CF_1}{(1+k)^1} + \frac{CF_2}{(1+k)^2} + \frac{CF_3}{(1+k)^3} + \cdots \ldots + \frac{CF_n}{(1+k)^n} - CF_0$$

Where,

NPV = Net present value.

CF_1 , CF_2, CF_3 are expected cash flows in first years, second years and third years respectively.

K = cost of capital.

n = project life.

CHAPTER - V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

An 'MIS' is a planned system of the collecting, processing, storing and disseminating data in the form of information needed to carry out the functions of management.

Management Information Systems are of vital importance for all kinds of organizations. All managerial functions are performed through decision making; for taking rational decisions management information is essential and is procured through the Management Information Systems (MIS) set up by the organization. The term Management Information System is composed of three elements viz., Management, Information and System.

Management is the process of getting things done through and with people. It includes Planning, Organizing, Staffing, Directing and Controlling. Information is data that is processed in a form which helps the management to take decisions. A System is a set of elements joined together to achieve a common objective(s). A business organization is the systems where the divisions, departments, function units are the subsystems.

Management information system is a system having a combination of persons, machines, procedures and data-base, as its elements, which gather data from the intra and extra sources of an organization: and after processing these data, supply management information to the managers in an organization, to support the decision-making process of the management.

According to W.S. Jawadekar, "MIS is defined as integrated system of man and machine for providing the information to support the operations, the management and the decision making function of the organization."

So we can see MIS as a process in which data are acquired, analyzed, evaluated, stored and disseminated to the appropriate person of an organization for supporting the decision making process. MIS provides the information as per the requirement of different levels of organization. It makes the smooth flow of right information to the right person at right time and guards from the bombarding of data and information in the organization.

Authorized Capital - Rs. 1,600,000,000.00, Issued & Paid-Up Capital **-** Rs. 1,304,935,920.00. Bank Limited, came into existence as the fifteenth commercial bank of Nepal by starting its banking operations from Chaitra 21, 2057 B.S (April 03, 2001) with an objective of providing competitive and modern banking services in the Nepalese financial market. The bank has paid up capital of Rs. 1,304,935,920.00 of which 70% is contributed from promoters and remaining from public. Kumari Bank Ltd has been providing wide - range of modern banking services through 28 points of representations located in various urban and semi urban part of the country, 19 outside and 9 inside the valley. The bank is pioneer in providing some of the latest / lucrative banking services like E-Banking and SMS Banking services in Nepal. The bank always focus on building sound technology driven internal system to cater the changing needs of the customers that enhance high comfort and value. The adoption of modern Globus Software, developed by Temenos NV, Switzerland and arrangement of centralized data base system enables customer to make highly secured transactions in any branch regardless of having account with particular branch. Similarly the bank has been providing 365 days banking facilities, extended banking hours till 7 PM in the evening, Utility Bill Payment Services, Inward and Outward Remittance services, Online remit Services and various other banking services. Visa Electron Debit Card, which is accessible in entire VISA linked ATMs (including 23 own ATMs) and POS (Point of Sale) terminals both in Nepal and India, has also added convenience to the customers. The bank has been able to get recognition as an

innovative and fast growing institution striving to enhance customer value and satisfaction by backing transparent business practice, professional management, corporate governance and total quality management as the organizational mission. The key focus of the bank is always center on serving unfulfilled needs of all classes of customers located in various parts of the country by offering modern and competitive banking products and services in their door step. The bank always prioritizes the priorities of the valued customers.

5.2 Conclusion

Kumari Bank Limited and Management Information System are co-related to each other.By the Management Information system Kumari Bank takes strategic and modelic decission. KBL has a robust, instant, secure and reliable banking solution for its clients.

Services Offers:
- Current balance in your account on real time basis
- Transaction search
- Checking daily transaction in account
- Cheque book replenishment request
- Transfer within own accounts or within group accounts
- Future dated payment instructions within own accounts or within group accounts
- Demand Draft pay order request
- Statement download
- Limit facility request
- Stop payment instructions
- Standing order instructions
- Loan information

All we need from your side is to fill in an application form for online banking service to acquire your user ID, subsequent to which your password will be given at KBL offices personally. Our Marketing Department will be pleased to provide further information.

MIS are not just statistics and data analysis. They have to be used as a MBO / Management by objectives tool. They help:

- To establish relevant and measurable objectives.
- To monitor results and performances
- To send alerts, in some cases daily, to managers at each level of the organization, on all deviations between results and pre - established objectives and budgets.

MIS playing vital role for loan management in Kumari Bank Limited. By the help of MIS It collect information and get decision. At Kumari, our mission has always been to be the preferred financial partner, by continuing to deliver innovative products and services to our customers, while cultivating an environment that promotes good corporate governance, proactive risk management practices, and corporate social responsibility.

Our mission is achieved through the knowledge and dedication of our people, leading to superior results for our stakeholders, while contributing to our nation's financial sector and to its economic welfare.
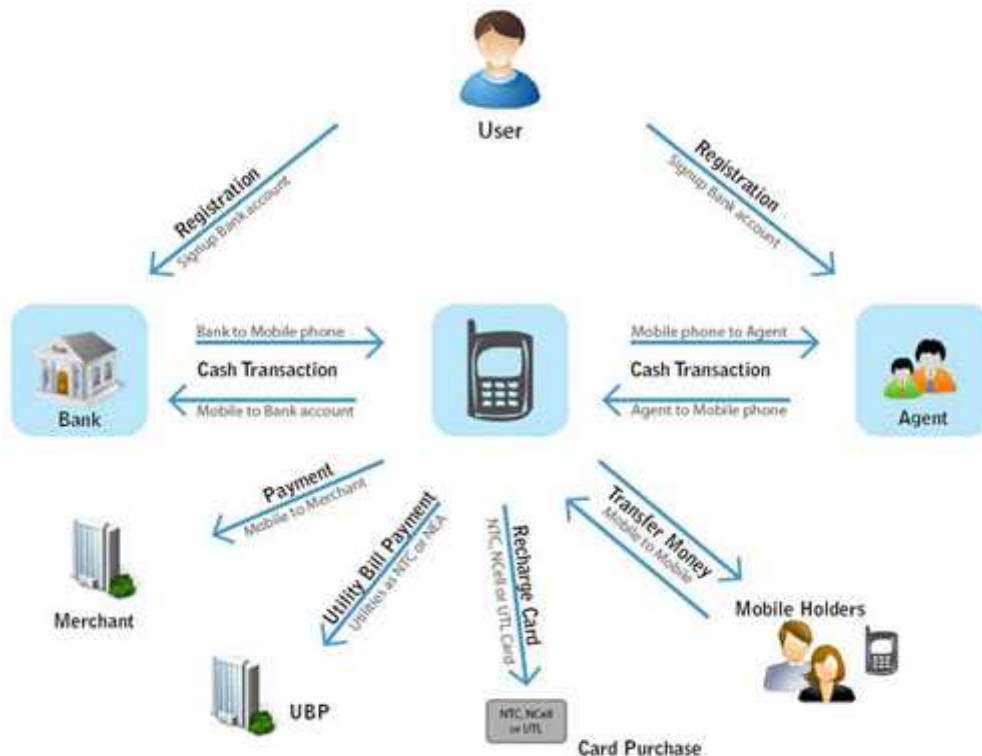
We finance capital expenditures of Small / Medium / Large-scale companies in the form of Term Loan for periods in excess of 1 year. All loans for tenures above one year are generally secured by first charge on fixed assets or current assets of the borrower with an acceptable asset cover.

Kumari Bank introduces an innovative mobile phone based payment system--Kumari Mobile Cash. The service is available to all mobile phone users, and customers registering for the service do not have to have a Kumari Bank Account.

This service safely, efficiently and conveniently allows users do the following from their mobile phones:

ʃ Deposit cash

ʃ Transfer (Remit) money to family and friends

ʃ Transfer funds from a Kumari bank account to a mobile phone and vice versa

ʃ Transfer funds from one Kumari bank account to another

ʃ Withdraw cash

ʃ Pay bills at restaurants,shops and stores

ʃ Pay utility bills

ʃ Other payment services

ʃ Recharge Pre-paid airtime minutes

Information Flow Diagram

5.3 Recommendations

Kumari Bank limited providing different type of loans. Account holders are granted for the loan but the client which is shown in Data Flow Diagram (DFD) first should come to the account holder and the loan management department verify for the eligible for the loan. The providing loan is the long process in generally but the new system which is manage here is very eligible and easy to handle. Where the loan form is fill on online basis, which make easy to take loan and simple.

In this new system clients can deposit their money from anywhere. The Loan Management provides Loan for deposit amount in figure. In this new system there is no additional external entity and more effort to collect loan. There is no qui system. This system protects the time factor and provides the board facilities of wide technology.

CHAPTER - V
SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

The use of Management Information System manages the loan in accuracy and evaluating system. It is not additional employer but it can manage single for several employers. It reduces the cost of Bank and keeps record of loan in Bank properly. The decision system from MIS is fact due to using of modeling which is given above in chapter four.

Whether we manage and service one loan, or a million loans, Lending Pro Data Flow Diagram is we "goes to" solution for all of ours loan servicing and management needs.

Over ten years of programming went into this state-of-the-art Windows based Data Flow Diagram, and it is second to none.

We offer 20 loan, 40 loan, unlimited number of loans single user, and unlimited number of loans "multi-user networkable" versions of this Data Flow Diagram. Featuring "point and click" ease of use, we can learn and immediately begin using this Data Flow Diagram. Setting up a loan into the system is extremely easy, and there are multiple system default settings that we can use to make the entry of loans into the system easier and faster.

The Data Flow Diagram keeps perfect track of all customer payments, and accurately calculates the portion of each payment that is to be applied to interest, principal, escrow, late fees, etc.

This Data Flow Diagram also provides an extensive suite of report options including, but not limited to, account history, promises to pay, payment coupons, monthly billings, late notices, escrow balances, loan payoffs, insurance and property tax renewals, accounting reports, and 1098 interest statements.

This Data Flow Diagram handles all types of loans including standard mortgages, interest only loans, HELOCs, balloon payments, etc.

The loans may be amortized on a daily, weekly, bi-weekly, semi-monthly, quarterly and annual basis! Provides almost any function that we could possibly need to service a multitude of mortgage and other installment loans. The list of functions is too numerous to list here! We also provide a free one hour "net session" with one of our tech support specialists who will set up this Data Flow Diagram on Ours computers and who will provide us with the initial training that we will need to get started with this Data Flow Diagram.

The loan management through MIS by taking decision with the help of mathematical module through employers from Kumari Bank Limited. The loan management, Data Flow Diagram (DFD), ERD and DD are present above.

I designed the research by the help of IT and Loan department of Kumari Bank Limited and Annually Report 2008/2009. I collected knowledge of venture of Kumari Bank Limited detail data flow diagram and Module of forecasting Loan flows in 2011AD secondary data of Kumari Bank Limited. Others more information I collected from authorized dealer and from head office.

I collected data from different places and differences sources like, visiting on its office, Website, Primary sources and also secondary sources which all are listed above on point wise. The data and information have been collected from different sources.

Out of so many tools and technology some appropriated tools and technology I used in this research which I presented below with diagrams and names. Data are collected by using different tools and technique like flow chart, Data flow, Entity relationship etc. For the programmed presentation we can use some tools which

are Algorithm, Pseudo Code/ Structured English, Flow chart and Data flow Diagram.

The application of MIS is practically implemented but not widely. Here is using Data Flow Diagram not determine exact but the new system is broad and rational user can use it in optima level and get satisfactory form the management and also from Bank.

The specific problem is not determination of assets value by taking public value and bank value.

5.2 Conclusion

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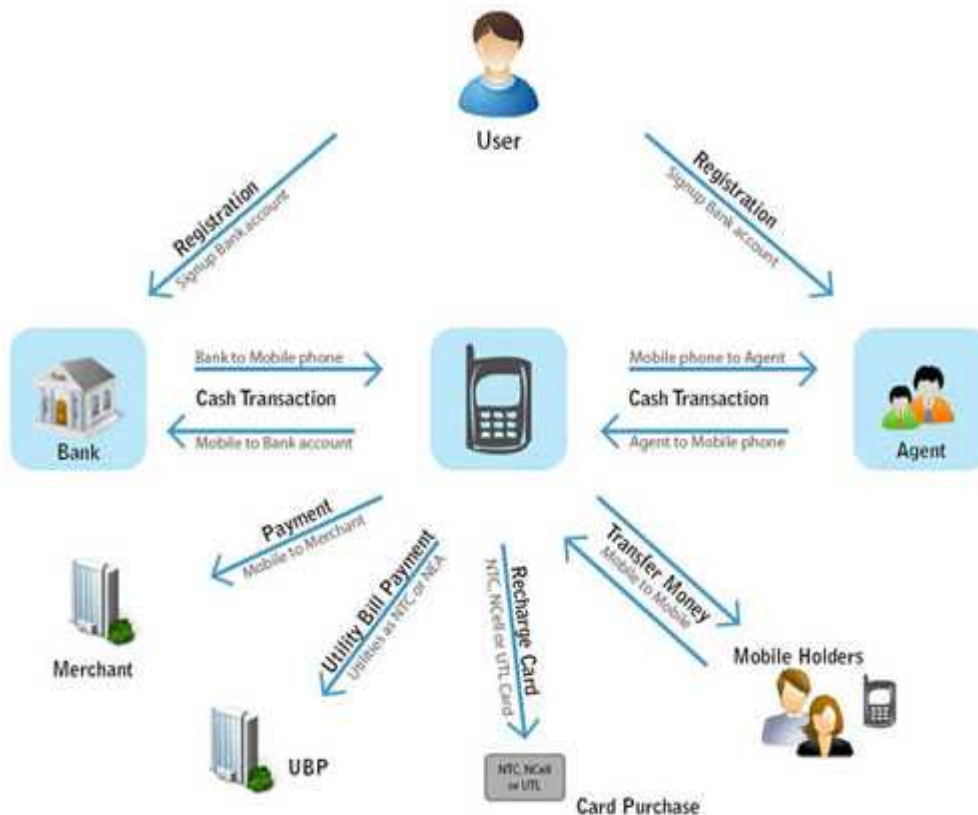
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Website

www.kumaribank.com

GLOSSARIES

Act: The rules in which all are limited and bounded.

Benefits: Membership – based, non – financial rewards offered to attract and keep employees; payments in addition to pay based on employment and position in the organization.

Computer modeling: A complex computer program that simulated the work environment.

Decision: A conclusion through brainstorming or discussion from group.

Data: A collection of numerical sample study from population or exact

Dictionary: Where, the meaning we find or the collection of meaning of words.

Effectiveness: Attainment of the goal.

Efficiency: The ratio of inputs consumed to outputs achieved.

Feedback: Knowledge of results.

Information: A message collecting in management in circle.

Process: Collection of activities that take inputs and create outputs.

Query: Investigation about the matter or inquiry.

Research: A systematic and goal – oriented investigation of facts that seek to establish a relationship between two or more phenomena.

System: A network of interrelated components.

Technology: A scientific study which become accurate and performs new tests for user or consumer.

Time study: Analysis of task to determine the elements of work required to perform it, order in which the elements occur, and the time required to perform them.