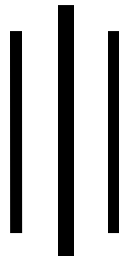


**Management Information System
of
Himalayan Bank Limited**



BY

**Roshana Shrestha
ST. XAVIERS COLLEGE
T.U REGISTRATION NO. 7-2-282-487-2004
SECOND YEAR SYMBOL NO: 2820015**



**A Thesis submitted to:
Office of the Dean
Faculty of Management
Tribhuvan University**

**In Partial Fulfillment of the Requirement of the Degree of Master of Business
Studies (M.B.S)**

**Maitighar, Kathmandu, Nepal
December, 2010**

ACKNOWLEDGEMENT

This is an appreciable curriculum of T.U as it helps the student to express their understanding in the subject they endeavor. This thesis as a partial fulfillment for the degree of Master's in Business Studies (MBS) is the outcome of months of determination, endeavor, suggestions and superior guidance. The purpose of the genuine work cannot be fulfilled without appreciating and considering the kind support of the people behind the scenes.

Firstly, I would like to express my deepest gratitude to an assistant professor Nawaraj Paudel, TU Department of Computer Science and professor Shanker Thapa, St. Xavier's College for his kind guidance and supervision throughout the preparation of this thesis.

I would also like to express my gratitude to all administration staffs, library staffs and unknown people who helped me to complete this thesis. My next thanks go to all the staffs of Tribhuvan University, Himalayan Bank for providing me sufficient materials and suggestions.

Finally, I would like to thank my parents for always being there, my bosom friends for their valuable suggestions and positive criticism to keep up the best work.

Advices, recommendation and suggestions are whole- heartedly welcome. Thanks

Roshana Shrestha

Researcher

DECLARATION

I hereby declare that the work reported in this thesis entitled "Management Information System of Himalayan Bank Limited" submitted to St.Xavier's College, faculty of Management, Tribhuvan University, is my own original work done in the form of partial fulfillment of the required for Master of Business Studies under the supervision of Shanker Thapa. .

Ms. Roshana Shrestha

Researcher

T.U. Registration No: 7-2-282-487-2004

2nd year Symbol No: 2820015

ABSTRACT

Information technology can help all kinds of the businesses to improve the efficiency and effectiveness of their business processes, management decision making and more group collaboration and thus strengthen their competitive position in rapidly changing market place. (O’Brein, 2000:8)An information system is an organized combination of people, hardware, software, communication networks and data resources that collects, transforms and disseminates information in an organization. MIS refers broadly to a computer-based system that provides managers with the tools for organizing, evaluating and efficiently running their departments. In order to provide past, present and prediction information, an MIS can include software that helps in decision making, data resources such as databases, the hardware resources of a system, decision support systems, people management and project management applications, and any computerized processes that enable the department to run efficiently.

Majority of the users of the MIS consider that MIS helps in Decision-making. Use of MIS is directed more towards extraction of current information rather than historical information. MIS is fulfilling the information needs of the users to different degrees of satisfaction. Higher management is less satisfied than the middle management. The factors which will improve the utilization of MIS are: “Good Communication Channel”, “Training to end user”, and “Training to software personnel”.

The bank should create a distinct MIS department manned by qualified MIS personnel in place of the current practice of MIS department headed by normal banking personnel. Training must be imparted to the software personnel by sending them to the Training Centers of the Software vendor so that the bank may be able to further exploit the software. Communication flow between end users and Software personnel needs to be smoothed and streamlined. A system must be devised whereby the chances of miscommunication are the least. As the bank is extensively using Excel and other similar tools to analyze various reports, the bank should immediately address this issue. The bank should initiate process for acquiring higher end hardware devices like servers to cope with the impending increased processing of data with the opening of its branches in various parts of the country.

Table of Contents

| | Page no. |
|--|----------|
| CHAPTER I..... | 1 |
| INTRODUCTION | 1 |
| 1.1 GENERAL BACKGROUND | 1 |
| 1.1.1 Definition about Bank | 1 |
| 1.1.2 General Background about MIS | 1 |
| 1.1.3 Relationship between MIS and Bank | 2 |
| 1.2 FOCUS OF THE STUDY..... | 3 |
| 1.3 STATEMENT OF THE PROBLEM | 3 |
| 1.4 OBJECTIVES OF THE STUDY..... | 3 |
| 1.5 SIGNIFICANCE/IMPORTANCE OF THE STUDY | 4 |
| 1.6 LIMITATIONS OF THE STUDY..... | 4 |
| 1.7 ORGANIZATION OF THE STUDY..... | 4 |
| CHAPTER II..... | 6 |
| REVIEW OF LITERATURE | 6 |
| 2. DEFINITION OF REVIEW OF LITERATURE | 6 |
| 2.1 CONCEPTUAL FRAMEWORK..... | 6 |
| 2.1.1 Management..... | 6 |
| 2.1.2 Information | 8 |
| 2.1.3 Information System..... | 10 |
| 2.1.4 Management Information System (MIS) | 11 |
| 2.1.5 Role of MIS..... | 12 |
| 2.1.6 Influences on MIS Design | 14 |
| 2.1.8 Problems with MIS | 21 |
| 2.1.9 Factors of success and failure of MIS..... | 22 |
| 2.1.10 Evolution of MIS | 24 |
| 2.2 REVIEW OF RELATED STUDIES..... | 25 |
| 2.3 REVIEW OF MASTER’S DEGREE THESIS | 26 |
| 2.4 Necessity of this study..... | 28 |
| CHAPTER III | 29 |
| RESEARCH METHODOLOGY..... | 30 |
| 3.1 RESEARCH DESIGN..... | 30 |
| 3.2 SOURCE OF DATA | 31 |
| 3.3 POPULATION AND SAMPLE..... | 31 |

| | |
|---|----|
| 3.4 DATA ANALYSIS | 31 |
| CHAPTER IV | 32 |
| DATA PRESENTATION AND ANALYSIS | 32 |
| 4.1 INTRODUCTION OF HIMALAYAN BANK LIMITED (HBL)..... | 32 |
| 4.2 DECISION MADE IN HIMALAYAN BANK | 33 |
| 4.3 SYSTEM VIEW OF HIMALAYAN BANK LTD | 35 |
| 4.4 COMPUTER SYSTEM IN HIMALAYAN BANK | 37 |
| 4.4.1 Hardware Resources | 40 |
| 4.4.2 Software Resources | 40 |
| 4.4.3 Data Resources | 40 |
| 4.4.4 Network Resources..... | 40 |
| 4.5 DECISION MAKING PHASES IN HIMALAYAN BANK LTD..... | 41 |
| 4.5.1 Decision Model for Local Currency Management..... | 41 |
| 4.5.1.1 Intelligence Phase | 41 |
| 4.5.1.2 Design Phase..... | 43 |
| 4.5.1.3 Choice Phase..... | 44 |
| 4.6 FLOW CHART IN HIMALAYAN BANK..... | 45 |
| 4.7 DATA ANALYSIS OF PRIMARY DATA..... | 46 |
| CHAPTER V | 63 |
| SUGGESTIVE FRAMEWORK..... | 63 |
| 5.1 CONCLUSION | 63 |
| 5.2 MAJOR FINDINGS | 64 |
| 5.3 RECOMMENDATIONS | 65 |

List of Table

| | Page no. |
|--|-------------|
| TABLE 1: EXAMPLE OF REPORTS GENERATED | 41 |
| TABLE 2: LIQUIDITY CALCULATION TABLE | 42 |
| TABLE 3: OPTION TABULATION..... | 44 |
| TABLE 4: % OF IMPORTANCE OF MIS | 46 |
| TABLE 5: % OF USAGE OF MIS IN DECISION MAKING..... | 47 |
| TABLE 6: % FOR WHICH PURPOSE DO YOU USE MIS..... | 48 |
| TABLE 7: % OF THE FULFILLMENT OF INFORMATION NEEDS BY THE CURRENT MIS | 49 |
| TABLE 8: % OF USING OTHER RESOURCES LIKE EXCEL IN ANALYZING THE INFORMATION DERIVED FROM THE MIS | 50 |
| TABLE 9: FACTORS INCREASING THE USE OF MIS (IN %) | 51 |
| TABLE 10: % OF UNDERSTANDING OF THE MIS | 52 |
| TABLE 11: % OF COMFORT USING THE SOFTWARE | 53 |
| TABLE 12: % OF SATISFACTION LEVEL WITH THE CURRENT MIS..... | 54 |
| TABLE 13: % OF THE MIS SYSTEM IS OPTIMALLY USED..... | 55 |
| TABLE 14: % OF GOOD COMMUNICATION CHANNEL FOR THE SUCCESS OF MIS | 56 |
| TABLE 15: % OF MIS SYSTEM WHICH IS PROACTIVE TO USERS DEMAND FOR THE MOST EFFECTIVE WAY | 57 |
| TABLE 16: % FOR EFFICIENT USAGE OF A MIS, THE END USER OF MIS MUST BE TRAINED IN SYSTEM..... | 58 |
| TABLE 17: % FOR AN MIS TO BE EFFECTIVE, THE SOFTWARE PERSONNEL NEED TO BE PROPERLY TRAINED | 59 |
| TABLE 18: % OF THE CURRENT MIS WILL BE EXPLOITED EACH MORE IF THE END USERS ARE FURTHER TRAINED | 60 |
| TABLE 19: % OF THE CURRENT MIS WILL BE EXPLOITED EVEN MORE IF THE SOFTWARE PERSONNEL ARE FURTHER TRAINED | 61 |

List of Figure

| | Page no. |
|--|----------|
| FIGURE 1: MIS SUPPORT TO MANAGEMENT PROCESS | 7 |
| FIGURE 2: ORGANIZATION & INFORMATION CONCEPTS | 13 |
| FIGURE 3: MAJOR INFLUENCES ON THE ORGANIZATION'S MIS | 14 |
| FIGURE 4: COMPONENTS OF MIS | 17 |
| FIGURE 5: LEVELS OF DECISION MAKING IN HIMALAYAN BANK | 33 |
| FIGURE 6: RESPONSIBILITY OF DECISION MAKING IN HIMALAYAN BANK | 34 |
| FIGURE 7: SYSTEMS VIEW OF HIMALAYAN BANK | 36 |
| FIGURE 8: SCHEMATIC VIEW OF HIMALAYAN BANK'S NETWORK INFRASTRUCTURE | 38 |
| FIGURE 9: FLOW CHART | 45 |
| FIGURE 10: % OF IMPORTANCE OF MIS | 46 |
| FIGURE 11: % OF USAGE OF MIS IN DECISION MAKING | 48 |
| FIGURE 12: % FOR WHICH PURPOSE DO YOU USE MIS..... | 48 |
| FIGURE 13: % OF THE FULFILLMENT OF INFORMATION NEEDS BY THE CURRENT MIS..... | 49 |
| FIGURE 14: % OF USING OTHER RESOURCES LIKE EXCEL IN ANALYZING THE INFORMATION DERIVED FROM THE MIS | 50 |
| FIGURE 15: FACTORS INCREASING THE USE OF MIS (IN %)..... | 51 |
| FIGURE 16: % OF UNDERSTANDING OF THE MIS | 52 |
| FIGURE 17: % OF COMFORT USING THE SOFTWARE | 53 |
| FIGURE 18: % OF SATISFACTION LEVEL WITH THE CURRENT MIS..... | 54 |
| FIGURE 19: OF THE MIS SYSTEM IS OPTIMALLY USED..... | 55 |
| FIGURE 20: % OF GOOD COMMUNICATION CHANNEL FOR THE SUCCESS OF MIS | 56 |
| FIGURE 21: % OF MIS SYSTEM WHICH IS PROACTIVE TO USERS DEMAND FOR THE MOST EFFECTIVE WAY | 57 |
| FIGURE 22: % FOR EFFICIENT USAGE OF A MIS, THE END USER OF MIS MUST BE TRAINED IN SYSTEM | 58 |
| FIGURE 23: % FOR AN MIS TO BE EFFECTIVE, THE SOFTWARE PERSONNEL NEED TO BE PROPERLY TRAINED | 59 |
| FIGURE 24: % OF THE CURRENT MIS WILL BE EXPLOITED EACH MORE IF THE END USERS ARE FURTHER TRAINED | 60 |
| FIGURE 25: % OF THE CURRENT MIS WILL BE EXPLOITED EVEN MORE IF THE SOFTWARE PERSONNEL ARE FURTHER TRAINED..... | 61 |

LIST OF ABBREVIATIONS

| | |
|------|-------------------------------|
| HBL | Himalayan Bank Limited |
| NRB | Nepal Rastra Bank |
| Ltd. | Limited |
| SQL | Structured Query Language |
| HO | Head Office |
| BO | Branch Office |
| R | Router |
| ASA | Adaptive Security Appliances |
| ISP | Internet Server Provider |
| DMZ | Demilitarized Zone |
| i.e. | That is |
| etc. | Etceteras |
| Fig. | Figure |
| No. | Number |
| IS | Information System |
| MIS | Management Information System |
| CRR | Cash Reserve Ratio |
| IT | Information Technology |
| NAC | Nepal Airline Corporation |
| % | Percentage |

CHAPTER I

INTRODUCTION

1.1 General Background

1.1.1 Definition about Bank

Bank is an organization, usually a corporation, chartered by a state or federal government, which does most or all of the following: receives demand deposits and time deposits, honors instruments drawn on them, and pays interest on them; discounts notes, makes loans, and invests in securities; collects checks, drafts, and notes; certifies depositor's checks; and issues drafts and cashier's checks. (<http://www.investorwords.com/cgi-bin/getword.cgi?401>)

The above definition is a traditional way of defining bank. The commercial banks in vogue these days offer services in addition to the above mentioned. These services include electronic funds transfer, letters of credits, issuance of guarantees, forward bookings of foreign currencies, cash management solutions, various exotic derivative products like options, futures etc.

The primary function of the bank is to collect deposit from people who have excess of it and divert it towards people in need of funds, and earn net interest spread while doing so. In an optimum situation banks collect deposit to the extent they can invest and for their every day cash flow needs.

1.1.2 General Background about MIS

In the last two decades, information technology (IT) has emerged in the world affecting our personal, social and public life and has made a significant impact on the quality of life. It handles data and information represented in digital, text, image, graphics or voice media and deals with communication, storage, processing and printing or exhibition in the manner and kind as desired by the users, IT is an outcome of the advances in telecommunication and computer technology.

IT helps to optimize the use of scarce resources through intelligent information support of decision-making, and helps further in its implementation by supporting coordination effort without wasteful delays. Decision-making has become a very complex process due to competitive environment, scarce resources, time pressures and unavoidable compulsions to achieve goals.

IT has made decisive inroads in all walks of life, in offices, factories, banking. It is being extensively used in decision-making, ease of operations, communication, record-keeping and for obtaining higher productivity from the system in which it is put to use. It replaces old, outdated low methods by fast ones. It allows you to handle big and complex data and its structure with ease, which was never possible earlier. It helps you test the solutions without implementing them. The distance and access are no longer technical or operational problems, as information stores anywhere can be used without its personal possession. It has affected the work cluster in organizations and life style of each individual. Information therefore is considered as the fifth, productive resource along with man, machines, material, and money. It can be developed only designing proper INFORMATION SYSTEMS for the management of the organization.

(Jawadkar, 2002:88)

MIS refers broadly to a computer-based system that provides managers with the tools for organizing, evaluating and efficiently running their departments. In order to provide past, present and prediction information, an MIS can include software that helps in decision making, data resources such as databases, the hardware resources of a system, decision support systems, people management and project management applications, and any computerized processes that enable the department to run efficiently. (<http://www.webopedia.com/TERM/M/MIS.html>)

1.1.3 Relationship between MIS and Bank

In Western Europe and United States, it is estimated that today fully one-half of the Gross National Product is attributable to the production, use and distribution of computer based information. In a bank, having knowledge how to process and analyze information using computers is *often* a determining factor for success. This objective requires an *Information System*. (Gardner, 2002:78).

After restoration of democracy, the Government of Nepal initiated the economical liberalization policy so number of commercial banks is increasing day by day. Due to such increment of commercial banks, competition also increased among them and it is realized to enhance services to the customers to get more competitive advantage. This is only possible through proper information technology.

Management Information System is the backbone on which logical business decision are made in all types of business organizations. Applying this same logic to a Bank, we can safely say that a Bank must have good Management Information System as a minimum to survive and prosper in this exceedingly competitive world.

1.2 Focus of the Study

The prime focus is on the utilization of MIS in banks in Nepal with special study of Himalayan Bank Ltd. Study is particularly based on variables which influence use of MIS and a diagnostic approach is made to find out the challenges and hindrances in optimum use of MIS. An attempt has been made to find out reasons for underutilization of MIS and after the study; recommendations have been put forward to rectify it.

1.3 Statement of the problem

Private Sector banks have been the leaders in Nepal in terms of using computers. All private sector banks are fully computerized and are using some form of MIS. The banks have also been using various kinds high tech software system for their daily activities. Management of these banks is helped a great deal by the MIS support these software systems provide. In spite of this, it is widely found that banks for various reasons are using other tools like excel, lotus 123 to process data from the software system and generate various management reports. This has led to not only loss of resources in terms of manpower/ time/ money but it has led to “underutilization of the MIS”.

1.4 Objectives of the study

The trend of computerization is fast catching up in Nepal and many organizations in the urban setting are computerizing themselves and installing MIS. However there is doubt whether the implemented MIS have been effective in solving managerial problems with relation to decision-

making. On one hand, organizations have spent a huge amount of resources in setting up MIS infrastructures while on the other hand they have not been able to fully capitalize the benefits of MIS. In such a scenario, it is important to study the utilization of MIS and the factors which affect the performance of MIS. The objectives of the present study are as follows:

- To identify factors affecting performance of MIS.
- To study whether training of Software personnel of the bank improve the performance of MIS
- To study whether training of End users in the bank improve the performance of MIS
- To study whether communication channel improves the performance of MIS

1.5 Significance/Importance of the Study

Information plays a key role in success in business. Stress has been laid out in converting the traditional paper based MIS to a computerized, data base driven MIS and a lot has been written and discussed about. But is in felt that implementation of a MIS is not an end in itself rather a beginning / stepping stone in the pursuit of information. A continuous study must be carried to find shortcomings of MIS to further strengthen in the days ahead. This study hopes to find issues in utilization of MIS in a live environment and hopes to further strengthen the field of MIS here in Nepal and help understand the complexities involved in the used of an efficient MIS.

1.6 Limitations of the Study

Although there are 31 commercial banks in Nepal and all banks have various departments, this study has been confined to Treasury Department of Himalayan Bank Ltd. The reason being that HBL is relatively a good bank and whose problem is small in comparison to other banks. Another limitation of the study is that the data used are only primary data.

1.7 Organization of the Study

The study has been organized into five chapters concentrating over three main folds viz. introductory framework, analytical framework and suggestive framework. The introductory framework gives the general idea about the study and it contains introduction, general

background, focus of the study, statement of the problem, objectives of the study, formulation of hypothesis, significance / importance of the study, limitations of the study. The second chapter deals with the review of literature which consists the review of international journals and periodicals, websites, Review of Journals in Nepalese perspectives and the Review of Academic Research Studies. The third chapter is about research methodology. Analytical frame work starts from Chapter four which contains presentation and analysis of primary data with general analysis of various indicators. The fifth chapter is all about the suggestive framework which is devoted to findings, recommendations and conclusions.

CHAPTER II

REVIEW OF LITERATURE

2. Definition of Review of Literature

The purpose of literature of review is to find out what research studies have been conducted in one chosen field of study and what remain to be done. It provides the student with the knowledge of the status of their field of research and foundation for developing a comprehensive theoretical framework which hypothesis can be developed for testing. (Pant Wolff, 1999:30)

This chapter consists of 2 parts – Conceptual Framework and Review of Related Studies. In conceptual framework, review of what has been written in academic books is carried out while Review of Related Studies is further divided into Review of Journals and Review of Masters Degree Thesis.

2.1 CONCEPTUAL FRAMEWORK

2.1.1 Management

Fayol's classic definition of management was derived from his own experience and is repeated below: 'To manage is to forecast and plan, to organize, to command, to co-ordinate and to control'. More modern definitions are largely variants of Fayol's but with more emphasis on the need to guide, lead and motivate people rather than merely command. Management is a down to earth process which has practical consequences. As Druker says 'Management is a practice not a science. It is not knowledge but performance'. (Lucey, 2002:91)

Management is a process which takes place at all levels in an organization. It is not carried out only by people with 'manager' in their job title. Section leaders, supervisors, chief clerks, foreman etc all carry out managerial functions although obviously not all of the same type or of equal importance.

A useful way of grouping the functions of management is into the following categories:

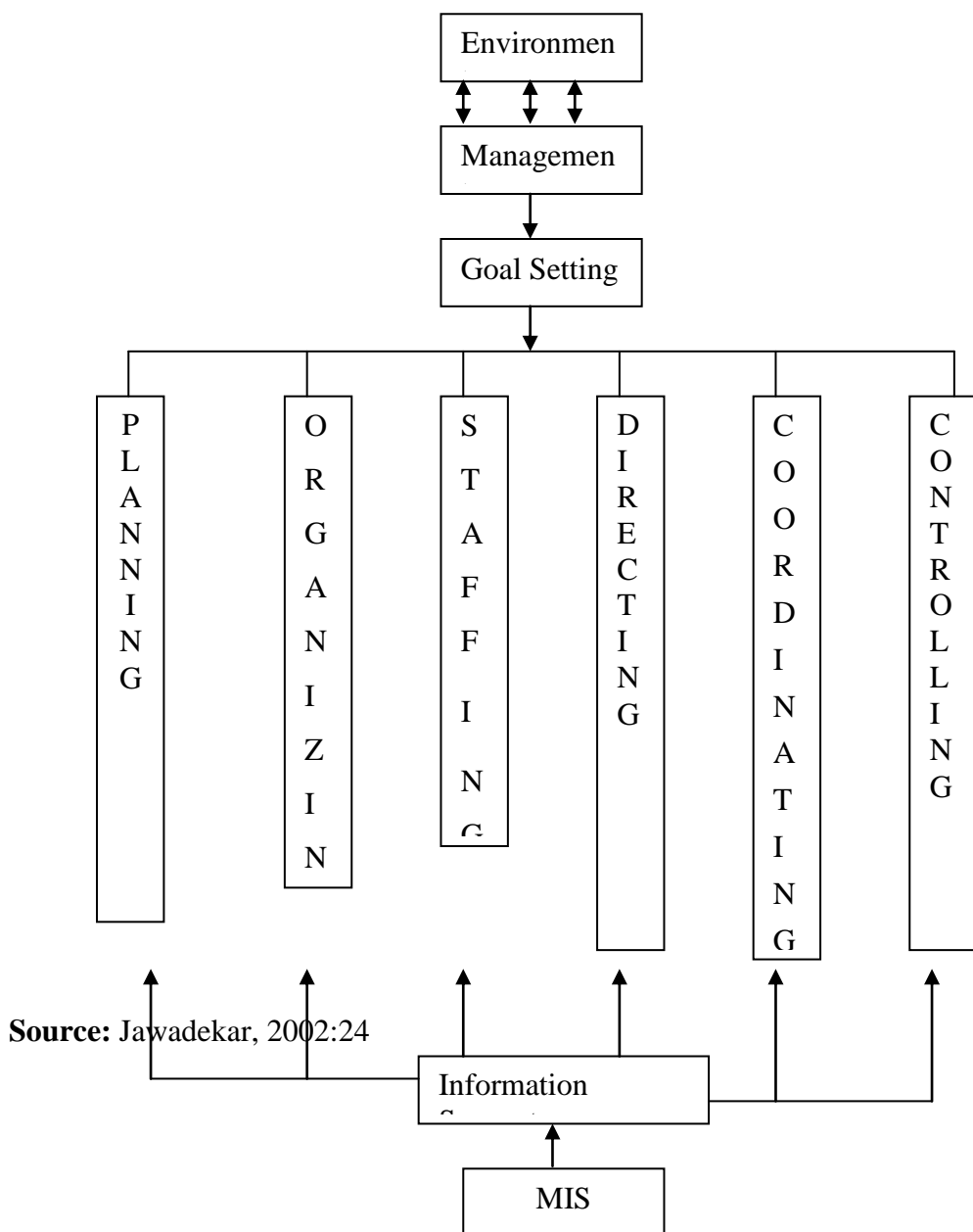
Planning: All activities leading to the formulation of objectives or goals and deciding upon the means of meeting them.

Motivation and Leadership: Behavioral processes where a manager influences others to contribute to the achievement of objectives by gaining their commitment.

Organizing and Coordinating: Determining the necessary activities, structures and responsibilities and combining these factors to achieve the required objectives.

Control: A monitoring process where actual results are compared with planned results in order to bring activities in line with plans or to amend the plans.

Figure 1: MIS Support to Management Process



2.1.2 Information

Traditional economists of the pre industrial era considered only land, labor and capital as economic resources. Mass manufacturing placed a premium on technology that emerged as the major resources in latter half of this century. With the recent information revolution, the prized resource is actually information. (*Sadagopan, 2000:33*)

Information being a vital corporate resources, it needs to be managed just as any other organizational resources like money, men, materials or markets. Formal methods to plan, monitor, control and evaluate the utilization of this resource are needed along with the provision that this resource, like money, is available to everyone in the organization, with the appropriate authority and accountability. There is also a need for corporate strategy to manage such a vital resource. (*Sadagopan, 2000:34*)

Davis & Olson define information as a data that has been processed into a form that is meaningful to the recipient and is of real or perceived value in the current or the prospective action or decisions of the recipient. (*Jawadekar, 2002:88*)

Information provides insight into situations using data culled from the processes that characterize the situations. Obviously, information systems should concentrate on information and not merely on data. (*Sadagopan, 2000:34*)

Functions performed by Information

In addition to the general function of improving knowledge, information assists management in several ways including (*Lucey, 2002:15*):

- The reduction of uncertainty
- As an aid to monitoring and control
- As a means of communication
- As a memory supplement
- As an aid to simplification

Characteristics of good Information

Good information is (*Lucey, 2002:17*):

- Relevant for its purpose
- Sufficiently accurate for its purpose
- Complete enough for the problem
- From a source in which the user has confidence
- Communicated to the right person
- Communicated in time for its purpose
- That which contains the right level of detail
- Communicated by an appropriate channel of communication
- That which is understandable by the user

Information Overload

Information is knowledge and understanding that is usable by the recipient. It reduces uncertainty and has surprise value. It must tell the recipient something not already known which could not be predicted. If a message or report does not have these attributes, as far as the recipient is concerned, it contains merely data not information. The point has been well put by Finlay “Without an efficient means of filtering and aggregating data, a manager could be data rich yet information poor.” (*Lucey, 2002:14*)

A report in 1996 by Reuters called ‘Dying for Information’ graphically confirms the above point!. This report drew on interviews with 1300 managers in the UK and elsewhere. It found that half already complained of information overload and expected the problem to get worse in the next few years. The survey found that the information (more correctly, data) overload caused mental stress and physical illness and a general feeling of not being able to cope. All in all a depressing story which provides clear evidence that badly designed MIS are all too common. (*Lucey, 2002:14*)

In all but the smallest organizations Management rarely observe operations directly. They attempt to make decisions, prepare plans and control activities by using what information they can obtain from various sources. (*Lucey, 2002:11*)

Data is relatively raw and information is a refined form of data which is more useful for human understanding and decision processes. (*Sadagopan, 2000:34*)

2.1.3 Information System

Information system and technology have become vital component of successful businesses and organization. (Davis: 2000:6)

IT can help all kinds of businesses improve the efficiency and effectiveness of their business processes, management decision making and more group collaboration and thus strengthen their competitive position in a rapidly changing market place. (O'Brien, 2000:8)

An IS is an organized combination of people, hardware, software, communication networks and data resources that collects, transforms and disseminates information in an organization. People have relied on IS to communicate with each other using a variety of physical devices (hardware), into processing instructions and procedures (Software), communication channels (networks) and stored data (data warehouses) since the dawn of civilization. (O'Brien, 2000:9)

The success of an information system should not be measured only by its efficiency in terms of minimizing costs, time, and the uses of information resources. Success should also be measured by the effectiveness of information technology in supporting an organization's business strategies enabling its business processes, enhancing its organizational structures and culture, and increasing the business value of the enterprise in a dynamic business environment.

So, the proper management of information systems is a major challenge for managers. Thus, the information systems function represents:

- A major functional area of business that is as important to business success as the functions of accounting, finance, operations management, marketing, and human resource management.
- An important contributor to operational efficiency, employee productivity and morale, and customer service and satisfaction.
- A major source of information and support needed to promote effective decision making by managers.
- An important ingredient in developing competitive products and services that give an organization a strategic advantage in the global marketplace.
- A major part of the resources of an enterprise and its cost of doing business, thus posing a major resource management challenge.
- A vital, dynamic, and challenging career opportunity for millions of men and women

2.1.4 Management Information System (MIS)

There is no universally accepted definition of an MIS and those that exist reflect the emphasis – and prejudices! – of the particular writer. The term MIS has become almost synonymous with computer based data processing and indeed many books with MIS in the title turn out to be exclusively concerned with topics such as systems analysis, file design and the various other technical facets of computer based systems. (*Lucey, 2002:1*)

There is no consensus on the definition of the term “management information system”. Some writers prefer alternative terminology such as “information processing system”, “information and decision system”, “organizational information system” or simply “information system” to refer to the computer based information processing system which supports the operations, management, and decision making functions of an organization. (*Davis, 2001:5*)

What’s in Name? A 1983 survey of 334 large organizations identified the following names and used for the information systems function:

| Name | Percent |
|---------------------------------|------------------|
| Management Information Systems | 33 |
| Information services | 17 |
| Information systems | 14 |
| Data processing | 12 |
| Information resource management | 3 |
| Other | 21 |
| | <hr/> 100 |

Source: “*Information Systems Planning to Meet Business Objectives: A Survey of Practice,*” Cresap, McCormick and Paget, New York, 1983, p. B-7

Some Definitions

MIS is an integrated, user-machine system for providing information to support operations, management, and decision-making functions in an organization. The system utilizes computer

hardware and software; manual procedures; models for analysis, planning, control and decision making; and a database. (Davis, 2000:6)

MIS is a system to convert data from internal and external sources into information and to communicate that information, in an appropriate form, to managers at all levels in all functions to enable them to make timely and effective decisions for planning, directing and controlling the activities for which they are responsible. (Lucey, 2000:2)

MIS is a system using formalized procedures to provide management at all levels in all functions with appropriate information, based on data from both internal and external sources, to enable them to make timely and effective decisions for planning, directing and controlling the activities for which they are responsible. (Lucey, 2000:27)

MIS is qualitatively different from data processing systems and that management involvement and interaction between information specialists and management is the key feature of successful MIS design. (Lucey, 2000:2)

MIS is a set of computer based systems and procedures implemented to help managers in their crucial job of decision –making. The actual process will involve the collection, organization, distribution and storage of organization-wide information for managerial analysis and control. (Sadagopan, 2002:3)

Different classes of users of MIS will use it differently. Clerical users primarily provide input and data control. First-line supervisors use it for operational control and detailed exceptional reporting. Management uses it for special reports and analyses, often employing a staff specialist to manipulate decision models and perform analyses. Because of the complexity of the process of MIS Development and need for judgment, there is a need for comprehensive academic training for MIS professionals. (Davis, 2000:23)

2.1.5 Role of MIS

The role of the MIS in an organization can be compared to the role of heart in the body. The information is the blood and MIS is the heart. In the body the heart plays the role of supplying

pure blood to all the elements of the body including the brain. The heart works faster and supplies more blood when needed. It regulates and controls the incoming impure blood, processes it and sends it to the destination in the quantity needed. It fulfills the needs of blood supply to human body in normal course and also in crisis. (Jawadekar, 2002:8)

The MIS plays exactly the same role in the organization. The system ensures that an appropriate data is collected from the various sources, processed, and sent further to all the needy destinations. The system is expected to fulfill the information needs of an individual, a group of individuals, the management functionaries: the managers and the top management.

The MIS satisfies the diverse needs through a variety of systems such as Query Systems, Analysis Systems, Modeling Systems and Decision Support Systems. The MIS helps in Strategic Planning, Management Control, Operational Control and Transaction Processing.

The MIS helps the clerical personnel in the transaction processing and answers their queries on the data pertaining to the transaction, the status of a particular record and references on a variety of documents. The MIS helps the junior management personnel by providing the operational data for planning, scheduling and control, and helps them further in decision making at the operations level to correct an out of control situation. The MIS helps the middle management in short term planning, target setting and controlling the business functions. It is supported by the use of the management tools of planning and control. The MIS helps the top management in goal settings, strategic planning and evolving the business plans and their implementation.

The MIS plays the role of information generation, communication, problem identification and helps them in the process of decision making. The MIS, therefore, plays a vital role in the management, administration and operations of an organization.

Figure 2: Organization & Information Concepts

| Levels of Management | Use of MIS | Nature of Information | Value of Information | Reporting Media & Structure |
|-----------------------------|-------------------|------------------------------|-----------------------------|--|
|-----------------------------|-------------------|------------------------------|-----------------------------|--|

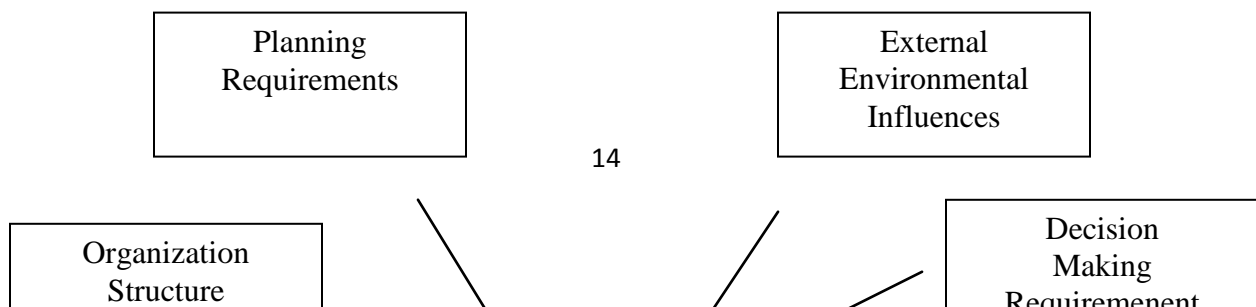
| | | | | |
|---|--|---|---|--|
| | | | | |
| CEO & Board | Goal Setting, Policy Making, Strategic Planning | Key Accurate, Futuristic | Very High, Meeting High Risk & Uncertainty Situation | Unstructured |
| | | | | |
| Middle Division, Department, Product Managers | Decision Making Problems Solving Monitoring & Achieving Business Goals, Planning & Schedule | Exception, Precise, Analytical Decision Oriented, Related to Past, Current Future | High, Meeting Risky Situation | Adhoc, Unformatted, Regular But Modified Frequent, Display & Print |
| | | | | |
| Supervisory, Jr. Managers, Supervisors, Officers | Problem Solving & Meeting Targets | Processed & Summarized and Classified for the Current Period | Low, Meeting near Certainty Situation | Given at Fixed Interval Display & Print |
| | | | | |
| Operational Assistants, Clerks | To know the Status Facts | Detailed Relating to Current Period | Lowest | Lowest Volume Print |

Source: Jawadekar, 2002:107

2.1.6 Influences on MIS Design

There are numerous factors which influence the structure and scope of an organization's MIS which are summarized in the figure below:

Figure 3: Major Influences on the organization's MIS



Source: Lucey, 2002:16/1

- a) ***The primary function of the organization.*** Is it a manufacturing or service company, a wholesaler, a local authority, a public utility, a hospital? Are there numerous functions? What linkages exist between them? Are they complementary or disparate? What type of technologies is used?
- b) ***The structure and levels of an organization.*** Is the organization composed of numerous sections and levels? What degree of autonomy has the section / departments?
- c) ***The degree of centralization or decentralization.*** Is the organization tightly controlled at the centre? What decisions/actions are the sections allowed taking? What is the committee structure?
- d) ***Interaction with environment.*** To what extent is external information of importance? In what ways does the organization need to communicate with its environment – to customers, suppliers, trade unions, government departments etc? What is the legislative framework? To what extent, if any, does the Data Protection Act apply?
- e) ***What decisions need to be taken?*** What is the extent of programmed and non-programmed decision making? What levels take the decisions? What is the urgency surrounding the decision making process? What is the time scale of decisions?
- f) ***The scale of operations.*** How many employees? How many branches / departments / sections? What is the volume of orders, invoices, bills, enquiries, transactions etc?

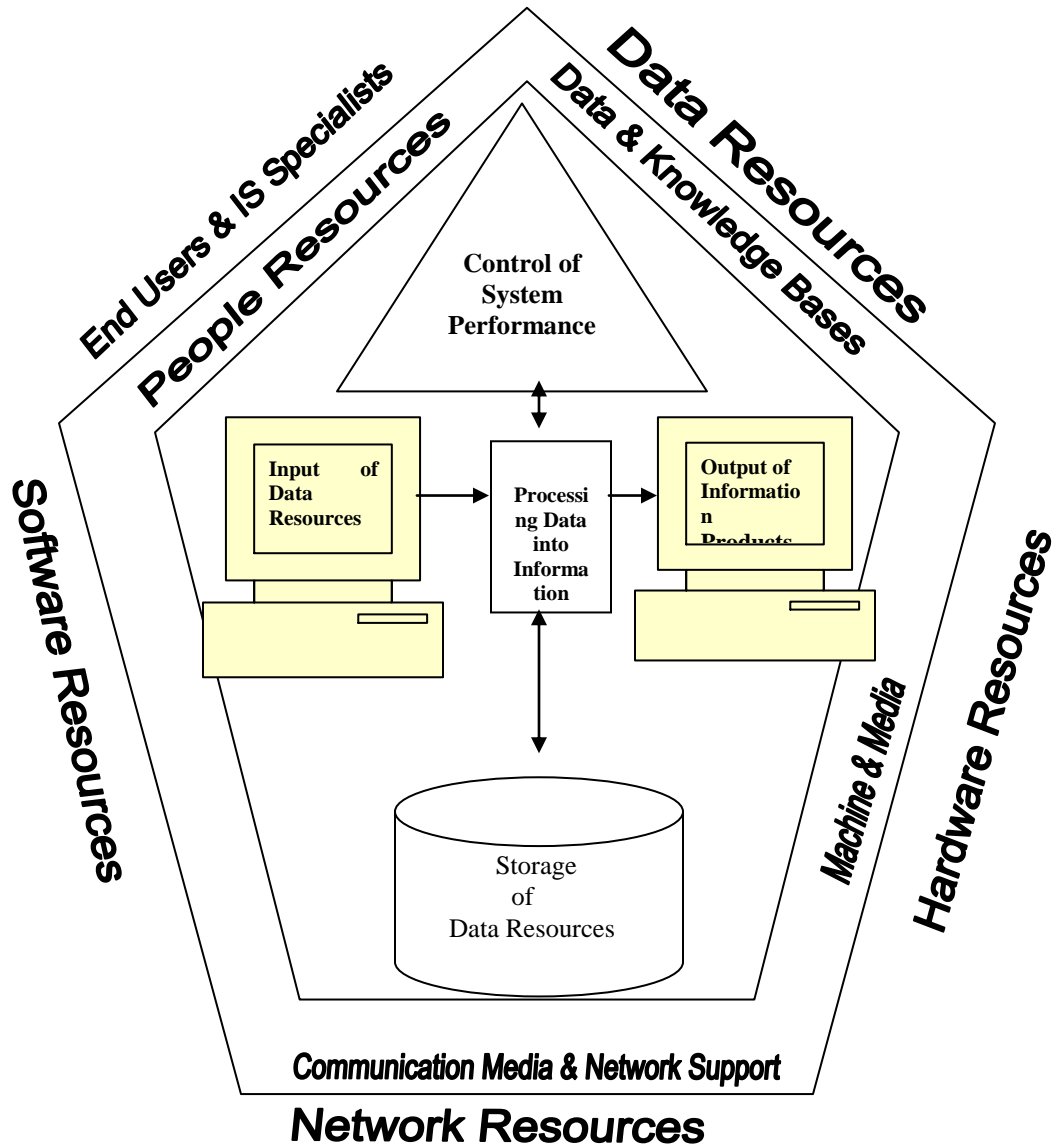
- g) ***The management style.*** Is it an authoritarian or participative style? Are procedures and operations routine and closely prescribed? Is management by exception practiced? What is the control structure?

- h) ***Use of information technology.*** What is the extent and type of IT usage? What degree of expertise exists throughout the organization – not just the IT specialists? What is the availability of equipment?

- i) ***To what extent is planning formalized?*** What time scales are involved? What is the extent of participation in planning? How is planning monitored? How are plans implemented?

2.1.7 Components/Structure of MIS

Figure 4: Components of MIS



Sources: O'Brien, 200:44)

The above figure illustrates an information system model that expresses a fundamental conceptual framework for the major components and activities of information systems. An information system depends on the resources of people (end users and IS specialists), hardware (machine and media), software (programs and procedures), data (data and knowledge base), and

networks (communication media and network support) to perform input, processing, output, storage, and control activities that convert data resources into information products.

This information system model highlights the relationship among the components and activities of information systems. It provides a framework that emphasizes four major concepts that can be applied to all types of information systems:

- People, hardware, software, data and networks are the five basic resources of information systems
- People resources include end users and ARE specialists, hardware resources consist of machines and media, software resources include both programs and procedures, data resources can include data and knowledge bases, and network resources include communication media and networks.
- Data resources are transferred by information processing activities into a variety of information products for end users
- Information processing consists of input, processing, output, storage and control activities

People resources

People are required for the operation of all information systems. These people resources include end users and ARE specialists.

End Users (also called users or clients) are people who use an information system or the information it produces. They can be accountants, salespersons, engineers, clerks, customers or managers. Most of us are information system end users.

IS Specialists are people who develop and operate information systems. They include systems analyst, programmers, computer operators, and other managerial, technical, and clerical IS personnel. Briefly, system analysts design information systems based on the information requirements of end users, programmers prepare computer programs based on the specifications of systems analysts and computer operators operate large computer systems.

Hardware Resources

The concept of hardware resources includes all physical devices and materials used in information processing. Specifically, it includes not only machines, such as computers and other equipment, but also all data media, that is, all tangible objects on which data is recorded, from sheets of paper to magnetic disks. Examples of hardware in computer-based information systems are:

Computer Systems, which consists of central processing units containing micro processors, and a variety of interconnected peripheral devices. Examples are microcomputer systems, midrange computer systems, and large mainframe computer systems.

Computer peripherals, which are devices such as a keyboard or electronic mouse for input of data and commands, a video screen or printer for output of information, and magnetic or optical disks for storage of data resources.

Software Resources

The concept of software resources includes all sets of information processing instructions. This generic concept of software includes not only the sets of operating instructions called programs, which direct and control computer hardware, but also the sets of information processing instructions needed by people, called procedures.

It is important to understand that even information systems that don't use computers have a software resource component. This is true even for the information systems of ancient times, or the manual and machine-supported information systems still used in the world today. They all require software resources in the form of information processing instructions and procedures in order to properly capture process and disseminate information to their users.

The following are examples of software resources:

System software, such as an operating system program, which controls and supports the operations of a computer system

Application software, which are program that direct processing of a particular use of computers by end users. Examples are a sales analysis program, a payroll program, and a word processing program.

Procedures, which are operating instruction for the people who will use an information system. Examples are instructions for filling out a paper form or using a software package.

Data Resources

Data is more than the raw materials of information systems. The concept of data resources has been broadened by managers and information system professionals. They realize the data constitutes a valuable organizational resource. Thus, you should view data as data resources that must be managed effectively to benefit all end users in an organization.

Data can take many forms, including traditional alphanumeric data, composed of numbers and alphabetical and other characters that describe business transaction and other events and entities. Text data, consisting of sentences and paragraphs used in written communication, image data, such as graphic shapes and figures; and audio data, the human voice and other sounds, are also important forms of data.

The data resources of information systems are typically organized into:

- Databases that hold processed and organized data
- Knowledge bases that hold knowledge in a variety of forms such as facts, rules, and case examples about successful business practices.

For example, data about sales transactions may be accumulated and stored in a sales database for subsequent processing that yields daily, weekly, and monthly sales analysis reports for management. Knowledge bases are used by knowledge management systems and expert systems to share knowledge and give expert advice on specific subjects.

Network Resources

Telecommunications networks like the Internet, intranets and extranets have become essential to the successful operations of all types of organizations and their computer based information systems. Telecommunications networks consist of computers, communication processors, and other devices interconnected by communications media and controlled by communications software. The concept of network resources emphasizes that communications networks are a fundamental resource components of all information systems. Network resources include:

Communication media: examples include twisted-pair wire, coaxial cable, fiber-optic cable, microwave systems and communications satellite systems.

Network support: This generic category includes all of the people, hardware, software and data resources that directly support the operation and use of a communications network. Examples include communications processors such as modems and internetwork processors, and

communications control software such as network operating system and Internet browser packages.

2.1.8 Problems with MIS

There is abundant evidence from numerous surveys both in the UK and the USA that existing MIS, often using advanced computer equipment, have had relatively little success in providing management with the information it needs. The typical reasons discovered for this include the following:

- lack of management involvement with the design of the MIS
- narrow and / or inappropriate emphasis of the computer system
- undue concentration on low level data processing applications particularly in the accounting area
- lack of management knowledge of computers
- poor appreciation by information specialists of management's true information requirements and of organizational problems
- lack of top management support

To be successful an MIS must be designed and operated with due regard to organization and behavioral principles as well as technical factors. Management must be informed enough to make an effective contribution to systems design and information specialists (system analysts, accountants, operations researchers and others) must become more aware of managerial functions and needs so that, jointly, more effective MIS are developed.

Management do not always know what information they need and information specialists often do not know enough about management to be able to produce relevant information for the managers they serve. An example given by Professor Kaplan graphically illustrates this point.

He reported that a group of American industrialists visiting Japan found that their counterparts were regularly supplied with information on the proportion of products which pass through the factory without re-working or rectification. They found that a typical percentage of products that needed none re-working were 92%. The American manager found that this information was not available to them in their factories at home but on investigation it was found that their ratio was 8%. They then worked on this factor for 6 months at which point the ratio had moved up to 66% and, more importantly, productivity was 25% higher.

There is no doubt that better communication between management and information specialists, plus a wider knowledge by both groups of MIS principles would greatly facilitate the task of developing relevant and appropriate information systems. There is, unfortunately, no simple checklist of essential features, which, if followed, will automatically produce the perfect MIS. What is required is an awareness and understanding of key principles and functions so that the design, implementation and operation of the MIS is the result of informed decisions and judgments rather than haphazard development without regard to real organizational requirements. (Davis, 2000: 2).

2.1.9 Factors of success and failure of MIS

Many organizations use MIS successfully, others do not. Though the hardware and the software is the latest and has appropriate technology, its use is more for the collection and storage of data and its elementary processing. There are some factors, which make the MIS a success and some others, which make it a failure. (Jawadekar, 2002:167) These factors can be summarized as follows:

Factors contributing to Success

- The MIS is integrated into the managerial functions. It sets clear objectives to ensure that the MIS focuses on the major issues of the business. Also adequate development resources are provided and the human and organizational barriers to progress are removed
- An appropriate information processing technology required to meet the data processing and analysis needs of the users of the MIS is selected.
- The MIS is oriented, defined and designed in terms of the users requirements and its operational viability is ensured.
- The MIS is kept under continuous surveillance, so that its open system design is modified according to the changing information needs.
- MIS focuses on the results and goals, and highlights the factors and reasons for non-achievement.
- MIS is not allowed to end up into an information generation mill avoiding the noise in the information and the communication system.

- The MIS recognizes that a manager is a human being and therefore, the systems must consider all the human behavioral factors in the process of management.
- The MIS recognizes that the different information needs for different objectives must be met with. The globalization of information in isolation from the different objectives leads to too much information and its non-use.
- The MIS is easy to operate and, therefore, the design of the MIS has such features which make up a user-friendly design.
- MIS recognizes that the information needs become obsolete and new needs emerge. The MIS design, therefore, has a basic potential capability to quickly meet new needs of information.

Factors contributing to Failures

- The MIS is conceived as a data processing and not as an information processing system.
- The MIS does not provide that information which is needed by the managers but it tends to provide the information generally the function calls for. The MIS then becomes an impersonal system.
- Underestimating the complexity in the business systems and not recognizing it in the MIS design lead to problems in the successful implementation.
- Adequate attention is not given to the quality control aspects of the inputs, the process and the outputs leading to insufficient checks and controls in the MIS.
- The MIS is developed without streamlining the transaction processing systems in the organization.
- Lack of training and appreciation that the users of the information and the generation of the data are different, and they have to play an important responsible role in the MIS
- The MIS does not meet certain critical and key factors of its users such as a response to the query on the database, an inability to get the processing done in a particular manner, lack of user-friendly system and the dependence on the system personnel.
- A belief that the computerized MIS can solve all the management problems of planning and control of the business.

- Lack of administrative discipline in following the standardized systems and procedures, wrong coding and deviating from the system specifications result in incomplete and incurred information.
- The MIS does not give perfect information to all the users in the organization. Any attempt towards such a goal will be unsuccessful because every user has a human ingenuity, bias, and certain assumptions not known to the designer. The MIS cannot make up these by providing perfect information.

2.1.10 Evolution of MIS

When the concept of MIS was first introduced, many proponents envisioned a single, highly integrated system that would bring together processing for all organizational functions. Others questioned whether it was possible to design adequate computer-based information system to support management planning and decision making functions, especially strategic planning. They questioned the value of applying advanced information technology to an ill-defined judgmental process.

Over time, the concept of a single, highly integrated system was demonstrated to be too complex to be implemented. The MIS concept is now that of a federation of subsystems, developed and implemented as needed but conforming to the overall plan, standards, and procedures for the MIS. Thus, rather than a single, global MIS an organization may have many related information systems which serve managerial needs in various ways.

MIS as a concept continues to evolve. It is related to, but not equivalent with, data processing and other information systems-related concepts. Two such concepts that can be considered extensions of the MIS concept are decisions support system (DSS) and information resources management (IRM). An emerging trend consistent with the evolution of the MIS concept is end-user computing. (Davis, 2000:10)

2.2 REVIEW OF RELATED STUDIES

Review of Journals

Bhubanesh Pant (1992) in his article “*Information Technology and the Industrial Sector of Nepal*”, opines that “Presence of a computer has not guaranteed improved productivity. This is largely due to unawareness of how to use the computer (i.e. operations) and / or how the computer can help in solving problems (i.e. application). The availability of sufficiently trained manpower is another essential element that is missing in Nepal. For Nepal, the question is not whether to make or buy the equipment, but to what extent to train professionals in the computer and telecommunication fields and in methodologies for planning, design and implementation of these technology applications. The goal should be to spur the externalization process i.e. the development of a wide range of professional and support services that can enhance the competitive positioning of a country’s economy and its quality of life.”

In an article titled “*Managing Your Information Across the Enterprise*” 2002, Martin Jerresand, Director ADT & e-Business Solutions opines “If it were ever possible to get too much of a good thing, it’s certainly the case with information. The sheer volume of new information has dramatically increased the complexity of finding what you need. To ensure that the relevant content is delivered to each audience, they must start to manage content more efficiently and effectively. With easy access to the right content via an internet portal, employees are more effective, make better decisions, and are more equipped to help generate new business or higher profits. In addition, easy access to the appropriate corporate or product information strengthens customer and partner relationships, decreasing costs and potentially increasing sales.”

In an article titled “*Few IS projects come in on Time, on Budget*” 1994 by Rosemary Cafasso, the following reasons have been given for why IT Development projects succeed or fail:

Top 5 reasons for success:

1. User involvement
2. executive management support
3. clear statement of requirements
4. proper planning
5. realistic expectations

Top 5 reasons for failure:

1. lack of user input
2. incomplete requirements and specifications
3. changing requirements and specification
4. lack of executive support
5. technological incompetence

2.3 REVIEW OF MASTER'S DEGREE THESIS

1. *Acharya Ishwor (2002)* carried out a study on “Implementation of MIS in NAC – A case study in Marketing Department” and concluded that:

- The implementation of MIS is necessary for the effectiveness of the department
- The complex organizational structure and multidivisional structure of the marketing department is ambiguous, it is necessary to made clear
- The department needs Network based computerized information system to eliminate the drawback generated by paper based information system and traditional way of centralizing the information and authority.
- Need for proper infrastructure for the implementation of MIS in the department.

Based on the above conclusions, Acharya gave the following recommendations:

- Should train and develop the capability of human resource to handle sophisticated equipments regarding information technology.
- Should maintain necessary infrastructure for implementation of MIS in the department
- The management of NAC must be committed to strictly implement policies, rules and regulation of NAC to avoid unnecessary political pressure.
- Implement a Network based computerized information system

Acharya carried out the study with the following objectives:

- To present and analyze of existing IS of Marketing Department of NAC
- To examine the flow of information to co-ordinate and communicate different divisions and units of Marketing Information

- To provide recommendations on the basis of major findings that has been drawn out in the research study

The study was carried out by using the following methodology:

Data Collection: Data was collected from both primary and secondary sources. Observation, questionnaire, interview were the tools used to collect data from the primary source while data of different departments of NAC, Journals, news letters were the secondary sources of information. Tables & Figures, System Approach, Data Flow Diagram, Flow Chart were used to present the data in the study and percentage (%) used to analyze the data.

2. *Neupane Durga Prasad (2002)* carried out a study on “MIS – A significant tool for effective management of an organization. A case Study in NAC” and concluded that there is no doubt that use of computerized information system in organization can help to boost the efficiency and productivity of the organization. MIS and computer networking is an essential toll for effective management and handle day to day decision making functions of all levels of management of an organization. His other conclusion is as follows:

- MIS satisfies the information needs of the people in a particular organization pyramid.
- Network based computerized information system is the first requirement for this organization to maintain modern information system.
- There is lack of well trained and skilled IT experts and manpower to maintain computerized information system within the organization and departments.
- MIS not implemented due to high cost and technical manpower.

Based on the above conclusions, Neupane gave the following recommendations:

- NAC should implement MIS.
- It is essential to provide training of software packages and advance course of computer to all of the staff and executives of this organization to make them competent and able to handle various problems regarding modern IT and MIS.
- The managers, CEO and all decision making level personnel must use modern MIS and various software regarding DM and problem solving. For this, they need good knowledge of modern management, modern network base and information system and advanced

computer knowledge to make their decision effective, organizational efficiency and higher productivity.

- In each modern organization are needs to provide enough training and development opportunities regarding modern IT related fields, i.e. hardware, software, networking and modern management skills to all levels of employees. It leads an organization always towards success and effectiveness.
- It should make plan of networking the variety of platforms with infrastructure detail name servers, routers, gateways, TCP/IP and networking strategy like LAN/MAN/ WAN etc

Neupane carried out the study with the following objectives:

- To study the practical and theoretical aspect of management information system
- To examine the practice of maintaining information system in NAC
- To study existing information system / flow of information in different departments, especially in personnel and general service department of NAC
- To study existing decision making process management system, management process of NAC
- To find out drawbacks of existing Information system and provide recommendations for the betterment, if it is needed

The study was carried out by using the following methodology

Data Collection: Data was collected from both primary and secondary sources. Observation, questionnaire, interview were the tools used to collect data from the primary source while data of different departments of NAC, Journals, news letters were the secondary sources of information. Tables & Figures, System Approach, Data Flow Diagram, Flow Chart were used to present the data in the study and percentage (%) used to analyze the data.

2.4 Necessity of this study

After reviewing thesis present in TU Central Library, Shankar Dev Campus Library and St. Xavier's Campus Library, it is felt that most of the thesis prepared has looked into why organizations under study have of absence of a computerized Management Information System and the implications thereof. It is felt that, only studying organizations which do not have MIS in

place and suggesting solutions will not broaden the understanding of MIS as a whole in Nepalese perspective. This paper will try to look into the utilization side of MIS in a bank where it has been installed about 2 years ago and try to study the interrelationships between various variables like Training, Manpower Strength & Miscommunication with Vendor with the utilization of MIS.

CHAPTER III

RESEARCH METHODOLOGY

“Research may be defined as the systematic and objective analysis and recording of controlled observations that may lead to the developments of generalization, principles or theories, resulting in prediction and possibility ultimate control of events” John H Best, Research in Education Pg 18-21.

Research is essentially a systematic enquiry seeking facts through objective variable methods in order to discover the relationship among them and to deduce from them broad principles or laws. It is really a method of critical thinking which comprises defining and redefining problems, formulating hypothesis or suggested solutions, collecting, organizing and evaluating data, making decisions and making conclusions, and at last carefully testing the conclusions to determine whether they fit the formulated hypothesis.

Research Methodology refers to the various sequential steps to be adopted by a researcher in studying a problem with certain objectives in view. In fact it describes the methods and processes applied in the entire aspect of the study. Research Methodology is a way to systematically solve the research problem. Since the basic objective of the study is the performance of MIS, the focus is given to the nature and source of data, the model, statistical tools used and limitations of the study.

3.1 RESEARCH DESIGN

The research design is exploratory and descriptive in nature. The study examines the MIS structure and the factors affecting the performance of MIS with a view to make suggestions for improving the utilization of MIS. Keeping in view the nature of the study, exploratory research design is more appropriate because it implies to find out the effects of various factors in the utilization of MIS.

3.2 SOURCE OF DATA

The study is conducted on the basis of primary data, which was collected through observation, direct communication with respondents and by questionnaire method. Sets of structured questionnaire were distributed to the executive and official level in order to seek their opinion and view regarding MIS and the factors affecting MIS.

3.3 POPULATION AND SAMPLE

The term “Population” universe for researchers means all the number of any well defined class of people, event or objectives. In this research work carried out in Himalayan Bank Ltd, the population for the research work is the total staff of the bank i.e. 55.

A population in most studies usually consists of a large number of people, events or objects. Because of its large size, it is difficult to collect detailed information from each member of the population. Rather than collecting information from each member, a sub-group is chosen which is believed to be representative of population. This sub-group is called sample and the method of choosing this group / unit is called sampling.

In this research study, 20 persons were selected on the basis of their being Supervisors and above and it is believed that it represents the view of Himalayan Bank Ltd as a whole for this research purpose.

3.4 DATA ANALYSIS

Data collected from Primary sources are displayed in table format and the data have been analyzed using percentage method.

CHAPTER IV

DATA PRESENTATION AND ANALYSIS

In order to analysis the different aspect of this thesis work, “Performance of MIS and Factors affecting performance: A study of Himalayan Bank” an empirical analysis of Himalayan Bank Ltd has been carried out in this chapter. In order to achieve the objective set in Chapter 1 with accordance to the given Research Methodology the data are presented and analyzed in this chapter. This is the main central nervous system which helps to conclude the study through major findings, vital issues and recommendation. This chapter makes the proper linkage with other chapters.

The analysis of MIS starts with the analysis of Decision made in Himalayan Bank, System view of Himalayan Bank Ltd, Computer System in Himalayan Bank, Hardware Resources, Decision Model for Local Currency Management, Flow chart in Himalayan Bank , presentation and analysis of primary data and concluding in the test of hypothesis

4.1 INTRODUCTION OF HIMALAYAN BANK LIMITED (HBL)

There are different commercial banks with joint venture. In the list of joint venture commercial banks of Nepal, Himalayan Bank Ltd. stood at top bank HBL was incorporated in 1992 by the distinguished business personalities of Nepal in partnership with employment provident fund & Habib bank ltd. of Pakistan.

Habib bank limited is one of the largest commercial banks of Pakistan. Habib bank having 73 commercial banks overseas branches and 1900 correspondents throughout the world & has 20% shareholding of HBL. HBL commenced its operation from January 1993(5th, Magh 2049). It is the first commercial bank of Nepal whose maximum shares is hold by the Nepalese private sector. Besides commercial activities the bank also offers industrial & merchant banking.

Thus, HBL has been adopting innovative & latest banking technology. HBL is committed to be a bank where, “BANKING WITH A DIFFERENCE.”

Currently the bank is operating from its office premises located at **Kamaladhi**, Kathmandu where the corporate sector has been shifted to the location **Kamaladhi**. And as other operational work are carried out by different branches of HBL. HBL's main operational works are operated in the **Thamel** branch and the IT department is also in the Thamel branch and soon the IT department will operate from the Kamaladhi (Head Office) of HBL.

The bank has been established with the objective of providing a complete one stop banking solution backed by state-of-the-art infrastructure and creating value to valued customers.

The Bank's business philosophy is We Do It.

The Capital Structure of Himalayan Bank Ltd is as follows:

| | | |
|--------------------------|---|----------------------|
| Authorized Capital | – | Rs. 3,000,000,000.00 |
| Issued & Paid-Up Capital | – | Rs. 1,600,000,000.00 |

4.2 Decision made in Himalayan Bank

Decision-making is an integral part of Bank management and occurs in every function and at all levels of the bank although there are markedly different characteristics at each level. Strategic Decisions, made by the top management, are generally of long time horizons, utilize large-scale resources, much creativity and judgments are used, are usually unstructured. While on the other hand Operational decisions, made by Supervisors, Junior Officers, are repetitive, occur in a short time scale, small-scale resources are used and are usually structured. Tactical decisions made by middle level managers, generally fall between these two extremes. Based on this classification, decisions made in a bank also fall under Strategic, Tactical and Operational.

Figure 5: Levels of Decision Making in Himalayan Bank

| Decision → ↓ Departments | <u>Operational</u> | <u>Tactical</u> | <u>Strategic</u> |
|---|--------------------|-----------------|------------------|
| 1. Cash | √ | | |
| 2. Account Opening | √ | | |
| 3. Remittance | √ | | |
| 4. Bills | √ | | |
| 5. Clearing | √ | | |
| 6. Letters of Credit | √ | | |
| 7. Guarantee | √ | | |
| 8. Accounts | | | |
| 9. Treasury Back Office | √ | | |
| 10. Treasury Front Office | √ | √ | √ |
| 11. Credit Service | √ | √ | √ |
| 12. Credit Control | √ | | |
| 13. Loans | √ | | |
| 14. Marketing | √ | √ | √ |
| 15. Planning | √ | √ | √ |
| 16. Human Resources | √ | √ | √ |
| 17. Administration | √ | | |
| 18. Audit | √ | √ | |
| 19. Internal Control | √ | √ | |
| 20. Legal | √ | √ | |
| 21. IT | √ | √ | √ |

Based on the levels of Decision Making functions, various departments are headed by different levels of Management:

Figure 6: Responsibility of Decision Making in Himalayan Bank

| Levels of Management → ↓ Departments | Supervisors | Managers | Board of Directors C.E.O Management Committee |
|---|-------------|----------|---|
| 1. Cash | √ | √ | |
| 2. Account Opening | √ | √ | |
| 3. Remittance | √ | √ | |
| 4. Bills | √ | √ | |
| 5. Clearing | √ | √ | |
| 6. Letters of Credit | √ | √ | |
| 7. Guarantee | √ | | |
| 8. Accounts | | | |
| 9. Treasury Back Office | √ | | |
| 10. Treasury Front Office | √ | √ | √ |
| 11. Credit Service | √ | √ | √ |
| 12. Credit Control | √ | | |
| 13. Loans | √ | | |
| 14. Marketing | √ | √ | √ |
| 15. Planning | √ | √ | √ |
| 16. Human Resources | | | |
| 17. Administration | | | |
| 18. Audit | √ | √ | |
| 19. Internal Control | √ | √ | |
| 20. Legal | √ | √ | |
| 21. IT | √ | √ | √ |

4.3 System view of Himalayan Bank Ltd

A system consists of elements which can be identified as belonging together because of a common purpose, goal, or objective. A general model of a system is input, process, and output.

A system can have many inputs and many outputs.

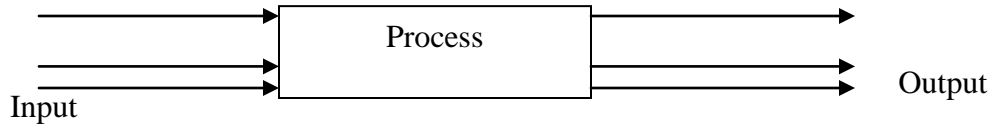
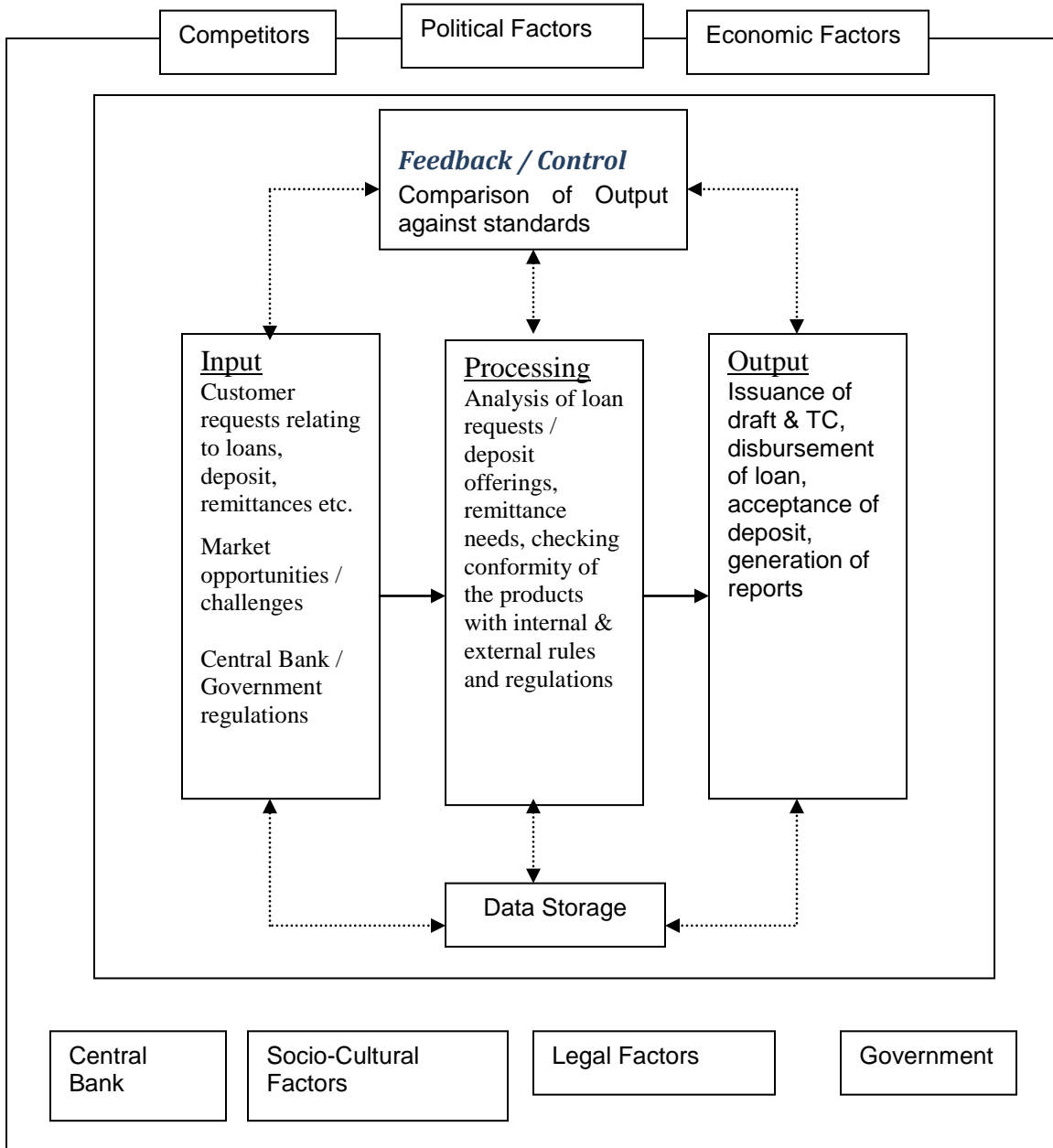


Figure 7: Systems view of Himalayan Bank



From the above figure, it is observed that a bank also operates as a system having all the components of a system i.e. Input, Output, Processing, Environments.

Input: As in all system, the inputs in Himalayan bank are Human Resources (staff), Economic Resources (money).

Processing: The banking software “Globus” plays a big role in the processing stage of the model. Here, the data inputted is processed as per the instruction.

Output: The output of bank is the various services it provides to its customers like different loan products, deposit products, remittance services etc.

Environment: The bank operates in an open system and therefore interacts with various stakeholders from the Socio-economic-cultural environments like, Government, Competitors, and Society etc.

4.4 Computer System in Himalayan Bank

To fulfill its customers demand, Himalayan Bank Ltd has implemented state of the art technology.

Figure 8: Schematic view of Himalayan Bank's Network Infrastructure

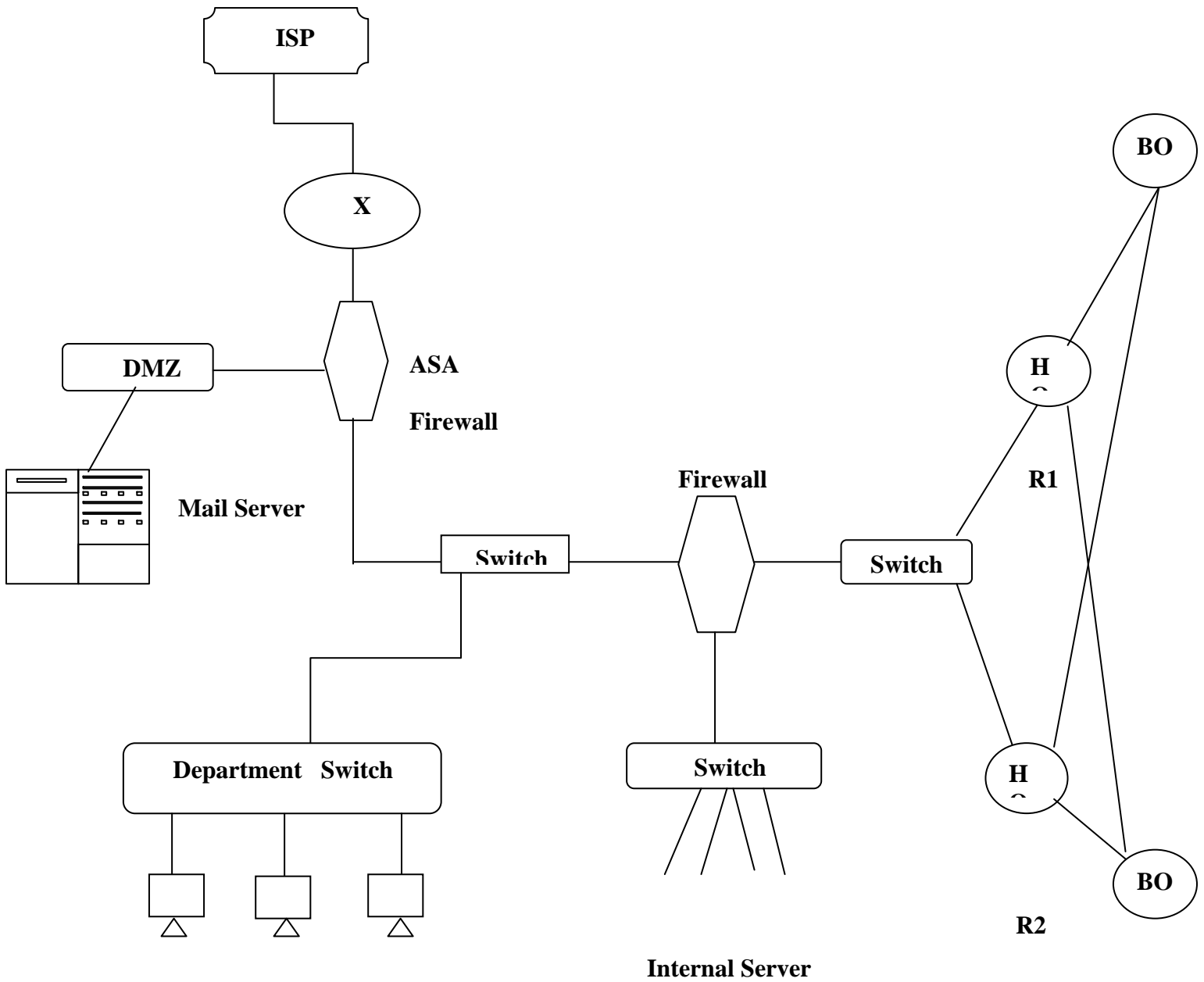
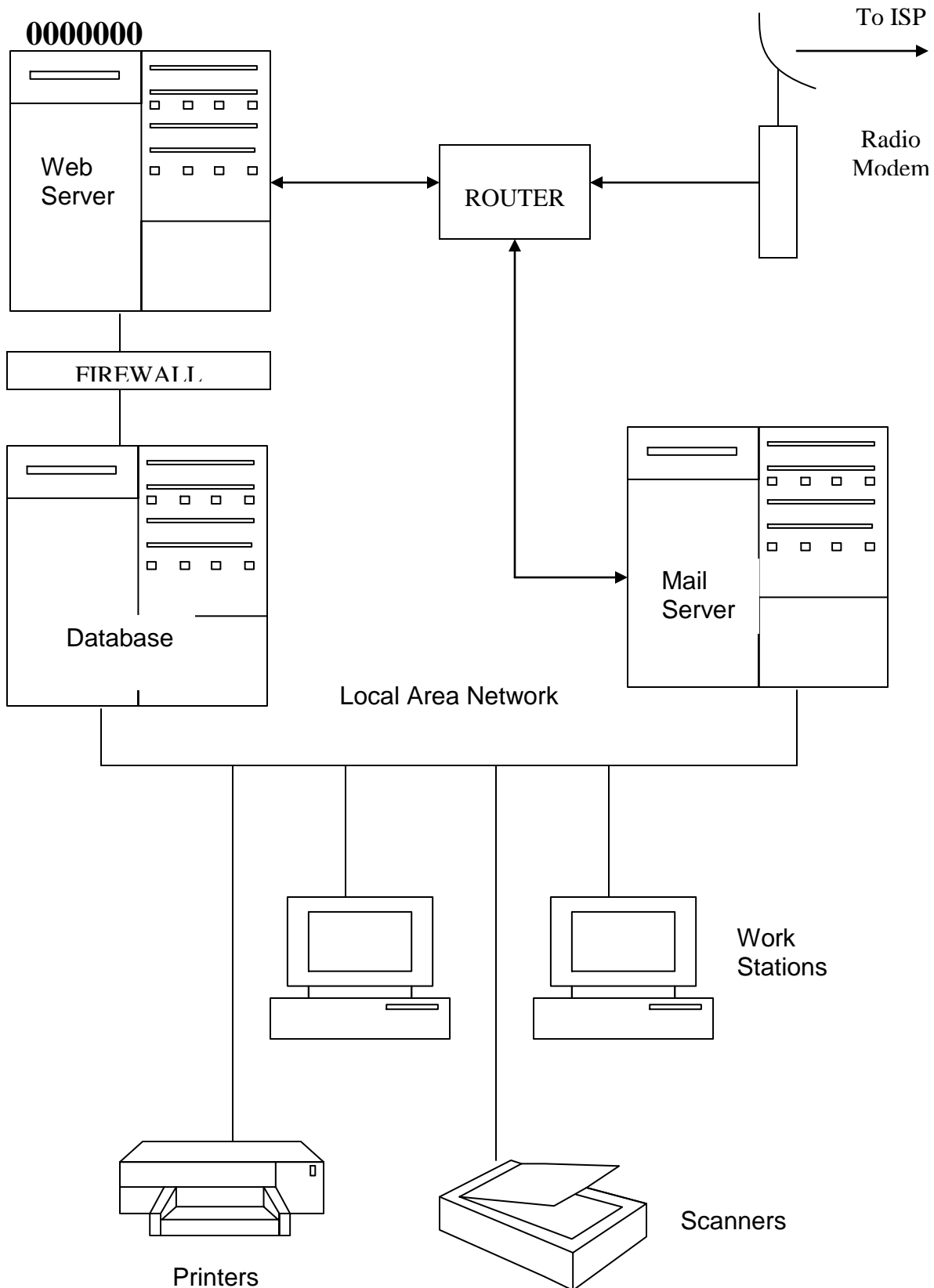


Fig 4.5: Schematic view of Himalayan Bank's Computer System



4.4.1 Hardware Resources

Computer Systems consists of central processing units containing micro processors, and a variety of interconnected peripheral devices. The resources used in Himalayan Bank include: IBM servers, IBM rack server, currently IBM tower & rack servers. DELL tower servers, IBM 3650 M2 rack server.

Computer peripherals are devices such as a keyboard or electronic mouse for input of data and commands, a video screen or printer for output of information, and magnetic or optical disks for storage of data resources. The peripherals used in Himalayan Bank are Laser / Dot-matrix / Slip Printers, Scanners, Note Counting Machines etc.

4.4.2 Software Resources

Himalayan bank have used the pumori software in previous period and now Himalayan Bank is using the latest software in carrying out its operation. It is operating on a world renowned Banking Software “Globus” from the company Temenos of Geneva. The web version of the Temenos and is named is T24. The bank shifted its software from pumori to globus due to more flexibility and the huge data resources. The software pumori is the Nepali software where as the globus is the international software and the software pumori is not so much efficiently working as the globus. And the bank is using the lotus note software and the bank has most of the internally developed software. In addition to the banking software, the banks use the latest MS Office suite to carry out the word processing, spreadsheet, presentation functions, sms banking service (PIEGON), EAP for electronic attendance, payroll system, assets management software, CS register and HIMAL REMIT. Also, Financial Software’s like Bridge and SWIFT are used.

4.4.3 Data Resources

Himalayan Bank is running its banking software in an Oracle 10g, MYSQL, and SQL server.

4.4.4 Network Resources

The banks computer system is running a Versatile Network. The network of HBL is connected differently with-in valley and out-side valley. With-in valley primary link and secondary link is Fiber. And outside valley in primary link: IP lease Fiber and in secondary link: VSAT.

4.5 Decision Making phases in Himalayan Bank Ltd

Himalayan Bank Ltd has its own systemized model of decision making for making correct decisions. An example of the decision making process followed in Himalayan Bank is illustrated below:

4.5.1 Decision Model for Local Currency Management

4.5.1.1 Intelligence Phase

In its normal course of operations a bank has to maintain accounts in various types of banks. Account in the Central Bank is a statutory requirement for fulfilling various functions while accounts are maintained in various local banks for purposes like draft drawing etc. As the bank has accounts in various, management of the accounts and optimum utilization of the funds in those accounts is given to Treasury Department. So there should be a optimum reporting structure in the bank by which Treasury Department can know what is the statutory requirement like Cash Reserve Ratio and Statutory Liquidity Reserve for a particular period of time, what is the tentative requirement for Credit Department for new Credit Disbursements, how much Loans are being repaid, the inflow and outflow of Deposits, foreign currency requirements, maturity of Money Market Placements / Deposits / Treasury Bills / Development Bonds etc. These requirements are generally informed to the Treasury Department through various internal reports in a time bound manner create alternate choices.

| <u>Report Name</u> | <u>Frequency</u> | <u>Details</u> |
|---------------------------|------------------|--|
| Cash Reserve Ratio Report | Weekly Basis | Balance required in Central Bank |
| Placement Maturity Report | Daily Basis | Specifies the amount, interest rate, counter party of the placement |
| Draft Issuance Report | Daily Basis | Specifies the amount and the bank / branch on which the draft has been drawn |
| Loan Disbursement Request | Weekly Basis | Specifies new disbursements to be made over the week |
| Loan Recovery Report | Daily Basis | Discloses |

Table 1: Example of Reports Generated

Example ABC Bank Ltd

LIQUIDITY REPORT

For the Period.....

Rs. In '000'

| DEPOSIT PERIOD | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | TOTAL | AVERAGE |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Current A/C | 151,367 | 162,398 | 123,654 | 145,987 | 116,987 | 700,393 | 140,079 |
| Saving A/C | 826,990 | 829,034 | 835,003 | 832,015 | 833,547 | 4,156,589 | 831,318 |
| Call Deposit | 501,287 | 513,697 | 526,400 | 536,970 | 546,970 | 2,625,324 | 525,065 |
| Total A | 1,479,644 | 1,505,129 | 1,485,057 | 1,514,972 | 1,497,504 | 7,482,306 | 1,496,462 |
| Time Deposit | 469,700 | 469,700 | 469,700 | 469,700 | 469,700 | 2,348,500 | 469,700 |
| Total Deposit | 1,949,344 | 1,974,829 | 1,954,757 | 1,984,672 | 1,967,204 | 9,830,806 | 1,966,162 |
| | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | TOTAL | AVERAGE |
| Requirement During the week | | | | | | | |
| Cash in Vault | 38,987 | 39,497 | 39,095 | 39,693 | 39,344 | 196,616 | 39,323 |
| Nepal Rastra Bank | 124,712 | 126,496 | 125,090 | 127,185 | 125,962 | 629,445 | 125,889 |
| Total Requirement | 163,699 | 165,993 | 164,185 | 166,878 | 165,306 | 826,061 | 165,212 |
| Achievement | | | | | | | |
| Cash in Vault | | | | | | | - |
| Nepal Rastra Bank | | | | | | | - |
| Total Achievement | - | - | - | - | - | - | - |
| Excess/Short-fall | | | | | | | |

Table 2: Liquidity calculation table

Treasury Department after reviewing reports as detailed above has an indication of whether the Bank has surplus or deficit funds for that particular period of time. Based on this information, the Department is able to proceed to the stage where it can create and analyze various choices.

4.5.1.2 Design Phase

Suppose through the Intelligence phase the Department comes to know that the Bank has excess funds at its disposal for a certain phase suppose a week, the Department will then proceed to create and analyze various choices. For e.g.: Suppose the bank comes to know after the study of various reports that the Bank has Rs. 200 Million excess for a period of 1 month. Now Treasury Department will start weighing its option, which can be:

Option 1

Ask Marketing Department to request Clients who have high cost deposits to withdraw their deposits

Option 2

Invest in Treasury Bills

Option 3

Invest in the local Money Market (Make placements with other banks)

Option 4

Purchase Foreign Currency

After having the outlined the Options, the Department will proceed to in-depth analysis of the options.

Option 1

By requesting Clients to withdraw high cost deposits, the bank will decrease its expenses i.e. increase its profit. While requesting clients to withdraw high cost deposit will increase the profits, it might lead to conflict with the client. Also, it must be analyzed whether the bank can mobilize the deposits at a later date at the same cost or not.

Option 2

Another option that the bank has is investing in Treasury Bills. Although investing in Treasury Bills will give the bank the option of immediate liquidation of the Treasury Bills when funds are immediately needed, the return is generally low as there is fierce competition in the interbank market while bidding for the same.

Option 3

Another option which the bank has is lending overnight in the local interbank market. Although the rate is higher than in Treasury Bills, the bank risks the chance that its fund may lie idle in the event of no demand in the local interbank market.

Option 4

The bank can also buy Foreign Currency for its future use. While Foreign Currency account will earn interest, the bank might lose in the spread between the local and foreign currency. The bank might gain if the foreign currency appreciates but also stands to lose if it depreciates.

| Rs. in Million | | | | |
|----------------|---------------------|-------------------|---------------------|-----------------|
| | <i>Option 1</i> | <i>Option 2</i> | <i>Option 3</i> | <i>Option 4</i> |
| | Withdraw Deposit | Treasury Bills | Interbank Market | Buy USD |
| Amount | 200,000 | 200,000 | 200,000 | 2,554 |
| Interest Rate | 6% | 4.50% | 5% | 1.75% |
| Gain | 1,000 | 750 | 833 | 292 |

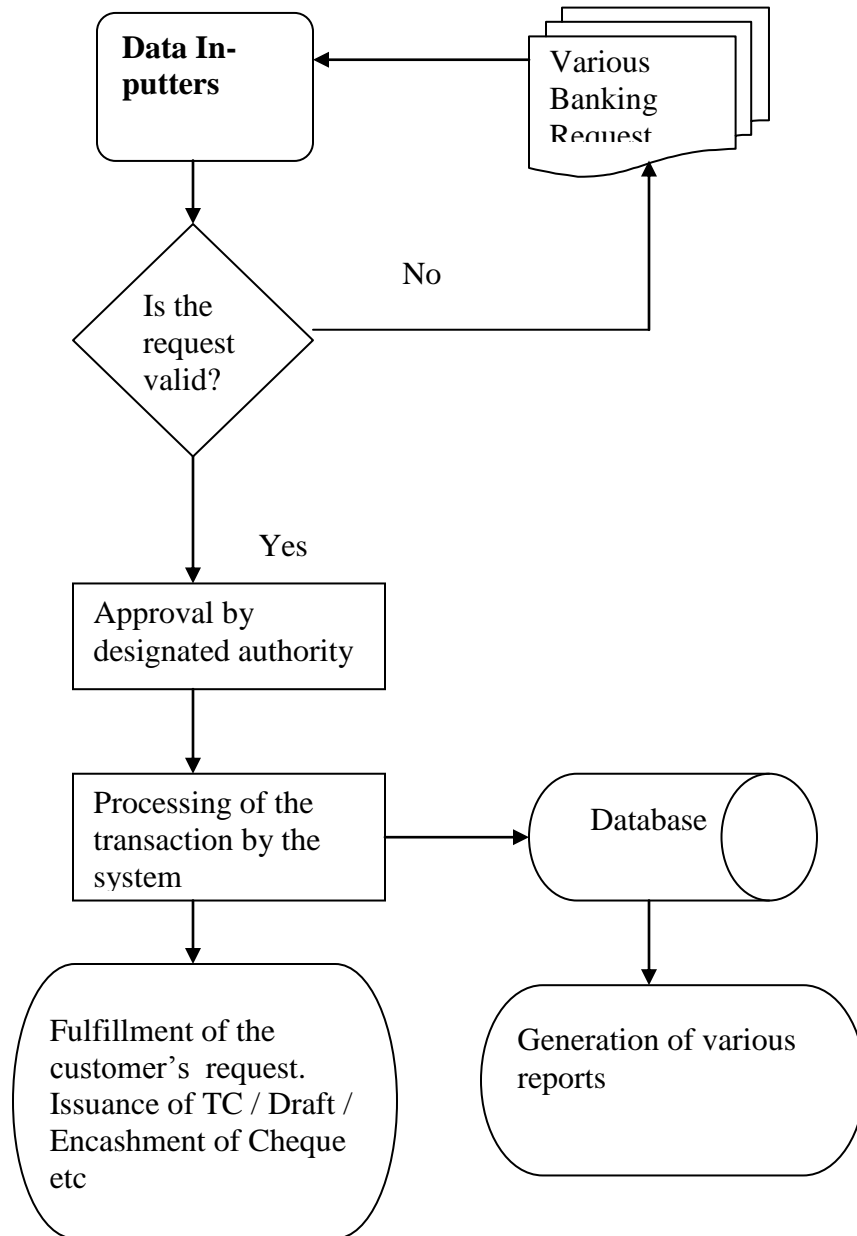
Table 3: Option Tabulation

4.5.1.3 Choice Phase

After a mathematical analysis has been carried out in formats as shown in the above table, Treasury Department will weigh the different options available in light of various factors and come to a decision. Such decisions are semi-structured in nature in the sense that decisions are made data provided by the calculation table (structured in nature) and factors like customer reaction, future rate movements etc are outside the control of the bank (unstructured).

4.6 Flow chart in Himalayan Bank

Figure 9: Flow Chart



Operators - Input Data (Underlying transactions – deposit, withdrawal, remittance etc)

Data validation – balance requirement, NRB approvals etc

Approval – required authority

Processing – by System (Posting of entries into respective heads etc) i.e. updating of databases

Output – a) Various services like generation Drafts, TC issuance, cheque payment etc

b) Report Generation

i) Reports for Tactical use: Daily transaction list

ii) Reports for Operational use: Trial Balance, Income Expense

4.7 DATA ANALYSIS OF PRIMARY DATA

The primary data facilitates us to know how executives view MIS and what they think are major factors for a successful MIS. The primary data also helps to test empirically the different hypothesis views and opinions concerning MIS.

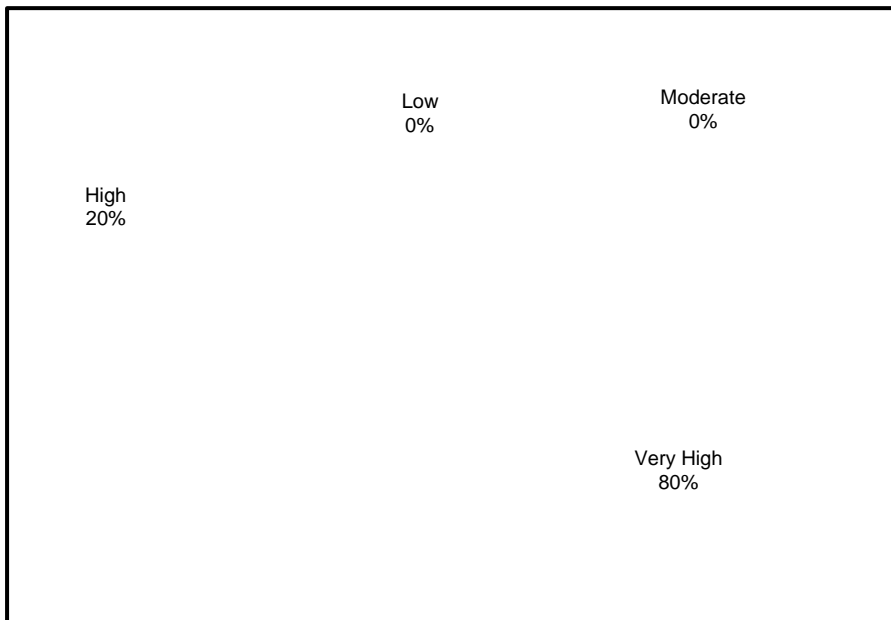
Analysis of primary data deals with qualitative aspect of MIS. The qualitative aspects are examined by distributing questionnaires to around 20 executives of Himalayan Bank Ltd. This analysis is mainly based on opinions and thinking of the respondents. So, examined have some role in Decision Making and take help of MIS in some-way or others.

1. Importance of MIS

| | No of responses | % |
|--------------|-----------------|---------------|
| Very High | 16 | 80.00 |
| High | 4 | 20.00 |
| Moderate | 0 | - |
| Low | 0 | - |
| Total | 20 | 100.00 |

Table 4: % of importance of MIS

Figure 10: % of Importance of MIS



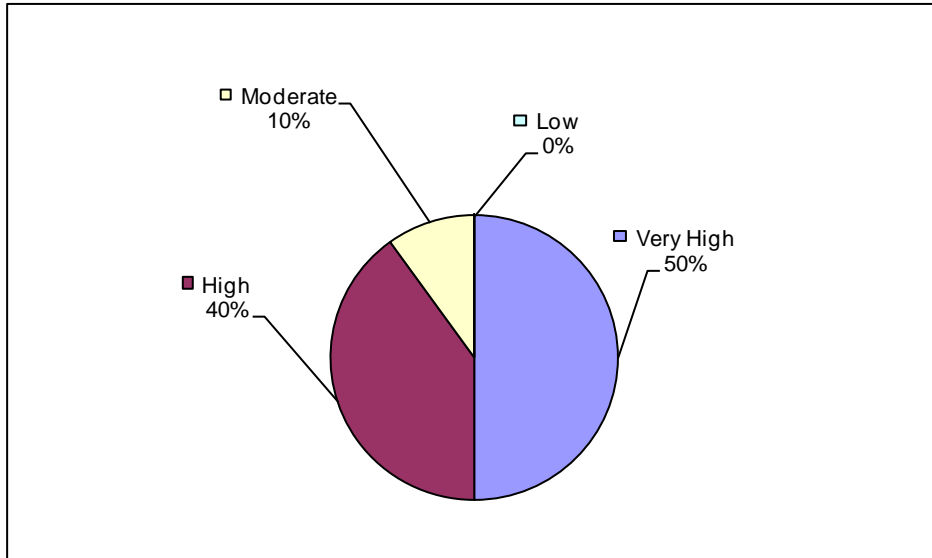
From the above table and Pie Chart, it can be observed that a majority of the sample i.e. 80% consider that MIS is important.

2. Use of MIS in Decision Making

| | No of responses | % |
|--------------|-----------------|---------------|
| Very High | 10 | 50.00 |
| High | 8 | 40.00 |
| Moderate | 2 | 10.00 |
| Low | 0 | - |
| Total | 20 | 100.00 |

Table 5: % of usage of MIS in Decision making

Figure 11: % of usage of MIS in decision making



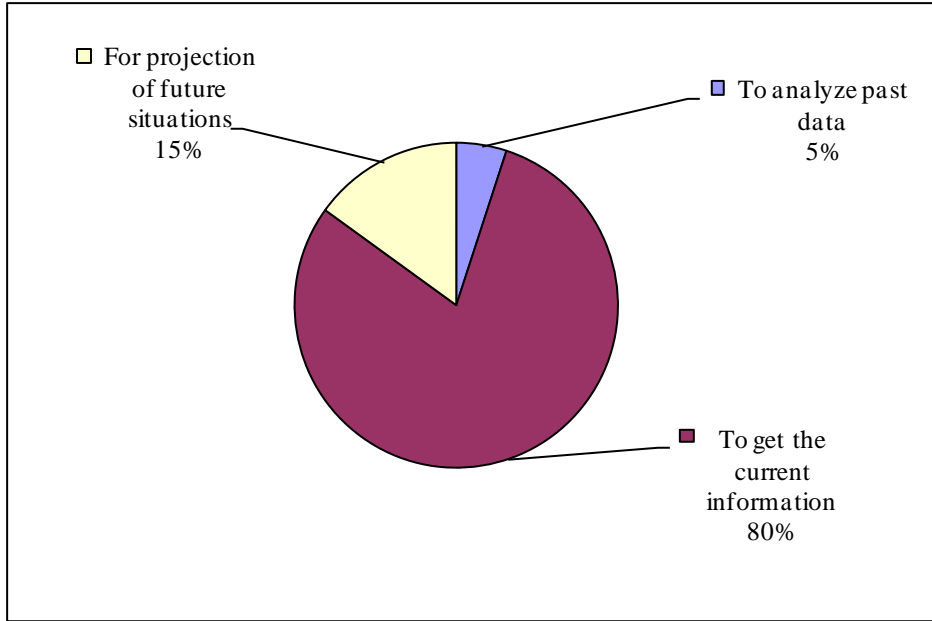
From the above table and Pie Chart, it can be observed that a majority of the sample i.e. 50% consider the use of MIS in Decision Making – “Very High” while 40% consider it to be “High”. Majority of the people who felt that MIS is helpful in Decision Making belonged to the Top management in the bank which evidently stresses that there is a correlation between decision making and corporate positions.

3. For which purpose do you use MIS?

| | No of responses | % |
|-------------------------------------|-----------------|---------------|
| To analyze past data | 1 | 5.00 |
| To get the current information | 16 | 80.00 |
| For projection of future situations | 3 | 15.00 |
| Total | 20 | 100.00 |

Table 6: % for which purpose do you use MIS

Figure 12: % for which purpose do you use MIS



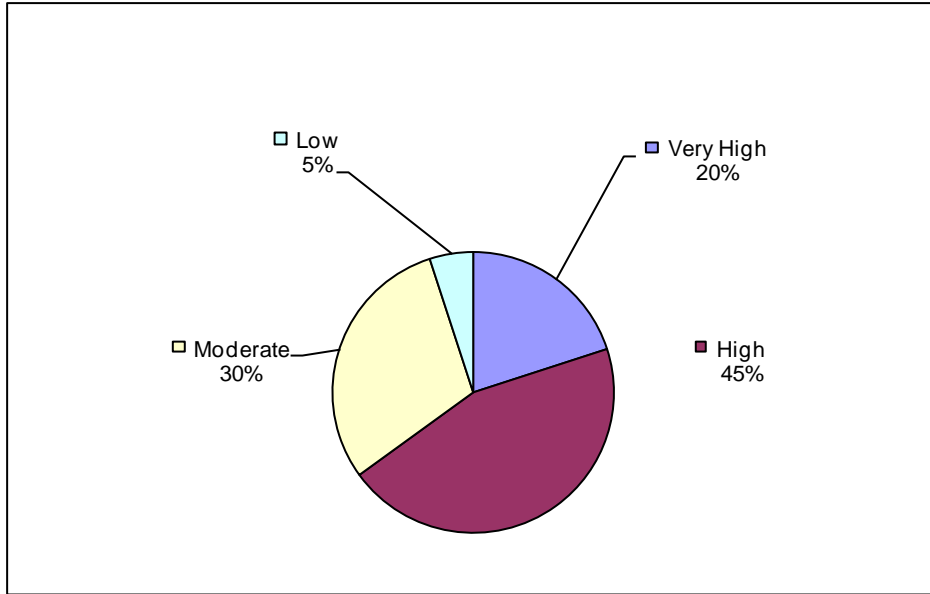
From the above table and Pie Chart, it can be observed that a majority of the sample i.e. 80% use MIS to get the current information. Bank management use MIS to get current information rather than past data while taking various kinds of decision in their day to day activities.

4. Fulfillment of your information needs by the current MIS

| | No of responses | % |
|--------------|-----------------|---------------|
| Very High | 4 | 20.00 |
| High | 9 | 45.00 |
| Moderate | 6 | 30.00 |
| Low | 1 | 5.00 |
| Total | 20 | 100.00 |

Table 7: % of the fulfillment of information needs by the current MIS

Figure 13: % of the fulfillment of information needs by the current MIS



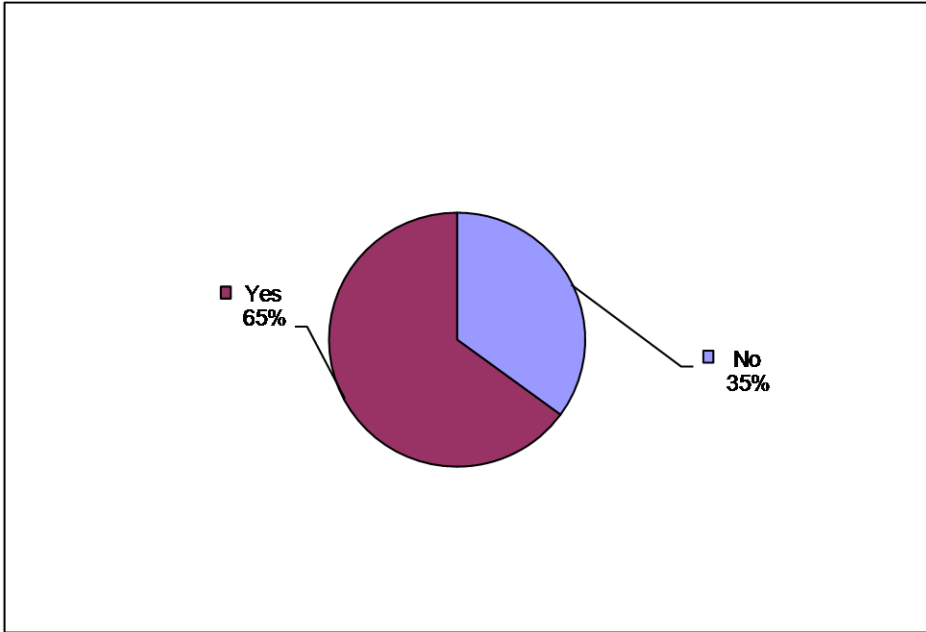
From the above table and Pie Chart, it can be observed that a high percentage of the sample i.e. 45% consider that the current MIS fulfills their information needs while 20% consider it to be ““Very High”. Majority of the people who felt that MIS fulfills their information need Making belonged to the Middle management.

5. Do you use other resources like Excel in analyzing the information derived from MIS?

| | No of responses | % |
|--------------|-----------------|---------------|
| Yes | 13 | 65.00 |
| No | 7 | 35.00 |
| Total | 20 | 100.00 |

Table 8: % of using other resources like Excel in analyzing the information derived from the MIS

Figure 14: % of using other resources like Excel in analyzing the information derived from the MIS



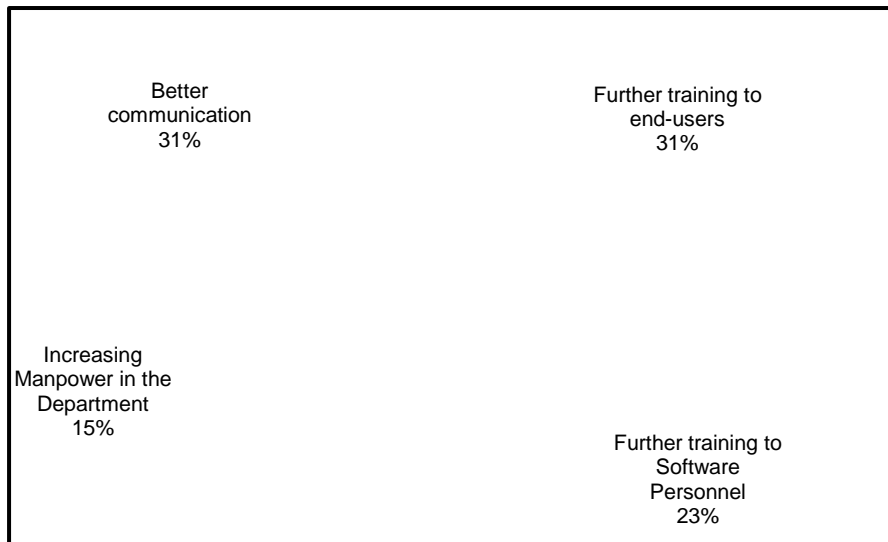
From the above table and Pie Chart, it can be observed that a high percentage of the sample i.e. 65% use some other tools like Excel to analyze the information produced by the MIS.

6. If no, what factors will increase the use of MIS?

| | No of responses | % |
|--|-----------------|---------------|
| Further training to end-users | 4 | 30.77 |
| Further training to Software Personnel | 3 | 23.08 |
| Increasing Manpower in the Department | 2 | 15.38 |
| Better communication | 4 | 30.77 |
| Total | 13 | 100.00 |

Table 9: factors increasing the use of MIS (in %)

Figure 15: Factors increasing the use of MIS (in %)



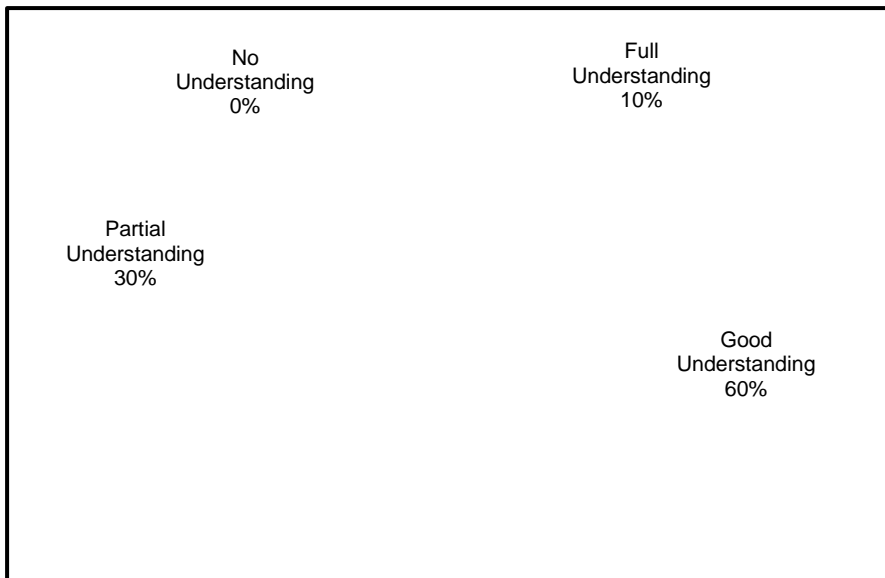
From the above table and Pie Chart, it can be observed that 31% think that better communication and further training to end users will increase the utilization of MIS.

7. How do you rate your understanding of the MIS?

| | No of responses | % |
|-----------------------|-----------------|---------------|
| Full Understanding | 2 | 10.00 |
| Good Understanding | 12 | 60.00 |
| Partial Understanding | 6 | 30.00 |
| No Understanding | 0 | - |
| Total | 20 | 100.00 |

Table 10: % of understanding of the MIS

Figure 16: % of understanding of the MIS



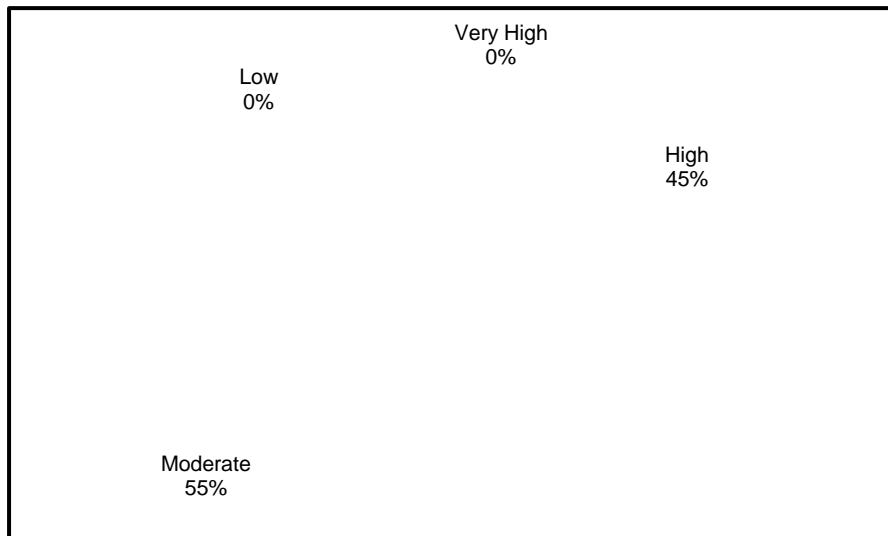
From the above table and Pie Chart, it can be observed that 60% of the sample have a good understanding of how the MIS works while 30% of the sample have a partial understanding of the MIS.

8. Your comfort using the software?

| | No of responses | % |
|--------------|-----------------|---------------|
| Very High | 0 | - |
| High | 9 | 45.00 |
| Moderate | 11 | 55.00 |
| Low | 0 | - |
| Total | 20 | 100.00 |

Table 11: % of comfort using the software

Figure 17: % of comfort using the software



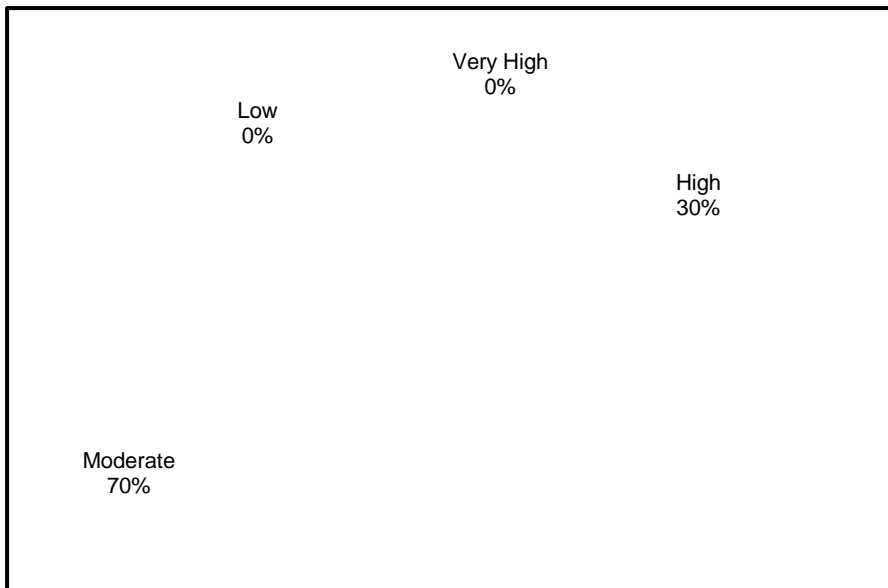
From the above table and Pie Chart, it can be observed that 55% of the sample is moderately comfortable with using the MIS while 45% of the sample is highly comfortable using the MIS.

9. Satisfaction Level with the current MIS

| | No of responses | % |
|--------------|-----------------|---------------|
| Very High | 0 | - |
| High | 6 | 30.00 |
| Moderate | 14 | 70.00 |
| Low | 0 | - |
| Total | 20 | 100.00 |

Table 12: % of satisfaction level with the current MIS

Figure 18: % of satisfaction level with the current MIS



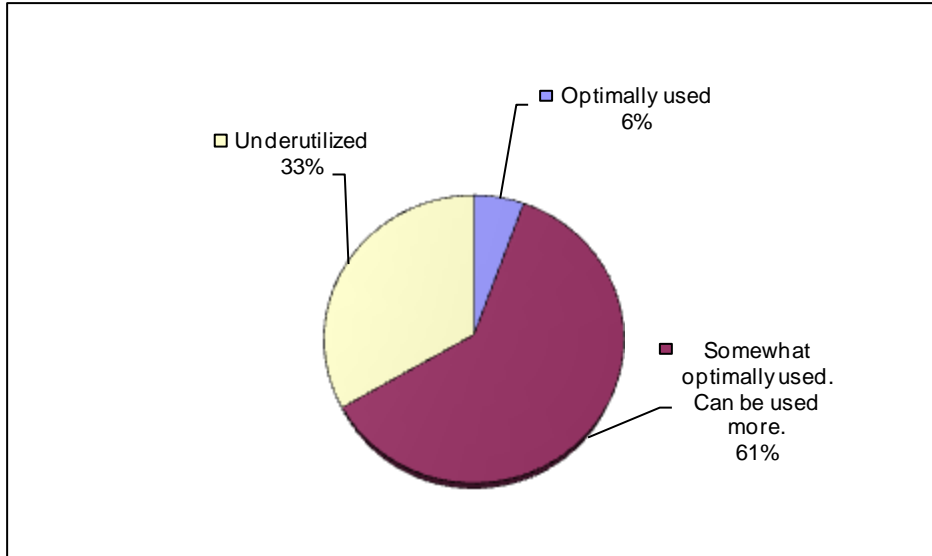
From the above table and Pie Chart, it can be observed that 75% of the sample is moderately satisfied with using the MIS while 30% of the sample is highly satisfied with the MIS.

10. Do you think the MIS system is optimally used?

| | No of responses | % |
|---|-----------------|---------------|
| Optimally used | 1 | 5.56 |
| Somewhat optimally used. Can be used more | 11 | 61.11 |
| Underutilized | 6 | 33.33 |
| Total | 18 | 100.00 |

Table 13: % of the MIS system is optimally used

Figure 19: of the MIS system is optimally used



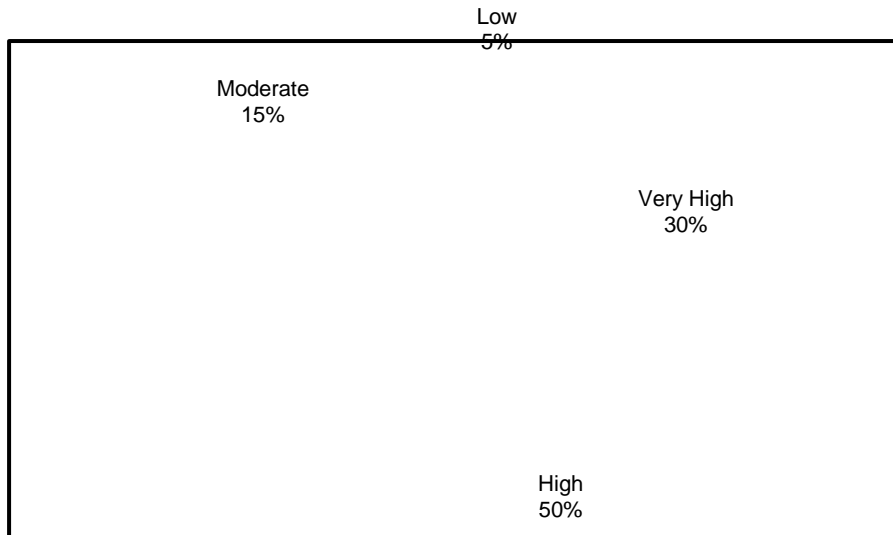
From the above table and Pie Chart, it can be observed that 61% of the sample think the MIS is somewhat optimally used and feel that there is scope for further improvement while 33% of the sample feel the MIS is underutilized.

11. Do you think a good communication channel, which limits the distortion of the flow of information between the user and systems personnel / vendor is paramount for the success of MIS?

| | No of responses | % |
|--------------|-----------------|---------------|
| Very High | 6 | 30.00 |
| High | 10 | 50.00 |
| Moderate | 3 | 15.00 |
| Low | 1 | 5.00 |
| Total | 20 | 100.00 |

Table 14: % of good communication channel for the success of MIS

Figure 20: % of good communication channel for the success of MIS

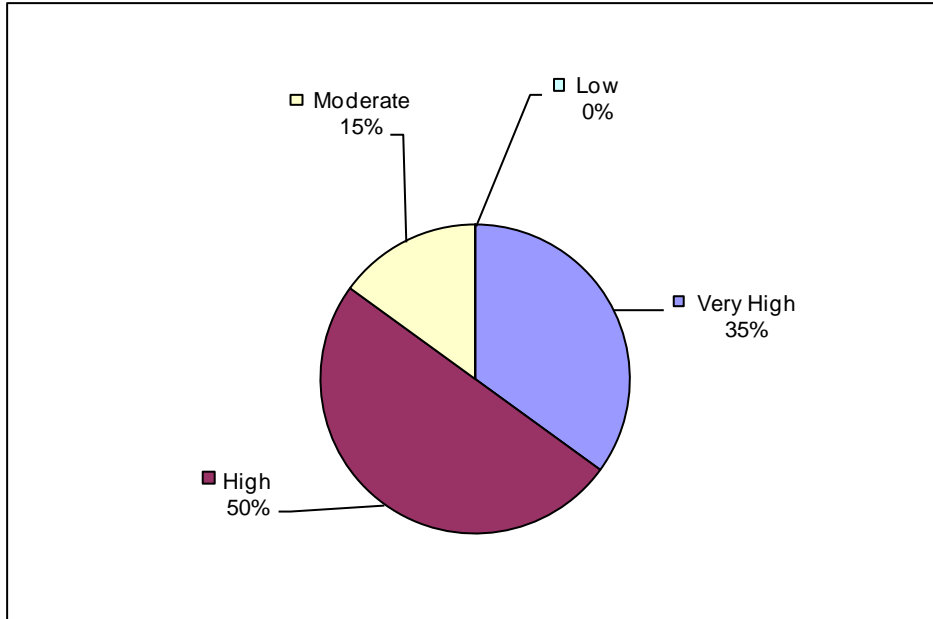


From the above table and Pie Chart, it can be observed that 50% of the sample think highly that a good communication channel, which limits the distortion of the flow of information between the user and systems personnel / vendor is paramount for the success of MIS and 30% of the sample think this is true very highly.

12. How far do you agree with this statement “An MIS system which is proactive to users demand as well as having a good reactive mode (reactive in the sense that it easily responds to an end users customization / amendment / new requests) is the most effective”

| | No of responses | % |
|--------------|-----------------|---------------|
| Very High | 7 | 35.00 |
| High | 10 | 50.00 |
| Moderate | 3 | 15.00 |
| Low | 0 | - |
| Total | 20 | 100.00 |

Table 15: % of MIS system which is proactive to users demand for the most effective way
 Figure 21: % of MIS system which is proactive to users demand for the most effective way



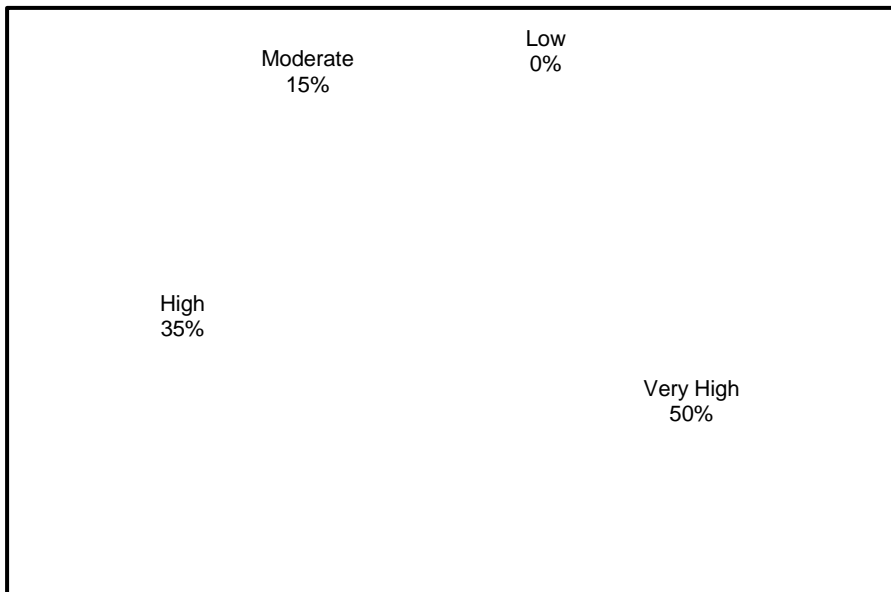
From the above table and Pie Chart, it can be observed that 50% of the sample think highly that an MIS system which is proactive to users demand as well as having a good reactive mode (reactive in the sense that it easily responds to an end users customization / amendment / new requests) is the most effective while 35% of the sample think this is true very highly.

13. How far do you agree with this statement “For efficient usage of a MIS, the end users of MIS must be trained in the system?”

| | No of responses | % |
|--------------|-----------------|---------------|
| Very High | 10 | 50.00 |
| High | 7 | 35.00 |
| Moderate | 3 | 15.00 |
| Low | 0 | - |
| Total | 20 | 100.00 |

Table 16: % for efficient usage of a MIS, the end user of MIS must be trained in system

Figure 22: % for efficient usage of a MIS, the end user of MIS must be trained in system



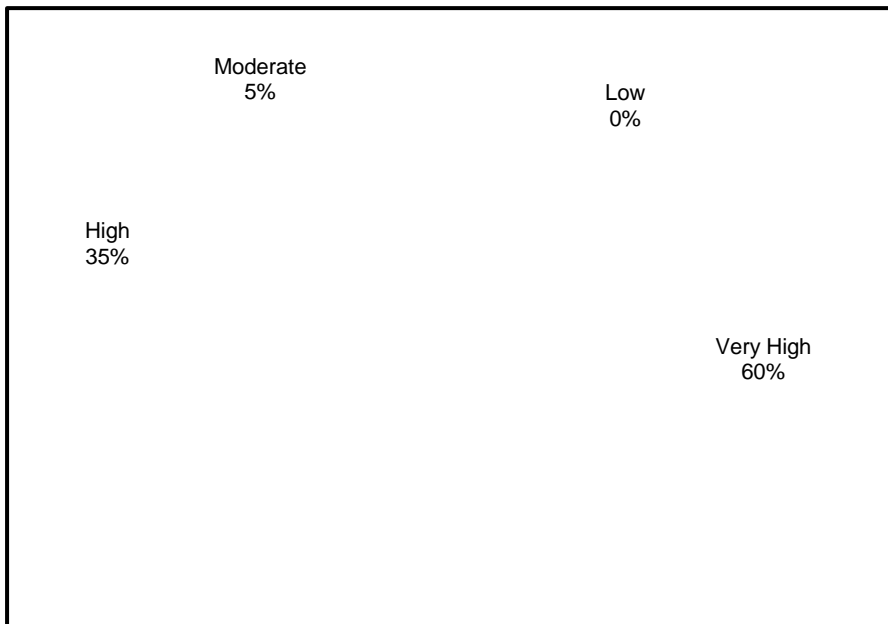
From the above table and Pie Chart, it can be observed that 50% of the sample think very highly and 35% think highly that for efficient usage of a MIS, the end users of MIS must be trained in the system.

14. How far do you agree with this statement “For an MIS to be effective, the Software Personnel need to be properly trained?”

| | No of responses | % |
|--------------|-----------------|---------------|
| Very High | 12 | 60.00 |
| High | 7 | 35.00 |
| Moderate | 1 | 5.00 |
| Low | 0 | - |
| Total | 20 | 100.00 |

Table 17: % for an MIS to be effective, the software personnel need to be properly trained

Figure 23: % for an MIS to be effective, the software personnel need to be properly trained



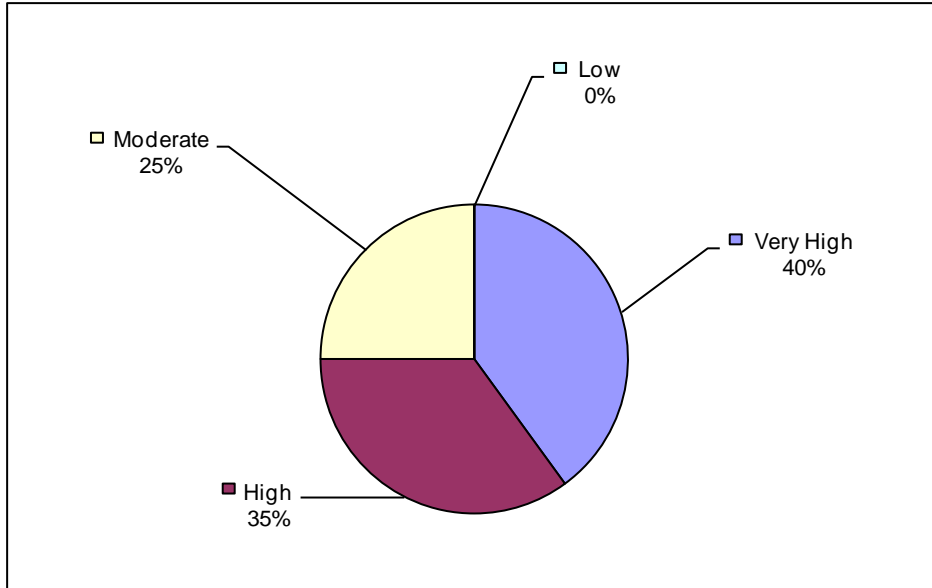
From the above table and Pie Chart, it can be observed that 60% of the sample think very highly and 35% think highly that for an MIS to be effective, the Software Personnel need to be properly trained.

15. Do you feel the current MIS will be exploited even more if the end users are further trained?

| | No of responses | % |
|--------------|-----------------|---------------|
| Very High | 8 | 40.00 |
| High | 7 | 35.00 |
| Moderate | 5 | 25.00 |
| Low | 0 | - |
| Total | 20 | 100.00 |

Table 18: % of the current MIS will be exploited each more if the end users are further trained

Figure 24: % of the current MIS will be exploited each more if the end users are further trained



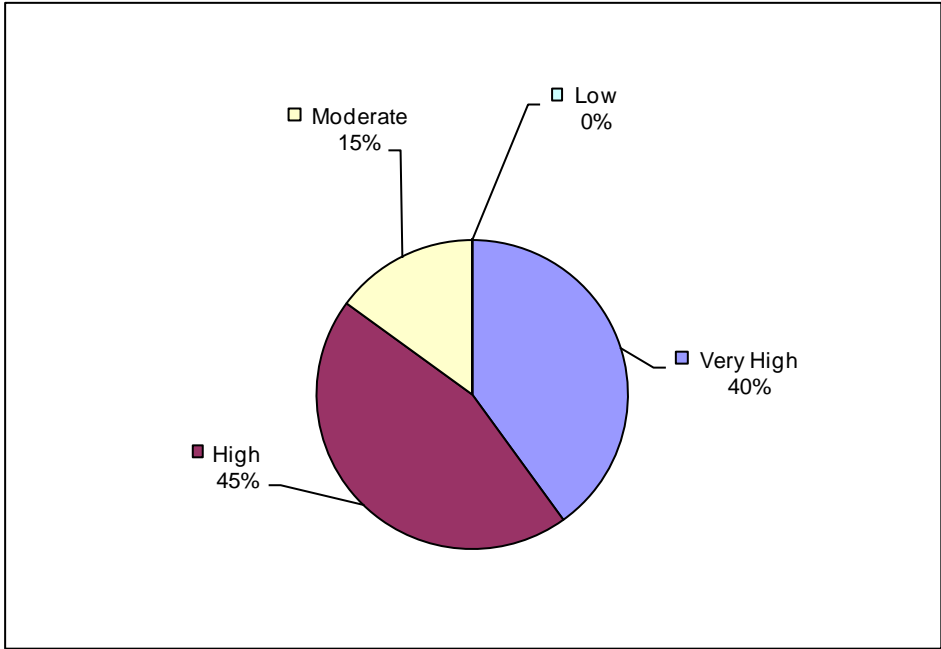
From the above table and Pie Chart, it can be observed that 40% of the sample think very highly and 35% think highly that the current MIS will be exploited even more if the end users are further trained for an MIS to be effective.

16. Do you feel the current MIS will be exploited even more if the Software Personnel are further trained?

| | No of responses | % |
|--------------|-----------------|---------------|
| Very High | 8 | 40.00 |
| High | 9 | 45.00 |
| Moderate | 3 | 15.00 |
| Low | 0 | - |
| Total | 20 | 100.00 |

Table 19: % of the current MIS will be exploited even more if the software personnel are further trained

Figure 25: % of the current MIS will be exploited even more if the software personnel are further trained



From the above table and Pie Chart, it can be observed that 45% of the sample think very highly and 40% think highly that the current MIS will be exploited even more if the Software Personnel are further trained.

CHAPTER V

SUGGESTIVE FRAMEWORK

This chapter is the important chapter for the research because this chapter is the extracts of all the previously discussed chapters. This chapter consists of mainly three parts: Conclusion, major findings and recommendation. In conclusion part, the result from the research is summed up. In the major finding part the majority in the thesis and in recommendation part, suggestion and recommendation is made based on the result and experience of thesis. Recommendation is made for improving the present situation to the concerned parties as well as for further research. In order to carry out this study the data is generated under the primary sources.

5.1 CONCLUSION

The trend of computerization is fast catching up in Nepal and many organizations in the urban setting are computerizing themselves and installing MIS. However there is doubt whether the implemented MIS have been effective in solving managerial problems with relation to decision-making. On one hand, organizations have spent a huge amount of resources in setting up MIS infrastructures while on the other hand they have not been able to fully capitalize the benefits of MIS. As in this challenging period the information system plays a vital role to develop the power of the organization.

- The MIS is integrated into the managerial functions. It sets clear objectives to ensure that the MIS focuses on the major issues of the business. Also adequate development resources are provided and the human and organizational barriers to progress are removed.
- MIS focuses on the results and goals, and highlights the factors and reasons for non-achievement.
- The MIS recognizes that a manager is a human being and therefore, the systems must consider all the human behavioral factors in the process of management.

- MIS recognizes that the information needs become obsolete and new needs emerge. The MIS design, therefore, has a basic potential capability to quickly meet new needs of information.
- MIS helps in Decision-making. It generates the good communication channel with the top level management to the staff members.
- In the current period the MIS is used to get the current information, neither for the projection of future situation nor for the analyzing the past data. The other resources like Excel in analyzing the information derived from the MIS is been used. (table no: 6 & 8)
- The good communication channel, which limits the distortion of the flow of the information between the user and system personnel / vendor is paramount for the success of the MIS. (table no: 14)
- The end users of MIS must be trained in the system. And the software personnel need to be properly trained to be effective MIS. (table no: 16 &17)
- Active participation by the Top management in defining the scope and objectives of MIS, so that it will adequate the manpower strength.

5.2 MAJOR FINDINGS

- Majority of the users of the MIS consider MIS to be important.
- Majority of the users of the MIS consider that MIS helps in Decision-making.
- Use of MIS is directed more towards extraction of current information rather than historical information.
- MIS is fulfilling the information needs of the users to different degrees of satisfaction. Higher management is less satisfied than the middle management.
- Further improvement in utilization of MIS needs better communication and training between the various stakeholders.
- MIS users are comfortable using the product and have a good understanding of the system.
- MIS users are moderately satisfied with the MIS.
- There is sample room to increase the use of MIS.
- The factors which will improve the utilization of MIS are: “Good Communication Channel”, “Training to end user”, “Training to software personnel”

5.3 RECOMMENDATIONS

Following suggestions has been recommended

1. The bank should create a distinct MIS department manned by qualified MIS personnel in place of the current practice of MIS department headed by normal banking personnel.
2. A core group should be formed in the bank with representation from MIS and various departments of the bank to monitor and supervise the MIS activities.
3. Training must be imparted to the end users of the MIS on the following issues: Training explaining the rudimentary architecture of the MIS in terms of database (table, enquiry etc), networking,
4. Training must be imparted to the software personnel by sending them to the Training Centers of the Software vendor so that the bank may be able to further exploit the software.
5. Periodic interactions at specific intervals among the various stakeholders to discuss various issues related to the MIS so as to smoothen the process of using the MIS.
6. The end users must endeavor to understand the MIS and not solely rely on Software personnel.
7. Communication flow between end users and Software personnel needs to be smoothened and streamlined. A system must be devised whereby the chances of miscommunication are the least.
8. The bank should start planning for the future of MIS.
9. The bank should try to create benchmarks for the performance of MIS and carry out periodic evaluations of the actual performance vs. the performance.
10. As the bank is extensively using Excel and other similar tools to analyze various reports, the bank should immediately address this issue.
11. The bank should look into the possibility of feeding financial information from external sources like Bridge / Telerate into the MIS.
12. The bank should initiate process for acquiring higher end hardware devices like servers to cope with the impending increased processing of data with the opening of its branches in various parts of the country.

APPENDIX 1

QUESTIONNAIRE DISTRIBUTED IN HIMALAYAN BANK

1. Importance of MIS

- Very High
- High
- Moderate
- Low

2. Use of MIS in Decision Making

- Very High
- High
- Moderate
- Low

3. For which purpose do you use MIS (Please rank)

- To analyze past data
- To get the current information
- For projection of future situations

4. Fulfillment of your information needs by the current MIS

- Very High
- High
- Moderate
- Low

5. Do you use other resources like Excel in analyzing the information derived from MIS?

- Yes
- No

6. If no, what factors will increase the use of MIS?

- Further training to end-users
- Further training to Software Personnel
- Increasing Manpower in the Department
- Better communication

7. How do you rate your understanding of the MIS?
 - Full Understanding
 - Good Understanding
 - Partial Understanding
 - No Understanding

8. Your comfort using the software?
 - Very High
 - High
 - Moderate
 - Low

9. Satisfaction Level with the current MIS
 - Very High
 - High
 - Moderate
 - Low

10. Do you think the MIS system is optimally used?
 - Optimally used
 - Somewhat optimally used. Can be used more.
 - Underutilized

11. Do you think a good communication channel, which limits the distortion of the flow of information between the user and systems personnel / vendor is paramount for the success of MIS?
 - Very High
 - High
 - Moderate
 - Low

12. How far do you agree with this statement “An MIS system which is proactive to users demand as well as having a good reactive mode (reactive in the sense that it easily responds to an end users customization / amendment / new requests) is the most effective”
 - Very High
 - High
 - Moderate
 - Low

13. How far do you agree with this statement “For efficient usage of a MIS, the end users of MIS must be trained in the system?”

- Very High
- High
- Moderate
- Low

14. How far do you agree with this statement “For an MIS to be effective, the Software Personnel need to be properly trained?”

- Very High
- High
- Moderate
- Low

15. Do you feel the current MIS will be exploited even more if the end users are further trained?

- Very High
- High
- Moderate
- Low

16. Do you feel the current MIS will be exploited even more if the Software Personnel are further trained?

- Very High
- High
- Moderate
- Low

APPENDIX 2

QUESTIONNAIRE DISTRIBUTED AMONG VARIOUS TREASURY DEALERS

1) What are the major functions of Treasury Department: (e.g.: CRR Maintenance etc)

-
-
-
-
-

2) Do you use a Management Information System in your work?

- Yes
- No

3) How do you rank the importance of MIS in Treasury Department in terms of it being of assistance to Decision Making?

- Very High ()
- High ()
- Moderate ()
- Low ()
- Non existent ()

4) For which purpose do you use MIS (Please rank – 1st, 2nd, 3rd)

- To analyze past data ()
- To get the current information ()
- For projection of future situations ()

5) Do you agree with the following statements:

Success of MIS depends on

- Adequate Training to End Users Yes / No
- Adequate Training to Support Personnel in the organization Yes / No
- Adequate Manpower strength to exploit the MIS Yes / No
- Active participation by the Top Management in defining the scope and objectives of MIS Yes / No

- A good communication channel limiting the distortion to the flow of information between the user and systems personnel / vendor Yes / No
- A system which is proactive to users demand as well as having a good reactive mode in that it easily responds to an end users customization / amendment / new requests Yes / No

6) Please rank the following in respect to their importance for a successful MIS:

High Low
1...2...3...4...5....

- Adequate Training to End Users ()
- Adequate Training to Support Personnel in the organization ()
- Adequate Manpower strength to exploit the MIS ()
- Active participation by the Top Management in defining the scope and objectives of MIS ()
- A good communication channel limiting the distortion to the flow of information between the user and systems personnel / vendor ()
- A system which is proactive to users demand as well as having a good reactive mode (reactive in the sense that it easily responds to an end users customization / amendment / new requests) ()

Bibliography

Acharya, Ishwor *Implementation of MIS in NAC – A case study in Marketing Department*
– Unpublished Masters Degree Thesis TU, 2002

Cafasso, Rosemary, *Few IS projects come in on Time, on Budget* Computerworld, 1994

Davis Gordon B, Olson Margrethe H., *Management Information Systems - Conceptual Foundations, Structure and Development* , Second Edition Tata McGraw-Hill, New Delhi 2000

Jawadekar W S, *Management Information Systems, Second Edition*, Tata McGraw-Hill, New Delhi, 2002

Jerresand Martin, *Managing Your Information Across the Enterprise*, September 2002,
Director ADT & e-Business Solutions, Volvo IT

Lucey T, *Management Information Systems*, Eighth Edition, 2002, Continuum, London

Neupane Durga Prasad. 2002. *A Thesis on MIS – A significant tool for effective management of an organization. A case Study in NAC* - Unpublished Masters Degree Thesis TU, 2002

O'Brien James A, *Management Information Systems – Managing Information Technology in the Internetworked Enterprise, Fourth Edition*, Irwin McGraw Hill 2002
(Book 2)

Post Gerald V / Anderson David L, *Management Information Systems – Solving Business Problems with Information Technology*, Tata McGraw-Hill Edition, New Delhi 1998

Sadagopan S, *Management Information System*, Prentice Hall of India, 2002

The Economic Journal of Nepal, Vol 15, October – December 1992 No 4

www.investorwords.com

www.Himalayanbank.com

www.webopedia.com