CHAPTER - I
INTRODUCTION

1.1 Background

A Management Information System (MIS) is a system or process that provides information needed to manage organizations effectively. Management information systems are regarded to be a subset of the overall internal control procedures in a business, which cover the application of people, documents, technologies, and procedures used by management accounts to solve business problems such as costing a product, service or a business-wide strategy. Management information systems are distinct from regular information systems in that they are used to analyze other information systems applied in operational activities in the organization. Academically, the term is commonly used to refer to the group of information management methods tied to the automation or support of human decision making, e.g. Decision Support System and Expert System, Executive Information System and Computerized Time Attendance System are Management Information System.

Organized approach to the Study of information need of management at every level in making operational, tactical, and strategic decision. Its objectives is to design and implement man-machine procedures, processes, and routines that provide suitably detail reports in an accurate, Consistent, and timely manner. Modern, computerized systems continuously gather relevant data both from inside and outside the organization. This data is then processed, integrated, and stored in a centralized database (or data warehouse) where it is constantly updated and made available to all who have the authority to access it, in a form that suits their purpose.

Organization and coordination of the activities of an enterprise in accordance with certain Policies and in achievement of clearly defined Objectives. Management is often included as a factor of Production along with Machine, Material and Money. According to the management guru *(Peter Ducker, 1909-2005)* the basic task of a management is twofold:

Marketing and innovation of modern management owes its origin to the 16th century enquiry into low-efficiency and failures of certain enterprise, conducted by the English statesman *(Thomas More, 1478-1535).*

Directors and Managers who have the Powers and responsibilities to make decisions to manage an enterprise. As discipline, management comprises of the interlocking functions of formulating corporate policy and organizing, planning, controlling and directing the firm's resources to achieve the policy's objectives. The size of management can range from one Person in a small firm to hundreds or thousands of managers in multinational companies. In large firms the board of director formulates the policy which is implemented by the chief executive officer. Some business analysis and financiers accord the highest importance to the quality and experience of the managers in evaluating an organizations current and future worth.

Management Information System (MIS) on Human Resource Management (HRM) is particularly effective to this organization Nepal Investment Bank limited. The sources of skilled manpower are employed in this bank and the MIS is just managing part for the decision making from the operation level to the top level. At the start, works in businesses and other organizations, internal reporting was made manually and only periodically, as a by-product of the accounting system and with some additional statistic(s), and gave limited and delayed information on management performance. Previously, data had to be separated individually by the people as per the requirement and necessity of the organization. Later, data was distinguished from information, and so instead of the collection of mass of data, important and to the point data that is needed by the organization was stored.

Early on, business computers were mostly used for relatively simple operations such as tracking sales or payroll data, often without much detail. Over time these applications became more complex and began to store increasing amounts of information while also interlinking with previously Separate information systems. As more and more data was stored and linked man began to analyze this information into further detail, creating entire

Management Reports from the raw, stored data. The term "MIS" arose to describe these kinds of applications, which were developed to provide managers with information about sales, inventories, and other data that would help in managing the enterprise. Today, the term is used broadly in a number of contexts and includes (but is not limited to): Decisions support System and People management application Enterprise Resource Planning (ERP), Supply Chain Management (SCM), Employee Relationship Management (CRM), Project Management and database retrieval applications.

An 'MIS' is a planned system of the collecting, processing, storing and disseminating data in the form of information needed to carry out the functions of management. In a way it is a documented report of the activities that were planned and executed. According to Philip Kotlor" A marketing information system consists of people, equipment, and procedures to gather, sort, analyze, evaluate, and distribute needed, timely, and accurate information to marketing decision makers." The terms MIS and Information system are often confused. Information systems include systems that are not intended for decision making. The area of study called MIS is sometimes referred to, in a restrictive sense, as information technology management. That area of study should not be confused with Computer science IT service management is a practitioner-focused discipline. MIS has also some differences with ERP which incorporates elements that are not necessarily focused on decision support.

Any successful MIS must support a business's Five Year Plan or its equivalent. It must provide for reports based upon performance analysis in areas critical to that plan, with feedback loops that allow for titivation of every aspect of the business, including recruitment and training regimens. In effect, MIS must not only indicate how things are going, but why they are not going as well as planned where that is the case. These reports would include performance relative to cost centers and projects that drive profit or loss, and do so in such a way that identifies individual accountability, and in virtual real-time. Anytime a business is looking at implementing a new business system it is very important to use a system development method such as System Development Life Cycle. The life cycle includes Analysis, Requirements, Design, Development and Implementation.

1.1.1 Introduction to Organization

Nepal Investment Bank Ltd. (NIBL), previously Nepal Indosuez Bank Ltd., was established in 1986 as a joint venture between Nepalese and French partners. The French partner (holding 50% of the capital of NIBL) was Credit Agricola Indosuez, a subsidiary of one the largest banking group in the world with the decision of Credit Agricola Indosuez to divest, a group of companies comprising of bankers, professionals, industrialists and businessmen, had acquired on April 2002 the 50% shareholding of Credit Agricola Indosuez in Nepal Indosuez Bank Ltd.

The name of the bank has been changed to Nepal Investment Bank Ltd. upon approval of bank's Annual General Meeting, Nepal Rastra Bank and Company Registrar's office with the following shareholding structure.

- A group of companies holding 50% of the capital
- Rashtriya Banijya Bank holding 15% of the Capital.
- Rashtriya Beema Sansthan holding the same percentage.
- The remaining 20% being held by the General Public (which means that NIBL is a Company listed on the Nepal Stock Exchange).

We believe that NIBL, which is managed by a team of experienced bankers and professionals having proven track record, can offer you what you're looking for. We are sure that your choice of a bank will be guided among other things by its reliability and professionalism.

Vision, Mission, Value and Ethics

"Our Vision is to be the most preferred provider of Financial Services in Nepal"

Mission Statement

To be the leading Nepali bank, delivering world class service through the blending of state-of-the-art technology and visionary management in partnership with competent and committed staff, to achieve sound financial health with sustainable value addition to all our stakeholders. We are committed to do this mission while ensuring the highest levels

of ethical standards, professional integrity, corporate governance and regulatory compliance.

Core Values and Ethical Principles

Our core values tell us, our Employees and the communities we serve, who we really are; what we are about; and the principles by which we pledge to conduct business. In essence, we believe that success can only be achieved by living our core values and principles:

Employee Focus

At NIBL, our prime focus is to perfect our Employee service. Employees are our first priority and driving force. We wish to gain Employee confidence and be their trusted partner.

Quality

We believe a quality service experience is a paramount to our Employees and we are strongly committed in fulfilling this ideal.

Honesty and Integrity

We ensure the highest level of integrity to our Employees, creating an ongoing relationship of trust and confidence. We treat our Employees with honesty, fairness and respect.

Belief in our People

We recognize that employees are our most valuable asset and our competitive strength. We respect the worth and dignity of individual employees who devote their careers for the progress of the Bank.

Teamwork

We are a firm believer in team work and feel that loyal and motivated teams can produce extraordinary results. We are derived by a performance culture where recognition and rewards are based on individual merit and demonstrated track record.

Good Corporate Governance

Effective Corporate Governance procedures are essential to achieve and maintain public trust and confidence in any company, more so in a banking company. At NIBL, we are committed in following best practices resulting in good corporate governance.

Corporate Social Responsibility

As a responsible corporate citizen, we consider it important to act in a responsible manner towards the environment and society. Our commitment has always been to behave ethically and contribute towards the improvement of quality of life of our people, the community and greatly the society, of which we are an integral part.

1.2 Focus of the Study

The Human Resource Focus Category examines how an organization enables employees to develop and utilize their full potential, aligned with the organization's objectives. Also examines your organization's efforts to build and maintain a work environment and an employee support climate conducive to performance excellence full participation, and personal and organizational growth. The efforts may include partnership with unions, as applicable.

Human Resource Focus addresses key human resource practices – those directed toward creating a high performance workplace and toward developing employees to enable them and the organization to adapt to change. The Category covers human resource development and management requirements in an integrated way, aligned with the organization's strategic directions. Included in the focus on human resources is a focus on the work environment and the employee support climate.

The focus of the study is listed below on point wise:
- How to design, organize, and manage work and jobs to promote cooperation and collaboration, individual initiative, innovation and flexibility, and to keep current with business needs?

- How do managers and supervisors encourage and motivate employees to develop and utilize their full potential? Include formal and/or informal mechanisms you use to encourage and support employees in job- and career-related development/learning objectives.

- How does your employee performance management system, including feedback to employees, support high performance?

- How do your compensation, recognition, and related reward/incentive practices reinforce high performance?

- How do you ensure effective communication, cooperation, and knowledge/skill sharing across work units, functions, and locations, as appropriate?

- How do you identify characteristics and skills needed by potential employees; how do you recruit and hire new employees? How do you take into account key performance requirements, diversity of your community, and fair work force practices?

1.3 Statement of the Problem

HRM is management function that helps managers to recruit, select, train and develop members for an organization. Obviously HRM is concerned with the people's dimensions in organizations. HRM refers to set of programs, functions, and activities designed and carried out. Human resource carries prime importance in the organization because it is able to utilize other resources in the organization. But the demand of today is trained and skilled human resources. There is shortage of trained human resource in developing economies like ours. Especially if we talk about the MIS personnel there is very little number. The IT professionals are also not available easily and there is very low level of computer literacy. Many human resources do not have the knowledge of handling basic computer programs hence it is very hard to find the personnel who can handle advanced MIS programs.

The main purpose for installing the MIS in an organization is to increase the efficiency and the speed of the work. If MIS is not installed then the work process in certain fields will be very slow such as teller, customer service, remittance etc. Customer will have to

wait for hours to get the payment. For performing a small work such as verifying signature many human resources will be needed. Producing of the necessary reports in the bank will also be very slow. Hence without use of MIS the overall efficiency of the human resource as well as organization decreases. Statements of the problems are pointed out as bellow:

- Is there any use of MIS system in HRM in NIBL?
- How fast the information are available regarding the HRM?
- Are the employees motivated?
- Does NIBL able to utilize full potential of its employees?
- Is there effective communication to the top level about the human resource?
- Is there availability of trained & skilled manpower to handle MIS system?
- Is new technology adopted by organization for HRM?
- What is the present status of E-HRM in the organization?

1.4 Objectives of the Study

The main objectives of this thesis are pointed as below:

- To see the existing HRIS on employee's performance & skill.
- To develop forecasting model of skilled human resource of NIBL
- To see how MIS supports in decision making in the NIBL
- To Recommend the NIBL to install the new proposed (e- attendance system).

1.5 Rational of the Study

The Rational of the study are as follows:

- The report is prepared for the partial fulfillment of the requirement for the Master of Business Studies.
- It helps to get actual information about of the bank relating to HR.
- It helps to develop the skills of the students in their career path.
- It helps to gain practical knowledge about the MIS of HRM.
- It helps to make students capable of tackling the problem faced by them during the entire course of making report.

- It helps to gain experience about the fieldwork process.

1.6 Limitation of the Study

This study has been conducted with certain limitations. Some of them are as follows:
- Limitation of Time factor.
- Limitation of Value and Quality factor of employee.
- This analysis is based on the available data and this report is based on primary and secondary data.
- This study may not represent the true picture of the bank as it has covered only a limited area.
- The performance analysis of HRIS is based on only 5 years.

1.7 Organization of the Study

The organizations of the Study are divided in five chapters which are mention as follows:

Chapter- I Introduction

Introduction is the initial chapter of this research .The first chapter is Introduction of the Nepal Investment Bank Limited having seven subchapters includes Background, Introduction to MIS, Focus of the Study, Statement of the Problem, Objectives of the Study, Significance of the Study, Limitations of the study and Organization of the Study.

Chapter – II   Review of Literature

Review of Literature is second chapter that start after the introduction of the study which studies theories and practices. The conceptual Framework of this study which gives overall concept, review form journals and articles that studies some journals and articles relating to the study and last one review from previous thesis that reviews the thesis done in the relating subject are the main components of this chapter. Literature Review is most important part for the study of this research which gives the knowledge about how people mark right decision and quick decision from the Nepal Investment Bank Limited.

Chapter – III Research Methodology

The third Chapter is Research Methodology. The chapter has shown the Research Design, Sources of Data, Data Collection Technique, and Data Processing, Tools used for data analysis (E-R Diagrams, DFDs, and Flow Chart) etc.

Chapter – IV System Analysis, Design and Data Presentation

System Analysis, Design and data Presentation is fourth chapter that come after the research methodology. This chapter presents all the data available and analyses it using different analytical tools. It deals with the facts found in the organization in organized and sequential manner. E-R diagram showing multiple entities of the system, their relationship with each other and their attributes are analyzed and described. To enhance understanding of data flow, contest level data flow diagram and zero level data flow diagram is presented. The chapter also illustrates the current position of the Information Technology in Nepal, the government policies and available infrastructure facilities about the Human Resource Management Information System.

Chapter – V   Summary, Conclusion and Recommendation

The final or last chapter of the study is Summary, Conclusion and Recommendation of the case study. Summary of the research, the conclusion that the researcher found in the research period and the recommendations for the betterment of the system are included in this chapter

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CHAPTER - II
REVIEW OF LITERATURE

From literature review, one should come to know that my topic on problem of research is new one or not, what concepts or ideas have been already found, what type of modification is necessary to the deficiency if it exists to the research etc. Thus, review of literature is essential to develop concepts. Information or ideas about the selected topics by studying the relevant materials.

2.1 Conceptual Review

2.1.1 Management Information System

Management Information System is system that helps to collects information and generates consolidate and comparatives reports to facilitate the decision making. System that integrated management and information system (hardware, software, database etc.) is called management information system. In another hand MIS is a tools that provide right information at right time to do right decision on the instruction. Conceptual frame work of MIS is presented below *(Adhikari, 2007:13).*
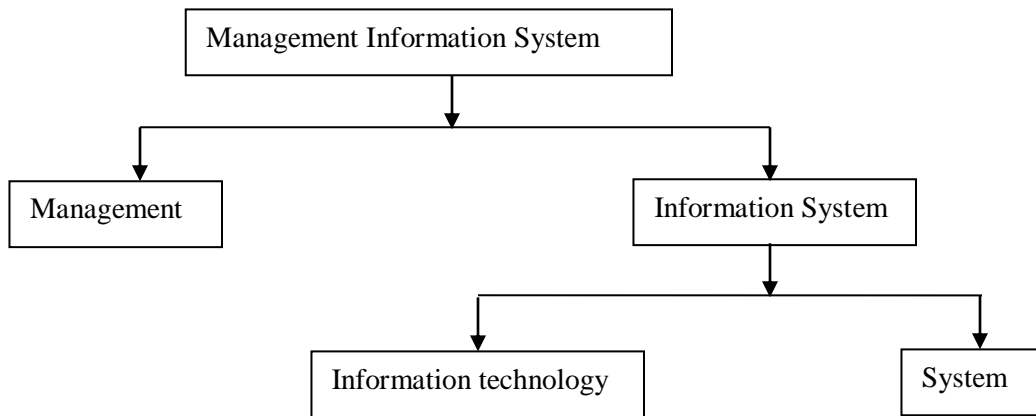
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          ┌─────────────────────────────────────┐
          │   Management Information System      │
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                    │ Information technology  │      │    System    │
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Figure 2.1 Conceptual Frame Work of MIS

Source: Jawadekar, 2000: 4

MIS is the systematic management of information for managers, usually centered on computer technology to permit rapid and accurate processing, storage, and retrieval of

information. It is a system that provides periodic, predetermined, and ad hoc reporting capabilities. It is defined as a network of data processing procedures developed in an organization and integrated as necessary with manual and other procedures for the purpose of providing timely and effective information to support decision making for planning, directing and controlling the activities for which they are responsible and other necessary management functions. It can be viewed as a systematic process of converting 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 decision, to support policy analysis and other long range efforts. It involved systematic procedure for the generation, storage and retrieval of data on operations of an organization and the availability of that data for strategically planning and decision making.

Management Information Systems is a general name for the academic discipline covering the application of information technology to support the major functions and activities of either a private sector business or public sector institution. In business, information systems support the process of collection, manipulation, storage, distribution and utilization of an organization's information resources, business processes and operations..

As an area of study it is also referred to as information technology management. The study of information systems is usually a commerce and business administration discipline, and frequently involves software engineering, but also distinguishes itself by concentrating on the integration of computer systems with the aims of the organization.

The area of study should not be confused with computer science which is more theoretical in nature and deals mainly with software creation, and not with computer engineering, which focuses more on the design of computer hardware. IT service management is a practitioner-focused discipline centering on the same general domain *(Basco, 2008: 03).*

2.1.2 Architectural Framework of Management Information System

The primary function of MIS is to provide accurate, timely and right information to the decision-makers. There are some features for the appropriate MIS. MIS is an organized or planned effort and not the result of some sporadic attempts. The primary function of the MIS is to provide relevant information that assists managers at different levels in organization in decision-making. MIS is form from number of components including hardware, software, manual procedures, models and a database. MIS presents information in current, usable and easily understandable format. MIS is a system of users and machines. The users are as important to the system as are machines *(Adhikari, 2007: 26).*
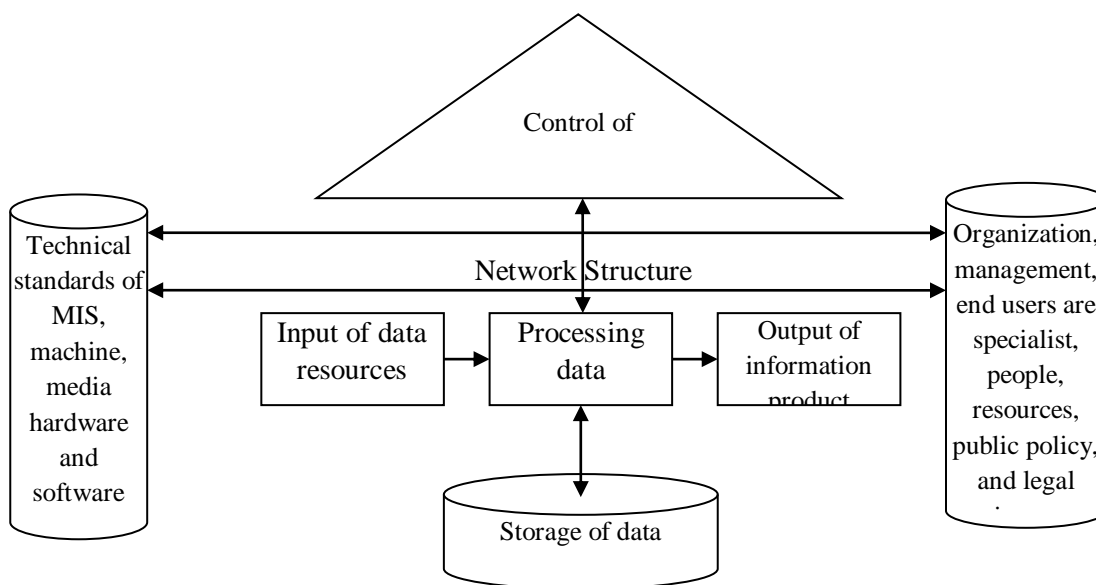
Figure 2.2 Architectural Framework of Management Information System

Tactical Information System

Management Information Systems are designed for providing information to important personnel in the organization. These systems make use of the already processed transaction data, which is output from the TPS, and generate information reports after processing data.
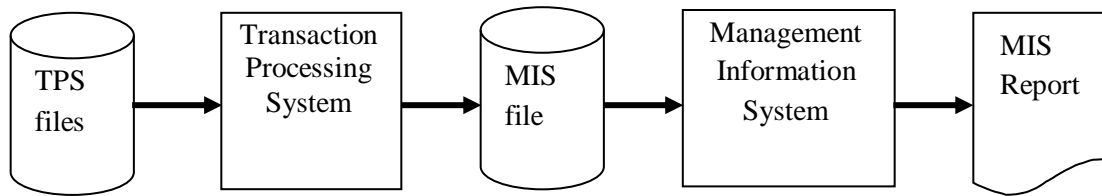
| TPS files | → | Transaction Processing System | → | MIS file | → | Management Information System | → | MIS Report |

Figure 2.3 Tactical Information System

The output of the MIS takes the form of summary reports and exception reports. The summary report accumulates data from several transactions and presents the results in a condensed form *(Adhikari, 2007: 94).*

2.1.3 Major Roles of MIS in an Organization

MIS helps in various systems. i.e., Query system, Analysis system, Modeling system and DSS etc. MIS helps in strategic planning, management control, operational control and transaction processing etc. MIS plays the role of information generation, communication, problem identification and the process of decision making. MIS helps in management, administration and operation of the organization.

2.1.4 Needs of Management Information System

The need for an effective information system is of paramount concern to the firm now as well as in the future. Because the firm does not operate in a vacuum, it must coordinate its operations with the business universe. Of bring importance is information about markets in which it operates, current knowledge of its Employees and competitors, availability of capital, capabilities of available personnel, and knowledge concerning sources of supply. Information being a vital corporate resource, it needs to be managed just as any other organizational resource like money, man, 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*).
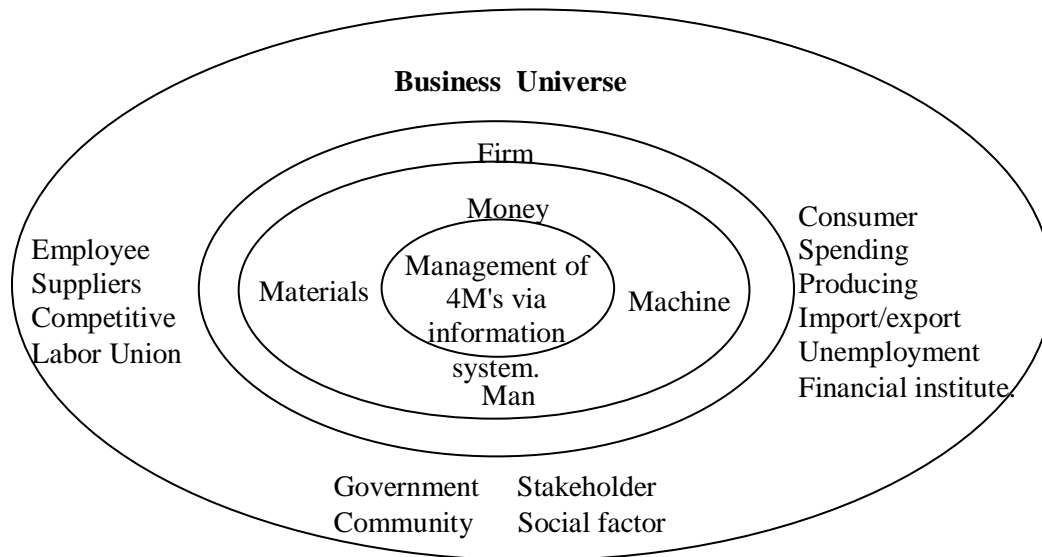
Figure 2.4 Business Universe and Information System

Source: Thierauf, 1982: 06

Increasing process of purchase materials, rising labor costs and foreign competition signal the need for and information system they describe the firms economic environment and co-ordinates the external environment with the internal factors to provide meaningful management information system. The information system in addition to recognizing trends external to the firm mist treat changes that have accrued and will yet occur in the internal: business environment.

Advancements in the behavioral sciences continuing developments in management science and increasing utilization of paperless computer output terminals must be reflected in the design of the information system. Inter - departmental approaches have transcended the traditional. Functional lines of business in complex systems. Still other system technology development has occurred regarding methods, procedure, and communication equipment. By no means is this listing of internal factors complete, but it dies serve to exemplify what is causing the firm's information system to change. The changes taking place within and outside the firm generally do stand-alone each advancement tends to affect and overlap another development.

2.1.4.1 Management

Management has been viewed as a function, a process, a profession and as an elite or a class of people. Management has also been described as an art and as a science. And along with material, capital and labor, management is considered as resource. It is possibly the most valuable resource because it provides the primary force for converting other resources into products and services (*Prasai, 2057:94*).

Koontz's definition of management is widely recognized and used, which is as follows "Management is the art of getting things done through and with the people in formally organized groups." However, the managers in the organization does not get things done through automatic way rather he does it by performing different functions in a systematic way. The basic function which a managers performs in a organization are mentioned below-

- Planning
- Organizing
- Staffing
- Directing
- Controlling

Planning

It is a process of foreseeing the future in advance. It bridges the gap between where management are where they want to be. It is the process of deciding in advancer the courses of action (or strategies) to be followed and when and how to undertake these. It is needed for committing and allocating the organization's limited resources for achieving its objectives in the best possible manner and for anticipating future opportunities and problems of. Managers plan by setting goals and objectives and lay down policies, producers, rules, programs, budgets, strategies and schedule to achieve the plan.

Organizing

It is the process of identifying the entire job, dividing the job into convenient subjects/tasks, allocating sub-jobs to person/group of persons and delegating authority to

each do that the jobs is carried out as planned. It also refers to the formal grouping of people and activities to facilities achievement of organizations objectives. It is needed for assigning responsibilities, jobs, and hierarchy among personnel for effective operation and achievement of goals.

Staffing

It is the process of putting the right person at the right job. This function involves activities like defining the requirements with regard to the person for the job to be done, selecting suitable persons for these positions and training and developing them to accomplish their tasks as effectively as possible.

Directing

It is the process of activating the plans, structure and group efforts in desired directions. It is needed for implementation of plans by providing desired leadership, motivation and proper communication. However, modern management philosophers are of the view that directing includes

- Communication
- Motivation
- Leadership

Directing is important because in order of achieve pre-determined goals and objectives, people meaning the organization have to be guided, motivated and led by the manager.

Controlling

It ensures that activities are being performed as per plans. Controlling is the process which involves.

- Fixing standards for measuring work performance
- Measurement of actual performance
- Comparing actual with standard and finding out deviation
- Taking corrective action

2.1.4.1.1 Levels of Management

The management can also be grouped into three hierarchical levels- top, middle and bottom. Also, it can be grouped into Strategic management, tactical management and operational management (*Prasai, 2057: 102).*
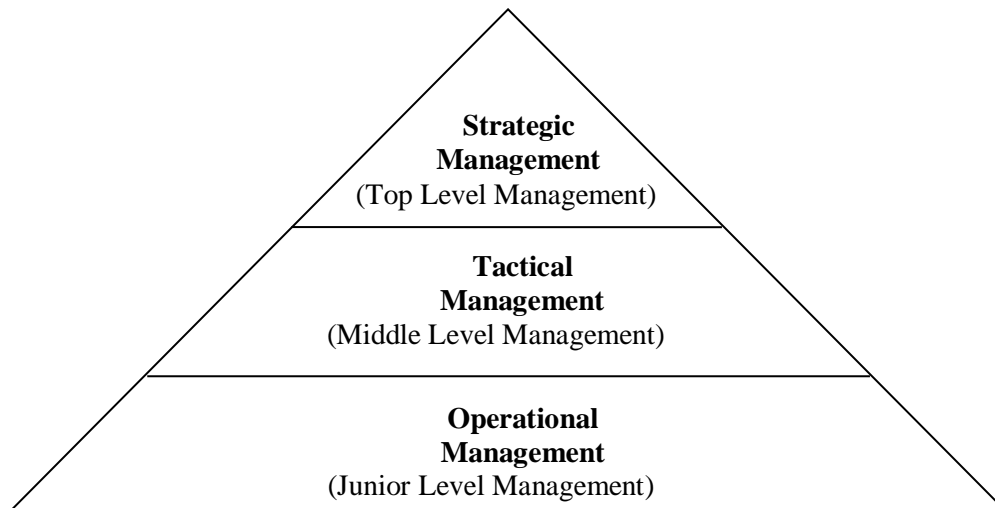
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                    /\
                   /  \
                  / Strategic \
                 / Management \
                /(Top Level Management)\
               /------------------------\
              /       Tactical           \
             /       Management           \
            /   (Middle Level Management)  \
           /--------------------------------\
          /          Operational            \
         /           Management              \
        /       (Junior Level Management)     \
       /_____\
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Figure 2.5 Pyramid of Level of Management

Strategic Management

The strategic management determines what markets or businesses the organization should be in at present or plan in the future. It establishes the policies, plans, and objectives of the organization as well as a budget framework under which various departments will operate.

Tactical Management

Tactical management has responsibility if implementing the policies and overall plans of the top management. It includes processes or functions that facilities the management of the process delegated to the operational management.

Operational Management

Operational management has the responsibility of implementing day to day operations and decisions of the middle level management to produce   goods or services to meet the

objectives or goals which in turn will enable the organization to achieve its overall plans and objectives (*Prasai, 2057:105).*
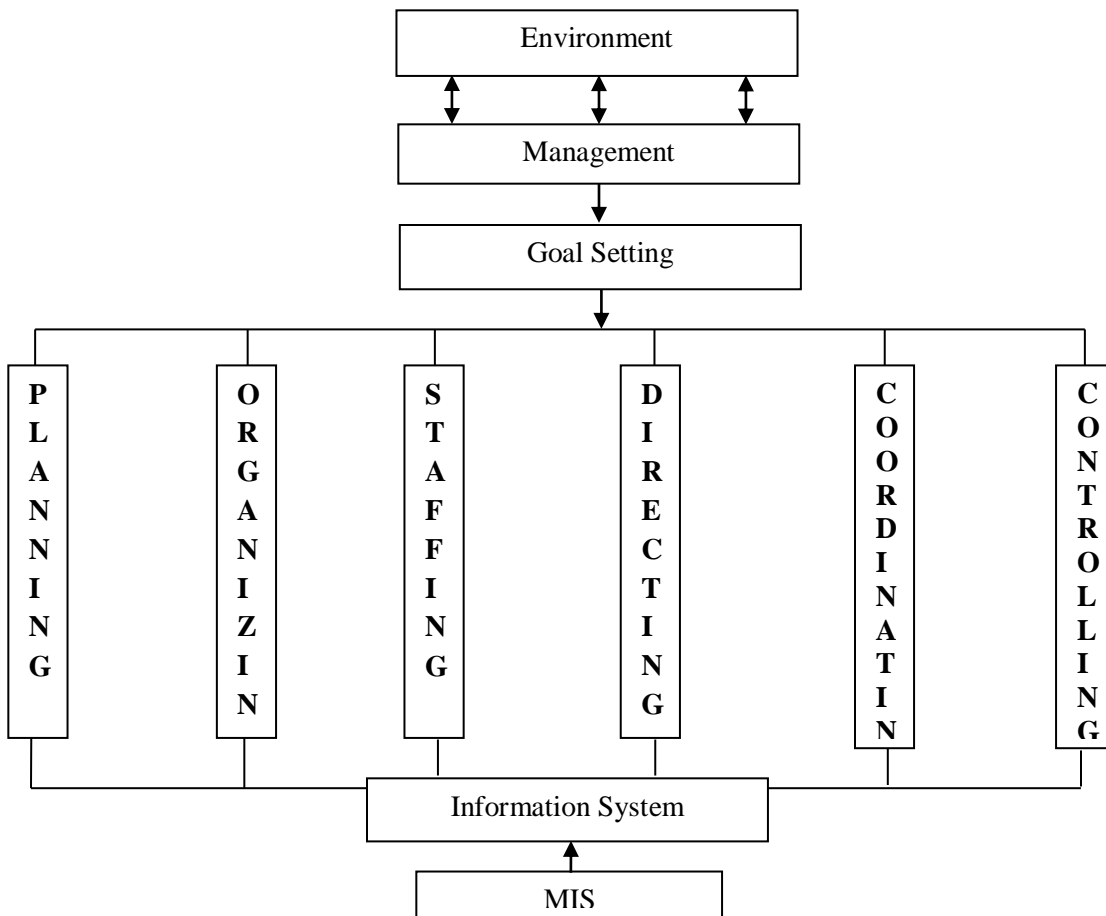

Figure 2.6 Management and MIS

2.1.5 Problems with MIS

There is abundant evidence from numerous surveys in the several countries that existing MIS with advances computer equipments had provided relatively little success in providing management with the information it needs. The typical reasons discovered for this includes the following-

- Lack of management involvement with the design of the MIS
- Narrow and/or in appropriate emphasis of the computer system
- Undue concentration on low level data processing applications particularly in the accounting area

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- Lack of management knowledge of computers
- Poor appreciation by information specialists of managements true information requirements and of organizational problems
- Lack of top management support

For the successful result, MIS must be designed and operated with due regard to organization and behavioral principals as well as technical factors. Management must be informed enough to make an effective contribution to systems design and information specialist (system analysis, accountant, operations researchers and others) must become more aware of managerial functions and need so that ,jointly more effective MIS can be developed.

Management does not always know what information they need and information specialist often do not know enough about management to be able to produce relevant information for the managers they serve. There is no doubt that better communication between management and information specialists, plus a wider knowledge by both groups of MIS principles will greatly facilitate the task of developing relevant and appreciate information systems. There is unfortunately, non simple checklist of essential features which if followed will automatically produce the perfect MIS. What is required in an awareness and understanding of key principles and functions so that the design, implementation and operations of the MIS is the result of informed decision and judgments rather than haphazard development without regard to real organizational requirements (*Prasai, 2057:150).*

2.1.6 Factors of Success and Failure of MIS

Many organizations use MIS, successfully while other do not. Through 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 failure (*Prasai, 2057:160).*

Factors contributed to make it success

- The MIS is integrated into the managerial functions. Its sets clear objectives to ensure that MIS focuses on the major issued of the business. Also adequate development resources are provided and the human and organizational barriers to progress are removed.

- An appreciate information processing technology is required to met the data processing and analysis needs of the users of the MIS selection.

- The MIS is oriented, defined and designed in terms of the user's requirements and its operational viability is ensured.

- The MIS is kept under continuous surveillance so that its open system designs modified according to the changing information needs.

- MIS focuses on the result and the goals and highlights the factors and reasons for no achievements.

- MIS is not allowed to end up into an information generation mill avoiding the noise in the information and the communications 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 the different objectives must be met with. The globalization of information in solution 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 that 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 (*Prasai, 2057:160*).

Factors Contributing to Failures of MIS

Many times, MIS is a failure. The common factors which are responsible for this are as follows:

- Underestimating the complexity in the business systems and not recognizing it in the MIS design leads 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 MIS.
- Lack of training and appreciation that the users of the information and the generators of the data are different, and they have to play an important role in the MIS.
- MIS does not meet certain critical and key factors of its users, 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 capable manpower and IT experts to handle sophisticated information technology to maintain proper information system within the department.
- Due to mishandling, misunderstanding and gap of information.
- Traditional paper-based information system creates delay in making decision. It should be eliminated through computerized information system.

2.1.7 Levels of Decisions

Fundamentally managerial activities and decisions can be segregated in to three categories: those that relate to top. Middle and lower managerial Decision managing at these levels of management has varying degrees in futurity. Strategic palling, Management Palling and Operational Palling.

Because the output of and information system is directed toward assisting management in planning and controlling organization activities, it is beneficial to relate the following types of information:
- Strategic
- Tactical
- Operational

To the managerial levels for decision making generally, Lower management concerned with operational informational for decision making, while tactical information and strategic information are useful to middle and top management, respectively, for making

decision. The type of information supplies has to do with the activities with which the information is concerned to internal environment of the organization and the external environment which the organization operates.
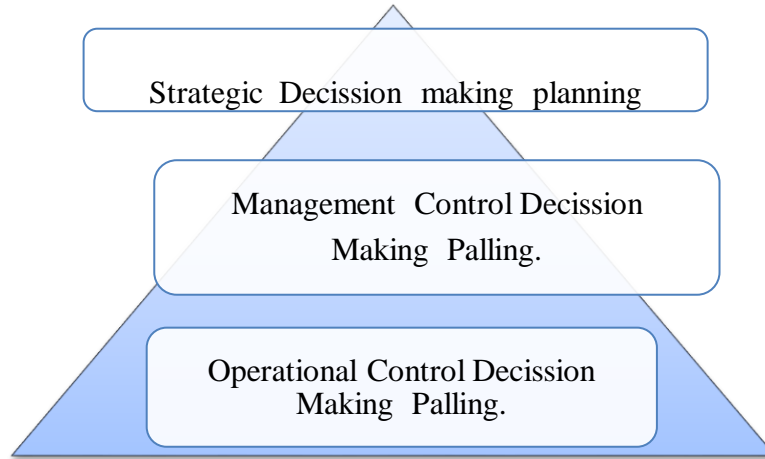

Figure 2.7 Levels of Decisions in NIBL

2.1.7.1 Information need for Decision

It is general fact that internal information should be more and more summarized as the level of management for which it is prepared rises in the hierarchical structure, with top management receiving overall reports operations for future planning. On the other hand, lower echelons of management, being control oriented, receive the most detailed reports. Between top and low management is middle management, which is planning oriented. The type of information supplied has to do with the activities with which the information is concern-the internal environment of the organization and the external environment in which the organization operates. Information concerning the external environment of the organization should be summarized in exactly the opposite manner from that of the internal environment. Because the upper management levels are more planning oriented and because planning necessitates more information about the organization's external environment. All three levels of informational need are illustrated in Figure below.

Table 2.1

Types of Information Reports Needs at Various level of Management

Level of Management	Time Period	Nature of Decisions	Nature of Information
Top level	Long term	Selection of top staff policy approvals, emergency decisions	Sporadic one-shot
Middle level 　　a)staff	Long term	Formulation of policies framing of rules & procedures	Periodic information
b)Line	Medium	Supervisions of operation	operation
Bottom Level	Short term	Day to day operations	Operational instantaneous

The relationship of types of decisions to the managerial Level – support functions.

Table 2.2

Examples that Depict the Relationships of types of Decisions to the

Managerial Level – Support Function

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

Source: Thierauf, 1982: 75

2.1.8 Human Resource Management

2.1.8.1 Concept

Human resource management has come to be recognized as a separate management function only after the industrial revolution. Previously, it was considered a part of organizing function. The reason for separating the human resource or staffing function

from organizing function of management is that the function assumed great importance in recent years due to increase in the size of the organization, rapid advancement of technology and complex behavior of human beings.

Human resources is a term used to describe the individuals who make up the workforce of an organization, although it is also applied in labor economics to, for example, business sectors or even whole nations. Human resources is also the name of the function within an organization charged with the overall responsibility for implementing strategies and policies relating to the management of individuals (i.e. the human resources). This function title is often abbreviated to the initials "HR" *(Shrestha, 2000:186).*

Human Resource Management (HRM) is the function within an organization that focuses on recruitment of, management of, and providing direction for the people who work in the organization. Human Resource Management can also be performed by line managers. Human Resource Management is the organizational function that deals with issues related to people such as compensation, hiring, performance management, organization development, safety, wellness, benefits, employee motivation, communication, administration, and training *(Carter, 2008: 12).*

Human resource management (HRM, HR) is the management of an organization's employees. This includes employment and arbitration in accord with the law, and with a company's directives.

Features

Its features include:

- Organizational management
- Personnel administration
- Manpower management
- Industrial management

But these traditional expressions are becoming less common for the theoretical discipline.

Sometimes even employee and industrial relations are confusingly listed as synonyms, although these normally refer to the relationship between management and workers and the behavior of workers in companies.

The theoretical discipline is based primarily on the assumption that employees are individuals with varying goals and needs, and as such should not be thought of as basic business resources, such as trucks and filing cabinets.

Human Resource Management (HRM) is seen by practitioners in the field as a more innovative view of workplace management than the traditional approach. Its techniques force the managers of an enterprise to express their goals with specificity so that they can be understood and undertaken by the workforce and to provide the resources needed for them to successfully accomplish their assignments. As such, HRM techniques, when properly practiced, are expressive of the goals and operating practices of the enterprise overall. HRM is also seen by many to have a key role in risk reduction within organizations *(Armstrong, 2006: 32).*

2.1.8.2 Importance of HRM
Human resource is an important managerial function because the success of an organization depends largely upon the quality and dedications of its work force. The increasing size of organization, rapid advancements in technology and growing complexity of human behavior have led to increase in the significance of human resource management.

Human resource management is important because of following reasons:
- It helps in recruiting and selecting competent employees for various jobs.
  It increases productivity by putting the right man on the right job. It also improves the job satisfaction of the employees.
  The success of an organization depends largely upon the human resource. It plays vital role in achieving organizational goals.

- It helps to avoid a sudden disruption in the activities of an organization through manpower shortages.
- It reduces costs of personnel by avoiding wastage of human resources.

2.1.9 Human Resource Information System (HRIS)

A human resource information system (HRIS) is defined as a computer based application for assembling and processing data related to the human resource management (HRM) function. As in other types of information systems, an HRIS consists of a database, which contains one or more files in which the data relevant to the system are maintained, and a database management system, which provides the means by which users of the system access and utilize these data. The HRIS thus contains tools that allow users to input new data and edit existing data; in addition, such programs provide users with the opportunity to select from an array of predefined reports that may either be printed or displayed on a monitor. Reports may address any of a number of different HRM issues (e.g., succession planning, compensation planning, equal employment opportunity monitoring). HRIS also generally include tools by which users or system administrators may generate ad hoc reports and select specific cases or subsets of cases for display.

Human Resource Information System (HRIS) refers to the systems and processes at the intersection between human resource management (HRM) and information technology. It merges HRM as a discipline and in particular its basic HR activities and processes with the information technology field, whereas the programming of data processing systems evolved into standardized routines and packages of enterprise resource planning (ERP) software. On the whole, these ERP systems have their origin on software that integrates information from different applications into one universal database. The linkage of its financial and human resource modules through one database is the most important distinction to the individually and proprietary developed predecessors, which makes this software application both rigid and flexible.

Human resource management systems (HRMS) encompass applications for handling personnel-related tasks for corporate managers and for individual employees. An HRMS

generally supports personnel management, benefit management, payroll management (computerized time attendance system), training management, workforce management, and health and safety administration. Many systems support employee self-service functionality as well. These systems support human resources (HR) personnel by automating much of the work.

The computerized time attendance system is electronic attendance system in which every employee makes their attendance in computer rather than using attendance book. The system is integrated with bio-metric device like finger print scanner or swap card. Using this device makes less chance of fraud or other user malicious activities. The electronic time attendance system traces the entire employee rather details including over-time, under-time, leave etc.

Basic features:

- Computerized log In/Log out system
- Automatic leave calculation
- Over time/under time calculation
- Electronic attendance processing
- Aesthetically designed general and MIS reports
- Backup and restore facilities
- User definable security System
- Files Import Features
- Integrates with Personnel MGMT and Payroll MGMT system
- Web-based database system *(Lawler, 2001: 162).*

Role of Human Resource Information System (HRIS)

HRIS system works as a bridge between human resource and information technology. Information technology completely changes the way to manage the human resources in a systematic way. It plays a vital role to make critical decision about how much workforce is needed by the organization, what is present status of HR inventory in the organization, what is the future demand, what types of trained HR are needed by the organization etc. It

also helps to automate the payment system in the organization. It keeps the individual record of the each employee.

It helps in generating necessary reports about the training and skills possessed by the employees. According to the skills possessed by the employee the job can be assigned respectively. HRIS can minimize the error about the judgment of employees that is generally made in the case of decisions made by the humans. This system adds the strategic advantage to the organization by managing the human resource efficiently.

Typically, the better The Human Resource Information Systems (HRIS) provide overall:

- Management of all employee information.
- Reporting and analysis of employee information.
- Company-related documents such as employee handbooks, emergency evacuation procedures, and safety guidelines.
- Benefits administration including enrollment, status changes, and personal information updating.
- Complete integration with payroll and other company financial software and accounting systems.
- Applicant tracking and resume management.
  - attendance and PTO use,
  - pay raises and history,
  - pay grades and positions held,
  - performance development plans,
  - training received,
  - disciplinary action received,
  - personal employee information, and occasionally,
  - management and key employee succession plans,
  - high potential employee identification, and
  - Applicant tracking, interviewing, and selection *(Heathfield, 2010: 120).*

2.1.10 Relation between HRM & MIS

The function of Human Resources departments is generally administrative and common to all organizations. Organizations may have formalized selection, evaluation, and payroll processes. Efficient and effective management of "Human Capital" progressed to an increasingly imperative and complex process. The HR function consists of tracking existing employee data which traditionally includes personal histories, skills, capabilities, accomplishments and salary. To reduce the manual workload of these administrative activities, organizations began to electronically automate many of these processes by introducing specialized Human Resource Management Systems. HR executives rely on internal or external IT professionals to develop and maintain an integrated HRMS. Before the client–server architecture evolved in the late 1980s, many HR automation processes were relegated to mainframe computers that could handle large amounts of data transactions. In consequence of the high capital investment necessary to buy or program proprietary software, these internally-developed HRMS were limited to organizations that possessed a large amount of capital. The advent of client–server, Application Service Provider, and Software as a Service (SaaS) or Human Resource Management Systems enabled increasingly higher administrative control of such systems. Currently Human Resource Management Systems encompass:

- Payroll
- Work Time
- Appraisal performance
- Benefits Administration
- HR management Information system
- Recruiting
- Training/Learning Management System
- Performance Record
- Employee Self-Service *(wikipedia.com, 2011)*

2.1.11 Electronic Human Resource Management (E-HRM)

E-HRM is the (planning, implementation and) application of information technology for

both networking and supporting at least two individual or collective actors in their shared performing of HR activities.

E-HRM is not the same as HRIS (Human resource information system) which refers to ICT systems used within HR departments. Nor is it the same as V-HRM or Virtual HRM - which is defined by Lepak and Snell as "...a network-based structure built on partnerships and typically mediated by information technologies to help the organization acquire, develop, and deploy intellectual capital."

E-HRM is in essence the devolution of HR functions to management and employees. They access these functions typically via intranet or other web-technology channels. The empowerment of managers and employees to perform certain chosen HR functions relieves the HR department of these tasks, allowing HR staff to focus less on the operational and more on the strategic elements of HR, and allowing organizations to lower HR department staffing levels as the administrative burden is lightened. It is anticipated that, as E-HRM develops and becomes more entrenched in business culture, these changes will become more apparent, but they have yet to be manifested to a significant degree. A 2007 CIPD survey states that "The initial research indicates that much-commented-on development such as shared services, outsourcing and e-HR have had relatively little impact on costs or staff numbers".

Types of E-HRM

There are three types of E-HRM. These are described respectively as Operational, Relational and Transformational. Operational E-HRM is concerned with administrative functions - payroll and employee personal data for example. Relational E-HRM is concerned with supporting business processes by means of training, recruitment, performance management, and so forth. Transformational E-HRM is concerned with strategic HR activities such as knowledge management, strategic re-orientation. An organization may choose to pursue E-HRM policies from any number of these tiers to achieve their HR goals.

Goals

E-HRM is seen as offering the potential to improve services to HR department clients (both employees and management), improve efficiency and cost effectiveness within the HR department, and allow HR to become a strategic partner in achieving organizational goals *(Strohmeier, 2007: 37).*

2.1.12 Finger vien Authentication

The basic principle on which the finger-vein authentication system is based is shown in Figure. 1.3. near infrared rays generated from a bank of LEDs (light emitting diodes) penetrate the finger and are absorbed by the hemoglobin in the blood. The areas in which the rays are absorbed (i.e. veins) thus appear as dark areas in an image taken by a CCD camera located on the opposite side of the finger. Image processing can then construct a finger-vein pattern from the camera image. This pattern is then compressed and digitized so that it can be registered as a template of a person's biometric authentication data. The finger-vein pattern and the template can be authenticated by means of a pattern-matching technique. The device developed to perform the above described detection process (finger-vein pattern scanner) is shown in Figure 1.4. The part of the finger-vein scanner on the right or holding up a legitimate person's photo. Face and voice authentications are thus only effective methods in an environment in which an attendant or guard is present to ensure that fraud is impossible.

Fingerprint authentication is a reliable method widely acknowledge across society. When a person place their finger on a special semiconductor pad (i.e. a fingerprint sensor), their fingerprint is extracted and its image is analyzed. The analysis result is then checked against that person's previously registered fingerprint for authentication. Being easy to operate by means of a compact device, this method is widely used as a replacement for PC passwords. Although fingerprint authentication is useful for individual applications like PC access, applying it to door-access control faces several problems from the viewpoint of usability. For example, pressing the whole fingerprint up against a sensor gives as uncomfortable feeling, and the sensor gets dirty, thus decreasing the authentication success ratio. In addition, fingerprint a system have a negative image

associated with crime. Iris authentication uses image processing to authenticate an image of the iris taken by a camera.

The newly opened branch will be linked through ABBS (Any Branch Banking Services) to all other 38 branches around the country. The key services provided by the branch include deposit and credit facility, foreign exchange, retail banking, import, export, letters of credit, guarantees and remittances, among others. The bank has also introduced two new products – Savings Plus and Fixed deposit, whereby the bank gives interest up to 6% on savings account and up to 10% interest on fixed deposit. Nepal Investment Bank, with the widest networking chain, has extended its ATM in Gaighat and Krishnanagar recently. With that bank has total of 65 ATM chains and 38 branches around the country. Nepal Investment Bank Ltd, previously Nepal Indosuez Bank Ltd, was established in 1986 as joint venture between Nepalese and French partners. The first private sector bank is Nepal, has now the highest capital base, highest growth rate among the banks in Nepal and number one deposit lender. The bank plans to provide exceptional banking services within all major pockets of the country, both within and outside the Kathmandu valley. In the coming days, the bank plans to extend its access to rural areas as well as urban centers, whereby extending banking service for larger chunk of population. The bank is also committed towards the highest levels of ethical standards, professional integrity, corporate governance and regulatory compliance. (Press Release: NIBL enters 25th years, introduces two new schemes; February 17).NIBL has extended its remittance service in the United Kingdom and United States of America too through partnerships with Samara Money Transfer and Transfect International respectively. NIBL now provides money remittance services directly in more than seven countries through twenty remittance partners and the rest of the world through Western Union Money Transfer and Travelex Money Transfer.

NIBL also opened its 33rd branch in Damauli, Tanahu, on Monday, November 30. Damauli branch will be linked through ABBS (Any Branch Banking Services) to all other 32 branches of the Bank. The key services provided by the branch include 365 days banking, deposit and credit facility, foreign exchange, retail banking, import, export,

letters of credit, guarantees and remittances. NIBL plans of having over 50 more branches within the next two years to provide exceptional banking services within all major pockets of the country *(NIBL Annual Report, 2009: 10).*

2.1.13 Human Resource Management Versus Human Resource Development (HRD)

The Human Resources Management (HRM) function includes a variety of activities, and key among them is deciding what staffing needs you have and whether to use independent contractors or hire employees to fill these needs, recruiting and training the best employees, ensuring they are high performers, dealing with performance issues, and ensuring your personnel and management practices conform to various regulations. Activities also include managing your approach to employee benefits and compensation, employee records and personnel policies. Usually small businesses (for-profit or nonprofit) have to carry out these activities themselves because they can't yet afford part- or full-time help. However, they should always ensure that employees have -- and are aware of -- personnel policies which conform to current regulations. These policies are often in the form of employee manuals, which all employees have. Note that some people distinguish a difference between HRM (a major management activity) and HRD (Human Resource Development, a profession). Those people might include HRM in HRD, explaining that HRD includes the broader range of activities to develop personnel inside of organizations, e.g., career development, training, organization development, etc *(NIBL Annual Report, 2009: 15).*

There is a long-standing argument about where HR-related functions should be organized into large organizations, e.g., "Should HR be in the Organization Development department or the other way around?"

The HRM function and HRD profession have undergone tremendous change over the past 20-30 years. Many years ago, large organizations looked to the "Personnel Department," mostly to manage the paperwork around hiring and paying people. More recently, organizations consider the "HR Department" as playing a major role in staffing,

training and helping to manage people so that people and the organization are performing at maximum capability in a highly fulfilling manner.

Recently, the phrase "talent management" is being used to refer the activities to attract, develop and retain employees. Some people and organizations use the phrase to refer especially to talented and/or high-potential employees. The phrase often is used interchangeably with the field of Human Resource Management -- although as the field of talent management matures, it's very likely there will be an increasing number of people who will strongly disagree about the interchange of these fields. For now, this Library uses the phrases interchangeably.

Human resource management (HRM), also called personnel management, consists of all the activities undertaken by an enterprise to ensure the effective utilization of employees toward the attainment of individual, group, and organizational goals. An organization's HRM function focuses on the people side of management. It consists of practices that help the organization to deal effectively with its people during the various phases of the employment cycle, including pre-hire, staffing, and post-hire. The pre-hire phase involves planning practices. The organization must decide what types of job openings will exist in the upcoming period and determine the necessary qualifications for performing these jobs. During the hire phase, the organization selects its employees. Selection practices include recruiting applicants, assessing their qualifications, and ultimately selecting those who are deemed to be the most qualified. In the post-hire phase, the organization develops HRM practices for effectively managing people once they have "come through the door." These practices are designed to maximize the performance and satisfaction levels of employees by providing them with the necessary knowledge and skills to perform their jobs and by creating conditions that will energize, direct, and facilitate employees' efforts toward meeting the organization's objectives.

2.1.14 HRM Development and Implementation Responsibilities
While most firms have a human resources or personnel department that develops and implements HRM practices, responsibility lies with both HR professionals and line

managers. The interplay between managers and HR professionals leads to effective HRM practices. For example, consider performance appraisals. The success of a firm's performance appraisal system depends on the ability of both parties to do their jobs correctly. HR professionals develop the system, while managers provide the actual performance evaluations. The nature of these roles varies from company to company, depending primarily on the size of the organization. This discussion assumes a large company with a sizable HRM department. However, in smaller companies without large HRM departments, line managers must assume an even larger role in effective HRM practices.

HR professionals typically assume the following four areas of responsibility: establishing HRM policies and procedures, developing/choosing HRM method monitoring /evaluating HRM practices, and advising/assisting managers on HRM-related matters. HR professionals typically decide (subject to upper-management approval) what procedures to follow when implementing an HRM practice. For example, HR professionals may decide that the selection process should include having all candidates

- Complete an application,
- Take an employment test, and then
- Be interviewed by an HR professional and line manager.

Usually the HR professionals develop or choose specific methods to implement a firm's HRM practices. For instance, in selection the HR professional may construct the application blank, develop a structured interview guide, or choose an employment test. HR professionals also must ensure that the firm's HRM practices are properly implemented. This responsibility involves both evaluating and monitoring. For example, HR professionals may evaluate the usefulness of employment tests, the success of training programs, and the cost effectiveness of HRM outcomes such as selection, turnover, and recruiting. They also may monitor records to ensure that performance appraisals have been properly completed.

HR professionals also consult with management on an array of HRM-related topics. They may assist by providing managers with formal training programs on topics like selection

and the law, how to conduct an employment interview, how to appraise employee job performance, or how to effectively discipline employees. HR professionals also provide assistance by giving line managers advice about specific HRM-related concerns, such as how to deal with problem employees.

Line managers direct employees' day-to-day tasks. From an HRM perspective, line managers are mainly responsible for implementing HRM practices and providing HR professionals with necessary input for developing effective practices. Managers carry out many procedures and methods devised by HR professionals. For instance, line managers:

- Interview job applicants
- Provide orientation, coaching, and on-the-job training
- Provide and communicate job performance ratings
- Recommend salary increases
- Carry out disciplinary procedures
- Settle grievance issues

2.1.15 Competent Human Resource and Strategic Advantage

They consist of trained and experienced employees possessing competencies in special qualities. They have knowledge, skills, judgment, and adaptability. They have potential for development. They represent a strategic resource. A resource is strength if it provides an organization with strategic advantage over the competitors.

Strategic advantage is gaining advantage over competitors. If the organization has skilled and trained manpower than its competitors then the organization possesses strategic advantage. An organization's unique resources and core competencies determine strategic advantage.. Coe competencies are well-performed activities. They are central to an organization's strategy. They generally reside in people of organization. Strategic advantage outperforms competitors and creates new opportunities.

Strategic advantage focuses on internal scanning to identify critical strengths and weaknesses. It determines whether the organization will be able to take advantage of

opportunities while avoiding threats. It empowers the organization to realize its vision, mission, and objectives *(Agrawal, 2000: 96).*

Human Resource Management Model

The Human Resource Management Model Process is given below first. In which staffing, Employee needs, Performance, Organization needs, Rewards and relation, Performance and punishment play vital role for HRM Model Process. This is only Process which is given below.
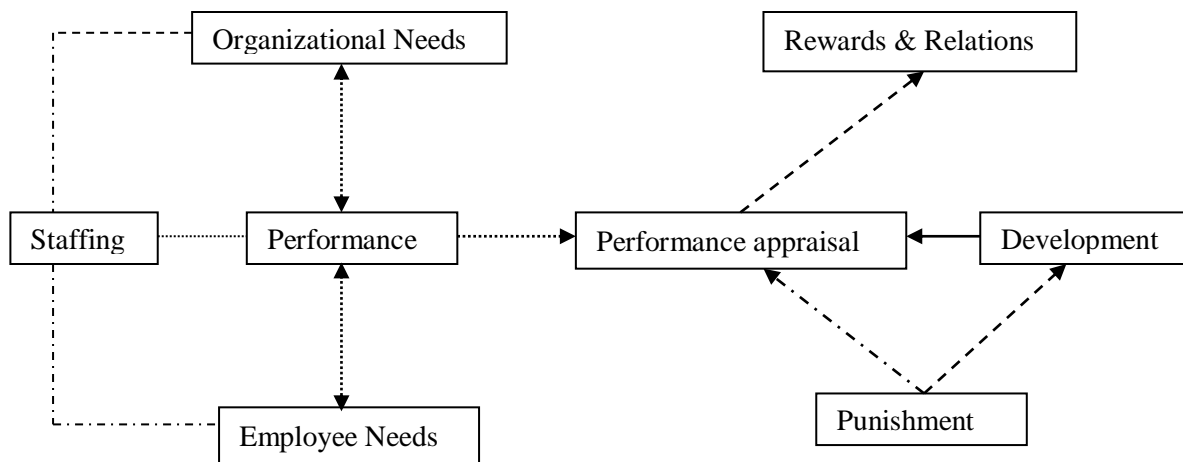

Figure 2.8 HRM Model Process

Human Resource Management Framework Model (HRM FRAM) describes HRM related processes throughout an organization. HRM roles, systems and resources are not considered in the model. The Frame does not represent a specific model currently in use in any particular country or organization. It does, however, describe the processes, and the relationships between processes, of a successful personnel management organization. The HRM FRAM does not aim to represent a rigid rule set mandating how a country should conduct its HRM planning and in what order. What it does aim to do, however, is to highlight the key generic processes that should be considered in order for a country to have a comprehensive, all encapsulating, efficient and dynamic system. The output of all the functions mentioned in the model is the 'Utilization of Personnel', i.e. the supply of skilled and educated personnel to the particular organization. The functions mentioned in

this model are not only relevant to HR departments, but to total personnel management systems. It is important to note that nations should not just consider their future Armed Force needs in terms of absolute value requirements. Consideration should also be made concerning the 'shape' of the force, in order to retain the optimum balance between youth and experience. As such, retention is just as integral a process as recruitment.

Develop and Maintain HR Strategies	Review and Plan HR Requirements
Develop and Maintain HR policies	Manage HRM Process
Administer Personnel	Manage personnel Life Cycle
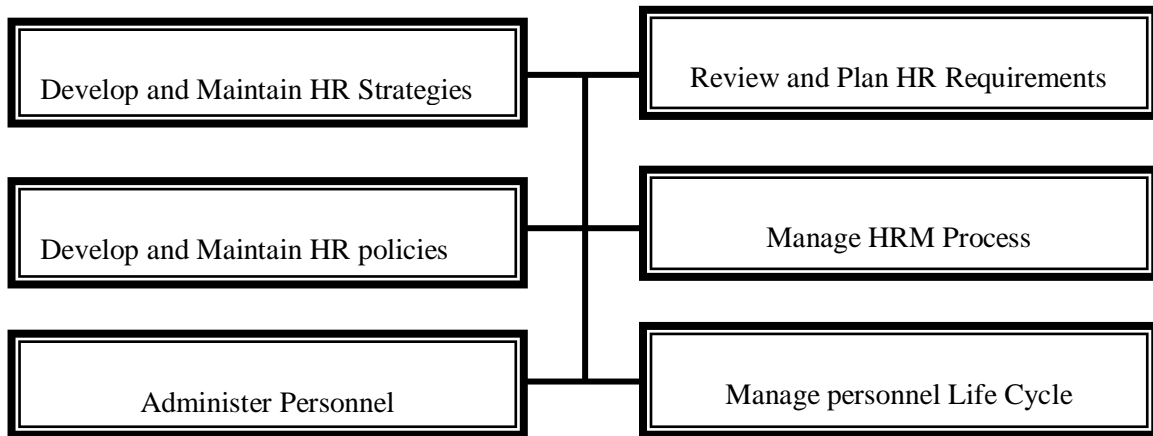
Figure 2.9 HRM Model

The main objective of the HRM FRAM is to create an organization containing the 'right people, in the right posts, at the right time'. All the processes and sub-processes in the model aim to achieve this objective. The FRAM considers ways of recruiting, retaining and discharging personnel. The issues involved in Human Resources Management can be split as operational and strategic HRM. As an example, an operational deal with individuals, such as career planning, whilst strategic focuses on the system as a whole.

Strategic HRM is a general approach to the management of human resources in accordance with the intentions of the organization on the future direction it wants to take. It is concerned with longer-term people issues and macro-concerns about structure, quality, culture, values, commitment and matching resources to future need. Strategic HRM is the overall framework which determines the shape and delivery of the individual strategies.

Operational HRM activities are tactical in nature. Examples of activities are employment applications are processed, current openings are filled, supervisors are trained, safety problems are resolved and wages and salaries are administered. The operational HRM activities should be aligned with the overall HR strategies. The HRM FRAM considers six high-level processes. The Manage Personnel Life-cycle and Administer Personnel processes are operational, and the Review and Plan HR Requirements and Develop and Maintain HR Strategies processes are strategic. Although Managing HRM Processes and Develop and Maintain HR Policies are both operational and strategic level processes, they are considered to be as operational, since most of their sub processes are more operational, than strategic.

Review and Plan HR Requirements is a strategic level process. The highest-level functions of this process are evaluating the Personnel Requirements, Analyzing the Fulfillment Feasibility and Planning Manpower. Personnel requirements need to be evaluated periodically, because of new strategic decisions such as the forming of new military establishments, reorganization or downsizing. Due to various constraints, however, (fiscal, inability to recruit sufficient people), manpower requirements cannot always be met. This is why analyzing the fulfillment feasibility is necessary.

Planning Manpower considers medium and long term financial planning, an assessment of the likely future training requirement and consideration of the future force and manpower structures. Conducting Medium and Long Term Financial Planning process sees the HR practitioners estimating the costs of future manpower, and planning resultant budgets. There is also the 'planning HR enablers' component, which concerns planning for future infrastructure requirements of HRM, such as expert systems etc.

Assessing Training Needs process prevents personnel from being trained unnecessarily and it provides sufficient training to those who need it. It is a strategic level process and does not deal with a single person, but deals with the training needs of occupations and branches as a whole. It enables groups to fulfill their missions and achieve their strategic

goals. Planning Manpower Structure consists of planning the billet and hierarchical structure of future manpower.
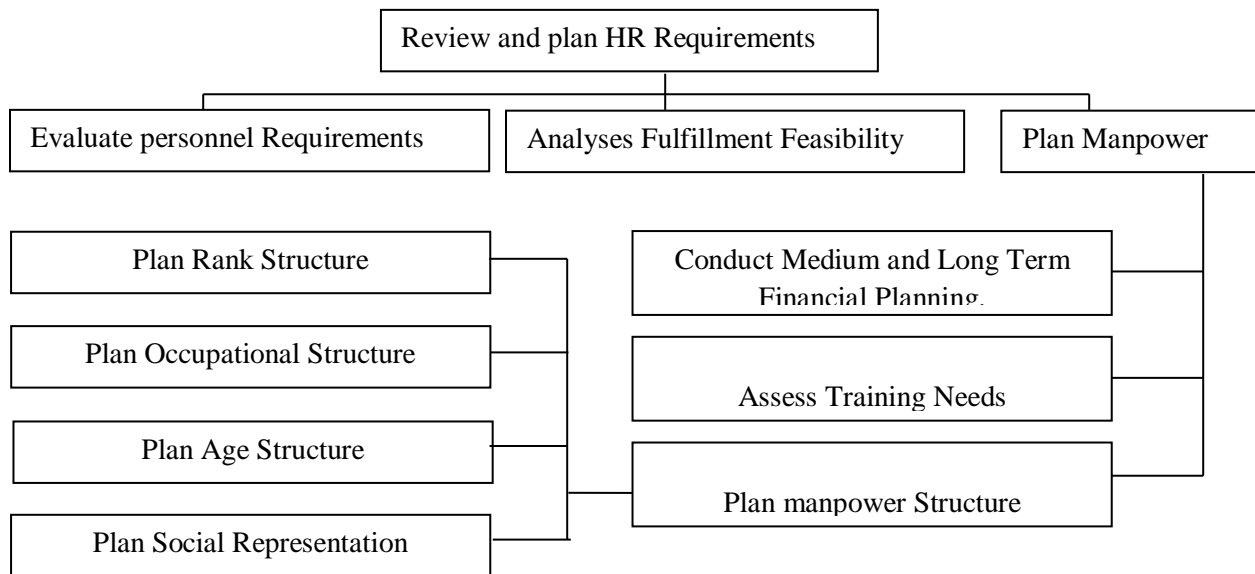

Figure 2.10 Human Resource Management Frame work Model

HR Planning Model

To determine HR requirement, different steps should be gone through.

The manpower structure can be planned, based on a combination of:

- Planning the Occupational Structure, which determines the ratios of officers/petty officers/enlisted etc. within the force,

- Planning the Age Structure, which determines the age limits of the ranks for different occupations,

- Planning the Rank Structure, which determines the ratios of ranks within occupations

- Planning Social Representation, which determines the ratios of personnel in terms of gender, ethnicity and other factors. It also determines which branches are open to all and which are only open to certain groups.
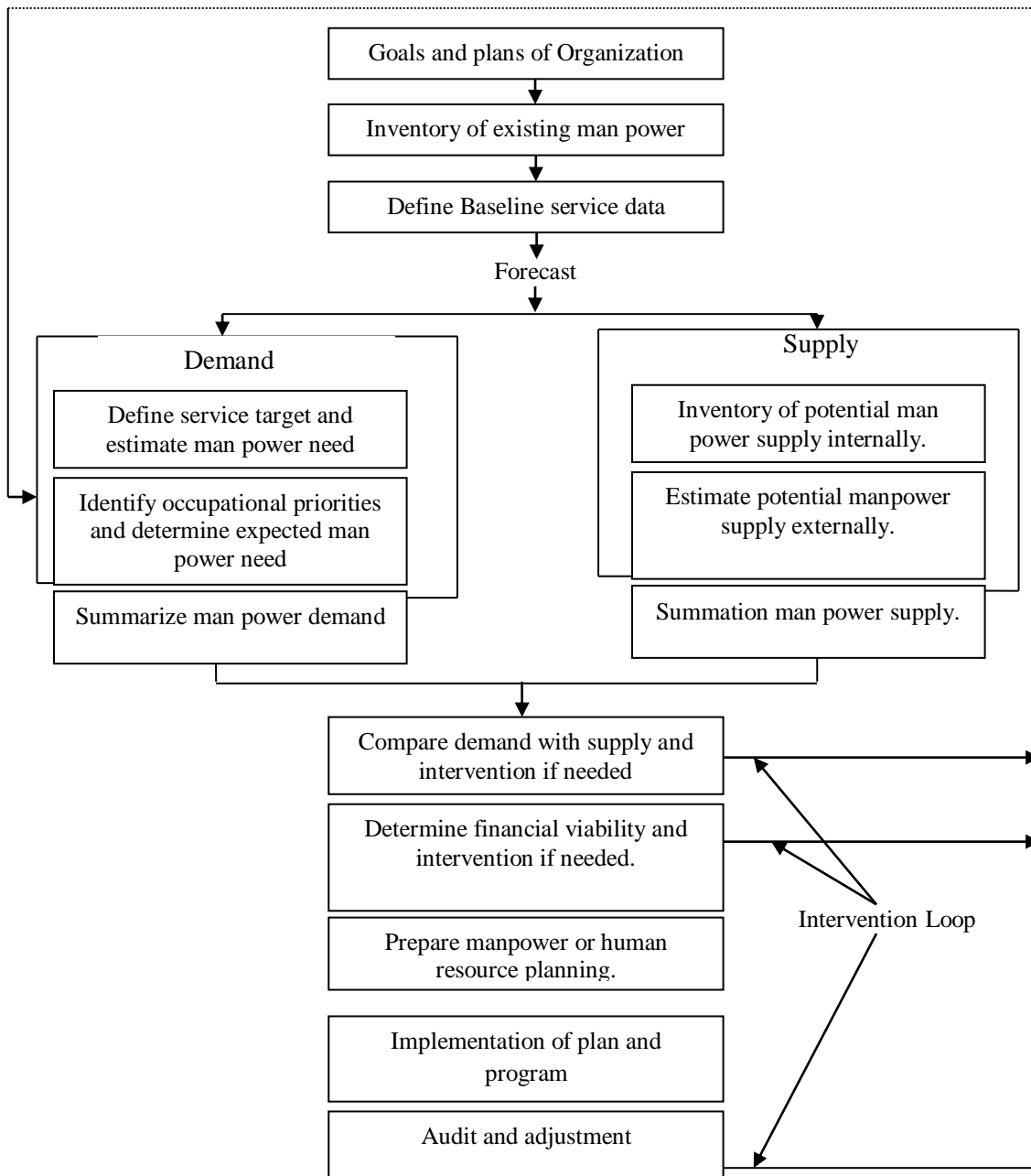
Figure 2.11 HR Planning Model (Steps of Determining HR Requirement)

Interpretation

Human resource Planning is the process by which an organization ensures that it has the right kinds of people, at the right place, at the right time, capable of effectively and efficiently completing those tasks that will help the organization achieve its overall objectives. The purpose of human resource planning is to assess where the organization

is, where it is going, and what implications these assessments have on future supplies of and demands for human resources.

Table 2.3

Organization and 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, Problem solving, Monitoring & Achieving Business Goals,	Exception, Precise, Analytical Decision , Related to past, Current future	High, Meeting Risky situation	Adhoc, Unformatted, Regular but Modified frequent, Display & Print
Supervisory Jr. Managers Officers Supervisors	Problems 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

2.2 Review of Articles

Carter McNamara (2011) in her article *"All About Human Resources and Talent Management"* mentioned that the human resource management (HRM) function includes a variety of activities, and key among them is responsibility for human resources -- for deciding what staffing needs you have and whether to use independent contractors or hire employees to fill these needs, recruiting and training the best employees, ensuring they are high performers, dealing with performance issues, and ensuring your personnel and management practices conform to various regulations. Activities also include managing your approach to employee benefits and compensation, employee records and personnel policies. Usually small businesses (for-profit or nonprofit) have to carry out these activities themselves because they can't yet afford part- or full-time help. However, they should always ensure that employees have -- and are aware of -- personnel policies which

conform to current regulations. These policies are often in the form of employee manuals, which all employees have.

Sheri Mazurek (2011) in her article *"Ask HR-What is it like to work in HR"* pointed out that human resources (HR) can include a broad spectrum of specialties within organizations. Some examples of specialties include recruiting, payroll, policy, safety, training and development, and performance management. In smaller organizations, the HR professional may handle all of those specialties and in larger organizations, each specialty is most likely its own department.

The roles within HR can vary greatly as well as with many departments from the purely administrative to the executive. Another related and perhaps more important question that is often discussed is, "what should HR be doing?" For me, HR's primary purpose is to ensure that the right people are working in the right places to accomplish the organization's goal.

In other words, HR is responsible to develop programs that will attract, select, develop, and retain the talent needed to meet the organizational mission. So whether you are an HR department of one or a combination of multiple departments that include hundreds of employees, your primary responsibility is talent management.

2.3 Review of Related Research Studies

One important factor underlying systems is that information is a corporate asset and should be recognized as such. In classical economic terms the factors of imports were viewed as land, labor and capital in the modern age, there have become the five M'S: man, money, machine, material and management. To integrate these factors successfully, it is necessary to use information as a sixth factor of imports of petroleum. Although MIS tried to integrate an organization's resources together in a coherent and effective manner, there were shortcomings.

A definition of decision - making activity is often taken for granted and is associated with making a choice among alternatives. Decision – making is the process by which the decision maker moves from a current position to the position in which she or he wants to be. So Decision – making process can be defined as a series of steps that start with an analysis of the information and ultimately culminate in a resolution a selection from the several available alternatives and verification of this selected alternative and verification of this selected alternative to solve the problem understudy *(Adhikari, 2066:40).*

Bhattarai, Tanka Prasad (2008) has conducted a research study entitled *"Human Resource Development in Nepal (A Case Study of Nepal Telecom)"*. He carried out the research studies with the following objectives:

- To examine the existing HRD policies & practices of the company
- To evaluate training and management development practice of Nepal Telecom.
- To assess job satisfaction and career development practices.

His major findings are as follows:

- The training & management was not so practical to work in the job.
- Impact of training and career development program was positive on the respondents view.
- The majority of officers and minority of non-officers are more satisfied in existing telecom training and development policies and practices.
- Job rotation and transfer policies, promotion policies are satisfactory for the entire telecom respondent's view.
- Telecom provided internal and external training. It provides on the job and off the job training.
  The researcher is able to find out the objectives mentioned in the study.

Ishwor Acharya (2002) has conducted research study entitled *"Implementation of Management Information System in Royal Nepal Airlines Corporation" (a Case Study in Marketing Department).* In his master's degree thesis, he used both primary data which are collected through observation, questionnaire and interview methods.

His major findings are as follows:

- A royal Nepal airline is one of the complex organizations due to its nature of services and wide area of marketing activities.
- Lack of capable manpower and IT experts to handle sophisticated information technology to maintain proper information system within the department.
- Centralization of authority, manual flow of documents and unnecessary political pressure generally creates obstacle to perform marketing activities smoothly.
- Traditional paper-based information system creates delay in making decision. It should be eliminated through computerized information system.
- It is difficult to implement MIS due to lack of necessary infrastructure of the marketing department of RNAC such as: equipment & accessories, technical manpower, IT experts and budget for installation of new technology, and others.

Ajit P. Bhattrai (2003) has conducted research entitled "*Performance of Management Information System in Kumara Bank*". His master degree thesis is fully based on primary data collected through observation, direct communication with respondents and by questionnaire method. In his master degree thesis he argues that most organization spend huge amount of resources in setting up MIS infrastructure but on other hand they have not been able to fully capitalize the benefits of MIS, therefore, he tended to study the utilization of MIS and the factors which affect the performance of MIS.

His major findings are as follows:

- Majority of the user 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 satisfactions. Higher management is less satisfied than the middle management.
- There is amole room to increase the use of MIS.
- The factors which will improve the utilization of MIS are: "good communication channel", "training to end user", "and training to software personnel".

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2.4 Research Gap

Gap analysis is a management technique that measures why a company did not reach its expected goals. It can be used by large and small companies, and helps management decide if a new product or service will help an organization successfully enter a new market. Human Resource Management is most important part for the development of an organizations or it is says like a backbone of organizations. HRM is uses in different ways, but in MIS its application is differently use like using of data flow diagram, ERD and others like data dictionary.

Thus this research is different than others research. Its forecasting modeling is different than others as like as questionnaires. Gap analysis is used to determine where shortfalls are occurring while attempting to achieve goals. It can be used by several departments, including marketing, production and accounting. Each department can customize the process for its needs. Typically, business use gap analysis to ensure that they are main-training their competitive edge in an industry.

Different ways of Forecasting

Gap analysis is used to determine if forecasting errors were made regarding market demand. Estimating Human Resource demand, market potential are crucial steps when companies invest in a new product or service. Determining why the estimates were not met is critical in order for management to understand why the forecasts were incorrect.

Production Estimates

Human Resource Production estimates versus actual goods produced and services produces is another use of gap analysis. Actual HR production can vary from estimates for many reasons, including unskilled manpower, improper conversion processes or faulty equipment through high skill manpower. Gap analysis shows management where failures occurred in the production process by breaking down and reviewing each step which is directly proportional to the Human resources management.

Budget Analysis

Gap analysis is a technique for measuring budget overruns. Overruns can be broken down by department and by the managing supervisor, giving management the ability to review financial variances quickly and accurately. Specific problems can then be solved and corrective measures taken to prevent future overruns. Management may also review prices of services and goods if they see that sales are lagging the industry standard. This research is slightly different then other research or research due to I use here different types of tools like ERD and DFD and model for linear programming which helps to forecast the maximum Human resources needed for the company when we take quick decision. On the basis of ERD types which I give one example in this research.

CHAPTER - III

RESEARCH METHODOLOGY

Research methodology is the description of the procedures followed while collecting the necessary data and information needed for the research work. It is a process of systematic and in-depth study of particular subject or topic, backed by the collection, competition, presentation and interpretation of relevant data. For the collection of data different activities were performed; Informal Interview, Observation of the work, study of the related documents and published materials were analyzed. To make the presentation more clear and attractive tabulation and DFD are used.

3.1 Research Design

"Research design is a plan, structure and strategy of investigation conceived so as to obtain answer to research question and to control the variance" *(Kerlinger, 1999).*
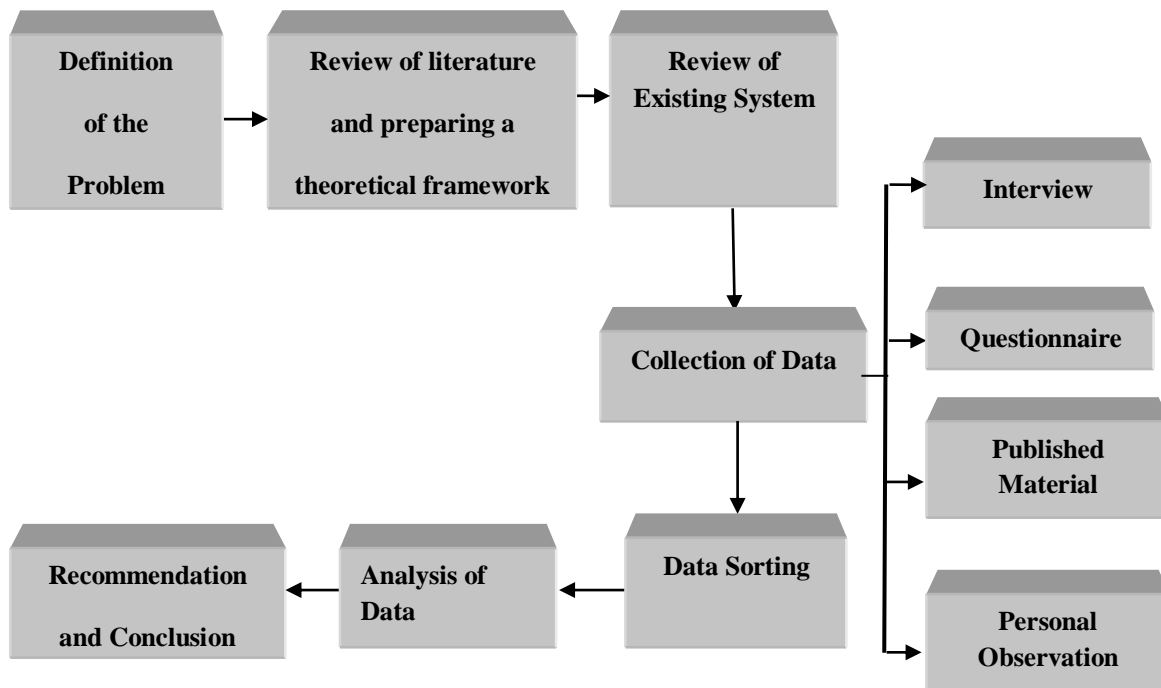
Figure 3.1 Methodology of the Research Design System

Thus, research design is an overall pan or frame work for the collection and analysis of data which provides the frame work for the study, guidelines for the collection and

analysis of data Research design is the process of arriving to the solution of the problem through planned and systematic dealing with the collection, analysis and interpretations of facts and figures. A well-set research design is necessary to fulfill the objectives of any research work.

The analysis of this study is based on certain research design. This study is followed on analytical as well as exploratory research deign. A simple survey is made to collect the opinion of the general public and the concerned personnel regarding the MIS in the NIBL. Thus, the research design here is exploratory and descriptive in nature. This study examines the system with a view to make suggestions for improving the utilization of MIS. Keeping in view the nature of the study, an exploratory research design is applied because it implies to find out the current role of existing Management Information System in an organization.

3.2 Population and Sample

Out 30 commercial Banks NIBL is one of them "Ka" class Bank. The population sizes of commercial Bank are 30 and Sample size is one. These all Banks are under of Nepal Rasta Bank.

3.3 Sources of Data

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

That collected numerical facts can be utilized to examine the problems concerning a field of enquiry in their true prospective, to find out the cause of change and to estimate their probable effects, The statistical methods are also employed as a tool for the comparison

between past and present events to throw light on the reason o f change on the social system and for future plans and programmers.

3.3.1 Primary Data Collection

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

Data Collected Methods

- Observations, survey & inquiries
- Questionnaires
- Interview etc.

3.3.2 Secondary Data Collection

The main difference between primary and secondary data is only of degree one. Data which are originally collected but obtained from some published or unpublished sources are secondary data. The main difference between primary and secondary data is only of degree one. Data which are originally collected but obtained from some published or unpublished sources are secondary data. Annual magazine 2009/2010. Authorized Web site:, Case study Primary Sources: According to Nepal Investment Bank Limited primary data are collected by different related sources like opinion poll , sampling , visiting , accuracy study. Primary Sources: Internal sources, Data are found within a NIBL. External sources, Collected from sources outside the Corporation.

Data Collected Methods

- Annual Report 2008/2009
- Authorized Web site

3.4 Analytical Tools and Technology

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

   a. Algorithm
   b. Pseudo code/ structured English
   c. Flow chart
   d. Data flow diagram
   e. ERD

a. Algorithm

Manually a use tool is algorithm. Step – by – step method of program is called algorithm.

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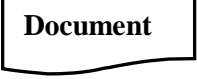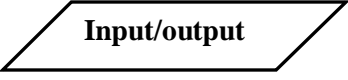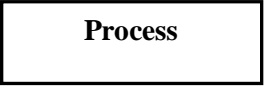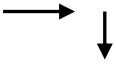
To represent the program by using English with some logical expression like the programs. For an example; If condition, loop streaks, etc.

c. Flow Chart

Program are reported in diagrammatically by using standard symbols is called flow chart. This provides the skeleton of the programmers. The rectangular box represents the process of the flow chart or the system. Circular shape or oval shape represent the Start or end the process or the system of flow chart. Parallelogram type symbol represent the input or output of data. Similarly the kite symbols represent the Decision. On this way the flow chart is planned by the information manager or IT manager or engineer. This provides the skeleton of the programmers. The flow chart is planned by the information manager or IT manager or engineer. Flowchart depicts the logical flow of the process. It is a pictorial representation of the program or an algorithm. It indicates the various steps involved in designing a system which the instructions must be executed of data in the system and defining major phases of processing along with the various media to be used.

The symbols of Flow charts are presented below:

Table 3.1

Flowcharts Object Symbols and Description

Symbol Used	Description
Document	Groups of program instruction, which perform a Processing function of the program.
Input/output	Any function of an input/output device (making information available for processing, recording, Processing information, tape positing, etc.)
Process	A rectangle can represent a single step or an entire sub Process within a larger process.
Decision	The decision function used to document points in the program where a branch to alternate paths is possible based upon variable conditions.
Preparation	An instruction or group of instructions, which changes the program.
Predefined Process	A group of operations not detailed in the particular set of flowcharts.
Connector	The beginning, end, or a point of interruption in a Program.
	The direction of processing or data flow of execution
	Summing Junction

d. Data Flow Diagram (D.F.D.)

DFD is the diagrammatic representation of the flow of data information through a process system or sub-processes/subsystem. It shows how the data are collected from the different sources and how they go through various processes. During the course of analysis, the researcher had to gather enough information. The researcher used DFD to record to record all the information gathered. Graphical representation of a system's data and how the processes transform the data is known as Data Flow Diagram (or DFD). Unlike, flowcharts, DFDs do not give detailed descriptions of modules but graphically

describe a system's data and how the data interact with the system. DFDs are constructed using four major components: external entries, data stores, process and data flows. DFD is a graphical tool used to describe and analyze the movement of data through a system-manual or automated- including the process, stores of data through a system. The DFD shows the inputs and outputs clearly. The DFD has the basic elements namely source, data store and destination. DFD of a system is presented by using context level and system level. The researcher has used Game/Sarson approach to represent the logical flow of the data.

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

Levels of D.F.D
1. Context level D.F.D
2. System level D.F.D
   - Zero level D.F.D
   - One level D.F.D
   - Two level D.F.D

1. Context Level DFD

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

The first step is constructing a set of DFDs is to draw a context diagram. A context diagram is a top-level view of an information system that shows the system's boundaries and scope. To draw a context diagram, I start by placing a single process symbol in the center of the page. The symbol represents the entire information system, and you identify it as process 0. Then I place the internal entities around the perimeter of the page and use data flows to connect the entities to central process. I do not show any data stores in a

context diagram because data stores are the internal system. How do I know what internal entities and data flow to place in the context diagram? I begin by reviewing the system requirements to identify all internal data source and destination. During that process, I record the name of the entities the name and the context of the data flows, and the director of the data flow.
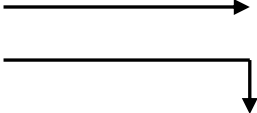
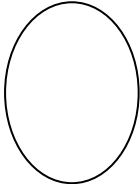## 2. System (Zero, One, Two) Level DFD

Expansion of the single process of the context level into multiple processes is Zero level DFD and Expansion of the sub-process into multiple process from zero level DFD is the one level DFD.

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

Process Symbol

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

Table 3.2

DFD Object Symbols and Description

Objects	Symbol Used	Description
External Entity		It is a person or group, which interacts with the system, something outside the system. It is not a user. e.g., Employee, Supplier, Government Agency, Accounting Department, Human Resources System, etc.
Data Flow		It is the directional movement of data to and from External Entities, the process and Data Stores. In the physical model, when it flows into a data store, it means a write, update, delete etc. Flows out of Data Stores mean read, query, display, select types of transaction.
Data Store		It is a repository of information. In the physical model, this represents a file, table, etc. In the logical model, a data store is an object or entity.
Process (Activity, Function)		Depending on the level of the diagram, it may represent the whole system as in a Context (level 0) diagram or a business area, process (activity), function, etc. in lower levels.

A brief description of the above components is given as hereunder:

i) External Entities

External entities represent the source of data as input to the system. They are also the destination of system data. External entities can be called data stores outside the system. These are represented by squares.

ii) Data Flows

Data flows represent the movement of data from one component to the other. An arrow

Identifies data flow – data in motion. It is a pipeline through which information flows: Data flows are generally shown as one-way only. Data Flows between external entities are shown as dotted lines.

iii) Data Stores

Data stores represent stores of data within the system. Examples: computer files or databases. An open-ended box represents a data/store – data at rest or a temporary repository of data.

iv) Process

Process represents activities in which data is manipulated by being stored or retrieved or transferred in some way. In other words we can say that process transforms the input data into output data. A rounded rectangle stands for a process that converts data into information.
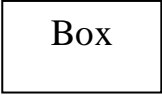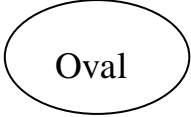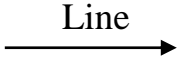
v) Entity Relationship Diagram (ERD)

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

To provide the control and work with multiple fields certain relationship are generated and present with a diagram called the entity relationship diagram. There are three types of relationships between entities. They can be shown in and entity-relation diagram. Also known as E-R Diagram.

- One – To – One
- One – To – Many
- Many – To – Many

Table 3.3

Symbols

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

3.4.1 Tables and Figures

Some tables and figures are so important for the correct evaluation of the business or the position about the corporation if they are correct. Some important tables and figures are presented here, which are so important for the decision making or this research?

CHAPTER - IV
SYSTEM ANALYSIS, DESIGN AND
DATA PRESENTATION

4.1 Organization Structure

Corporate organizational structure has changed in recent years. As Part of downsizing and business process re – engineering, many companies reduces the number of management levels and delegated responsibility to operational personnel. Pyramid structure depends on no of employers. The bottom functions are day to day work. No any inputs from tactical level except operational management. Day to Day activities handles on operational levels.

Organizational structure has changed in recent year. As part of downsizing and business process re-engineering many companies reduced the number of management levels and delegated responsibility to operational personnel. Although the organization chart tends to be somewhat flatter a traditional hierarchy still exists in most companies. Formal and informal framework of policies and rules, within which an organization arranges its lines of authority and communications, and allocates rights and duties. Organizational structure determines the manner and extent to which roles, power, and responsibilities are delegated, controlled, and coordinated, and how information flows between levels of management.

This structure depends entirely on the organization's objectives and the strategy chosen to achieve them. In a centralized structure, the decision making power is concentrated in the top layer of the management and tight control is exercised over departments and divisions. In a decentralized structure, the decision making power is distributed and the departments and divisions have varying degrees of autonomy. An organization chart illustrates the organizational structure.
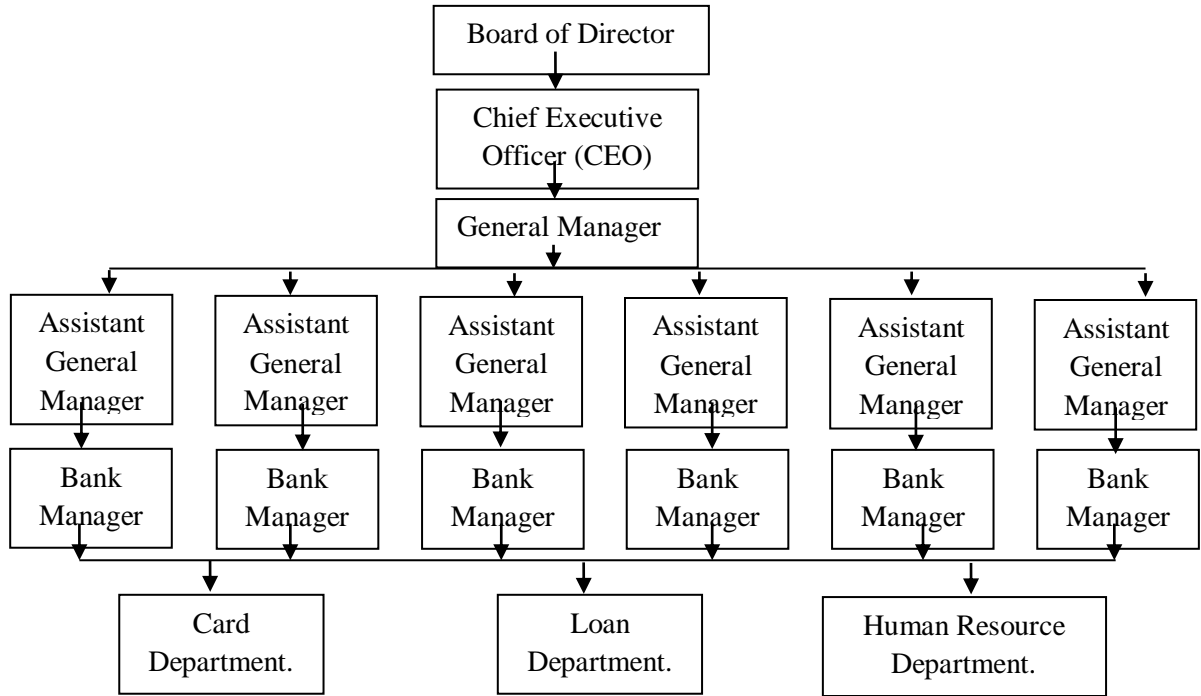
Figure 4.1 The Organizational Chart of Nepal Investment Bank Limited

4.2 Sources of Information

Information can be defined as the data, which can be organized and presented so that the decision maker may take the necessary action. In other word, information is the result of processing data. It is clear that information consists of data that has been retrieved, processed or otherwise used, for informative purposes. Information contains an element of surprise, reduces uncertainty and triggers off action. The conversion process of data into decision is shown in the figure below:

Figure 4.2 Sources of Information

The main sources of information are primary information and secondary information, which is listed in below:

A. Primary information

B. Secondary information

A. Primary Information

Such information which I collected from different sources without direct visiting is primary information. I collected information from Annual Report issued from Nepal Investment Bank Limited. Other information from daily newspapers like "Karobar", The Himalayan Times, Gorkhapatra, Kantipur, The economist Post, Times Nepal and Indian news papers where there published about NIBL Primary information are really untruth may be truth which are confirmed by the help of secondary information.

Presentation and Analysis of Primary Data

The primary data were collected by distributing the questionnaire to the users of officers' level who in the normal operations of the business makes the decisions. The primary data facilitates us too know the different view and hypothesis of the users of the information required in the organization. Analysis of Primary data deals with the qualitative aspects of information and MIS. The analysis is based on the opinion of the respondents.

The response from the responded in the query is mentioned and analyzed her point wise as per the questionnaire distributed.

A. Do you have knowledge of E-Attendance System?

Table 4.1

Having knowledge of E-Attendance System

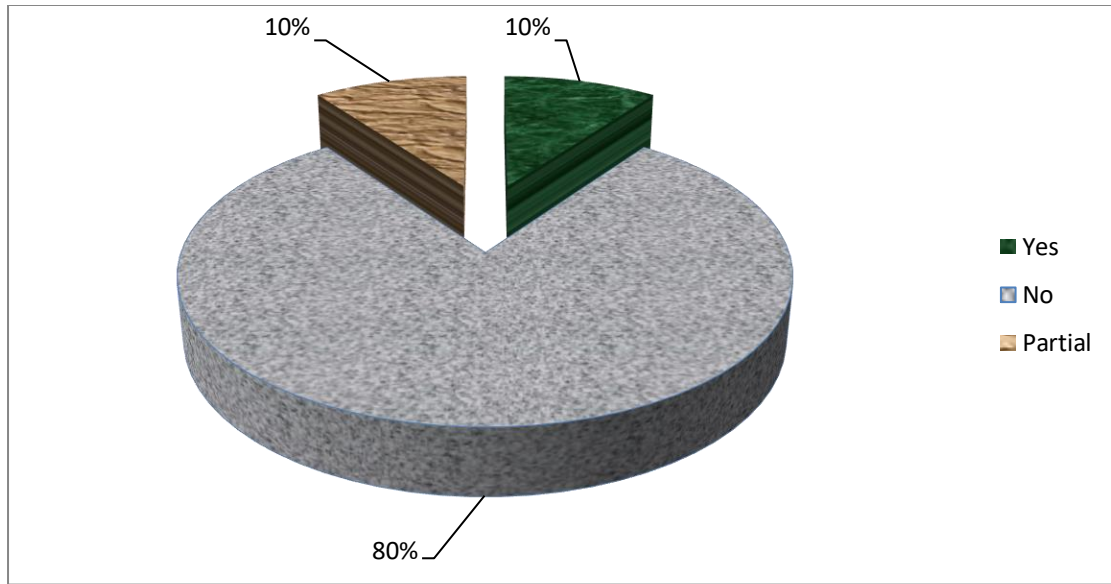| Particulars	Response	Percentage (%)
Yes	2	10%
No	16	80%
Partial	2	10%

Figure 4.3 Pie chart of having knowledge of E-Attendance System

Interpretation

The above figures reflect that most of the Employee (80%) does not have good knowledge of E-Attendance System and where as only 10 % Employee have knowledge of E-Attendance System and remaining 10% Employee have partial knowledge only.

B. Do you get Required data Information through Network (LAN & WAN) for MIS Purpose?

<div align="center">

Table 4.2

Access of data Information Through Network for MIS Purpose

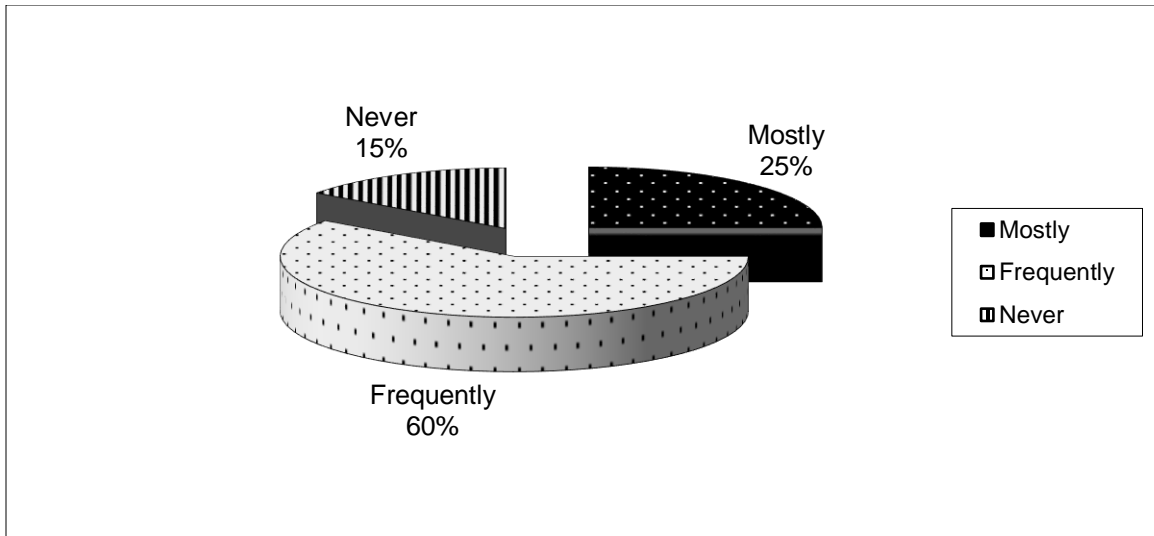| Particulars	Response	Percentage (%)
Mostly	10	25%
Frequently	24	60%
Never	6	15%

</div>

Figure 4.4 Pie chart of Access of data Information through Network for MIS

Interpretation

As per above figure and chart, most of the bank's staff (60%) access the data information through network for day to day operation for MIS purpose frequently whereas 25% of bank's staff use network mostly and 15 % bank's staff never accesses through it.

C. Do you satisfied with Existing HRM System?

Table 4.3

Satisfaction with Existing HRM System

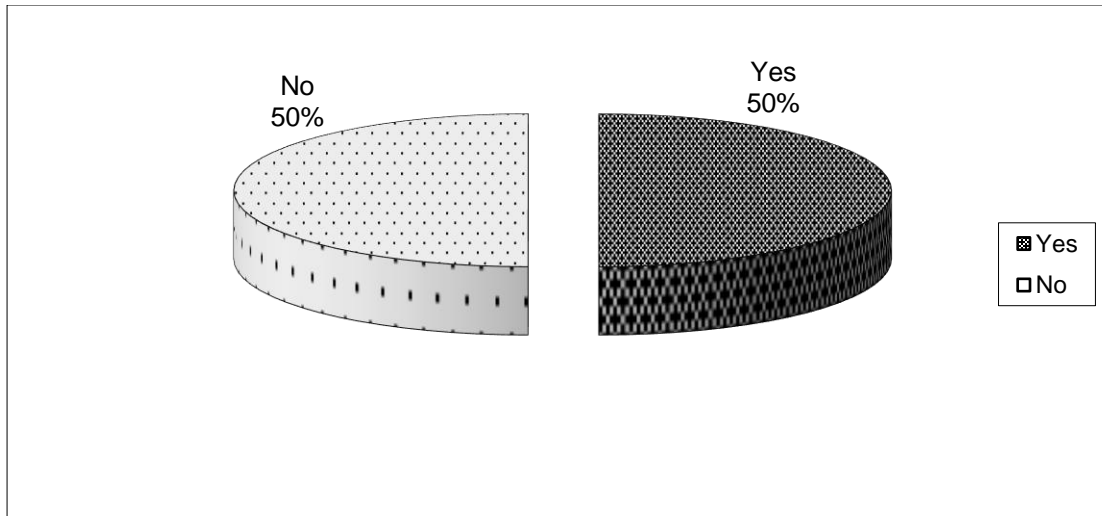| Particulars	Response	Percentage (%)
Yes	10	50%
No	10	50%

Figure 4.5 Pie chart of Satisfaction with Existing HRM System

Interpretation

As per above chart and figure, 50% of the Employees are satisfied with the existing HRM System whereas 50% of the Employees are not satisfied with the existing HRM System.

D. Do you need to Modified Existing HRM System?

Table 4.4

Modified Existing HRM System

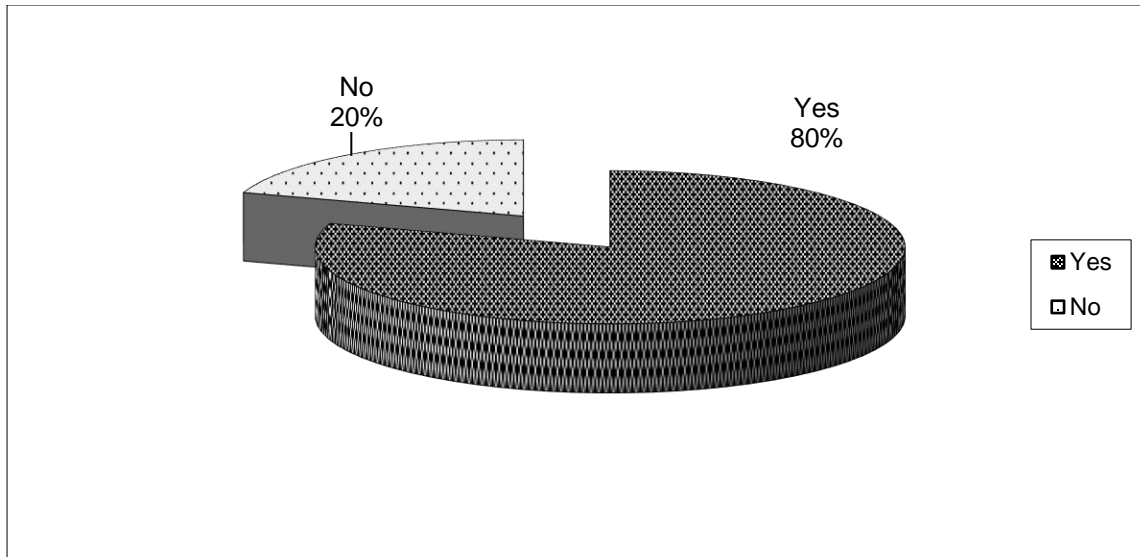| Particulars	Response	Percentage (%)
Yes	16	80%
No	4	20%

Figure 4.6 Pie chart of Modified Existing HRM System

Interpretation

As per above chart and figure ,80% of the Employees need to modified existing HRM system whereas 20% of the Employees does not need to modified existing HRM system .

B. Secondary Information

Those information which are collected through directly visited to the related office is secondary information. Secondary information which I collected information through direct visited to NIBL. Manager of NIBL in department of Information technology helped me providing information in detail form.

4.3 DFD of Existing System

The data flow diagram of the existing system related to the Sales order entry and processing system. The data flow diagram of the existing system is presented below.

4.3.1 Context Level DFD

In this level the frame work of HRM control system is presented. The HRM control system of Nepal Investment Bank Limited is clearly shown in the given context level

65

diagram. The single process is HRM system. Single external entity is employees who create link to the process.

Submit detail Bio-Data

Granted for job

Employee

Nepal Investment Bank Limited

Dedication, Authorize
And Time sheet.
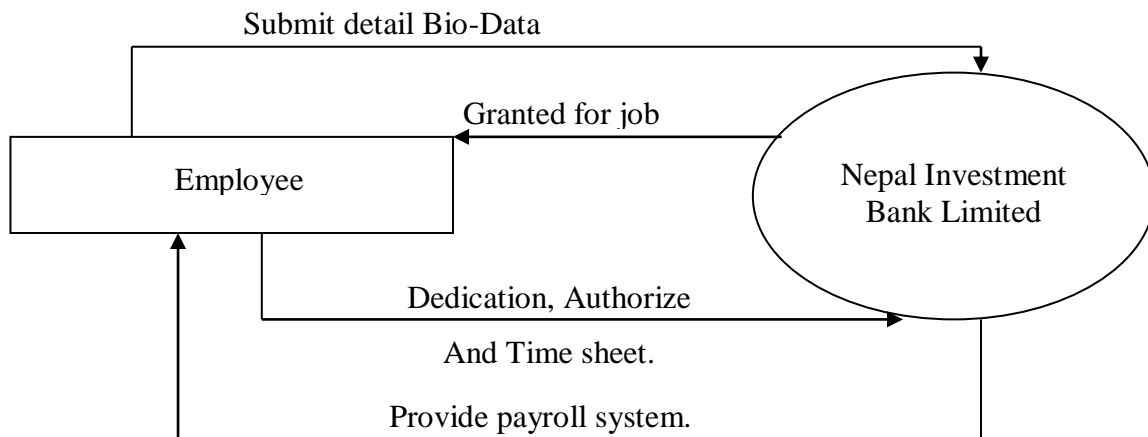
Provide payroll system.

Figure 4.7 Context diagram of HRM Control System

Employee is external entity and the Nepal Investment Bank limited is internal entity. The whole system is depending on the external entity. Four processes followed. Here is focused on the extremely on pay roll system.

4.3.2 System Level DFD

In this system level data flow diagram the Sales order data base file keep the record through different Employees and process and provide data as per required. The most important part is query process which is shown in the given figure. A context diagram provides the most generals view of an information system and contain a single process symbol, which is like a black box. To show the details inside the black box, which is shown in the below diagram. Data Flow Diagrams (DFDs) model that perspective of the system that is most readily understood by users – the flow of information around the system and the activities that process this information.
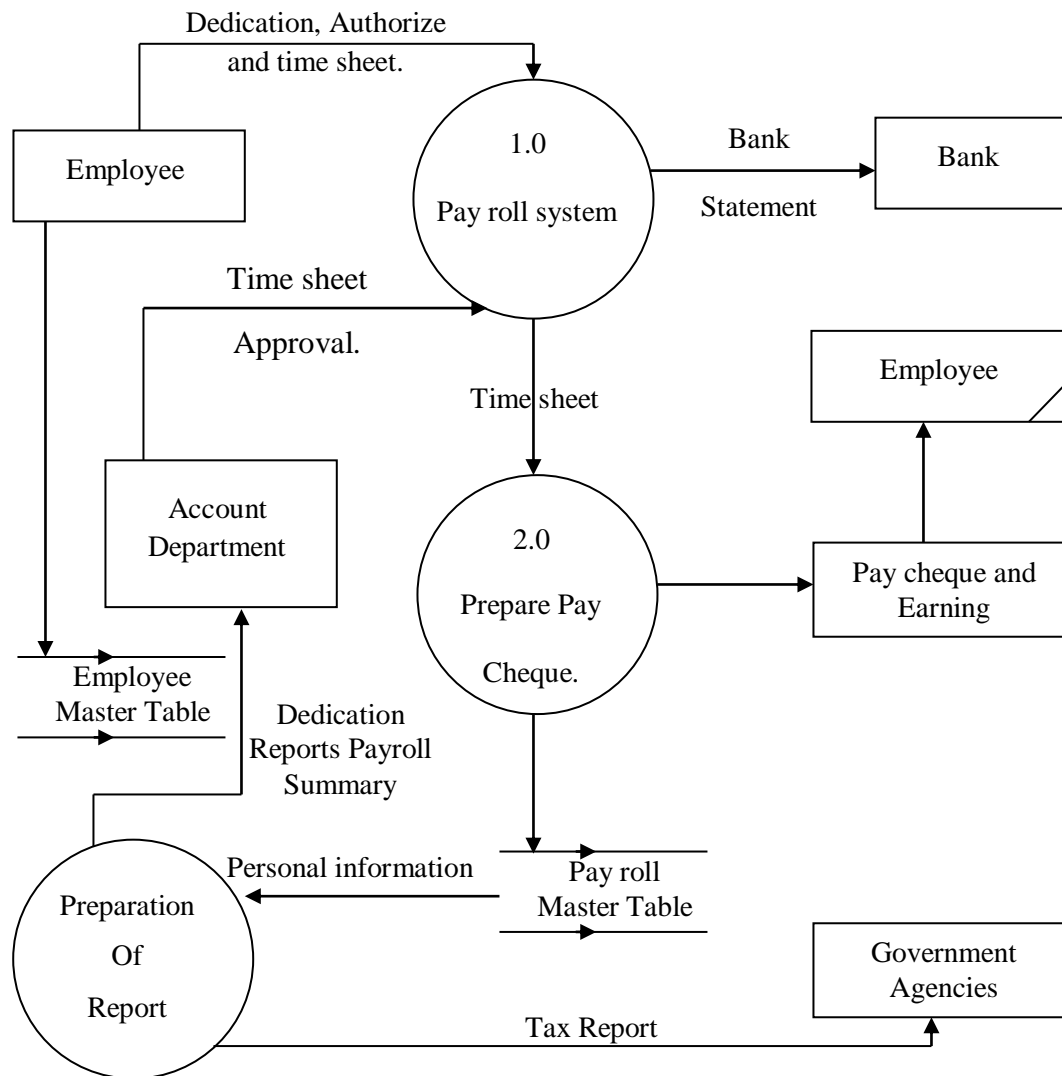
Figure 4.8 Zero Level DFD

Interpretation

Data Flow Diagrams provide a graphical representation of the system, which aims to be accessible to computer specialist and non-specialist users alike. The models enable analysts and users to work together effectively, during the analysis and specification of requirements. Although this means that users are required to understand the modeling techniques and constructs, in data flow modeling only a limited set of constructs are used, and the rules applied are designed to be simple and easy to follow. These same rules and constructs apply to all data flow diagrams (i.e. for each of the different system life cycle stages in which DFDs can be used).

This is zero level DFD of Human Resource Management control system.

4.4 Analysis of Existing Technology

Supplier – Technology

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

Scale – Technology

Advantages are gained from economies of scale and learning results from that scale.

Information – Technology

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

Science – Based Technology

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

Service – Technology

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

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

- Personal computers
- Software
- Communication networks greatly effective for the corporation.

NIBL paying 20 to 25 lakhs for the record sales order processing system determination software technology to the plats on net software.

4.5 Limitation of Existing System

Some limitations are mentioned as point based below:

- This technology is expensive.
- These technology is old and non systematic.
- Existing technology is not so convenience.
- Existing technology is long time process.

4.6 Concept of new system or modify the System

The new system is modified system of existing system. The new one can measure the actual time in and time out of employees.

In the new system there is also context level DFD and system level DFD, which is presented below. The new system is defined under the similar to the existing but, new system collect the actual time of each employees of the NIBL Bank, which overcome can be cost reduced by this new system.

4.7 Comparison between New and Existing System

There is huge comparison between new system and Existing system. Existing (manual entry) is system old and expensive system. It is quite good for daily attendance. The existing system is traditional system but the new system is worldwide system in developed countries using this system.

Table 4.5

Comparison between New and Existing System

Existing System	New System
1. The main problem of existing system is that it cannot find the actual time in and time out of the employee.	1. The modified system can find the actual time in and time out of the employee.
2. The existing system is too long to overview (see) the actual attendance of the particular employee.	2. The modified system is easy and quick within a second we will be able to overview the actual attendance of the particular employee.
3. The existing system looks costly and has minimal Effectiveness and efficiency.	3. The modified system is economical and effective; efficiency in work will increase significantly.
4. The existing system is non- reliable and non-computerized (manual) system.	4. The modified system is reliable and fully computerized system.
5. The existing system is just benefit to the employee only.	5. The implementation of New System will benefit to both customers & to the bank.

4.8 Application Modeling

Time-Critical Decision Modeling and Analysis

The ability to model and perform decision modeling and analysis is an essential feature of many real-world applications ranging from emergency medical treatment in intensive care units to military command and control systems. Existing formalisms and methods of inference have not been effective in real-time applications where tradeoffs between decision quality and computational tractability are essential. In practice, an effective approach to time-critical dynamic decision modeling should provide explicit support for the modeling of temporal processes and for dealing with time-critical situations.

One of the most essential elements of being a high-performing manager is the ability to lead effectively one's own life, then to model those leadership skills for employees in the

organization. This site comprehensively covers theory and practice of most topics in forecasting and economics. I believe such a comprehensive approach is necessary to fully understand the subject. A central objective of the site is to unify the various forms of business topics to link them closely to each other and to the supporting fields of statistics and economics. Nevertheless, the topics and coverage do reflect choices about what is important to understand for business decision making. Almost all managerial decisions are based on forecasts. Every decision becomes operational at some point in the future, so it should be based on forecasts of future conditions.

Forecasts are needed throughout an organization and they should certainly not be produced by an isolated group of forecasters. Neither is forecasting ever "finished". Forecasts are needed continually, and as time moves on, the impact of the forecasts on actual performance is measured; original forecasts are updated; and decisions are modified, and so on.

For example, many inventory systems cater for uncertain demand. The inventory parameters in these systems require estimates of the demand and forecast error distributions. The two stages of these systems, forecasting and inventory control, are often examined independently. Most studies tend to look at demand forecasting as if this were an end in itself or at stock control models as if there were no preceding stages of computation. Nevertheless, it is important to understand the interaction between demand forecasting and inventory control since this influences the performance of the inventory system. This integrated process is shown in the following figure:

Forecasting within an Organization: Forecasting and Managerial Decision Making
The decision-maker uses forecasting models to assist him or her in decision-making process. The decision-making often uses the modeling process to investigate the impact of different courses of action retrospectively; that is, "as if" the decision has already been made under a course of action. That is why the sequence of steps in the modeling process, in the above figure must be considered in reverse order. For example, the output (which is the result of the action) must be considered first. It is helpful to break the components

of decision making into three groups: Uncontrollable, Controllable, and Resources (that defines the problem situation).
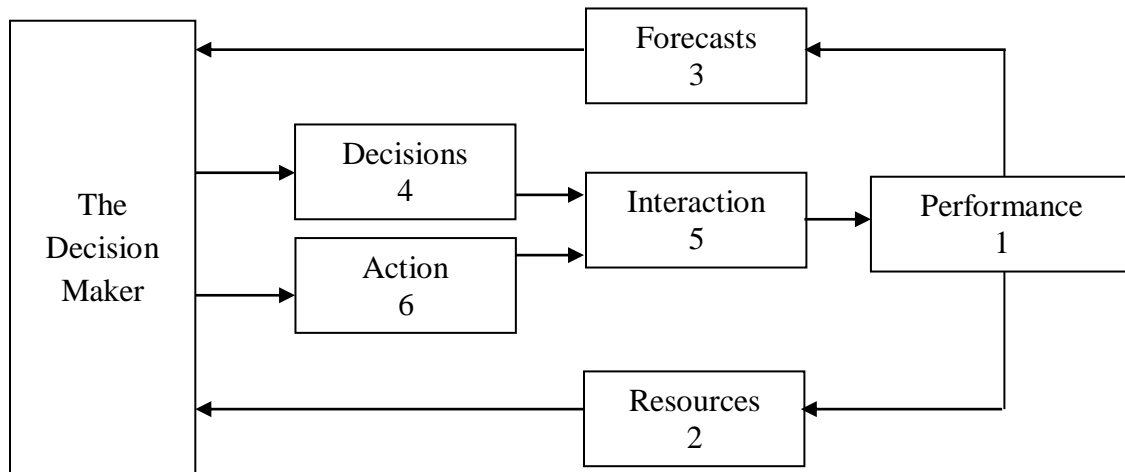

Figure 4.9 Forecasting within an Organization (Forecasting and Managerial Decision Making)

Forecasting Model for Management in 2015 AD.

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

Where,

      Y = unknown economic variable

      a & b = constant

      b = trend line

      a = intercept of y

      x = Known time variable.

We can use least square method in equation

      $\Sigma y = na + b\Sigma x$…………………………… (i)

      $\Sigma xy = a\Sigma x + b\Sigma x^2$ …………………… (ii)

      As $\Sigma x = 0$,

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

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

On this way we can determine the value of a and b and substitute the value of a and b in to the y = a + bx equation and we can forecast the value of required time period.

Table 4.6

Forecasting Model for Management in 2015 AD.

Years (X)	Mgmt team (Y'0)	X = X – 2007	X^2	xy	y_c
2005	30	-2	4	-60	23
2006	33	-1	1	-33	35
2007	38	0	0	0	47
2008	57	1	1	57	59
2009	79	2	4	158	71
Total	**ΣY=237**	**Σx=0**	**$\Sigma x^2 = 10$**	**Σxy = 122**	

Let the trend time be

$Y = a + bx$………………….…… (i)

As $\Sigma x = 0$.

$a = \frac{\Sigma y}{n} = \frac{237}{5} = 47.4$ approximately a = 47.

$b = \frac{\Sigma xy}{\Sigma x^2} = \frac{122}{10} = 12.2$ approximately b = 12.

From the trend line Y = a + bx

$Y = 47+12(-2) = 23.$

$= 47+12(-1) = 35.$

$= 47+12(0) = 47.$

$= 47+12(1) = 59.$

$= 47+12(2) = 71.$

Now for the 2015 A.D, Total No. management team forecasted = 47+12(8) =143 i.e1430
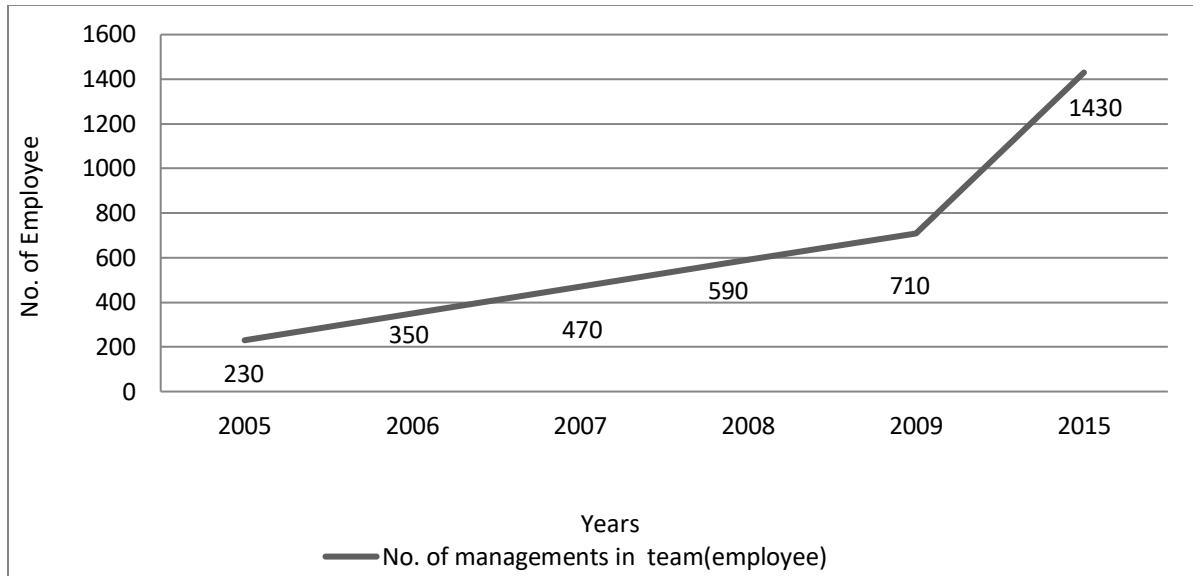
Figure 4.10 The Trend Line Projection for the no. of Estimated Management team in 2015 AD.

The above trend line projection is forecasting graph which shows the no. of management (employees) in 2015 AD 1430. This is used for the forecast data. The graph showing in 2005 there are only 230 no. of management's team & 350 staff (management team) are in 2006 and the no. of staff or member are increasing slowly in year wise.

For the year 2009 the no. of staffs are rapidly increase then previous year 2008, 2007 and become 710 staffs.

After five years same ration of work and branches are open in Nepal then the no. of staffs are also increase up to 1430 numbers.

	A	B	C	D	E	F
1			Nepal Investment Bank Limited			
2		Forecasting model of Management team No. in 2015 AD				
3			From the Year 2005 to 2009			
4	Year	Mgmt team	x = X - Mid Year	Square of x	xy	Yc
5		Imports Data	A5- Mid year	C5*C5	C5*B5	B10/A10+E10/D10(A5)
6			A6- Mid year	C6*C6	C6*B6	B10/A10+E10/D10(A6)
7			A7- Mid year	C7*C7	C7*B7	B10/A10+E10/D10(A7)
8			A8- Mid year	C8*C8	C8*B8	B10/A10+E10/D10(A8)
9			A9- Mid year	C9*C9	C9*B9	B10/A10+E10/D10(A9)
10	No. of Years	Sum of B5 to B9	Sum of C5 to C9	Sum of D5 to D9	Sum of E5 to E9	

The given model for forecasting the Number of Employee in 2015AD of NIBL which is prepared on Excel sheet is shown above:

4.9 DFD, DD, ERD for New System

New DFD of HR control system (Zero level Diagram).

Processes — the activities carried out by the system which use and transform information. Processes are notated as rectangles with three parts, such as 'Order Supplies' and 'Make Payments' in the example above.

Data flows — the data inputs to and outputs from to these activities. Data flows are notated as named arrows, such as 'Delivery' and 'Supply Order' in the example above.

External entities — the source from which information flows into the system and the recipients of information leaving the system. External entities are notated as ovals, such as 'Supplier' in the example above.

Data stores — where information is stored within the system. Data stores are notated as rectangles with two parts, such as 'Supplier Details' and 'Orders' in the example above. The diagrams are supplemented by supporting documentation including a data dictionary, describing the contents of data flows and data stores; and process definitions, which provide detailed descriptions of the processes identified in the Data Flow Diagram.
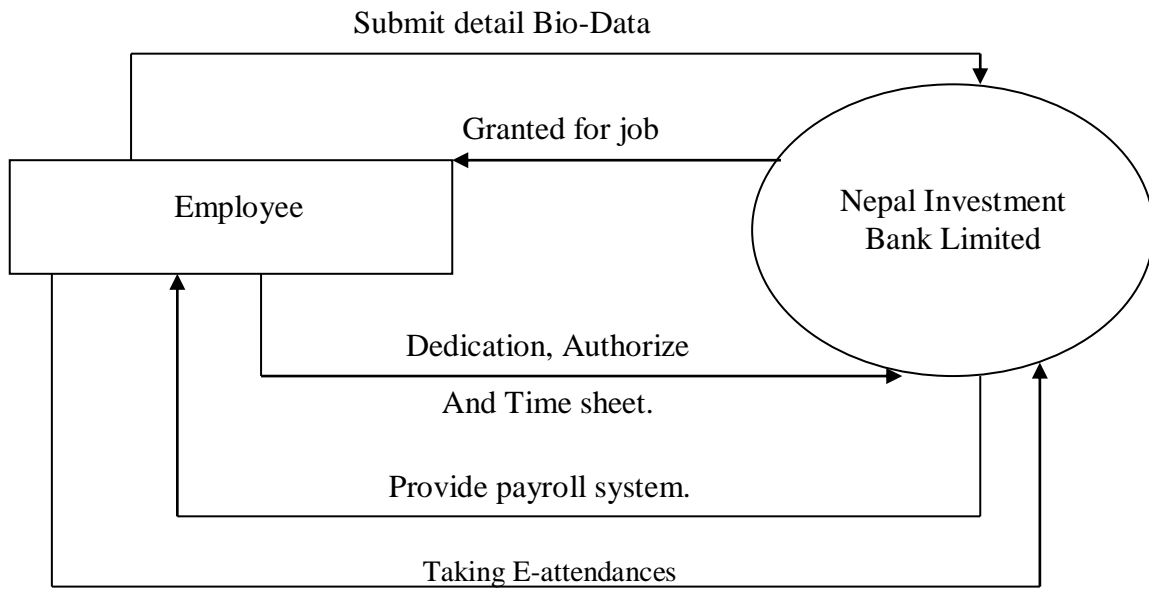
Figure 4.11 New DFD of HR Control System

The Context Diagram is used to establish the context and boundaries of the system to be modeled — i.e. which things are inside and outside of the system being modeled, and what is the relationship of the system with these external entities. A Context Diagram, sometimes called a Level 0 Data Flow Diagram, is drawn in order to define and clarify the boundaries of the investigation. It identifies the flows of information between the system and external entities. The entire system of interest is shown as a single process. A possible context diagram for the Video-Rental LTD case study is shown below:
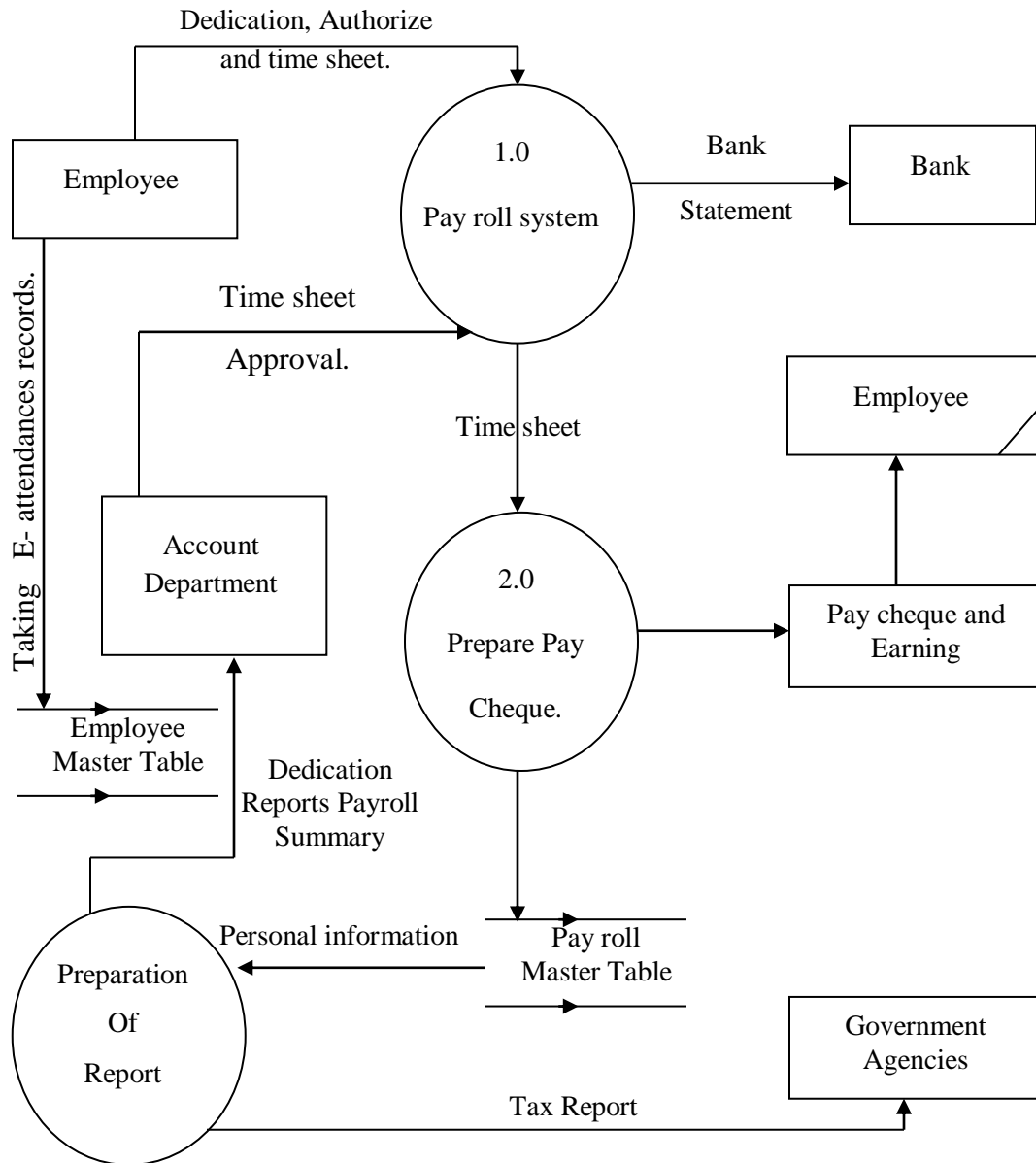
Figure 4.12 New Context Level DFD of HR Control System

The process of establishing the analysis framework by drawing and reviewing the Context Diagram, inevitably involves some initial discussions with users regarding problems with the existing system and specific requirements for the new system. These are formally documented along with any specific system requirements identified in previous studies. Having agreed the framework, the detailed investigation of the current system must be planned. This involves identifying how each of the areas, included within

the scope, will be investigated. This could be by interviewing users, questionnaires to users or clients, studying existing system documentation and procedures, observation etc. Key users are identified and their specific roles in the investigation are agreed.

Data Dictionary (DD)

The Employees relation scheme attributes are:

- Employee I.D., an arbitrary number or other unique identifier that we specify.
- Employee first name, a person's first name.
- Employee last name, a person's last name.
- Employee phone, a valid telephone number.
- Employee Street, a street address.

The primary key attribute of the Employees relation is the Employee I.D.; the attributes first name, last name, and phone are a candidate key.

The Orders relation scheme attributes are:

- Employee I.D., foreign key from Employees.
- Job date, a calendar date possibly with the clock time.

The primary key attributes of the job relation are the foreign key Employee I.D. plus the job date.

The Service Products relation scheme attributes are:

- Service product, a company name.
- Level, a destination service by the NIBL.

The primary key attribute of the Products relation is the universal service product code; the attributes models are a candidate key.

An alphabetized list of all data elements by name.

- A report by user departments of data elements that must be updated by each department
- A report of all data flows and data stores that use a particular data element.

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

Some attributes use and their variable are given below.

Table 4.7

Example of Data Dictionary

Attributes	Variables
Name	Character (40)
Address	Character (40)
Qualification	Character(20)
Age	Number (2)

ER Diagram

Also called an entity-relationship model, a graphical representation of entities and their relationships to each other, typically used in computing in regard to the organization of data within databases or information systems. An entity is a piece of data-an object or concept about which data is stored. A relationship is how the data is shared between entities. There are three types of relationships between entities:

One-to-on

One instance of an entity (A) is associated with one other instance of another entity (B). For example, in a database of employees, each employee name (A) is associated with only one social security number (B).

One-to-many

One instance of an entity (A) is associated with zero, one or many instances of another entity (B), but for one instance of entity B there is only one instance of entity A. For example, for a company with all employees working in one building, the building name (A) is associated with many different employees (B), but those employees all share the same singular association with entity A.

Many-to-many

One instance of an entity (A) is associated with one, zero or many instances of another entity (B), and one instance of entity B.
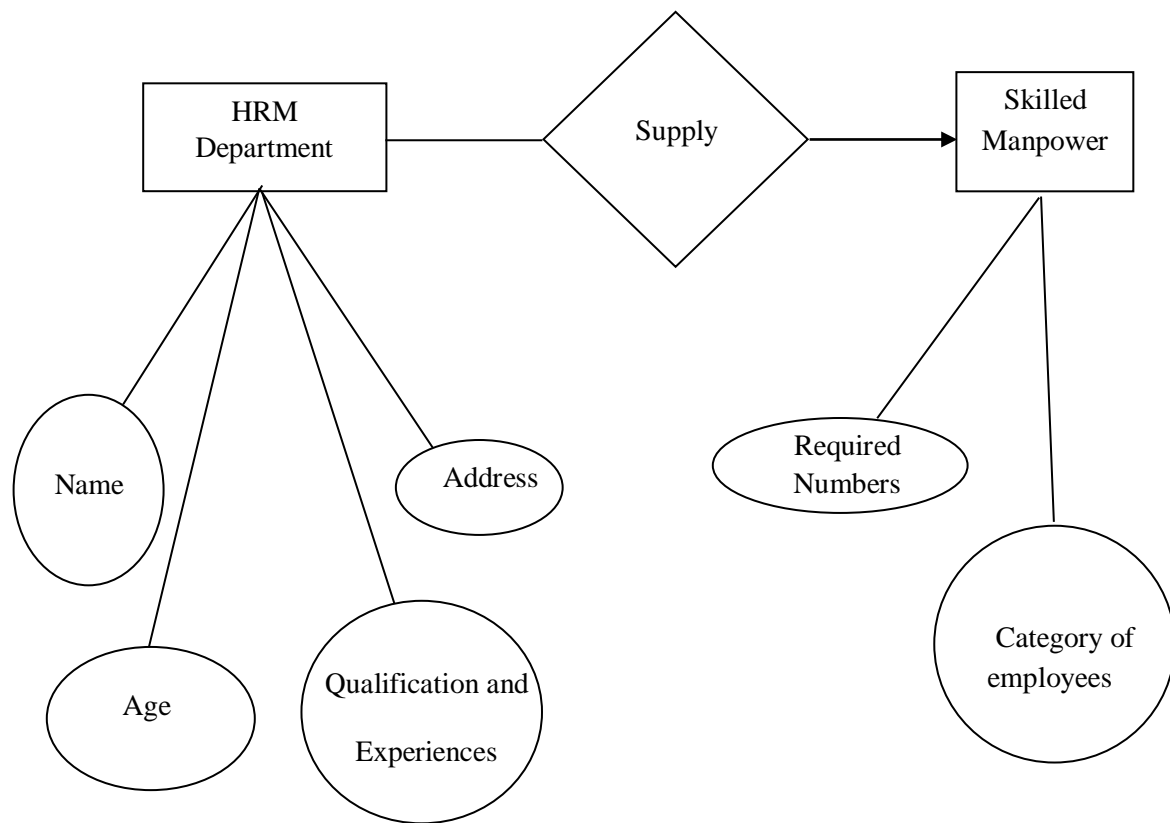
Figure 4.13 ER Diagram of HRM Department of NIBL

4.10 Input, Database and Output Design

- Acquired Human Resources
- Human Resource subsystem
- Total no of Human Resource system
- Pay roll system

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

INPUT

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

DATABASE

OUTPUT

- Imports Sub System
- Inventory subsystem
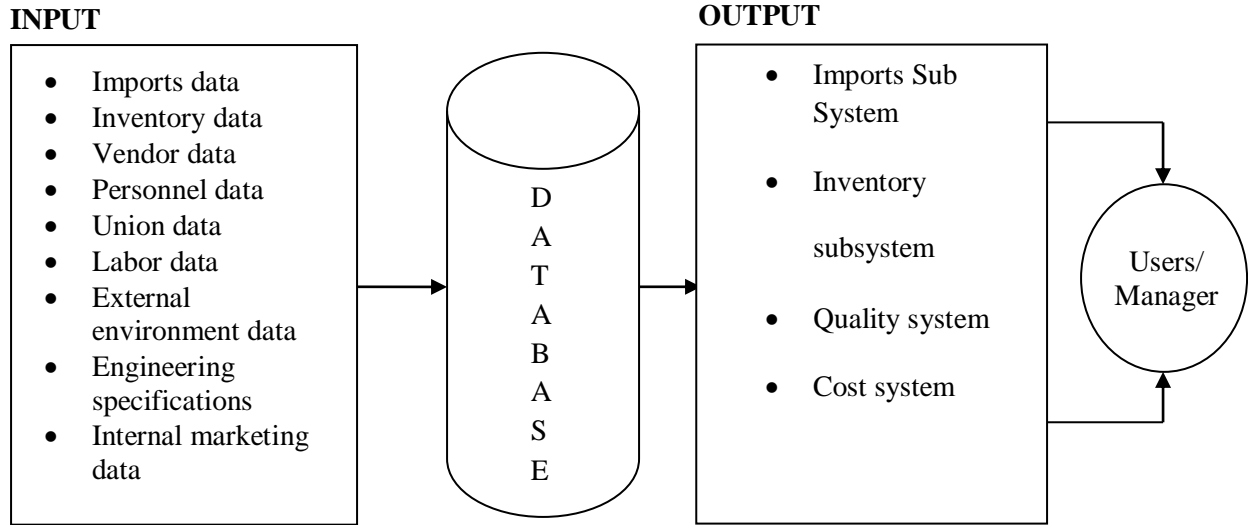- Quality system
- Cost system

Users/ Manager

Figure 4.14 Input, Database and Output Design

4.11 Justification of the New System

Data Flow Diagrams (DFDs) model that perspective of the system that is most readily understood by users – the flow of information around the system and the activities that process this information. Data Flow Diagrams provide a graphical representation of the system, which aims to be accessible to computer specialist and non-specialist users alike. The models enable analysts and users to work together effectively, during the analysis and specification of requirements. Although this means that users are required to understand the modeling techniques and constructs, in data flow modeling only a limited set of constructs are used, and the rules applied are designed to be simple and easy to follow. These same rules and constructs apply to all data flow diagrams (i.e. for each of the different system life cycle stages in which DFDs can be used).Data Flow Diagrams provide a very important tool for systems analysis, for a number of reasons,

The model provides a pictorial but non-technical representation of the system, thereby providing the basis for good communication between analysts and users. It is easy to draw and update as well as being easy to check. The technique manages complexity through abstraction, by concentrating on one aspect of the system, the flow and transformation of information, leaving other aspects of the system to be modeled using

other techniques. The diagrams impose structure on the information, providing a clear and concise visual representation that makes the information and its interrelationships easier to understand. The system scope and boundaries are clearly indicated on the diagrams (more will be described about the boundaries of systems and each DFD later in this chapter). The rules by which diagrams are constructed assist in highlighting areas where analysis may be incomplete. The technique of decomposition of high level Data Flow Diagrams to a set of more detailed diagrams, provides an overall view of the complete system, as well as a more detailed breakdown and description of individual activities where this is appropriate for clarification and understanding

4.12 Cost Benefits Analysis and Feasibility Analysis of New System

Cost-benefit analysis is a process of finding a good answer to the following question: Given the decision-makers assessment of costs and benefits, which choice should be recommended? The cost-benefit analysis involves the following general steps: Specify a list of all possible courses of actions. Assign a value (positive or negative) to the outcome for each action, and determine the probability of each outcome. Compute the expected outcome for each action. Take the action that has the best-expected outcome.

Economic Quantity Determination Application

The cost-benefit analysis is often used in economics for the optimal production strategy. Costs are the main concern, since every additional unit adds to total costs. After start-up production cost, the marginal cost of producing another unit is usually constant or rising as the total number of unit increases. Each additional product tends to cost as much or more than the last one. At some point, the additional costs of an extra product will outweigh the additional benefits.

The best strategy can be found diagrammatically by plotting both benefits and costs on the horizontal axis and choosing the point where the distance between them is the greatest. Notice that, since "net gains" are defined as (benefits-costs), at the maximum point its derivative vanishes; therefore, the slope of the net gains function is zero at the optimal quantity. Therefore, to determine the maximum distance between two curves, the

focus is on the incremental or marginal change of one curve relative to another. If the marginal benefit from producing one more unit is larger than the marginal cost, producing more is a good strategy. If the marginal benefit from producing one more product is smaller than the additional cost, producing more is a bad strategy. At the optimum point, the additional benefit will just offset the marginal cost; therefore, there is no change in net gains; i.e., the optimal quantity is where its

Marginal benefit = Marginal cost

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

- Payback analysis.
- Return on investment analysis.
- Present value analysis.

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

A. Payback Analysis

This is the traditional but important method of screening the projects. Normally, investor thinks that when it will receive its investment and compares the period required receiving the investment with project life. Sometime, investor itself set the period within which it had to recover the investment. In the case of debt financing, investor may consider the maturity period of debt as the period within which has to recover the investment. Thus, the payback period is the expected number of years required to recover the investment of the project.

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

Where,

       I   = Investment cash outlay

       CF_A = Annual cash flow

       PB   = Payback period

B. Return on investment

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

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

Where,

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

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

$\overline{EAT}$ = average income

$\overline{I}$ = average investment

n = project life

EAT_t = earnings after tax for t number of years.

I_0 = book value of the investment at the beginning

I_n = book value of the investment at the end of n number of years.

C. Net Present Value

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

project is the difference between present value of cash inflow and outflow. Mathematically, it is given by:

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

Where,

NPV = Net present value.

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

K = cost of capital.

n = project life.

Feasibility Analysis

A feasibility analysis is an important tool which helps to assess the viability of starting a new system, or re-organizing or expanding an existing system. It provides important information needed to make the critical decision of whether to go forward with a development of new system or not. The need for system modification of the new system is feasible and suitable only if it can be successfully implemented. Any system which cannot be implemented is just a waste of time and resources and it will be definitely not feasible for the organization.

Hence, all system requests though worthy and valuable, should be first analyzed for its feasibility before proceeding to system development or modification. The consideration of 3 types of feasibility should be considered for any proposed system.

- **Technical Feasibility**

Technological feasibility is carried out to determine whether the company has the capability, in terms of software, hardware, personnel and expertise, network channels feasibility to handle the proposed system so the proposed system is can be easily modified in the existing system of the NIBL As part of the present investigation, it was found that no extra technical support is required from the modification of the existing system.

- **Economic Feasibility**

The proposed system can be developed with the minimum investment and maximum output. By the economic analysis of the existing system the new system is economically feasible for the implementation. Hence, the budget allocated by NIBL is enough for the proposed project and does not face any problems in its making process. The economic feasibility can be measured by cost benefit analysis that means how much cost is required for the installation of the proposed system and the benefit that can be made after its implementation.

- **Operational Feasibility**

In the existing system administrator face a lot of problem regarding the data collection and recording and reports preparation for the system administration thus in the new management information system the big effort of the existing system has been reduced by the installation of the reconcile department. Thus the implementation of the proposed system will be effectively operated.

4.13 Major Finding of the Existing System

From secondary data collection, the most important aspects of the study came from comparing the capabilities of HR professionals and departments in the high performing firms from those in the low performing firms. Here, a dramatic story of HR's strategic value and the competencies required to achieve strategic value emerges. These findings support the current best practices of many companies with which we have worked. The paragraphs below note some of our key findings along with sample best practice companies. These companies are identified in the findings based on our interaction and not on feedback from the study. In order to complement the Bank's strategic focus of rapid growth and branch expansion, the Bank has been recruiting many talented people as well as providing training to existing staff member to augment their skill level. The Bank also has performance management system that rewards employees with incentives for achieving their assigned individual goals and objectives. The Bank provides opportunity in terms of training for career advancement and fast tracks high potential employees with accelerated promotions and greater responsibilities.

Table 4.8

Total no. of Management team In Nepal Invest Bank Limited up to 2009 from 2005

Year	2005	2006	2007	2008	2009
No. of employees.	230	350	470	590	710

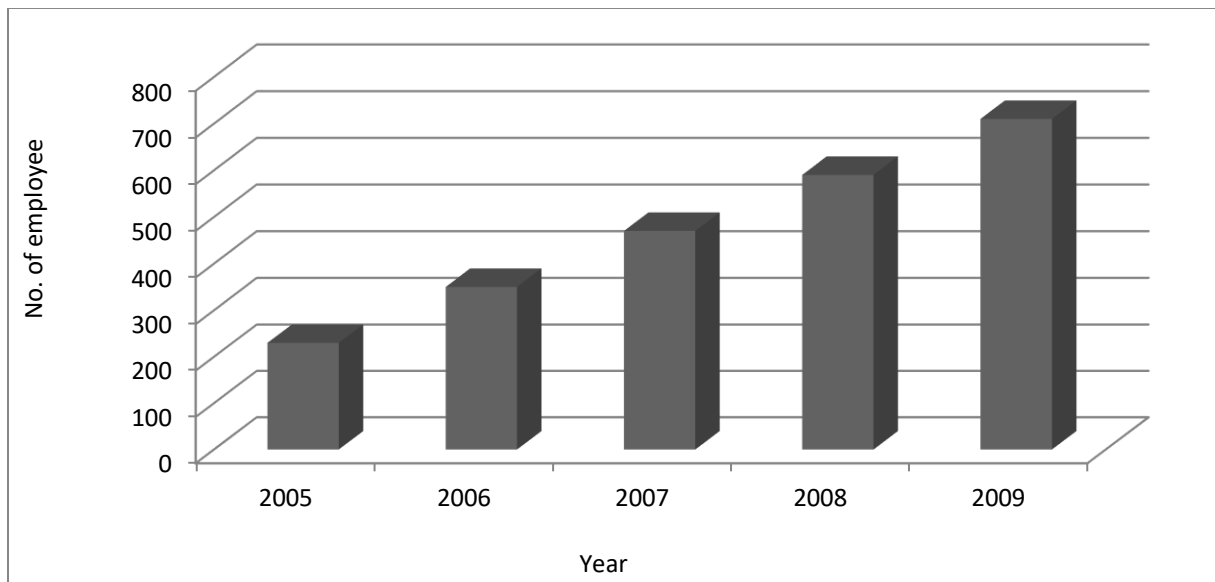The above data are represents in bar diagram below.

Figure 4.15 Total no. of Employees for 5 years up to 2009

On the basis of the survey major findings of the study are as follows:

- Most of respondents (90%) think that M.I.S information plays a vital role in the operation of the business.
- 60% respondent use of required data information through network (LAN & WAN) for MIS purpose frequently and 15 % never access the data through network.
- Most of the respondents (92%) need MIS Department of quick and correct Decision Making at present or in the future.
- 50% of the respondents are satisfied with the existing traditional system
- Most (80%) of the respondents want immediate upgrade existing HR system with the additional feature of E-Attendance system.

- Many employees think due to lack of computer knowledge of MIS, Hardware & Network and e-attendance will be quite difficult to implement in Nepal.

- Also from the forecasting model, it forecast that there will be **1430** number of employee in 2015 A.D.

- Majority of the users of the MIS consider that MIS to be important and helps in decision making.

- Due to high cost and requirement of technical manpower, MIS not implemented in the organization.

- The managers and all decision makers not using modern MIS and various software regarding decision making and problem solving.

- The factors which will improve the utilization of MIS are: "Good communication channel", "Training to end user", "Training to software personnel".

- NIBL has installed core banking system i.e. FINACLE software which is giving a good performance for overall banking transaction.

- The sharing of the networking resources (VSAT, Fibre, RadioLink, Subisu, Mercantile) among the different branch is centralized in head office through which communication is done.

- Currently, the Bank has total staff strength of 616 compared to 514 in the previous year. Of the total staff strength, 234 (38%) are female staffers and 74 staff members have completed more than 10 years of service in the institution. During the year, 363 participants attended 85 training courses/ workshops on various areas like Credit Risk Management, Information Technology, Employee Service, Treasury, Basel II Capital Accord, Marketing, Card Services and Project Finance. Moreover, 18 staff members attended workshops in India and abroad.

CHAPTER - V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

In sum of Management Information System (MIS) manage automatic the complicated task and the function of skilled manpower. In my opinion I am not saying it is also paying type of employee. It is non payable staff. In Nepal Investment Bank the role of IT is most important and which is able to profit oriented till now. This all credit goes to Human resources department of that Bank. And after this credit goes to Information Technology. Human resource management (HRM) is now the term most commonly used in academic circles to encompass the range of policies and practices used by 'modern' organizations in the management of employees. The shortened term human resource (HR) is increasingly found to describe the personnel department, director or manager. Human resource management (HRM), also called personnel management, consists of all the activities undertaken by an enterprise to ensure the effective utilization of employees toward the attainment of individual, group, and organizational goals. An organization's HRM function focuses on the people side of management. It consists of practices that help the organization to deal effectively with its people during the various phases of the employment cycle, including pre-hire, staffing, and post-hire. The pre-hire phase involves planning practices. The organization must decide what types of job openings will exist in the upcoming period and determine the necessary qualifications for performing these jobs. During the hire phase, the organization selects its employees. Selection practices include recruiting applicants, assessing their qualifications, and ultimately selecting those who are deemed to be the most qualified.

In the post-hire phase, the organization develops HRM practices for effectively managing people once they have "come through the door." These practices are designed to maximize the performance and satisfaction levels of employees by providing them with the necessary knowledge and skills to perform their jobs and by creating conditions that will energize, direct, and facilitate employees' efforts toward meeting the organization's

objectives. From the data of five years, we can summarize that every year the number of employee has been increasing. Thus, we can say that this is in increasing trends. This fieldwork report is based in five years data and observations. While preparing report, I observed that the no. of employee of NIBL is totally dependent upon the no. of branches of the NIBL. NIBL has been providing its services from the last 26 years and has captured a good market which is only possible due to new technology used and good hospitality. It is obvious that Banks in future cannot survive without the support of information technology. This is not a time to think whether to computerize or not, but to think how soon we are going to be connected to the online services. From all indications, Banks should to be prepared to exploit the opportunities that globalization and financial liberalization provides. In these contexts, the environment in which banks are operating in Nepal and to the times since that is the only way by which senior management's in banks can gain information on the size of operations on a daily basis. compulsions that work to make computerization in banks an imperative. Computerization of branch operations, controlling offices and the head offices has been going apace particularly sharply in recent

The banking industry is clearly cognizant of the imperatives of financial liberalization and has therefore attempted to computerize branches that are located in commercially important centers across the country. The large functional and geographical spread of banks has led to a sharp growth in the number of accounts and in the areas of operation of banks. This has necessitated switchover form hard cash to paper based instruments. The advent of the Internet and the popularity of personal computers presented both and opportunity and a challenge for the banking industry. Now that its customers are connected to the internet via personal computers, banks envision similar economic advantages by adapting those same internal electronic processes to home use.

With the help of online banking service customer can check his account details, transfer his money, and pay their bills through the Internet within a small span of time. As Internet destroyed a notion of space and time because of 24-hours computer driven system, business companies provide fast services to the clients, who can enjoy the

convenience of shopping at any hour, anywhere in the world. Another important benefit of the online services is the expansion of market. It enables the trading organizations to interact with new and different suppliers and customers. Small and medium enterprises have endless possibilities to enter into the export market, which cannot be supported by the local of national markets. Once Nepal adopts these new opportunities and innovations offered by the IT, services based industries would burgeon.

As Nepal has entered the global market by getting the WTO membership, the transactions system will be more voluminous. The trade and commerce sector is growing up in Nepal. Since the banking transactions increases every year, the needs of the automated remittance system also increases which force to provide more facilities to the e-business customers in a reliable and timely manner.

5.2 Conclusion

In conclusion, there has never been a more exciting time to be an HR professional. The business world demands greater value added from the HR profession. As a result of the Human Resource Competency Study, we now have a much more exact and precise definition of the agendas and competencies through which HR professionals may impact business performance. Despite the stiff competition from the 31 commercial banks, the Bank recorded another solid performance during the financial year 2007/08. Nepal Investment Bank Limited consolidated its position as one of the premiere Banks in Nepal and continues to grab honors. The growth levels recorded by the Bank in market shares in deposits and advances are phenomenal and the Bank is striving to achieve its credo of being the most preferred provider of financial services in Nepal. The Bank now commands 8.8% and 10.4% of the market shares in deposits and loans and advances of the country respectively. The Bank is committed to maintaining its current position and is striving hard to progress further on this position.

According to the survey done by the researcher only 50% are satisfied with the existing attendance system. Most (80%) of the respondents want immediate upgrade existing HR system with the additional feature of E-Attendance system. Many employees think due to

lack of computer knowledge of MIS, Hardware & Network and e-attendance will be quite difficult to implement in Nepal. Also from the forecasting model, it forecast that there will be 1430 number of employee in 2015 A.D.

While asking about the difficulties faced with the traditional banking respondents complained about the time delay as the main factor besides staff behavior and reliability. Management information system has been emerged as a new concept in the field of management to solve the problems generated by complex organizational structure and increased complexities of management due to industrial and technological revolution. MIS is defined as a computer-based information system, which provides information support of decision-making in the organization. MIS gives information through data analysis. After the restoration of democracy; the Government of Nepal launched an economical liberalization policy. This has led to an increasing number of commercial banks in the country, due to such increment of commercial banks, competition also increased among them, which have resulted in enhanced services to the customers getting more advantage that is competitive. This is only possible through proper information technology. The each and every entity set of the card department are identified and shown in Data flow diagram and Entity relationship diagram as the user can view and identify the system easily and quickly.

The system is expected to fulfill the information needs of an individual, a group of individuals, 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 DSS and also helps in Strategic Planning, Management Control, Operational Control, and Transaction Processing. MIS is viewed and used at many levels by management. Because MIS supplies decision makers with facts, it supports and enhances the overall decision making process. MIS also enhances job performance throughout an institution. In NIBL at the most senior levels, it provides the data and information to help the board and management make strategic decisions. At other levels, MIS provides the means through which the institution's activities are monitored and information is distributed to management, employees, and customers. Management Information System is the backbone on which logical business decisions 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.

If the new modified system is implemented it will reduce the cost as well as time. But in the existing system ,it takes lot of time and accuracy regarding the recording the data. So if the new system is implemented the new E-Attendance system as well as administration process will become easy and take a less time as a result there will be no difficulty in reports generation. Also it is economical and effective which makes efficiency in work and performance will increase significantly.

5.3 Recommendations

As the study indicated that we have a vision of an integrated e-attendance system for the country with a network of branches with straight through processing as the goal. For such system to be functional we need to have standards based solutions for the banking and financial sector from multiple vendors. The standards based solutions should necessarily consist of open system architecture, with scalability as its main feature for taking care of future volumes in growth .The IT industry should closely collaborate with banking sector in providing such services at cost-effective prices. Many more steps need to be taken in future. E-attendance will add new dimensions to information highway and thus lead to higher efficiency and effectiveness. The IT industry should be in readiness to provide such full proof solutions of security including the encryption of data based on internationally recognizes security standards. After studying the various aspects of the management of the information system in the NIBL, following points are recommended for the effective management information system:

- The bank must create a separate department i.e. MIS department for the effective management of the information manned by qualified professional and equipped with latest hardware and software resources.
- The present network system (LAN) must be utilized from every expect. All the information or data required for the decision making must be shared by all the users and unique number must be given for the specific information so that it will be easier to trace.

- As per the information requirement the specific MIS software has to be development and installed in the office. To Intensive training must be given to all the users to operate the software to fix the minor problem themselves.

- Communication flow between the branches and head office has to be smoothen and streamlined. The WAN (Wide Area Network) has to be developed for the better communication between the branches outside Kathmandu with its head office.

- A core group must be formed at MIS department including the user from other department to monitor and supervise the MIS performance.

- The managers and all decision makers not using modern MIS and various software regarding decision making and problem solving.

- The factors which will improve the utilization of MIS are: "Good communication channel", "Training to end user", "Training to software personnel".

- HR system should also give the basic priority to e-attendance system as almost all employee wanted to make their attendance computerized.

- Awareness programs should be conducted to every employee as from research shows many employee think due to the lack of computer knowledge it will be quite difficult to implement fully fledged e-attendance system in Nepal.

- In the developing country like Nepal, e-attendance must make compulsory in each and every bank. Hence, the bank becomes quick, smart and efficient attendance system.

We came to know that e-attendance system is easy, convenient effective way of modern attendance system. So the proper management is necessary. From the study, we came to know that the e-attendance system is used only in high standard places like banks, five star hotels, and departmental stores and so on. Thus, NIBL Bank should give training and orientation classes to the parties involved. We can find that e-attendance service has not taken place in media. Therefore, NIBL must advertise e-attendance system. Hence, bank should conduct some of promotional campaigns. Some staffs are not genial, cooperative which might hinder the image of the bank. So the bank must correct staff behavior.

So far, services provided by the NIBL are satisfactory. Keep up the good work.

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APPENDICES

Appendix I
Questionnaire

Please tick, whichever is appropriate to you.

1. Do you think M.I.S information is vital in operation of the business?

   High ☐   Medium ☐   Low ☐

2. How do you collect the data information?

   Manually ☐ Computerized ☐   Both ☐

3. Do you have knowledge of E-Attendance System?

   Yes ☐   No ☐   Partial ☐

4. Do you get required data information through Network (LAN & WAN) for MIS purpose?

   Mostly ☐   Frequently ☐   Never ☐

5. Do you need separate MIS Department for Decision Making?

   Yes ☐   No ☐

6. Do you satisfied with existing HRM System?

   Yes ☐   No ☐

7. Do you need to Modified Existing HRM System?

   Yes ☐   No ☐

8. What are the problems faced by you in existing electronic payment system?

   _____

9. What extra new features do you want to add in new system for more convenient?

_____

10. Number of no. of estimated management team in the following years?

- 2005 [   ]

- 2006 [   ]

- 2007 [   ]

- 2008 [   ]

- 2009 [   ]

Appendix- II

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

Benefits

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

Computer Modeling

A complex computer program that simulated the work environment.

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

Decision: A conclusion through brainstorming or discussion from group.

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

Effectiveness: Attainment of the goal.

Efficiency: The ratio of inputs consumed to outputs achieved.

Feedback: Knowledge of results.

Finacle: Software which is giving a good performance for overall banking transaction.

Information: A message collecting in management in circle.

Palling: friendly

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

Query: Investigation about the matter or inquiry.

Research

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

System: A network of interrelated components.

Technology

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

Time Study

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