CHAPTER I

INTRODUCTION

1.1 Background

1.1.1 Introduction to Life Insurance

Life insurance is a contract between the policy holder and the insurer, where the insurer promises to pay a designated beneficiary a sum of money (the "benefits") upon the death of the assured person. Depending on the contract, other events such as terminal illness or critical illness may also trigger payment. In return, the policy holder agrees to pay a stipulated amount (the "premium") at regular intervals or in lump sums. In some countries, death expenses such as funerals are included in the premium.

The value for the policy owner is the 'peace of mind' in knowing that the death of the assured person will not result in financial hardship. Life policies are legal contracts and the terms of the contract describe the limitations of the assured events. Specific exclusions are often written into the contract to limit the liability of the assured; common examples are claims relating to suicide, fraud, war, riot and civil commotion.

Life-based contracts tend to fall into two major categories:
Protection policies – designed to provide a benefit in the event of specified event, typically a lump sum payment. A common form of this design is term insurance. In the Nepalese scenario there is expatiate plan for workers who goes to the overseas.

Investment policies – where the main objective is to facilitate the growth of capital by regular or single premiums. Common forms (in the Nepal) are whole life, universal life and variable life policies. Overview of life insurance companies can be presented as below.

Parties to Contract

There is a difference between the assured and the policy owner (policy holder), although the owner and the assured are often the same person. For example, if Ram buys a policy on his own life, he is both the owner and the assured. But if Shyam, his son, buys a policy on Shyam's life, his son is the owner and he is the assured. The policy owner is the guarantee and he or his son will be the person who will pay for the policy. The assured is a participant in the contract, but not necessarily a party to it. However, "insurable interest" is required to limit an unrelated party from taking life insurance on, for example, Ram or Shyam.

The beneficiary receives policy proceeds upon the assured death or maturity of the policy duration (term). The owner designates the beneficiary, but the beneficiary is not a party to the policy. The owner can change the beneficiary unless the policy has an irrevocable beneficiary designation. With an irrevocable beneficiary, that beneficiary must agree to any beneficiary changes, policy assignments, or cash value borrowing.

Contract Terms

Special provisions may apply, such as suicide clauses wherein the policy becomes null if the assured commits suicide within a specified time (usually two years after the purchase date; some states provide a statutory one-year suicide clause). Any misrepresentations by the assured on the application are also grounds for nullification. Most Nepalese insurance companies specify that the contestability period cannot be longer than two years; only if the assured dies within this period will the insurer have a legal right to contest the claim on the basis of misrepresentation and request additional information before deciding to pay or deny the claim.

The face amount on the policy is the initial amount that the policy will pay at the death of the assured or when the policy matures, although the actual death

benefit can provide for greater or lesser than the face amount. The policy matures when the assured dies or reaches a specified age (such as 100 years old).

Costs, insurability, and underwriting

The insurer (the life insurance company) calculates the policy prices with intent to fund claims to be paid and administrative costs, and to make a profit. The cost of insurance is determined using mortality tables calculated by actuaries. Actuaries are professionals who employ actuarial science, which is based in mathematics (primarily probability and statistics). Mortality tables are statistically-based tables showing expected annual mortality rates. It is possible to derive life expectancy estimates from these mortality assumptions. Such estimates can be important in taxation regulation.

The three main variables in a mortality table have been age, gender, and use of tobacco. More recently in the Nepal, preferred class specific tables were introduced. The mortality tables provide a baseline for the cost of insurance. In practice, these mortality tables are used in conjunction with the health and family history of the individual applying for a policy in order to determine premiums and insurability. Mortality tables currently in use by life insurance companies in the Nepal are individually modified by each company on behalf of BEEMA SAMATI and nominated actuary for the company.

The insurance company receives the premiums from the policy owner and invests them to create a pool of money from which it can pay claims and finance the insurance company's operations. The majority of the money that insurance companies make comes directly from premiums paid, as money gained through investment of premiums can never, in even the most ideal market conditions, vest enough money per year to pay out claims. Rates charged for life insurance increase with the assured age because, statistically, people are more likely to die as they get older.

Given that adverse selection can have a negative impact on the insurer's financial situation, the insurer investigates each proposed assured individual unless the policy is below a company-established minimum amount, beginning with the application process. Group Insurance policies are an exception.

This investigation and resulting evaluation of the risk is termed underwriting. Health and lifestyle questions are asked. Certain responses or information received may merit further investigation. As part of the application, the insurer receives permission to obtain information from the proposed assured physicians.

Underwriters will determine the purpose of insurance. The most common is to protect the owner's family or financial interests in the event of the assured demise. Other purposes include estate planning or, in the case of cash-value contracts, investment for retirement planning. Bank loans or buy-sell provisions of business agreements are another acceptable purpose.

Life insurance companies are never required by law to underwrite or to provide coverage to anyone, with the exception of Civil Rights Act compliance requirements. Insurance companies alone determine insurability, and some people, for their own health or lifestyle reasons, are deemed uninsurable. The policy can be declined (turned down) or rated. Rating increases the premiums to provide for additional risks relative to the particular assured.

Many companies use four general health categories for those evaluated for a life insurance policy. These categories are Preferred Best, Preferred, Standard, and Tobacco. Preferred Best is reserved only for the healthiest individuals in the general population. This means, for instance, that the proposed assured has no adverse medical history, is not under medication for any condition, and his family (immediate and extended) have no history of early cancer, diabetes, or other conditions. Preferred means that the proposed assured is currently under

medication for a medical condition and has a family history of particular illnesses. Most people are in the Standard category. Profession, travel, and lifestyle factor into whether the proposed assured will be granted a policy, and which category the assured falls. For example, a person who would otherwise be classified as Preferred Best may be denied a policy if he or she travels to a high risk country. Underwriting practices can vary from insurer to insurer which provide for more competitive offers in certain circumstances.

Death Proceeds

Upon the assured death, the insurer requires acceptable proof of death before it pays the claim. The normal minimum proof required is a death certificate and the insurer's claim form completed, signed (and typically notarized). If the assureds' death is suspicious and the policy amount is large, the insurer may investigate the circumstances surrounding the death before deciding whether it has an obligation to pay the claim. Proceeds from the policy may be paid as a lump sum or as an annuity, which is paid over time in regular recurring payments for either a specified period or for a beneficiary's lifetime.

Insurance vs Assurance

The specific uses of the terms "insurance" and "assurance" are sometimes confused. In general, in jurisdictions where both terms are used, "insurance" refers to providing coverage for an event that might happen (fire, theft, flood, etc.), while "assurance" is the provision of coverage for an event that is certain to happen. In the Nepal both forms of coverage are called "insurance", principally due to many companies offering both types of policy, and rather than refer to themselves using both insurance and assurance titles, they instead use just one.

Types of life Insurance

Life insurance may be divided into two basic classes – temporary and permanent or following subclasses – term, universal, whole life and endowment life insurance.

- Term Life Insurance.
- Universal Life Insurance
- Whole Life Insurance
- Endowment Life Insurance
- Pension Plan etc

These above are the common products practiced in the scenarios of Nepal.

Tax and Life Insurance

Taxation of life assurance in the Nepal

If someone has bought the life insurance policy he can be relief tax to pay the government of Nepal. Government of Nepal can allow not paying the income tax up to Rs. 20000 of premium.

1.1.2 Introduction to Management Information System

Initially 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. Earlier, 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 amount 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): decision support systems, resource and people management applications, enterprise resource planning (ERP), enterprise performance management (EPM), supply chain management (SCM), customer relationship management (CRM), project management and database retrieval applications.

"The five eras are general-purpose mainframe and minicomputer computing, personal computers, client/server networks, enterprise computing, and cloud computing."(Management Information Systems: Managing the Digital Firm, 11th Edition. Prentice Hall/Course Smart, 12/30/2008. p. 164). The first era was ruled by IBM and their mainframe computers, these computers would often take up whole rooms and require teams to run them, IBM supplied the hardware and the software. As technology advanced these computers were able to handle greater capacities and therefore reduce their cost. By 1965 microprocessors began to take the market away from mainframe computers. This technology allowed small desktop computers to do the same work that it previously would have taken a room full of computers. This also decentralized computing power from large data centers to smaller offices. In the late 1970s minicomputer technology gave way to personal computers. Now for a relatively low cost anyone could have a computer in his own home. This allowed for businesses to give their employees access to computing power that 10 years before would have cost tens of thousands of dollars. This proliferation of computers also helped create a need to connect these computers together on a network giving birth to the Internet. As technology has increased and cheapened the need to share information across a large company had also grown, this gave way to the client/server era. With this era computers on a common network were able to access shared information on a server. This

allows for large amounts of data to be accessed by thousands and even millions of people simultaneously. The latest evolution of Information Systems is cloud computing a recent development, cloud computing lets users access data stored on a server, where they can not only see the data but also edit, save, download or upload. This along with high speed networks has led to a much more mobile view of MIS. In cloud computing the manager does not have to be at a desk to see what their employees are working on but instead can be on a laptop, tablet pc, or even smart phone. An 'MIS' is a planned system of the collection, processing, storage and dissemination of data in the form of information needed to carry out the management functions. In a way, it is a documented report of the activities that were planned and executed. According to Philip Kotler "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. The 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, Testing and Implementation. A management information system (MIS) is a system or process that provides the information necessary to manage an organization effectively. MIS and the information it generates are generally considered essential components of prudent and reasonable business decisions. The importance of maintaining a consistent approach to the development, use, and review of MIS systems within the institution must be an ongoing concern of insurance management and. MIS should have a clearly defined framework of guidelines, policies or practices, standards, and procedures for the organization. These should be followed throughout the institution in the development, maintenance, and use of all MIS.

MIS is viewed and used at many levels by management. It should be supportive of the institution's longer term strategic goals and objectives. To the other extreme it is also those everyday financial accounting systems that are used to ensure basic control is maintained over financial recordkeeping activities. Financial accounting systems and subsystems are just one type of institutional MIS. Financial accounting systems are an important functional element or part of the total MIS structure. However, they are more narrowly focused on the internal balancing of an institution's books to the general ledger and other financial accounting subsystems. For example, accrual adjustments, reconciling and correcting entries used to reconcile the financial systems to the general ledger are not always immediately entered into other MIS systems. Because MIS supplies decision makers with facts, it supports and enhances the overall decision making process. MIS also enhances job performance throughout an institution. 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.

Effective MIS should ensure the appropriate presentation formats and time frames required by operations and senior management is met. MIS can be maintained and developed by either manual or automated systems or a combination of both. It should always be sufficient to meet an institution's unique business goals and objectives. The effective deliveries of an institution's products and services are supported by the MIS. These systems should be accessible and useable at all appropriate levels of the organization.

MIS is a critical component of the institution's overall risk management strategy. MIS supports management's ability to perform such reviews. MIS should be used to recognize, monitor, measure, limit, and manage risks. In another term, 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 controls procedures in a business, which cover the application of people, documents, technologies, and procedures used by management accountants 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 Systems, Expert systems, and Executive information systems.

1.1.3 Management Information System and Insurance

Apart from the challenges of deregulation, consolidation and convergence of financial services in nationwide, insurance companies has to bring out an innovative management information system to provide software solutions for insurance company, agents and clients providing insurance business management at a feasible cost features according to the relevant functionalities.

There is need of fully online Insurance Management System Software solution with featuring; automated and integrated policy processing system for both personal and commercial insurance carriers. It should be a scalable, reliable, and cost-effective solution for carrying out all business-critical insurance processing functions.

1.1.4 MIS Of Insurance Companies Should Cover

The MIS of Insurance companies should cover the following systems for bringing smoothness in daily operation and to meet target.

- Insurance Policy Administration System
- Claims Management System
- Insurance Agency Management System
- Insurance Agents Management System
- Policy Management System
- User Management System
- Endorsements Management System
- Data import / Export system
- Policy Registration and Quotations Engine
- Insurance Administration Management System
- Content Management System Module
- Insurance Document Management System
- Insurance Accounting and automation
- Workflow solutions
- Auditing
- Business Intelligence
- Online Data Back-up System
- The benefit of Online Insurance Management System

1.1.5 Introduction of Gurans Life Insurance Co. Ltd.

Gurans Life Insurance Co .Ltd. has been established and registered under Company Act 2063 B.s.(Regd. No. 1005/063-64) and Insurance Act 2049 as a public Limited Co. and was issued a license to operate Life Insurance Business on 2064/12/18. And It has started it's operation from the date of 2065/02/17 (1st July 2008). Gurans Life Insurance Co .Ltd. is promoted by a Commercial Bank, T.M Dugar Group along with group of diverse and renowned Businessmen, Industrialist and Legal professionals and other reputed persons in the society

Capital

Gurans Life Insurance Co .Ltd. have total authorized capital of 50 crore and Issued capital of 36 crore. Out of the issued capital, 70% amounting to 25 crore 20 lakh has been contributed by the promoter shareholder and the remaining 30% amounting to NRS. 10 Crore 80 lakh has been issued in public shareholder.

Re-Insurance

Insurance company has to insurance with the reinsurance company so, the Company has made reinsurance arrangement with SCOR GLOBAL LIFE SE, SINGAPORE.

Vision

To develop the company as an important entity in contributing to social as well as financial sector towards making New Nepal.

To invest and expand business in international market for providing maximum benefit to policyholders.

Mission

Create resources and generate employment opportunities and promote saving

habits of individuals for their financial stability and improvement of their living standard.

Products of the Gurans Life Insurance Co. Ltd.

- Gurans Bal Surakshaya Jeevan Bima Yojana
- Naulo Bal Surakshaya Jeevan Bima Yojana
- Endowment Plan
- Endowment with Whole Life
- Money Back 15 and 20 years term
- Expatriates Term Life Insurance Plan

1.2 Focus of the Study

As per requirement or to completion of MBS degree, we were supposed to prepare a thesis report regarding a core function of certain organization, for partial fulfillment of Masters of Business Studies (**MBS**). For the preparation of thesis report I have chosen the Management Information System in the Gurans Life Insurance Company Limited (GLIC), Hattisar, Kathmandu. This thesis is based on observation while working as an employee in the company. During my working period as an employee at GLIC, I have been working in the Information Technology (IT) Department to support the Software and MIS of the company, to handle hardware software and networking troubles if arises associated with IT and to provide different reports to the various departments of the company; underwriting, account, marketing, reinsurance, loan and claim departments.

It was a great opportunity to work as at GLIC and student of Shanker Dev Campus. This experience has given me an opportunity to link my theoretical knowledge gained in college with the practical experience on working in an organization and utilize conceptual knowledge in specific area of the study. GLIC's culture is highly open, supportive and helpful. However, the study was focused on the Management Information system of the Gurans Life Insurance Company. It has 25 branches and around hundreds of sales center. But, it is

using the SiddhiLife Software (OLTP) for the management of the data related to the underwriting, agency, marketing and account department on real time basis in seven regional branches and one corporate office. And it has planned to expand the using of the OLTP software in other branches also. For the HR department it is using electronic attendance management software with electronic device. So, study is mainly focused on the core function of the underwriting department and overall MIS of the company.

1.3 Statement of the Problems

Statement of the problem can be pointed as follow

- In the Nepalese Insurance companies there is not a fully MIS supported software system because of the complex process, activities and rules of the various departments or functions of the company: agency, claim handling, underwriting, reinsurance, surrender, loan and marketing. Due to not being fully automated software the reporting is not effective.
- Accounting system is not full fazed automated system which is very difficult to understand or not easily operated by of the general people.
- There is a need of the intermediates (agency) in the general public and insurance company to develop the automated software system. That's why there is difficult to develop full fazed MIS in the Insurance Companies.
- The governed body is not responsible or not energetically governs to the insurance company, that’s why it affects on the smooth operation of daily transaction.
- Each and every insurance company has its own products and its features. There is not uniformity in the product of Life Insurance Company. This makes quite tedious to develop software and developer does not show the charm of doing work.
- There was not fully integrated Management Information System. Different departments used to work in different software.

1.4 Objectives of the Study

The objective of this study is to explain MIS function in the Gurans Life Insurance Company. The main objective of this study is to acquire a sound understanding of different practices and policies in the Gurans Life Insurance Company (*GLIC)*. This study is prepared on the title "MIS of *GLIC*," so the objectives of this study are:

- To analyze functioning of MIS at *GLIC*.
- To analyze the types of MIS used in GLIC.
- To analyze the problems associated with MIS of GLIC.
- To give recommendation regarding the better functioning of the MIS.
- To analyze, which type of MIS is suitable for the insurance companies.
- To analyze how to integrate the information system with management's different functional areas.

1.5 Limitations of the Study

Major limitations of this Study are:

- The study and results are totally based on the information collected within the organization itself through primary and secondary data collection.
- The reliability of the facts and information depends on the sources of data.
- The study is the case study on MIS at Gurans Life Insurance Company Ltd. which may not fully cover the Management Information System in Insurance Companies.
- There are not adequate published reports and article about Management Information System in Insurance Companies, that's why this is the another limitation of the study.

The recommendation is based on the knowledge gain through the course structure; it is not the expert point of view.

1.6 Organization of the Study

I have divided the organization of the study in the five chapters. This can be briefly presented as follows.

Chapter- I: Introduction

The first chapter of this Study is devoted to introduction of the MIS. That contains background, focus of the study, statement of the problem, objectives of the study, organization of the study, placement and limitations of the Study.

Chapter- II: Literature Review

This chapter contains literate review about the study. This includes the theoretical background of study and study of different articles in different approaches about MIS. And here is also included the review of old thesis.

Chapter- III: Research Methodology

The third chapter of research study contains the research methodology, data analytical technique and process to accomplish the research. This chapter also contains the research design, population and sample, sources of data, data collection methods, research software tools.

Chapter- IV: System Analysis, Design and Data Representation

Fourth chapter is the study of detailed analysis of existing systems, data flow diagram, entity relationship diagram, limitations of existing systems, feasibility analysis and major findings. This also contains the data representation with charts of the system.

Chapter- V: Summery, Conclusion and Recommendation

The fifth chapter presents summery, conclusion and recommendations. This is the final statement of the research study and also gives the recommendations for improvement of management information system in the organization.

CHAPTER II

LITERATURE REVIEW

The review of literature is the study of the various literatures related to the topic. This chapter constitutes the review of literature in two aspects: conceptual frameworks and the related studies from the different books, journals, reports, articles, websites and thesis.

2.1 Conceptual Framework

2.1.1 Management Information System

Simply, MIS used to process the data from the organization and present it in the form of reports at regular intervals. Management Information System is a system that integrates the management and information system. i.e. use of information system on the institution that facilitates decision making.

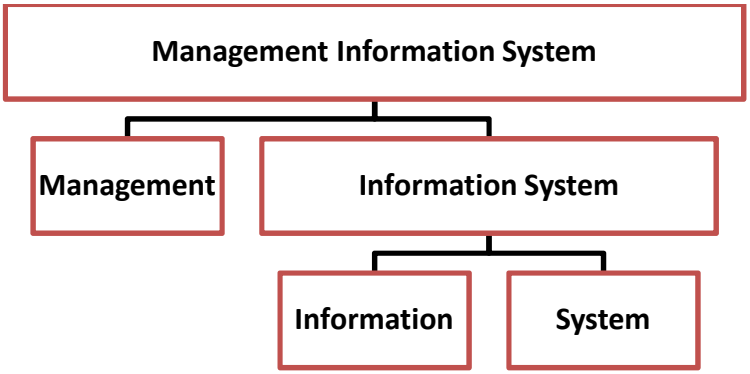
MIS is a tool that performs data processing for data collecting and performs information processing to generate consolidated/summery and comparative reports of transactional activities.

It is an integrated system that integrates management and information system that functions various activities.

Conceptual Framework of MIS

Figure 2.1

Conceptual Framework of MIS



The term MIS is the combination of three different terms Management, Information and System.

Management

Activities done by the good manager is called management. The specific natures of activities that are performed by such managerial functions as planning, organizing, directing and controlling. In fact, management is process of achieving an organization's goals and objectives by making the fullest use of available resources like man, money, material, machine, methods, etc.

Information

In MIS, information has a precise meaning and it is different from data. The information has a value in decision-making and while data does not have. Further, information brings clarity and creates an intelligent human response in the mind and data is in general will be less refined and may not necessarily be in the form useful for human understanding.

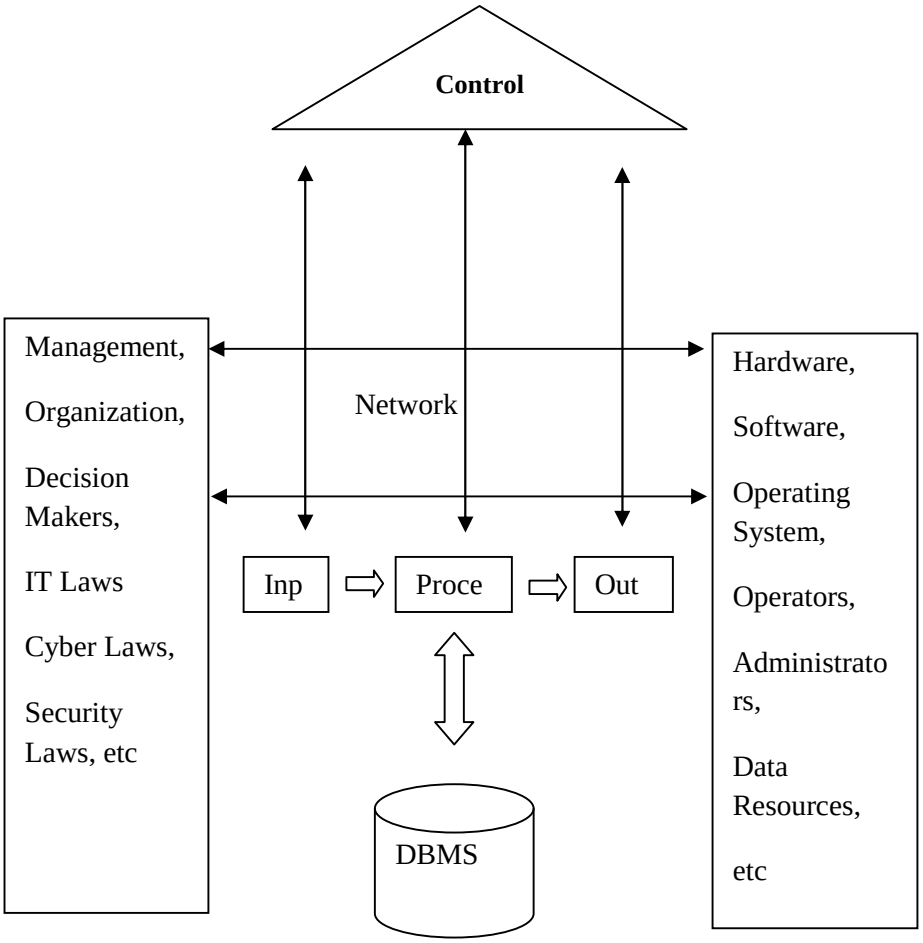
System

A system is an integrated set of components or entities that interact to achieve a particular function or goal. Hence it can be simply defined as a group of interrelated or interacting elements forming a unified whole as input, process and output.

Architectural Frameworks of MIS

Figure 2.2

Conceptual Framework of MIS



In the above figure there are two sections of MIS first; section defines the organizational structure, levels of management and security policies etc. Another section defines the information system with different resources main resources are hardware resources, software resource, data resource, network resource and people resource.

Hardware

Devices connected to the computer systems are hardware.

Input devices:- Mouse, Keyboard, Scanner, Camera.

Processing:- CPU, Memory.

Output devices: - Printer, VDU, Speaker, etc.

Software

Set of programmes for practical use is known as software.

System software

Application Software

Utility Software

Software that activates the computer system and provides a operating environment for other applications program are called system software. e.g. Windows, Linux, Unix, Mac OS. Software which are applicable for daily use these are two forms; packaged software and customized (custom made) software. Software that increases the utility of hardware and applicable for hardware management is called utility software e.g. Antivirus, Scandisk, Registry cleaner etc.

Data Resources

Since, MIS is information processor so, it should accept information as input from database file after getting information MIS manipulates the reports. So, MIS should have use data bank. It has data warehouse as small scale database on the organization. Each functional areas can hold their individual data on small scale database but MIS integrates all functional areas data on centralize database called data ware house.

Network Resources

Connection multiple computers to share the different resources is called computer network. Different resources are hardware, software, people etc.

People Resources

Different people like end-users, computer, operators, database administrators, experts knowledge workers etc.

2.1.2 Management

Activities done by the good manager is called management. The specific natures of activities that are performed by such managerial functions as planning, organizing, directing and controlling. In fact, management is process of achieving an organization's goals and objectives by making the fullest use of available resources like man, money, material, machine, methods, etc.

Functions of management

Planning: - It is the processing of deciding in advance the cources of action to be followed, when and how to undertake these actions.

Organizing: - It refers to the grouping of people and activities in order to facilitate the achievement of the organizational objective.

Controlling:- Control is the mode of checking the progress of plans and also correcting any deviations that may occur along the way.

Directing:- It is the process of activating the plans, structure and group efforts in the desired direction. It is needed for implementation of plans by providing the desired leadership, motivation and proper communication.

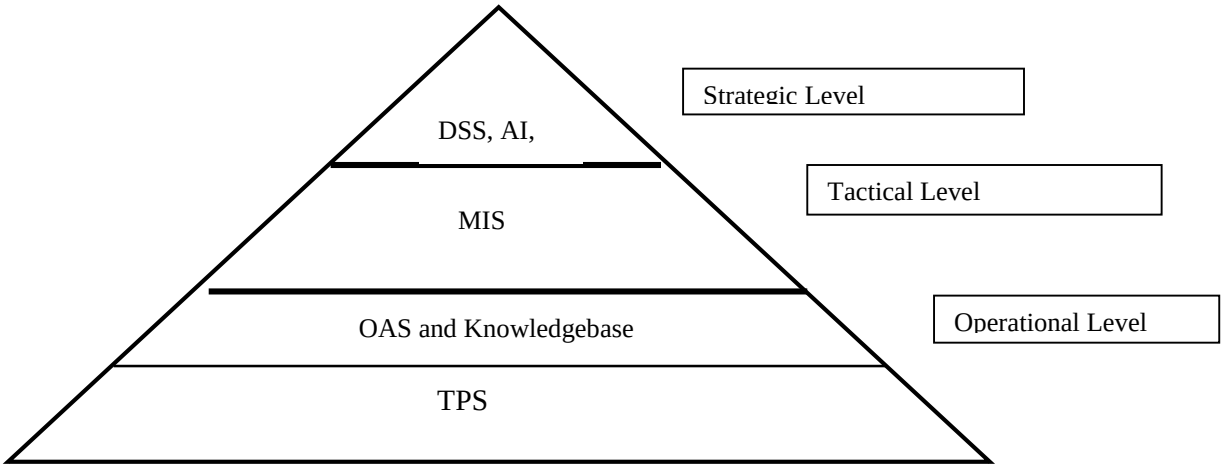
2.1.2.1 Levels of Management

In the typical organization, management can be grouped in three major levels; 1. Strategic (Top), 2.Tatical (Middle) and 3. Lower (Operational) Level.

In the Gurans Life Insurance Company Ltd. there is also the standard level of the management like other organization. The activities done by the good manager is called the management. According to the objective of the firm, nature, culture, organizational behavior of the firm is used to vary the organizations level and structure. So there is following level of management and organizational structure is presented.

Figure 2.3

Level of Management



There are also three levels of management in Gurans Life Insurance Company Limited.

1. Operational Level:

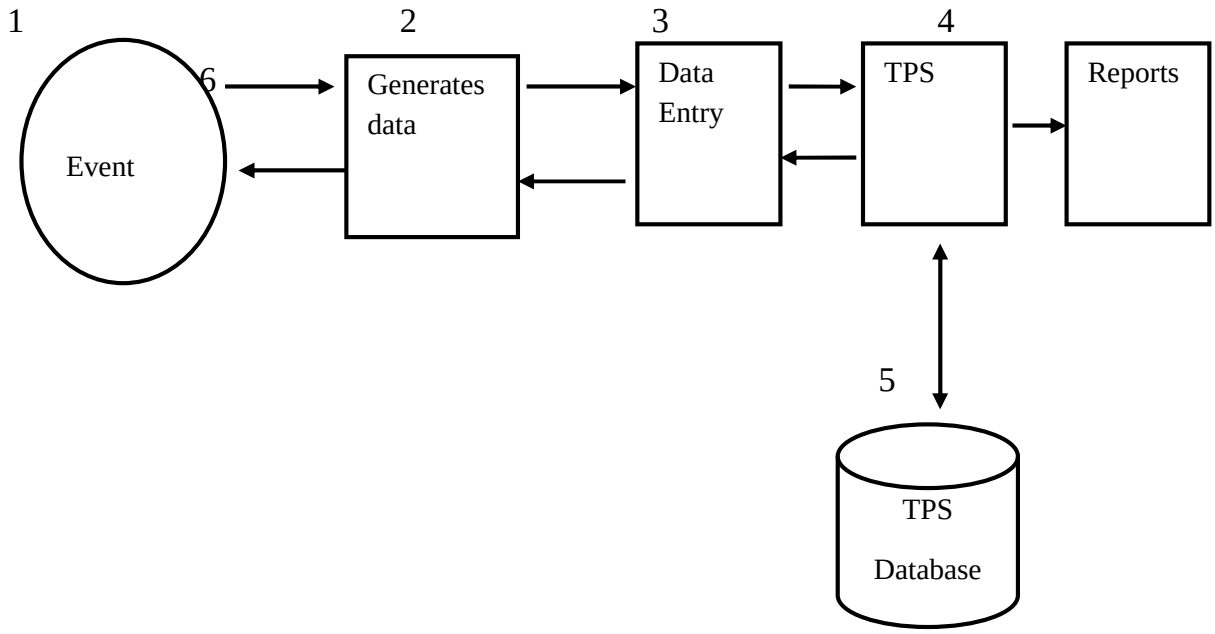
In this level there is used to be transact the day to day transactions of the company to make a database structure. There are also two levels in the operational level.

Transaction Processing System (TPS)

In the MIS of insurance companies, there are different departments or sub-systems; Underwriting sub-system, Account sub-system, Human Resource Management sub-systems, Agent Management sub-systems. Every departments have their own rules/regulations, norms culture and procedures of different task. So, here is presented the data processing in the Underwriting subsystem's TPS Level as follows.

Figure 2.4

Transaction Processing System Level



In Insurance companies, the agreement between the assured and insurer or insurance

company can be taken as event.

- After making the agreement between both parties the proposal form is used to fill and this can be taken as process of data generation.
- Data can be entered in the system as per the proposal form
- In this process there may be different validation, rules regulations and norms these are seemed by the system and user and processed as the TPS process.
- If the all validations valid and rule regulations obeyed by the proposer or user the proposal form used to be saved and stored in the TPS database.
- According to the data fulfilled by the user there can be generated different reports like; proposer detail or underwriting sheet. Acceptance letter. No of proposal is entered in the different parameters.

Office Automated System (OAS).

After generation of the data it is used to be filled in the organization's database by using the office automation system.

In this level there is entry levels of employees used to work.

2. Tactical Level

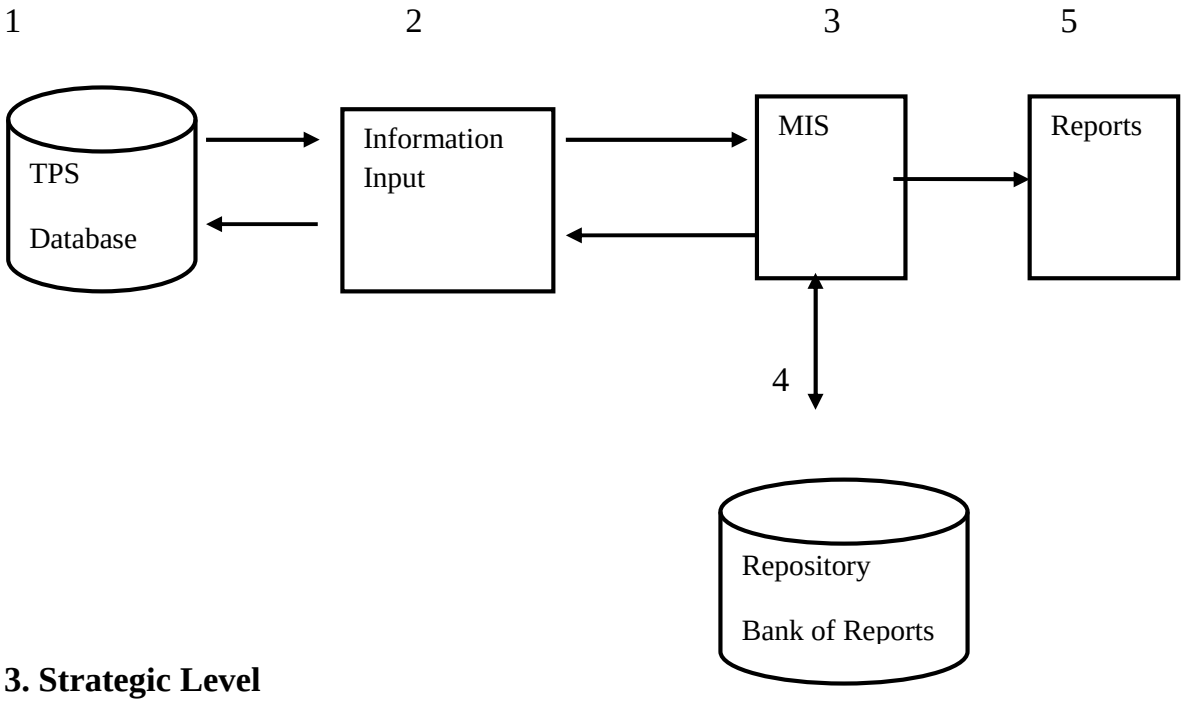
Tactical Level accepts information from the TPS database file and performs information processing i. e. grouping, summarizing, filtering the information to generate the reports there are two types of the reports:

a. Consolidated (e.g. Total Policy issued in certain date period by GLIC)

b. Comparative (e.g. Total Policy issued in the different years or different months by GLIC).

Figure 2.5

Tactical Level



3. Strategic Level

The steps followed in the tactical level as follows.

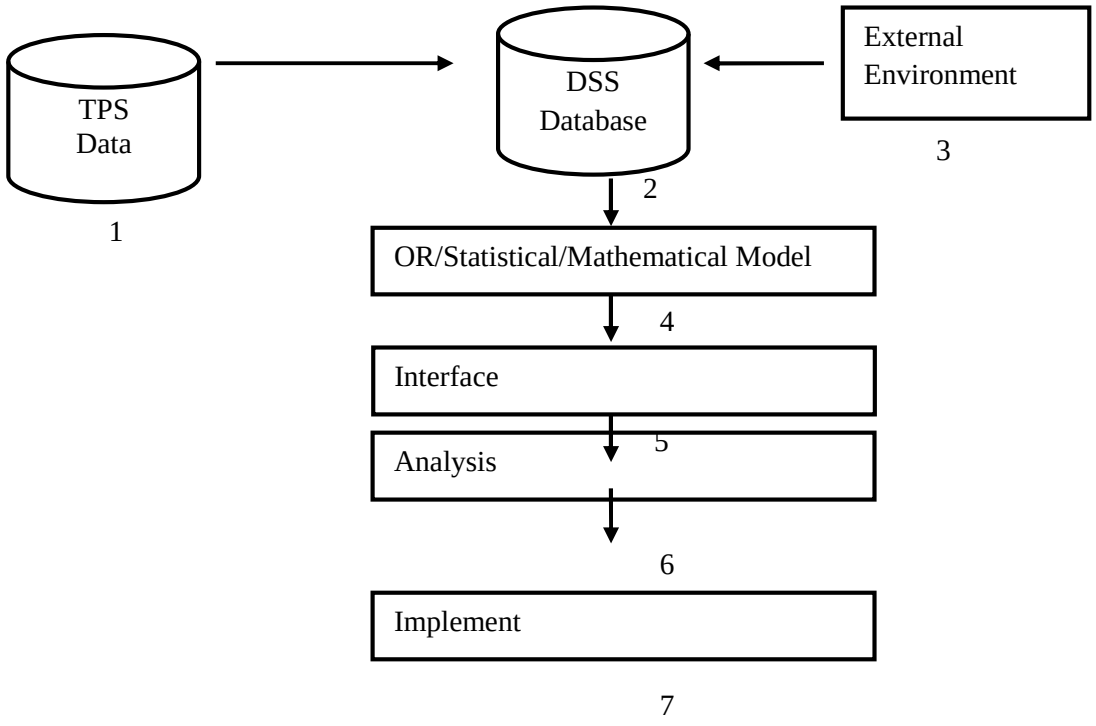
- The management information system starts with already existence of the TPS database. I.e. it takes the data from the TPS database.

- To retrieve the different reports it takes different parameters of generating reports like: In the insurance companies; to see the how many proposals entered in the database in particular date. They have to give the date rage to generate reports.
- After feeding the information to the system it gives the MIS reports.
- Then it can be stored in the data base for future use.
- Finally they can get the full reports as per their needs

Information System exist on the strategic level i.e. use of the MIS, DSS, AI and ES to facilitate the strategic decision making is called the strategic level.CEO, Board Members, Shareholder, Stakeholders, etc. are used to concern about this level.

Figure 2.6

Strategic Level



The steps followed in the strategic level.

- The main resource of data in any level is the TPS level. So, here is also need of TPS data in strategic level and to function it.

- After gathering the required TPS data it used to store its data in the own database for further processing.
- This level also may needs the external information for knowing about competitors or to processing the further procedure of the system.
- After gathering the needed information, strategic level has to do its work in its interface.
- And have to do analysis of different data of different statements to give the decision.
- Lastly, it prepares decision support statements and other reports to help making decisions.

2.1.3 Information Systems

System Concepts

A system is an integrated set of components or entities that interact to achieve a particular function or goal. Hence it can be simply defined as a group of interrelated or interacting elements forming a unified whole. The system concept can be generalized as.

Figure 2.7

System Concept

It has three basic components: input, processing and output.

A system, in general, can be defined as a group of interrelated components working together toward a common goal by accepting inputs and producing outputs in an organized transformation process.

Systems have characteristics such as boundaries, outputs, and inputs, methods of converting inputs into outputs and system interfaces, which facilitate interaction between its interacting elements. Bigger and complex systems are usually composed of interrelated and interdependent subsystems. Alternatively, we can say-a group of interrelated and interdependent simpler systems constitutes a bigger system.

Input: Input involves capturing and assembling elements that enter the system to be processed. Examples: raw materials, state of a subjects like sickness, data, etc.

Processing: Processing involves transformation processes that convert input output. Examples: retrieving premium rates according to input of different parameters of determining the premium rates.

Output: Output involves transferring elements that have been produced by a transformation process to their ultimate destination. Examples: finished products (like: Policy Paper), human services, information etc.

Boundaries: Boundaries of a system defines the scope of activities of the system. It delineates or defines the area of responsibility for the system. Example: The boundary of underwriting department of the insurance companies regulates about the different rules and norms to accept and rejects proposal for insuring. Interfaces An interface is the connection at system or subsystem boundaries. It facilitates or serves as a medium to convey output from one system to the input to another system facilitating interaction between systems or interacting elements.

Information System: System Concept Extension

An Information system is a system that accepts data (like resources) as inputs and processes them to transform into information (like products) as output.

Figure 2.8

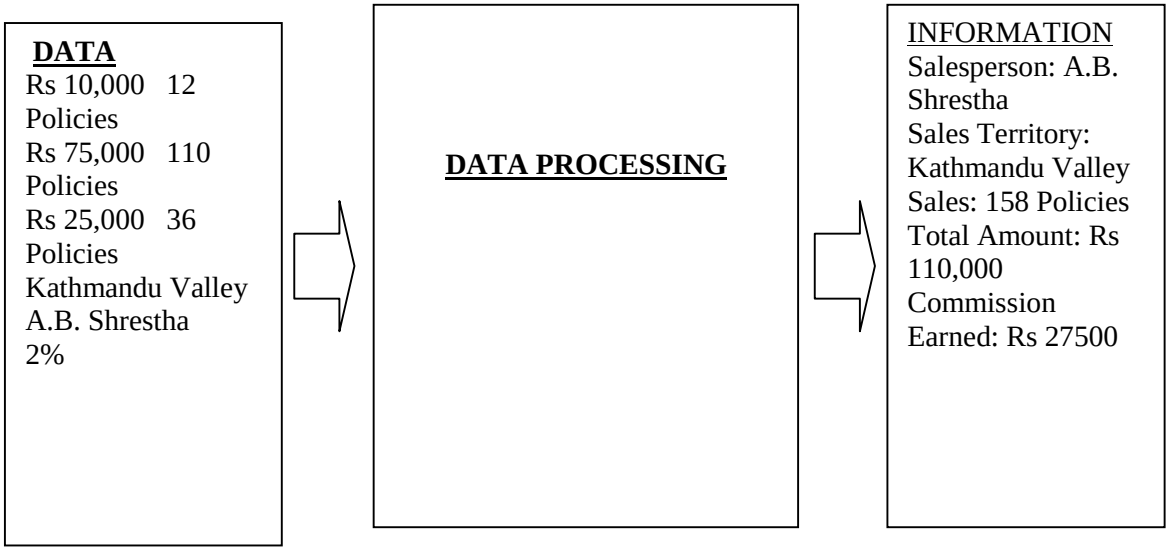
Information System

In Information Systems, data are the raw materials which gets converted to useful information after a processing- such as mathematical calculations or logical inferences or meaningful organizations

Following figure illustrate the how raw data is transferred into a meaningful information after data processing in a typical information system.

Figure 2.9

Data Processing System



Computer Based Information System: System Concept Extension

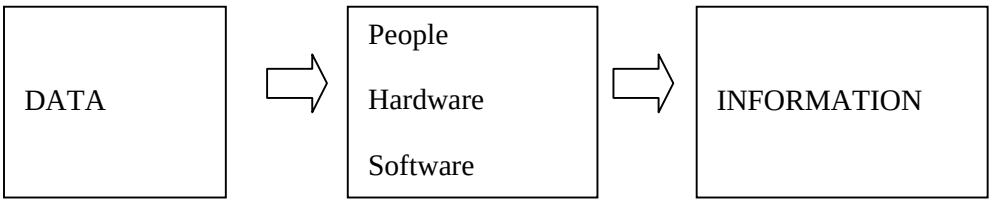
Any system that primarily utilizes computer systems or IT tools (computer, software, communication networks etc.) for processing inputs to generate information can be regarded as computer based information systems.

Information System Components: Interacting Elements

Information systems nowadays are typically computer based. The components of computer based information system are People, Hardware, Software, Stored data and Procedures. These components interact with each other to transform data to information in an organized manner.

Figure 2.10

Components of Information System



People : It includes management, end users and developers

End user: People who directly interact with the information system. They supply data to the system and receive information

Procedure: Procedures are typically in written form and include manuals and other documentation describing the task performed by all the people involved with the system.

Hardware: All physical equipment used within the information system. e.g. computers, terminals, printers, typewriter, check signature machine. Supplies used for hardware's operation as well as for data collection are also included in this categories Computers are not a required hardware component for every information system but it is one of the most components for computer based information system!!!

Software: Both Systems software and application software.

System software: Programs that control the hardware operation and software environment. E.g. Operating System (DOS, WINDOWS, NT Netware, UNIX

etc) Communication software, database management system, and utility programs

Application Software: Programs that directly support the information system in processing the data to produce required information. E.g. Spreadsheets, word processor, payroll, customer order entry, and billing. Some companies use in-house developed software while some use software packages. Most of business use combination of both.

Files: Most data processed within an information system must be retained for legal or for future processing needs. This retained data is stored in files and databases in computer's secondary storage or in paper form in various office files. These electronic files are critical information system component since all information either is produced directly or derived from data stored in those files

Information, a new key business resource

In pre-industrial era, the traditional economist considered land, labor and capital as only economic resources. With the emergence of industrial revolution and the availability of powered engines (such as steam engine) the importance of labor as a resource changed relatively with men and machines along with land and capital With increased mechanization in the farm as well as in the plant, the relative importance of land and labor reduced further. Mass manufacturing placed a premium on technology that emerged as a major resource in the later half 20^{th} century. With the recent information revolution, the prized resource actually is the information. And the economy of this information era is increasingly dependent on the creation, management and distribution of information resources.

Era	Resources	Key resource
Pre Industrial	Labor, Land, Capital	Labor
Industrial	Men, Machines, Materials, Land, Capital	Machine
Mechanized Industrial	Technology, Machine, Men, Materials, Land, Capital	Technology
Information	Information, Technology, Machine, Men, Materials, Land, Capital	Information

The importance of information as a key business resource can be better appreciated when one considers following two examples of introducing the new product in the market. In first example, we consider the time of introduction and in second example, we consider the pricing of the product. While the technology of two products would be comparable, the vendor who had the right market information and bought the product a few months ahead of the competitors wins substantially more market than the latter. Late introduction of a new technology product in the market may even lead to a collapse of the organization.

Similarly, while two products may be designed to satisfy similar customer need, the manufacturer who considers customer's purchasing power in designing the product will be able to offer it in affordable price and the manufacturer who do not have such information have to price his product based on the cost of production. Definitely, the first product has higher chance of success than the second product.

Information: a Key Resource

In fact, almost all of the organizational activities, such as planning, organizing, staffing, directing, controlling are based on availability of appropriate managerial information. These activities can be effectively conducted only if information needed is made available in time and information provided are relevant and accurate.

Hence, we can say that information is a key business or organizational resource. Like other business resources such as money, men, materials etc., this resource needs to be managed. This means we need a formal method to plan, monitor, control and evaluate the utilization of this resource so that it is available to everyone in the organization with appropriate authority and accountability. Management Information Systems are precisely such resource management agents.

Knowledge Workers

As mentioned earlier, one of the main resources in pre-industrial economy or an agricultural society is the labor. This Labor is mainly composed of farmers. Similarly, in industrial and mechanized industrial economy, the resource "men" mainly composed of factory workers.

People in many nations no longer live in agricultural society or even industrial society. Instead, much of the workforce in those nations consists of workers in service occupation. This workforce is termed as knowledge workers.

Knowledge workers are the people who spend most of their time communicating and collaborating in teams and workgroups and creating, using, and distributing information. Knowledge workers include executives, managers, and supervisors; professionals such as accountants, engineers, scientists, stockbrokers, and teachers; and staff personnel such as secretaries and clerical office personnel. They use knowledge, as a significant input to their work.

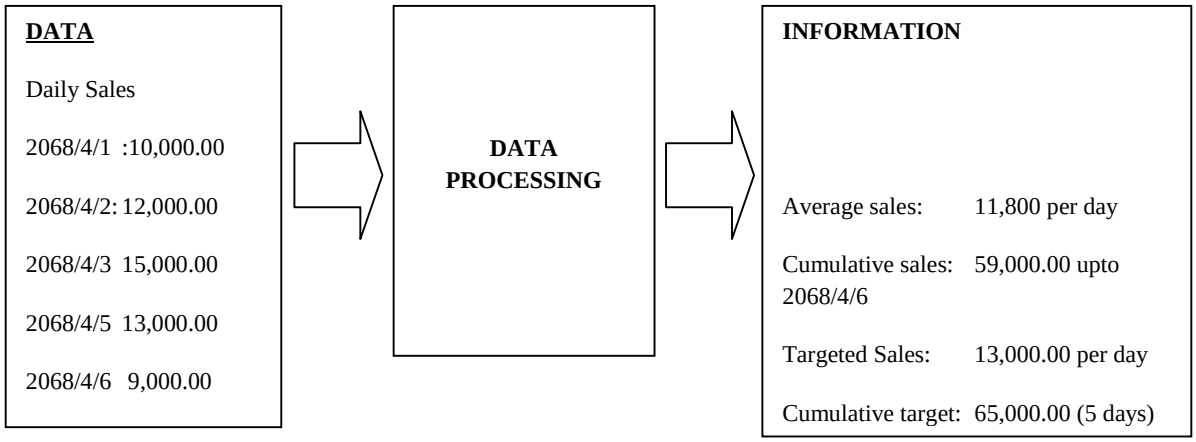
Information: Concepts

In MIS, information has a precise meaning and it is different from data. The information has a value in decision-making and while data does not have. Further, information brings clarity and creates an intelligent human response in the mind and data is in general will be less refined and may not necessarily be

in the form useful for human understanding. In MIS, information is a product generated after processing the data. The data, here, acts like raw materials, which need to be processed to be converted into the information.

Example:

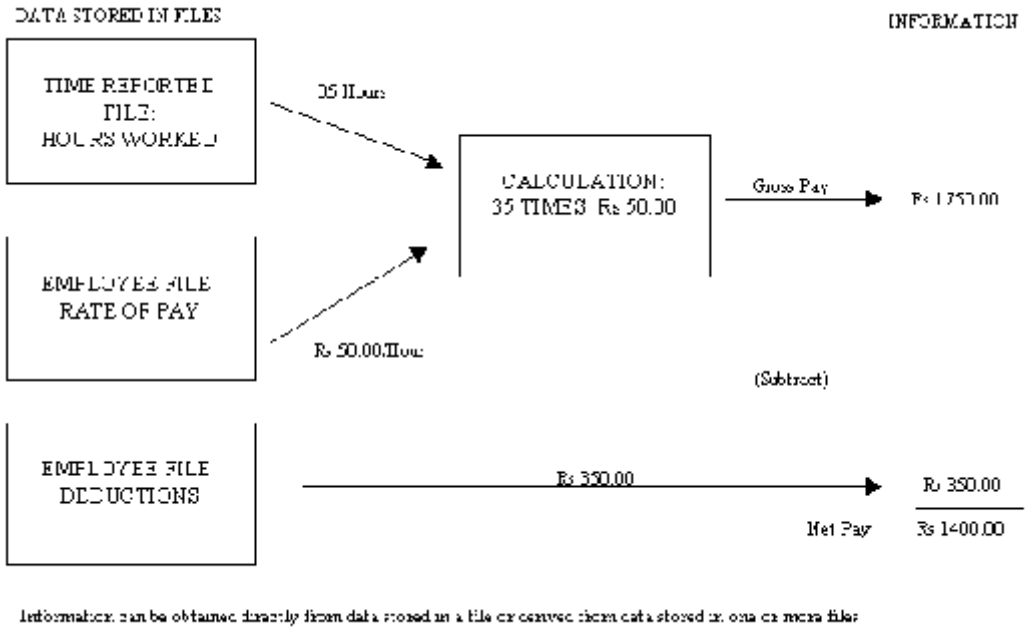
Information from Data Processing



Example of derivation or retrieval of information from files:

Figure 2.11

Retrieval of Information from file



Information can be obtained directly from data stored in a file or derived from data stored in one or more files

Information: Characteristics

Information has certain characteristics, these are

- It improves representation of an entity
- Updates the level of knowledge
- Has a surprise value

Information	Rs. Lakhs	Characteristics
Sales	10/day	Represents sales per day
Sales target	15/day	Represents sales target per day
Cumulative sales	510/60 days	Updates the knowledge about sales as on date
Sales performance ratio	85%	Represents performance of sales vs. target
Sales of new product (Exception report)	80/60 days	Reduces the uncertainty of sales of new products

- Reduces uncertainty
- Aids in decision making
- Further, the above information helps making necessary decision to undertake appropriate corrective measures to reduce variation between sales and the target.

Information: Definition

Davis and Olson defined information as data that has been processed into a form that is meaningful to the recipient and is of real or perceived value in current or prospective actions or decisions.

Types of Information

In general, information can be classified into three main categories based on the purpose for which it is utilized. These categories are

- Strategic Information
- Tactical Information
- Operational Information

Strategic Information

Strategic information is required by the executives or managers at the strategic level of management for the formulation of organizational strategies. This relates to the long term planning policies of the organization as a whole. For example, information relating to demand forecast of the type of product or services the organization produces or provides, anticipated internal and external environment in which the organization has to function etc are the kind of information needed for strategic activities.

Tactical Information

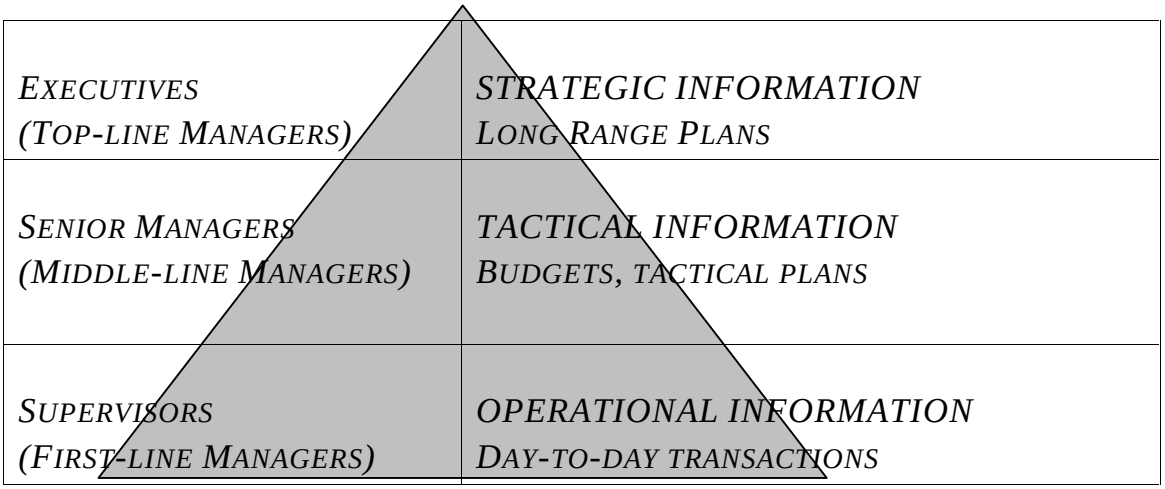
Information in this category is used in short-term planning and is of use at management control level. For example, for sales analyses and forecasts, production resource requirements, annual financial statements such as anticipated cash flow etc. This type of information is generally generate from analysis of historical data gathered internally from past organizations activities and some data collected from external sources.

Operational Information

Operational information applies to short periods, which may vary from an hour to couple of months. It is generally used by decision makers at the operational level. It is often required for taking immediate action. For example, information on current –stock in hand, work in progress –level, outstanding orders from customers, etc. The source of such information is usually the current activities.

Figure 2.12

Information in Different Level of Management



Information Requirement of Different Management Level

Quality of information

The quality of information refers to its fitness for use or its reliability. In fact, the manager will determine the quality of information based on the degree of enthusiasm it provides for action, and the contribution it provides for effective decision making. The quality of information is high if it creates managerial impact leading to attention, decision and action. The quality, however is not an absolute concept, rather it is defined within a context. The quality of information can be measured on the four dimensions viz., Utility, Satisfaction, Error and Bias

Utility

The utility dimension explains how much the information can be utilized. This dimension can be discussed in terms of four facets or four utility types, which may facilitate or retard the use of the information. These are the form, the time, the access (or place) and the possession.

Form utility

If the information is presented in the form the managers require, then its utility increases. Hence, in order to be of great value, the form of information should closely match the requirement of the user.

Time Utility

If the information is available when needed, the utility is optimized. This means, the information will be greater value if it is available when needed.

Access (or place) utility

If the information is easily and quickly accessible or deliverable preferably online, its utility is highly enhanced.

Possession Utility

The person who had the information influences its value by controlling its dissemination to others in the organization. Many of the organization suffer from the possessive nature of the managers making an access difficult for the other users of the organization. In such instances, possession of required information by the user himself improves the utility of the information. However, improving the quality through increasing a utility means an increase in the cost. The balance, therefore, is to be maintained between the cost and the utility.

Satisfaction

As mentioned earlier the quality is not an absolute thing. The concept of utility of the information is subjective to the individual managers, at least in terms of form, time, and access. Hence, the same information might be considered of having different quality among different. Therefore, one common key for measuring the quality could be the satisfaction of the decision maker. The degree of satisfaction would determine the quality of information.

Error

The information is completely not useable if it is erroneous. Erroneous information causes serious problems as the unaware decision maker might make crucial decisions based on erroneous data. Hence, the quality of information can be assured only if it can be ascertain the correctness of the information.

Bias

If the information is processed out of biased data, it will have a bias. The procedure of communicating the information should be such that the system is able to detect the degree and nature of bias and correct the information accordingly. The information, which is corrected from any biases, is of high quality.

2.2 Review of Articles

2.2.1 Management Information System

Overview of MIS

Initially 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.

Earlier, 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 amount 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): decision support systems, resource and people management applications, enterprise resource planning (ERP), enterprise performance management (EPM), supply chain management (SCM), customer relationship management (CRM), project management and database retrieval applications.

"The five eras are general-purpose mainframe and minicomputer computing, personal computers, client/server networks, enterprise computing, and cloud computing."(Management Information Systems: Managing the Digital Firm, 11th Edition. Prentice Hall/Course Smart, 12/30/2008. p. 164). The first era was ruled by IBM and their mainframe computers, these computers would often take up whole rooms and require teams to run them, IBM supplied the hardware and the software. As technology advanced these computers were able to handle greater capacities and therefore reduce their cost. By 1965 microprocessors began to take the market away from mainframe computers. This technology allowed small desktop computers to do the same work that it previously would have taken a room full of computers. This also decentralized computing power from large data centers to smaller offices. In the late 1970s minicomputer technology gave way to personal computers. Now for a relatively low cost anyone could have a computer in his own home. This allowed for businesses to give their employees access to computing power that 10 years before would have cost tens of thousands of dollars. This proliferation of computers also helped create a need to connect these computers together on a network giving birth to the Internet. As technology has increased and cheapened the need to share information across a large company had also grown, this gave way to the client/server era. With this era computers on a

common network were able to access shared information on a server. This allows for large amounts of data to be accessed by thousands and even millions of people simultaneously. The latest evolution of Information Systems is cloud computing a recent development, cloud computing lets users access data stored on a server, where they can not only see the data but also edit, save, download or upload. This along with high speed networks has led to a much more mobile view of MIS. In cloud computing the manager does not have to be at a desk to see what their employees are working on but instead can be on a laptop, tablet pc, or even smart phone.

An 'MIS' is a planned system of the collection, processing, storage and dissemination of data in the form of information needed to carry out the management functions. In a way, it is a documented report of the activities that were planned and executed. According to Philip Kotler "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.

The 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, Testing and Implementation.

A management information system (MIS) is a system or process that provides the information necessary to manage an organization effectively. MIS and the information it generates are generally considered essential components of prudent and reasonable business decisions. The importance of maintaining a consistent approach to the development, use, and review of MIS systems within the institution must be an ongoing concern of insurance management and. MIS should have a clearly defined framework of guidelines, policies or practices, standards, and procedures for the organization. These should be followed throughout the institution in the development, maintenance, and use of all MIS. MIS is viewed and used at many levels by management. It should be supportive of the institution's longer term strategic goals and objectives. To the other extreme it is also those everyday financial accounting systems that are used to ensure basic control is maintained over financial recordkeeping activities.

Financial accounting systems and subsystems are just one type of institutional MIS. Financial accounting systems are an important functional element or part of the total MIS structure. However, they are more narrowly focused on the internal balancing of an institution's books to the general ledger and other financial accounting subsystems. For example, accrual adjustments, reconciling and correcting entries used to reconcile the financial systems to the general ledger are not always immediately entered into other MIS systems.

Because MIS supplies decision makers with facts, it supports and enhances the overall decision making process. MIS also enhances job performance throughout an institution. 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.

Effective MIS should ensure the appropriate presentation formats and time frames required by operations and senior management is met. MIS can be maintained and developed by either manual or automated systems or a combination of both. It should always be sufficient to meet an institution's unique business goals and objectives. The effective deliveries of an institution's products and services are supported by the MIS. These systems should be accessible and useable at all appropriate levels of the organization.

MIS is a critical component of the institution's overall risk management strategy. MIS supports management's ability to perform such reviews. MIS should be used to recognize, monitor, measure, limit, and manage risks.

In another term, 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 controls procedures in a business, which cover the application of people, documents, technologies, and procedures used by management accountants 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 Systems, Expert systems, and Executive information systems.

2.2.2 Advantages of Management Information System

MIS provides the following advantages.

- It Facilitates planning: MIS improves the quality of plants by providing relevant information for sound decision - making. Due to increase in the size and complexity of organizations, managers have lost personal contact with the scene of operations.
- In Minimizes information overload: MIS change the larger amount of data in to summarize form and there by avoids the confusion which may arise when managers are flooded with detailed facts.
- MIS Encourages Decentralization: Decentralization of authority is possibly when there is a system for monitoring operations at lower levels. MIS is successfully used for measuring performance and making necessary change in the organizational plans and procedures.
- It brings Coordination: MIS facilities integration of specialized activities by keeping each department aware of the problem and requirements of other departments. It connects all decision centers in the organization.
- It makes control easier: MIS serves as a link between managerial planning and control. It improves the ability of management to evaluate and improve performance. The used computers has increased the data processing and storage capabilities and reduced the cost

2.2.3 Management Information System and Insurance

Apart from the challenges of deregulation, consolidation and convergence of financial services in nationwide, insurance companies has to bring out an innovative management information system to provide software solutions for insurance company, agents and clients providing insurance business management at a feasible cost features according to the relevant functionalities. There is need of fully online Insurance Management System Software solution

with featuring; automated and integrated policy processing system for both personal and commercial insurance carriers. It should be a scalable, reliable, and cost-effective solution for carrying out all business-critical insurance processing functions.

2.2.4 Management Information System of Insurance Companies should cover

MIS of Insurance Companies should cover the following systems for bringing smoothness in daily operation.

Insurance Policy Administration System

Insurance policy administration system consists of a mathematical notation that captures the relationship between policies and objects and the entities that manage policies for those objects. The Insurance policy administration system is consisting of a number of policy administration domains. The domains are arranged in a hierarchy, representing descending levels of authority.

The presence of an object in a domain represents the ability of the manager of that domain to write policy for that object. A number of important issues for policy administration are identified and addressed within the model.

Claims Management Systems

Insurance should build applications that will ensure claims are processed fast and efficiently. Operator flexibility is the key, and they aim to improve operator productivity while processing claims.

Real-time status for quick resubmission and faster reimbursements.

Unique claim aging tool shows thousands of claims status in one view. Insurance Claims System uses electronic filing system to primary and secondary payers. Each claim is scrubbed with up-to- date Medicare rules.

Claim Processing System should helps in quick resubmission for claim rejections.

Insurance Agency Management System

Insurance Agency Management System has to facilitate an insurance company's ability to address relationships with its product distribution channels. This system helps in managing current Agencies, can add New Agencies or Delete Current Agencies. Insurance Agency Management System is the solution that delivers to manage and grow insurance agency to assist day-to-day management of agency. Agency management utilized for small business, individual or enterprise business.

Insurance Agent Management System

Insurance Agent Management System maintains Multiple Agents from Multiple Agencies, keep the track of their activities from Policy Registration to Claim processing. All their data, their commission, their policies status updates, etc. are taken care by this module. Insurance system has to help in smooth functioning of the Agents working and makes the processes faster and efficient.

Policy Management System

Policy quotations engine is an on demand quotation management feature coupled with detailed profit optimization and approval management engines. With quotation engine insurance company can automate the sales and services processes that are currently being done using a hybrid of spreadsheets, documents and emails with little to no process control.

When insurance company has completed any ones quotation we can use the engine to seek approvals for non- standard pricing and/or terms and conditions. Discounts and loading management. Policy renewals and policy cancellation can be managed by the insurance policy management system. And about the renewal notification should be auto alerted to the assured.

User Management System

A new user registers by filling in a form on the company's web-site. If necessary, the new user is first place in a waiting list until we approve the new user. After adding the user, the user can login to the system with his or her username and password to make changes. Overviews of users can be changeable for mailing purposes etc. User Management System manages all the users of the system i.e. Staff, Customer, Administrator or Agents. It should keep the track of thee the activities they performs, their data, their access information, etc.

Endorsements Management System

Endorsements to a title insurance policy are addenda or attachments to the policy that may correct or modify a previously issued title policy, or alter or modify the provisions of the exceptions, conditions and stipulations of the title policy so that the insured party receives greater coverage than would exist under the terms of the unendorsed title policy. Endorsements create a greater liability for the title insurance underwriter, and therefore most endorsements require an additional charge to be collected in excess of the usual title insurance premium.

Data import / Export System

It handles large amounts of data to import and export it securely.

It does processing and management of large and sensitive data compression/decompression and/or encryption/decryption allowing the exchange of data through the network with high performance and stability, exchange of data among Web server(s), business application server(s) and database server(s) and account information including user passwords.

Policy Registration and Quotations Engine

Policy registration is intended to be a vehicle for the exploration and discussion of policy issues and is aimed in particular at enhancing communication between policy researchers, legislators, decision-makers, and professionals concerned with developing, implementing, and analyzing health policy. Policy quotations engine is an on demand quotation management feature coupled with detailed profit optimization and approval management engines. With quotation engine you can automate the sales and services processes that are currently being done using a hybrid of spreadsheets, documents and emails with little to no process control.

When you have completed your quotation you can use the engine to seek approvals for non- standard pricing and/or terms and conditions. Discounts and loading management.

Insurance Administration Management System

Insurance Administration Management system can manage multiple administrators and can have the track of the right assigned to them. It takes care that all the Administrators function with the system as per the rights assigned to them and they can get their work done in efficient manner. Customizable and strong administration system. Insurance Sales Management can be managed by insurance sales system.

Content Management System Module

Content Management System is used for managing the capture, storage, security, revision control, retrieval, distribution, preservation and destruction of documents and content. Content Management System especially concerns content imported into or generated from within an organization in the course of its operation, and includes the control of access to this content from outside of the organization's processes.

Content Management System is designed to manage unstructured content (and to a lesser degree structured data), so that an organization, such as a Insurance Companies, can more effectively meet business goals (increase profit or improve the efficient use of budgets), serve its customers (as a competitive advantage, or to improve responsiveness), and protect itself against non-compliance, law-suits, uncoordinated departments or turnover within the organization.

Insurance Document Management System

It's important to maintain documents so that we can get to them faster, and easily. IT depart should offers document management solutions for easy maintenance of insurance policies, endorsements, quotes, binders and the like. We can design our templates in common word processing tools, and the document management system will integrate and process these templates to generate and maintain documents. The documents can be retrieved at any time and are indexed in a database for quick searches. Insurance Document Management System is a secure file upload management system with built-in audit tracking, and is a plug-in extension to the Power Central Portal.

The System provides the capability for Health and Hospital Portal Editors to build secure document upload screens, with audit tracking, for the hospital department administrators to upload mandatory, mission-critical documents. Customized reports and Ad Hoc reports are generated from the system. Admin can set the access of all of the reports generated. This System will maintain the generation of the various reports which will be provided to the users as per the requirement. The reports like Modification Report, Policy Management Report, Payments Received Report, Agent commission report, etc. A Document is generated at every step of the system. These documents are then displayed within the hospital Intranet portal for authorized staff to review and download. This System is designed to create an audit trail of all document uploads, manage the process of document approval, and track viewer profile attributes.

Each group can have different criteria defining their document upload screen, such as document type, document size, upload time frame, and facility type.

Insurance Accounting and Automation

Insurance accounting is quite a complicated task, given the fact that there are so many issues with regulation, taxes, filing, commissions, brokers/underwriters, endorsements etc. We can build applications of insurance accounting systems and insurance billing systems that automate part of this task for you and help build better and more flexible solutions.

Workflow Solutions

New MIS system should offer workflow solutions that will ease the task of issuing claims, policies, reimbursements, payments etc. We can enforce hierarchical constraints and automate workflow, thereby ensuring that all our checks and balances are in place.

Auditing

Insurance is a highly regulated industry, so audit controls are very important. For this purpose, we can write audit control solutions customized to our purpose that will help us track and control business issues within your organization.

Business Intelligence

Reporting and charting solutions that will make sense of our data. Which can help us to analyze our past data for better decision-making and help us to make more informed decisions.

Online Data Back-up System

Online Back-up System is used to have the backed of the data on another server so that in case Original Data get Damage, Lost, etc. then the data is available for work.

This system helps in the Real Time Data Backup and maintains the data for the future purpose. It also facilities the data back-up at other Geographical location.

2.2.5 Introduction to Life Insurance

Life insurance is a contract between the policy holder and the insurer, where the insurer promises to pay a designated beneficiary a sum of money (the "benefits") upon the death of the assured person. Depending on the contract, other events such as terminal illness or critical illness may also trigger payment. In return, the policy holder agrees to pay a stipulated amount (the "premium") at regular intervals or in lump sums. In some countries, death expenses such as funerals are included in the premium.

The value for the policy owner is the 'peace of mind' in knowing that the death of the assured person will not result in financial hardship. Life policies are legal contracts and the terms of the contract describe the limitations of the assured events. Specific exclusions are often written into the contract to limit the liability of the assured; common examples are claims relating to suicide, fraud, war, riot and civil commotion.

Life-based contracts tend to fall into two major categories:

Protection Policies

Protection policies designed to provide a benefit in the event of specified event, typically a lump sum payment. A common form of this design is term insurance. In the Nepalese scenario there is expatiate plan for workers who goes to the overseas.

Investment Policies

Where the main objective is to facilitate the growth of capital by regular or single premiums. Common forms (in the Nepal) are whole life, universal life and variable life policies.

Parties to Contract

There is a difference between the assured and the policy owner (policy holder), although the owner and the assured are often the same person. For example, if Ram buys a policy on his own life, he is both the owner and the assured. But if Shyam, his son, buys a policy on Shyam's life, his son is the owner and he is the assured. The policy owner is the guarantee and he or his son will be the person who will pay for the policy. The assured is a participant in the contract, but not necessarily a party to it. However, "insurable interest" is required to limit an unrelated party from taking life insurance on, for example, Ram or Shyam.

The beneficiary receives policy proceeds upon the assured's death or maturity of the policy duration (term). The owner designates the beneficiary, but the beneficiary is not a party to the policy. The owner can change the beneficiary unless the policy has an irrevocable beneficiary designation. With an irrevocable beneficiary, that beneficiary must agree to any beneficiary changes, policy assignments, or cash value borrowing.

Contract Terms

Special provisions may apply, such as suicide clauses wherein the policy becomes null if the assured commits suicide within a specified time (usually two years after the purchase date; some states provide a statutory one-year suicide clause). Any misrepresentations by the assured on the application are also grounds for nullification. Most Nepalese insurance companies specify that the contestability period cannot be longer than two years; only if the assured dies within this period will the insurer have a legal right to contest the claim on the basis of misrepresentation and request additional information before deciding to pay or deny the claim.

The face amount on the policy is the initial amount that the policy will pay at the death of the assured or when the policy matures, although the actual death benefit can provide for greater or lesser than the face amount. The policy matures when the assured dies or reaches a specified age (such as 100 years old).

Costs, Insurability, and Underwriting

The insurer (the life insurance company) calculates the policy prices with intent to fund claims to be paid and administrative costs, and to make a profit. The cost of insurance is determined using mortality tables calculated by actuaries. Actuaries are professionals who employ actuarial science, which is based in mathematics (primarily probability and statistics). Mortality tables are statistically-based tables showing expected annual mortality rates. It is possible to derive life expectancy estimates from these mortality assumptions. Such estimates can be important in taxation regulation.

The three main variables in a mortality table have been age, gender, and use of tobacco. More recently in the Nepal, preferred class specific tables were introduced. The mortality tables provide a baseline for the cost of insurance. In practice, these mortality tables are used in conjunction with the health and family history of the individual applying for a policy in order to determine premiums and insurability. Mortality tables currently in use by life insurance companies in the Nepal are individually modified by each company on behalf of BEEMA SAMATI and nominated actuary for the company.

The insurance company receives the premiums from the policy owner and invests them to create a pool of money from which it can pay claims and finance the insurance company's operations. The majority of the money that insurance companies make comes directly from premiums paid, as money gained through investment of premiums can never, in even the most ideal

market conditions, vest enough money per year to pay out claims. Rates charged for life insurance increase with the assured age because, statistically, people are more likely to die as they get older.
Given that adverse selection can have a negative impact on the insurer's financial situation, the insurer investigates each proposed assured individual unless the policy is below a company-established minimum amount, beginning with the application process. Group Insurance policies are an exception.

This investigation and resulting evaluation of the risk is termed underwriting. Health and lifestyle questions are asked. Certain responses or information received may merit further investigation. As part of the application, the insurer receives permission to obtain information from the proposed assured physicians.

Underwriters will determine the purpose of insurance. The most common is to protect the owner's family or financial interests in the event of the assured demise. Other purposes include estate planning or, in the case of cash-value contracts, investment for retirement planning. Bank loans or buy-sell provisions of business agreements are another acceptable purpose.
Life insurance companies are never required by law to underwrite or to provide coverage to anyone, with the exception of Civil Rights Act compliance requirements. Insurance companies alone determine insurability, and some people, for their own health or lifestyle reasons, are deemed uninsurable. The policy can be declined (turned down) or rated. Rating increases the premiums to provide for additional risks relative to the particular assured.

Many companies use four general health categories for those evaluated for a life insurance policy. These categories are Preferred Best, Preferred, Standard, and Tobacco. Preferred Best is reserved only for the healthiest individuals in the general population. This means, for instance, that the proposed assured has no adverse medical history, is not under medication for any condition, and his

family (immediate and extended) have no history of early cancer, diabetes, or other conditions. Preferred means that the proposed assured is currently under medication for a medical condition and has a family history of particular illnesses. Most people are in the Standard category. Profession, travel, and lifestyle factor into whether the proposed assured will be granted a policy, and which category the assured falls. For example, a person who would otherwise be classified as Preferred Best may be denied a policy if he or she travels to a high risk country. Underwriting practices can vary from insurer to insurer which provide for more competitive offers in certain circumstances.

Death Proceeds

Upon the assured death, the insurer requires acceptable proof of death before it pays the claim. The normal minimum proof required is a death certificate and the insurer's claim form completed, signed (and typically notarized). If the assured's death is suspicious and the policy amount is large, the insurer may investigate the circumstances surrounding the death before deciding whether it has an obligation to pay the claim. Proceeds from the policy may be paid as a lump sum or as an annuity, which is paid over time in regular recurring payments for either a specified period or for a beneficiary's lifetime.

Insurance Vs Assurance

The specific uses of the terms "insurance" and "assurance" are sometimes confused. In general, in jurisdictions where both terms are used, "insurance" refers to providing coverage for an event that might happen (fire, theft, flood, etc.), while "assurance" is the provision of coverage for an event that is certain to happen. In the Nepal both forms of coverage are called "insurance", principally due to many companies offering both types of policy, and rather than refer to themselves using both insurance and assurance titles, they instead use just one.

Types of life Insurance

Life insurance may be divided into two basic classes – temporary and permanent or following subclasses – term, universal, whole life and endowment life insurance.

Term Insurance

Term assurance provides life insurance coverage for a specified term of years in exchange for a specified premium. The policy does not accumulate cash value. Term is generally considered "pure" insurance, where the premium buys protection in the event of death or other accidents; contracted in the policy paper and nothing else.

There are three key factors to be considered in term insurance:
Face amount (protection or death benefit / accident if contracted in the policy paper).

Premium to be paid (cost to the assured), and Length of coverage term. Various insurance companies sell term insurance with many different combinations of these three parameters. The face amount can remain constant or decline. The term can be for one or more years. The premium can remain level or increase. Common types of term insurance include Level, Annual Renewable and Mortgage insurance. But, most of the insurers used to receive the single premium payment system of term life insurance policy in Nepal.

Level Term policy has the premium fixed for a period of time longer than a year. These terms are commonly 1, 2,3,4,5, 10, 15, 20, 25, 30 and even 35 years. Level term is often used for long term planning and asset management because premiums remain consistent year to year and can be budgeted long term. At the end of the term, some policies contain a renewal or conversion option. Guaranteed Renewal, the insurance company guarantees it will issue a policy of equal or lesser amount without regard to the insurability of the

assured and with a premium set for the assured age at that time. Some companies however do not guarantee renewal, and require proof of insurability to mitigate their risk and decline renewing higher risk clients (for instance those that may be terminal). Renewal that requires proof of insurability often includes a conversion options that allows the assured to convert the term program to a permanent one that the insurance company makes available. This can force clients into a more expensive permanent program because of anti selection if they need to continue coverage. Renewal and conversion options can be very important when selecting a program.

Annual renewable term is a one year policy but the insurance company guarantees it will issue a policy of equal or lesser amount without regard to the insurability of the assured and with a premium set for the assured age at that time.

Another common type of term insurance is mortgage insurance, which is usually a level premium, declining face value policy. The face amount is intended to equal the amount of the mortgage on the policy owner's residence so the mortgage will be paid if the assured dies.

A policy holder insures his life for a specified term. If he dies before that specified term is up (with the exception of suicide see below), his estate or named beneficiary receives a payout. If he does not die before the term is up, he receives nothing. However, in some European countries (notably Serbia), insurance policy is such that the policy holder receives the amount he has assured himself to, or the amount he has paid to the insurance company in the past years. Suicide used to be excluded from ALL insurance policies , however, after a number of court judgments against the industry, payouts do occur on death by suicide (presumably except for in the unlikely case that it can be shown that the suicide was just to benefit from the policy). Generally, if an assured person commits suicide within the first two policy years, the insurer

will return the premiums paid. However, a death benefit will usually be paid if the suicide occurs after the two year period.

Permanent Life Insurance

Permanent life insurance is life insurance that remains in force (in-line) until the policy matures (pays out), unless the owner fails to pay the premium when due (the policy expires OR policies lapse). The policy cannot be canceled by the insurer for any reason except fraud in the application, and that cancellation must occur within a period of time defined by law (usually two years). Permanent insurance builds a cash value that reduces the amount at risk to the insurance company and thus the insurance expense over time. This means that a policy with a million rupees face value can be relatively expensive to a 70 year old. The owner can access the money in the cash value by withdrawing money, borrowing the cash value, or surrendering the policy and receiving the surrender value.

The four basic types of permanent insurance are whole life, universal life, limited pay and endowment.

Whole life Coverage

Whole life insurance provides for a level premium, and a cash value table included in the policy guaranteed by the company. The primary advantages of whole life are guaranteed death benefits; guaranteed cash values, fixed and known annual premiums, and mortality and expense charges will not reduce the cash value shown in the policy. The primary disadvantages of whole life are premium inflexibility, and the internal rate of return in the policy may not be competitive with other savings alternatives. Also, the cash values are generally kept by the insurance company at the time of death, the death benefit only to the beneficiaries. Riders are available that can allow one to increase the death benefit by paying additional premium. The death benefit can also be increased through the use of policy dividends. Dividends cannot be guaranteed and may

be higher or lower than historical rates over time. Premiums are much higher than term insurance in the short term, but cumulative premiums are roughly equal if policies are kept in force until average life expectancy.

Cash value can be accessed at any time through policy "loans" and are received "income-tax free". Since these loans decrease the death benefit if not paid back, payback is optional. Cash values support the death benefit so only the death benefit is paid out.

Dividends can be utilized in many ways. First, if Paid up additions is elected, dividend cash values will purchase additional death benefit which will increase the death benefit of the policy to the named beneficiary. Another alternative is to opt in for 'reduced premiums' on some policies. This reduces the owed premiums by the unguaranteed dividends amount. A third option allows the owner to take the dividends as they are paid out. (Although some policies provide other/different/less options than these - it depends on the company for some cases)

Universal Life Coverage

Universal life insurance (UL) is a relatively new insurance product intended to provide permanent insurance coverage with greater flexibility in premium payment and the potential for greater growth of cash values. There are several types of universal life insurance policies which include "interest sensitive" (also known as "traditional fixed universal life insurance"), variable universal life (VUL), guaranteed death benefit, and equity indexed universal life insurance.

A universal life insurance policy includes a cash value. Premiums increase the cash values, but the cost of insurance (along with any other charges assessed by the insurance company) reduces cash values. However, with the exception of VUL, interest is credited on cash values at a rate specified by the company and

may also increase cash values. With VUL, cash values will ebb and flow relative to the performance of the investment subaccounts the policy owner has chosen. The surrender value of the policy is the amount payable to the policy owner after applicable surrender charges, if any.

Universal life insurance addresses the perceived disadvantages of whole life – namely that premiums and death benefit are fixed. With universal life, both the premiums and death benefit are flexible. Except with regards to guaranteed death benefit universal life, this flexibility comes at a price: reduced guarantees.

Depending on how interest is credited, the internal rate of return can be higher because it moves with prevailing interest rates (interest-sensitive) or the financial markets (Equity Indexed Universal Life and Variable Universal Life). Mortality costs and administrative charges are known. And cash value may be considered more easily attainable because the owner can discontinue premiums if the cash value allows it.

Flexible death benefit means the policy owner can choose to decrease the death benefit. The death benefit could also be increased by the policy owner but that would (typically) require that the assured go through new underwriting. Another example of flexible death benefit is the ability to choose option A or option B death benefits - and to be able to change those options during the life of the assured.

Option A is often referred to as a level death benefit. Generally speaking, the death benefit will remain level for the life of the assured and premiums are expected to be lower than policies with an Option B death benefit. Option B pays the face amount plus the cash value. If cash values grow over time, so would the death benefit which is payable to the assured beneficiaries. If cash

values decline, the death benefit would also decline. Presumably option B death benefit policies require greater premium than option A policies.

Limited-Pay

Another type of permanent insurance is Limited-pay life insurance, in which all the premiums are paid over a specified period after which no additional premiums are due to keep the policy in force. Common limited pay periods include 10-year, 20-year, and paid-up at age 65.

Endowments

Endowments are policies in which the cash value built up inside the policy, equals the death benefit (face amount) at a certain age. The age this commences is known as the endowment age. Endowments are considerably more expensive (in terms of annual premiums) than either whole life or universal life because the premium paying period is shortened and the endowment date is earlier.

In the United States, the Technical Corrections Act of 1988 tightened the rules on tax shelters (creating modified endowments). These follow tax rules as annuities and IRAs do. Endowment Insurance is paid out whether the assured lives or dies, after a specific period (e.g. 15 years) or a specific age (e.g. 65).

Accidental Death

Accidental death is a limited life insurance that is designed to cover the assured when they pass away due to an accident. Accidents include anything from an injury, but do not typically cover any deaths resulting from health problems or suicide. Because they only cover accidents, these policies are much less expensive than other life insurances.

It is also very commonly offered as "accidental death and dismemberment insurance", also known as an AD&D policy. In an AD&D policy, benefits are available not only for accidental death, but also for loss of limbs or bodily functions such as sight and hearing, etc.

Accidental death and *AD&D* policies very rarely pay a benefit; either the cause of death is not covered, or the coverage is not maintained after the accident until death occurs. To be aware of what coverage they have, an assured should always review their policy for what it covers and what it excludes. Often, it does not cover an assured who puts themselves at risk in activities such as: parachuting, flying an airplane, professional sports, or involvement in a war (military or not). Also, some insurers will exclude death and injury caused by proximate causes due to (but not limited to) racing on wheels and mountaineering.

Accidental death benefits can also be added to a standard life insurance policy as a rider. If this rider is purchased, the policy will generally pay double the face amount if the assured dies due to an accident. This used to be commonly referred to as a double indemnity coverage. In some cases, some companies may even offer a triple indemnity cover.

Related Life Insurance Products

Riders are modifications to the insurance policy added at the same time the policy is issued. These riders change the basic policy to provide some feature desired by the policy owner. A common rider is accidental death, which used to be commonly referred to as "double indemnity", which pays twice the amount of the policy face value if death results from accidental causes, as if both a full coverage policy and an accidental death policy were in effect on the assured. Another common rider is premium waiver, which waives future premiums if the assured becomes disabled.

Joint life insurance is either a term or permanent policy insuring two or more lives with the proceeds payable on the first death or second death. Survivorship life: is a whole life policy insuring two lives with the proceeds payable on the second (later) death. Single premium whole life: is a policy with only one premium which is payable at the time the policy is issued. Modified whole life:

is a whole life policy that charges smaller premiums for a specified period of time after which the premiums increase for the remainder of the policy.

Group life insurance: is term insurance covering a group of people, usually employees of a company or members of a union or association. Individual proof of insurability is not normally a consideration in the underwriting. Rather, the underwriter considers the size and turnover of the group, and the financial strength of the group. Contract provisions will attempt to exclude the possibility of adverse selection. Group life insurance often has a provision that a member exiting the group has the right to buy individual insurance coverage.
Senior and preneed products: Insurance companies have in recent years developed products to offer to niche markets, most notably targeting the **senior** market to address needs of an aging population. Many companies offer policies tailored to the needs of senior applicants. These are often low to moderate face value whole life insurance policies, to allow a senior citizen purchasing insurance at an older issue age an opportunity to buy affordable insurance. This may also be marketed as final expense insurance, and an agent or company may suggest (but not require) that the policy proceeds could be used for end-of-life expenses.

Preneed (or prepaid) insurance policies: are whole life policies that, although available at any age, are usually offered to older applicants as well. This type of insurance is designed specifically to cover funeral expenses when the assured person dies. In many cases, the applicant signs a prefunded funeral arrangement with a funeral home at the time the policy is applied for. The death proceeds are then guaranteed to be directed first to the funeral services provider for payment of services rendered. Most contracts dictate that any excess proceeds will go either to the assured estate or a designated beneficiary.

- **Investment Policies**
- **With-Profits Policies**

Some policies allow the policyholder to participate in the profits of the insurance company these are with-profits policies. Other policies have no rights to participate in the profits of the company, these are non-profit policies. With-profits policies are used as a form of collective investment to achieve capital growth. Other policies offer a guaranteed return not dependent on the company's underlying investment performance; these are often referred to as without-profit policies which may be construed as a misnomer. Pensions: Pensions are a form of life assurance. However, whilst basic life assurance, permanent health insurance and non-pensions annuity business includes an amount of mortality or morbidity risk for the insurer, for pensions there is a longevity risk.

A pension fund will be built up throughout a person's working life. When the person retires, the pension will become in payment, and at some stage the pensioner will buy an annuity contract, which will guarantee a certain pay-out each month until death.

Annuities

An annuity is a contract with an insurance company whereby the assured pays an initial premium or premiums into a tax-deferred account, which pays out a sum at pre-determined intervals. There are two periods: the accumulation (when payments are paid into the account) and the annuitization (when the insurance company pays out). IRS rules restrict how you take money out of an annuity. Distributions may be taxable and/or penalized.

Tax and Life Insurance

Taxation of Life Assurance in the Nepal

If someone has bought the life insurance policy he can be relief tax to pay the government of Nepal. Government of Nepal can allow not paying the income tax up to Rs. 20000 of premium.

Pension Term Assurance

Although available before April 2006, from this date pension term assurance became widely available in the UK. Most UK product providers adopted the name "life insurance with tax relief" for the product. Pension term assurance is effectively normal term life assurance with tax relief on the premiums. All premiums are paid net of basic rate tax at 22%, and higher rate tax payers can gain an extra 18% tax relief via their tax return. Although not suitable for all, PTA briefly became one of the most common forms of life assurance sold in the UK until the Chancellor, Gordon Brown, announced the withdrawal of the scheme in his pre-budget announcement on 6 December 2006. The tax relief ceased to be available to new policies transacted after 6 December 2006; however, existing policies have been allowed to enjoy tax relief so far. Nowadays these types of policies also emerged in the Nepal also.

2.2.6 Introduction of Gurans Life Insurance Co. Ltd.

Gurans Life Insurance Co .Ltd. has been established and registered under Company Act 2063 B.s.(Regd. No. 1005/063-64) and Insurance Act 2049 as a public Limited Co. and was issued a license to operate Life Insurance Business on 2064/12/18. And It has started its operation from the date of 2065/02/17 (1st July 2008).

Gurans Life Insurance Co .Ltd. is promoted by a Commercial Bank, T.M Dugar Group along with group of diverse and renowned Businessmen, Industrialist and Legal professionals and other reputed persons in the society.

Capital

Gurans Life Insurance Co .Ltd. have total authorized capital of 50 Crore and Issued capital of 36 crore. Out of the issued capital, 70% amounting to 25 crore 20 lakh has been contributed by the promoter shareholder and the remaining 30% amounting to NRS. 10 Crore 80 lakh has been issued in public shareholder.

Re-Insurance

Insurance company has to insurance with the reinsurance company so, the Company has made reinsurance arrangement with SCOR GLOBAL LIFE SE, SINGAPORE.

Vision

To develop the company as an important entity in contributing to social as well as financial sector towards making New Nepal.

To invest and expand business in international market for providing maximum benefit to policyholders.

Mission

Create resources and generate employment opportunities and promote saving habits of individuals for their financial stability and improvement of their living standard.

Products of the Gurans Life Insurance Co. Ltd.

- Gurans Bal Surakshaya Jeevan Bima Yojana
- Naulo Bal Surakshaya Jeevan Bima Yojana
- Endowment Plan
- Endowment with Whole Life
- Money Back 15 and 20 years term
- Expatriates Term Life Insurance Plan

2.3 Review of Related Research Studies

Nowadays, information is used to be recognized as corporate assets. In classical economics the land, labor and capital were assured as main factor of production but in the modern age, there have become the five M's: man, money, machine, material and management. In order to challenge to five M's Information is emerged as sixth factor of production. Information has vital role in decision making. 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 to solve the problem understudy (Er . Shankar Nath Adhikary, 2066).

Levels of Decisions

Fundamentally managerial activities and decisions can be segregated into 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

For decision making, generally lower management concerned with operational information 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.

Levels of Decisions in Gurans Life Insurance Co. Ltd.

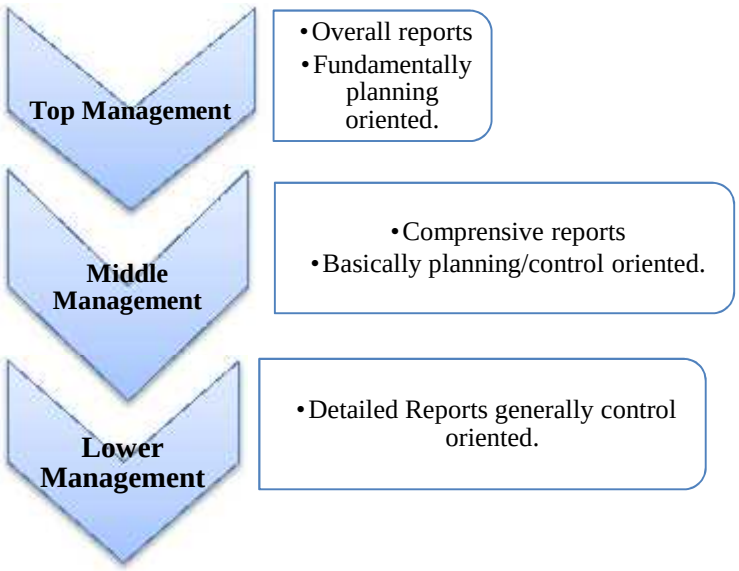
Figure 2.13

Information need for Decision

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

Figure 2.14

Types of Information Reports needed by Management Levels for Planning and Control



On the other hand, lower echelons of management, being control oriented, receive the most detailed reports . Between top and lower management is middle management, which is planning oriented. All three levels of informational need are illustrated in Figure above. The relationship of types of decisions to the managerial Level – support functions.

Examples that depict the relationships of types of decisions to t he Managerial Level – Support Function

Managerial Level Support Function	**Types of Decision**	**Examples**
Top Management: Concerned with strategic planning.	Structured Semi-Structured Unstructured	Plant and warehouse locations Mergers and acquisitions Future produces
Middle Management Concerned with managerial control	Structured Semi-Structured Unstructured	Flexible budgets and cost analysis Forecasting and sales promotion Subcontracting and motivation of personnel
Lower Management Concerned with operational control	Structured Semi-Structured Unstructured	Accounts payable and payroll preparation Accounts receivables and purchasing Customer waiting lines and

		situations involving group behavior

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

Types of Decision

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

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

- Quantitative Approach
- Qualitative Approach

Quantitative Framework

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

Qualitative Framework

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

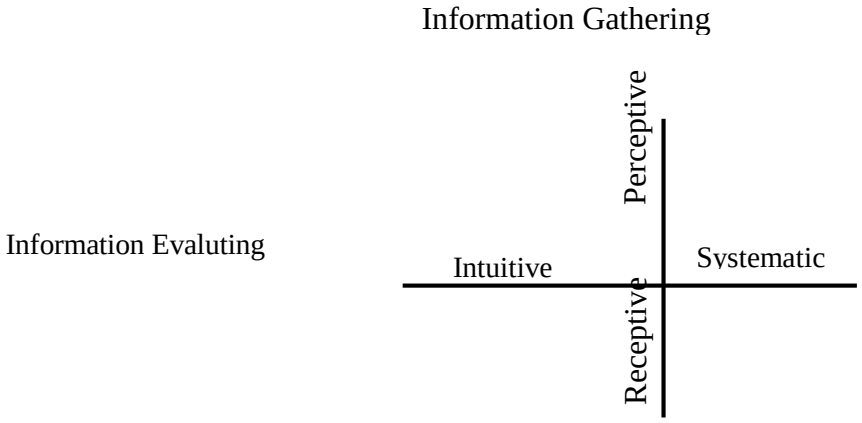
Systematic –Intuitive Approach
Thinking – Feeling Approach
Normative – Descriptive Approach

2.3.1 Systematic –Intuitive Approach

Problem solving and Decision making can be viewed in terms of processes through which individuals organize the information they perceive in their environment, bringing to bear habits and strategies of thinking.

Figure 2.15

Systematic –Intuitive Approach



James McKenney and Peter Keen's this view of decision-making is based on: Information gathering and Information evaluation.

2.3.2 Thinking – Feeling Approach

This second way of viewing decision-making approach is by C. G. Jung thinking types base their decision logical modes of reasoning. In effect, they do not feel comfortable unless they have an analytical, mathematical bas is for decision-making. Feeling types make their decision based on extremely personal considerations – their feeling about a particular situation. Thinking types want to depersonalize every situation, objects and person by "explaining them, where as Feeling type want to personalize every situation by stressing their individuality. An individual takes in data by intuition or sensations. The person may come to conclusion about the data by either a logical, impersonal analysis – thinking, or by subjective, personal process - feeling. Combining the two input modes with two decision-making modes we get four Jungian personality types which are mentions below:

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

Intuitive – feeling type,

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

2.3.3 Normative- Descriptive Approach

The third approach of viewing decision -making is based in terms of two general types of decision models . These two decision models are now commonly in us e. These are normative Model and descriptive model. The normative framework describes the traditional decision making situation in which a decision maker faces a known set o f alternatives and s elects a course of action by a rational selection process. This approach presumes, a decision maker is objectively optimizing a quantifiable measure of decision quality. (This may be a statistical measure because future is never completely known). There is , in other words, a normed scale against which decision can be measured - and it is often assumed, unlimited time and resources to devout to analyzing the decision. The descriptive framework incorporates adaptive or learning feature s and the act of choice spans many dimension of behavior, rational as well as non - rational. Descriptive models, by contrast, attempts to describe the way people really do make decisions. We don't always have agreed upon measures of decision quality, we don't usually have unlimited time and resources to devout to analyze a decision and we often have motivations that can be hard to explain or justify.

2.4 Review of Old Thesis

Ishwor Acharya has been written thesis on the topic of "*Implementation of Management Information System in Royal Nepal Airlines Corporation*" (A case study in Marketing Department) and he has pointed the major findings as follows.

- Royal Nepal Airlines is one of the complex organizations due to its nature of service and wide area of marketing activities.
- Marketing Department of RNAC has a multidivisional structure but in reality the structure is ambiguous.

- The information system in Marketing Department is based on Traditional paper-based information and manual filing system. Manual flow of documents except computerized Reservation System of international flight ticket through ABACUS and other CRS software.
- Lack of a 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.
- Information announced in Nepali medium through Radio Nepal regarding flights schedules by the Marketing Department is quite traditional.
- Lack of proper informational infrastructure to communicate with different domestic stations causes problems in planning flight schedules.
- Micro computers in each division are not utilized. They are used only to keep records to some extent and used to type ma terial whenever ne eded in order to submit the report to the department director and CEO.
- Information does not flow systematically due to absence of Network Based Computerized information system to coordinate and communicate with different divisions and units of the Marketing Department.
- MIR unit of Marketing Department generally accumulates the information from different divisions and compiles them in a given format and prints out to submit the weekly and monthly information report.
- Due to mishandling, misunderstanding and information gap; frequent flight delay, flight cancellation and changes in flight schedules are common.
- Network-based computerized information system is necessary for systematic flow of information.
- Traditional paper based information system creates delay in making decisions. 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:

- Lack of equipment and accessories
- Lack of technical manpower
- Lack of IT experts
- Budget for Installation of New Technology, etc.

Another thesis writer Padma Maharjan has been completed on the topic of **"**Role of MIS on Nepal Credit and Commerce Bank Ltd**."** and pointed the major findings as follows

- Banks are among the most important financial institutions in the economy and essential business in thousands of local towns and cities. Thus, the banking sector is one of the most significant service industries. It plays a vital role in the economic development and financial health of any ountry. An effective banking system leads to the effective mobilization of source like saving and investment, which in turn leads to the sound economy health of the country. Bank offers various types of services to its customer to facilitate the economic transaction. Therefore, customer satisfaction highly depends upon the quantity and quality of services offered by the bank.
- Regarding the use of computer based information system, NCC Bank has already introduced a computer based information system (CBIS) and is providing its services through fully computerized branches and 260 well trained personnel. 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 competitive advantage. This is only possible through proper information technology.Among all the commercial bank, Nepal Credit and Commerce Bank Limited (NCCB) was the first private sector bank with largest

authorized capital of NRS. 1,000 million that provides banking facilities and services to rural and urban areas of the Kingdom through its 17 branches. Nepal-Bank of Ceylon Limited was changed to NCCB on due to the transfer of shares and management from Sri Lankan co-venture to Nepalese Promoters. The Bank strives to enhance shareholders' wealth acting as a catalyst to facilitate raid economic growth and socio economic development of the nation by identifying strength, weakness, opportunity and threats (SWOT analysis), providing excellent customer oriented services. The Bank has developed corresponding agency relationship with more than 150 International Banks having worldwide network.

- Current Economic Affairs, update of Nepalese Economy, Branch Information, Product Information and Financial Sector Review etc. with a view to arouse interest among staff members and existing and potential customers and corporate so that they will be able to update their knowledge about the financial sector and NCC Bank.
- Current management information system in the bank. And the result also shows that need of the computerized information system in the bank are high. Respondents also agree that computerized information system ultimately enhance the performance of the bank.
- NCC Bank was using two banking software, Bank 2000 and the Pumori Plus. Bank 2000 is more advanced than the currently used software but due to its high cost and less knowledge to upper level it was totally replaced by the Pumori Plus in all the branch of the Bank. Therefore, NCCB realizes that it is always easy to start with simple information system before applying a vast and multi module information system in the bank.
- Pumori Plus is the Nepal made banking software to suit the commercial banking activities. As Pumori Plus is updated version of Pumori software, it includes almost all the modules that required for the commercial bank. However, there are few constraints regarding the Pumori Plus despite being the old version. The features of the Pumori Plus do not totally suit the NCCB need. However, the main problem lies as there is a limited

support from the software vendor and the lack of training among the staff to operate the new system.

2.5 Research Gap

This thesis is based on the working knowledge IT department of the company and study of which type of Management Information System is used to practice in the Nepalese Insurance Companies or especially in the Gurans Life Insurance Company Ltd. and which type of Management Information System should be used for the smooth running of insurance business. I have used different ERD, Flow Charts and DFD tools to make research useful. And there is not any research study on the topic of Management Information System in Insurance Companies. So, that this is the main feature of the thesis. But other portion of the thesis is same as the usual thesis.

CHAPTER III

RESEARCH METHODOLOGY

3.1 Research Design

"Research design is a plan, structure and strategy of investigation conceived so as to obtain answer to research question and to control the variance" (Kerlinger , 1999). Thus, research design is an overall pan or framework for the collection and analysis of data which provides the framework for the study, guidelines for the collection and analysis of data. This thesis is based on observation while working as an employee in the company. During my working period as an employee at GLIC, I have been working in the Information Technology (IT) Department to support the Software and MIS of the company and handle the troubles if arises associated with IT. However, the study was focused on the Management Information System in Insurance Companies a case study on MIS in Gurans Life Insurance Company Ltd. It has 25 branches and around fifty of sales center. But, it is using the Siddhi Life Software (OLTP) for the management of the data related to the underwriting, agency, marketing and account department on real time basis in seven regional branches and one corporate office. And recently, it has launched a Siddhi SMS System to give the facility to its client about transactions alerts, renewal premium notice and bulk messing systems. In future, it has planned to expand the using of the OLTP software in other branches also. For the HR department it is using electronic attendance management software with electronic device. So, study is mainly focused on the core function of the underwriting department and overall MIS of the company. Here, I have tried to clear in the MIS in the Insurance companies with the help of DFD, ERD, Control Flow charts, etc.

3.2 Population and Sample

There are nine life insurance companies in Nepal;

- Rastriya Beema Sansthan.

- National Life Insurance Company Ltd.
- Nepal Life Insurance Company Ltd.
- LIC Nepal.
- ALICO Met Life.
- Asian Life Insurance Co. Ltd.
- Prime Life Insurance Co. Ltd.
- Gurans Life Insurance Co. Ltd.
- Surya Life Insurance Co. Ltd.

Out of them, I have selected the Gurans Life Insurance Company Ltd. for study about the Management Information System in Insurance Companies.

3.3 Sources of Data

I collected data from different places and different sources like, visiting on its office's website and working knowledge in its IT department as 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 of 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.

Data Collected Methods

- Observations
- Questionnaires
- Interview, etc

3.3.2 Secondary Data Collection

The main difference between primary and secondary data is only of degree one. Data which are originally collected but obtained from some published or unpublished sources are secondary data. In this research study there has been used the following secondary sources of data.

- Underwriting Manuals
- Different Annual Reports
- Agent's Manuals.
- Different websites:
- www.wikipedia.com, www.google.com,etc
- Beema samiti's web site (www.bsib.org.np) and other published reports/ articles.
- Company's website :www.guranslife.com

3.4 Analytical Tools and Technology

Out of so many tools and technology some appropriated tools and technology I have used in this research which I presented below with diagrams and names. Data are collected by using different tools and technique like flow charts, Data

flow diagram, Entity relationship etc. For the programmed presentation we can use some

Tools which are mention below.

- Algorithm
- Pseudo code/ structured English
- Flow chart
- Data flow diagram

Algorithm

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

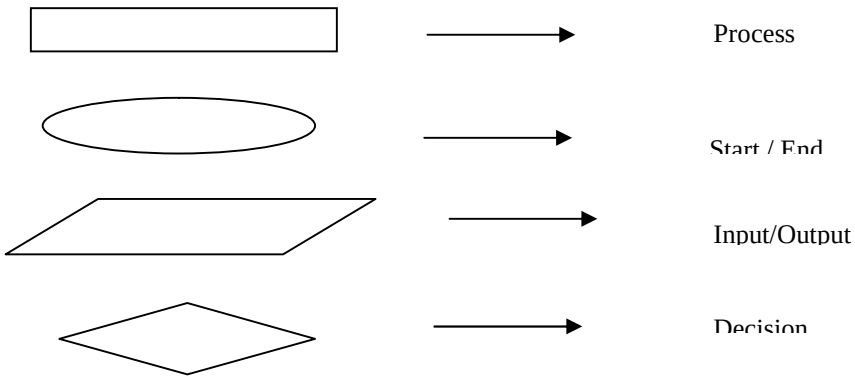
Pseudo Code

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

Flow Chart

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

The Symbols of Flow Charts



Data Flow Diagram (DFD)

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

- Context Level DFD
- DFD Systematic flow Level (Zero Level DFD).
- 0 Level DFD
- 1 Level DFD

Context Level DFD

This is one of the most important technique or tools for data collection methods. While preparing this thesis or models, I have used 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 DFD 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 have started 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 have placed the internal entities around the perimeter of the page and use data flows to connect the entities to central process. I did not show any data stores in a context diagram because data stores were the internal system. I have started by reviewing the system requirements to identify all internal data source and destination. During that process, I recorded the name of the entities the name and the context of the data flows , and the director of the data flow. If I do that carefully, and I do the good job of fact-finding in the previous stage.

Zero Level Data Flow Diagram

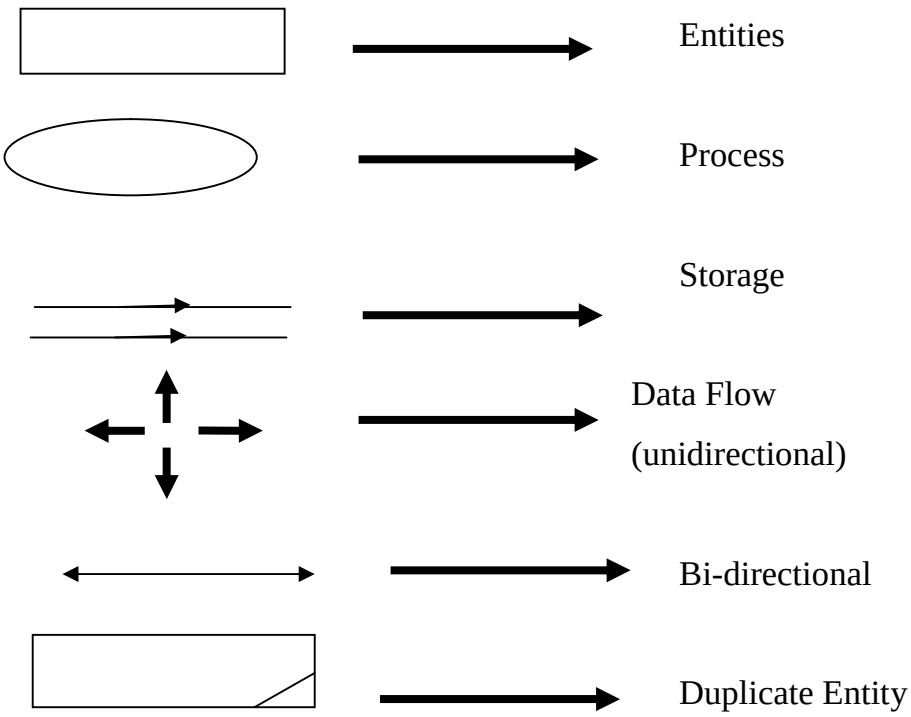
A context diagram provides the most generals view of an information system and contain a single process symbol, which is like a black box. To show detain inside the black box, I have created DFD diagram 0. Diagram 0 (the digit 0,

and not the letter 0) zoom in on a context diagram and show major processes, data flow, and data stores. Diagram 0 also represents the eternal entities and data flow that appear in the context diagram.

Process Symbol

A process receives input data and product output that has a different content, form, or both. For instance, the process for calculating pay users two inputs (pay rate and hours worked) to produce one output (total pay). Processes can be very simple or quite complex. In a typical company, processes might include calculating sales trends, filing online insurance claims, ordering inventory from a supplier's system, or verifying e -mail address for web costumers.

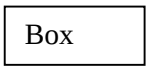
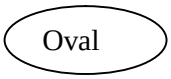
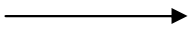
Processes contain the business logic, also called business rules that transform the data and produce the required results. The process name identifies specifies function and consists of a verb (and an adjective, if necessary) followed by a singular noun.



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 used 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 relationships are generated and present with a diagram called the entity relationship diagram.

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

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

One – To – One

One – To – Many

Many – To – Many

3.4.1 Tables and Figures

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

Decision Tables

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

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

CHAPTER IV

SYSTEM ANALYSIS, DESIGN AND DATA REPRESENTATION

4.1 Organizational Structure

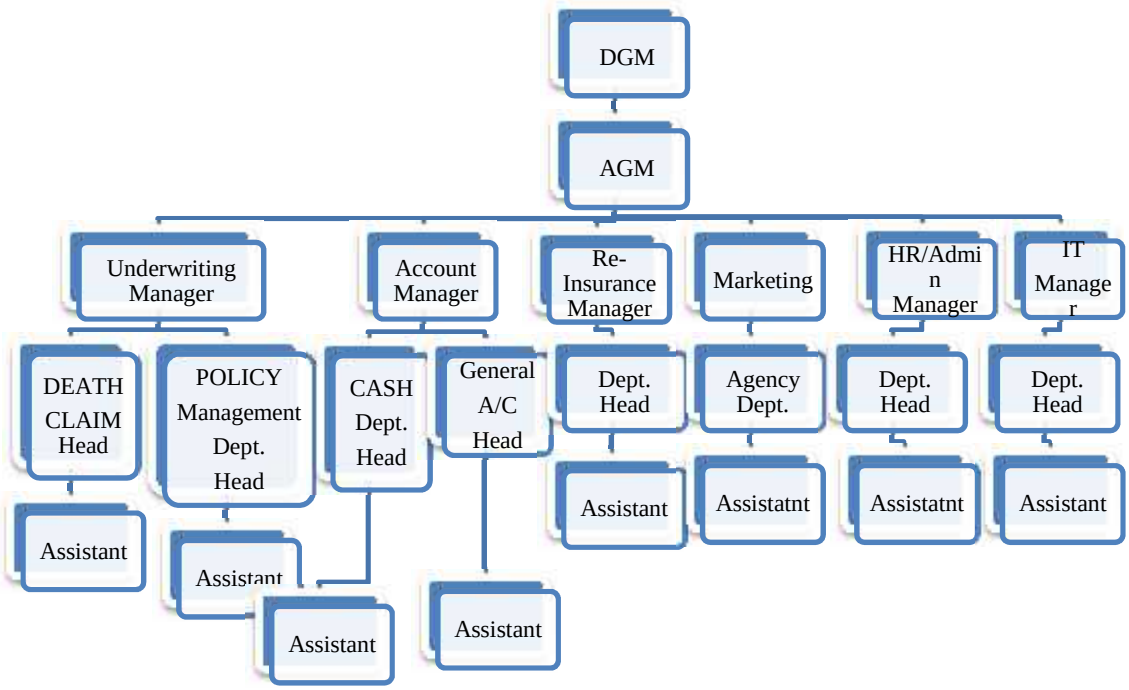
Organizational structure refers to the way that an organization arranges people and jobs so that its work can be performed and its goals can be met. When a work group is very small and face-to-face communication is frequent, formal structure may be unnecessary, but in a larger organization decisions have to be made about the delegation of various tasks. Thus, procedures are established that assign responsibilities for various functions. It is these decisions that determine the organizational structure.

In an organization of any size or complexity, employees' responsibilities typically are defined by what they do, who they report to, and for managers, who reports to them. The relationships among these positions are illustrated graphically in an organizational chart. The best organizational structure for any organization depends on many factors including the work it does; its size in terms of employees, revenue, and the geographic dispersion of its facilities; and the range of its businesses (the degree to which it is diversified across markets). There are different types of organizational charts: like; Line organization chart, Functional organization chart, Line and Staff organization chart and committee an organization chart. Although, one type of organizational chart is used to practice in the organization to achieve their objective according to the nature and size of its.

Organizational Chart in GLIC

Figure 4. 1

Organizational Chart in GLIC



4.2 Source of Information

Information in its most restricted technical sense is a message (utterance or expression) or collection of messages in an ordered sequence that consists of symbols, or it is the meaning that can be interpreted from such a message or collection of messages. Information can be recorded or transmitted. It can be recorded as signs, or conveyed as signals. Information is any kind of event that affects the state of a dynamic system. The concept has numerous other meanings in different contexts. Moreover, the concept of information is closely related to notions of constraint, communication, control, data, form, instruction, knowledge, meaning, mental stimulus, pattern, perception, representation, and especially entropy.

Davis and Olson defined information as data that has been processed into a form that is meaningful to the recipient and is of real or perceived value in current or prospective actions or decisions.

However, in fact data is the raw material of information which can be collected by different sources described below.

- Primary Source
- Secondary

Primary Source

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 are thus original in character. These types of data are obtained in the survey and enquiries conducted by government, some individuals, institutions and research bodies.

Data Collected Methods

- Observations
- Questionnaires
- Interview, etc

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. In this research study there has been used the following secondary sources of data.

Underwriting Manuals

- Different Annual Reports
- Agent's Manuals.
- Different websites:
- www.wikipedia.com, www.google.com,etc

- Beema samiti's web site (www.bsib.org.np) and other published reports/ articles.
- Company's website: www.guranslife.com

Table 4.1

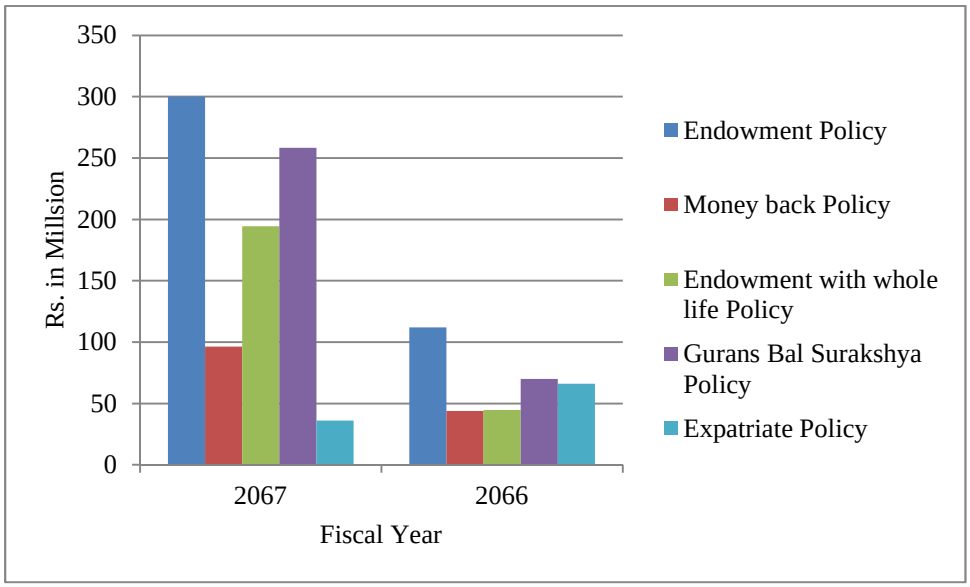
Premium Collected by Gurans Life Insurance Co. Ltd. in the fiscal year 2066 and 2067.

S. No.	Particular	Premium Rs. (in Lakhs)		Change	
		2067	2066	Increase/Decrease (in Lakhs)	Percentage (%)
1	Endowment Policy	300.01	112.1	187.9	167.62
2	Money back Policy	96.33	43.93	52.4	119.29
3	Endowment with whole life Policy	194.53	44.77	149.76	334.49
4	Gurans Bal Surakshya Policy	258.23	69.99	188.24	268.94
5	Expatriate Policy	35.94	66.08	-30.13	-45.6
Total		**2,951.05**	**2,403.87**	**547.17**	**22.76**

Source: GLIC annual financial report 2067

Figure 4.2

Premium Collection



4.3 DFD of Existing System

A data flow diagram (DFD) is a graphical representation of the "flow" of data through an information system, modeling its process aspects. Often they are a preliminary step used to create an overview of the system which can later be elaborated. DFDs can also be used for the visualization of data processing (structured design).

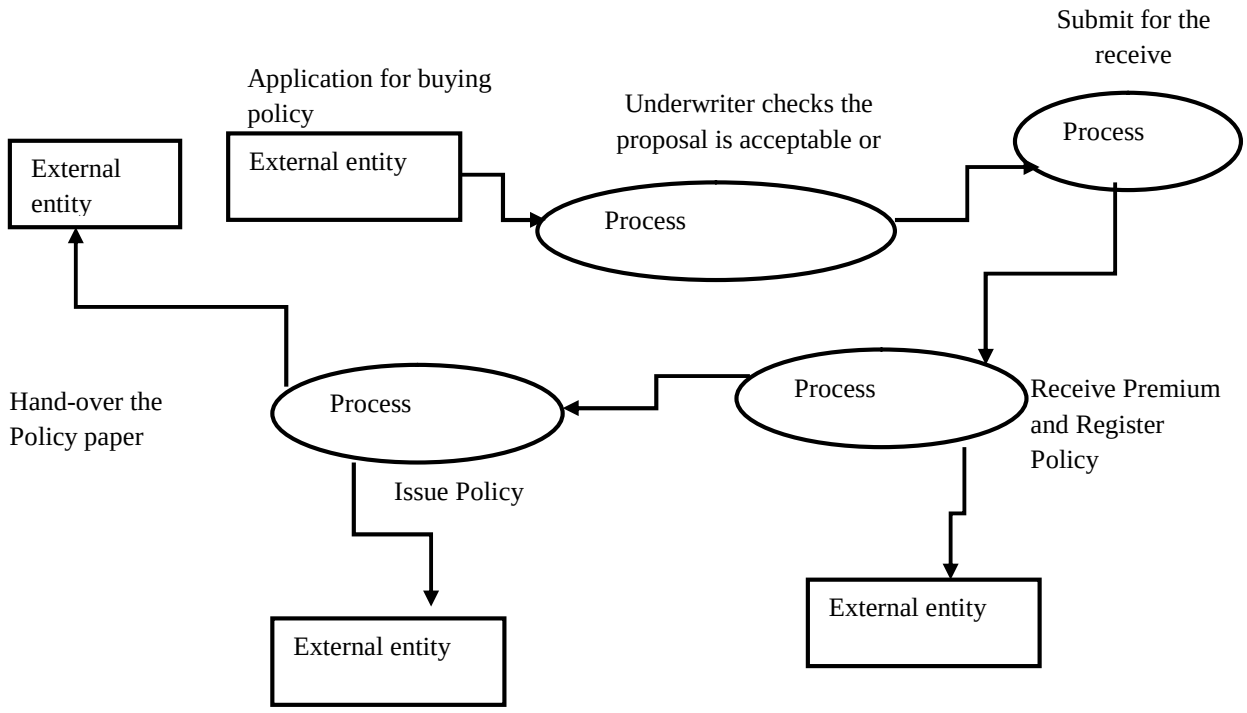
A DFD shows what kinds of data will be input to and output from the system, where the data will come from and go to, and where the data will be stored. It does not show information about the timing of processes, or information about whether processes will operate in sequence or in parallel (which is shown on a flowchart). So, before we have to design any system we have to know about existing system first. Hence, here is represented existing DFD on two aspects 1. Context level DFD and 2. System Level DFD (Zero Level DFD) as follows

4.3.1 Context Level DFD

The context level data flow diagram shows the interaction between the system and external agents which acts as data sources and data sinks. On the context diagram system's interactions with the outside world are modelled purely in terms of data flows across system boundary. The context diagram shows the entire system as a single process, and gives no clues as to its internal organization. Following figure an example of context level diagram in the existing MIS in GLIC.

Figure 4.3

Context Level DFD

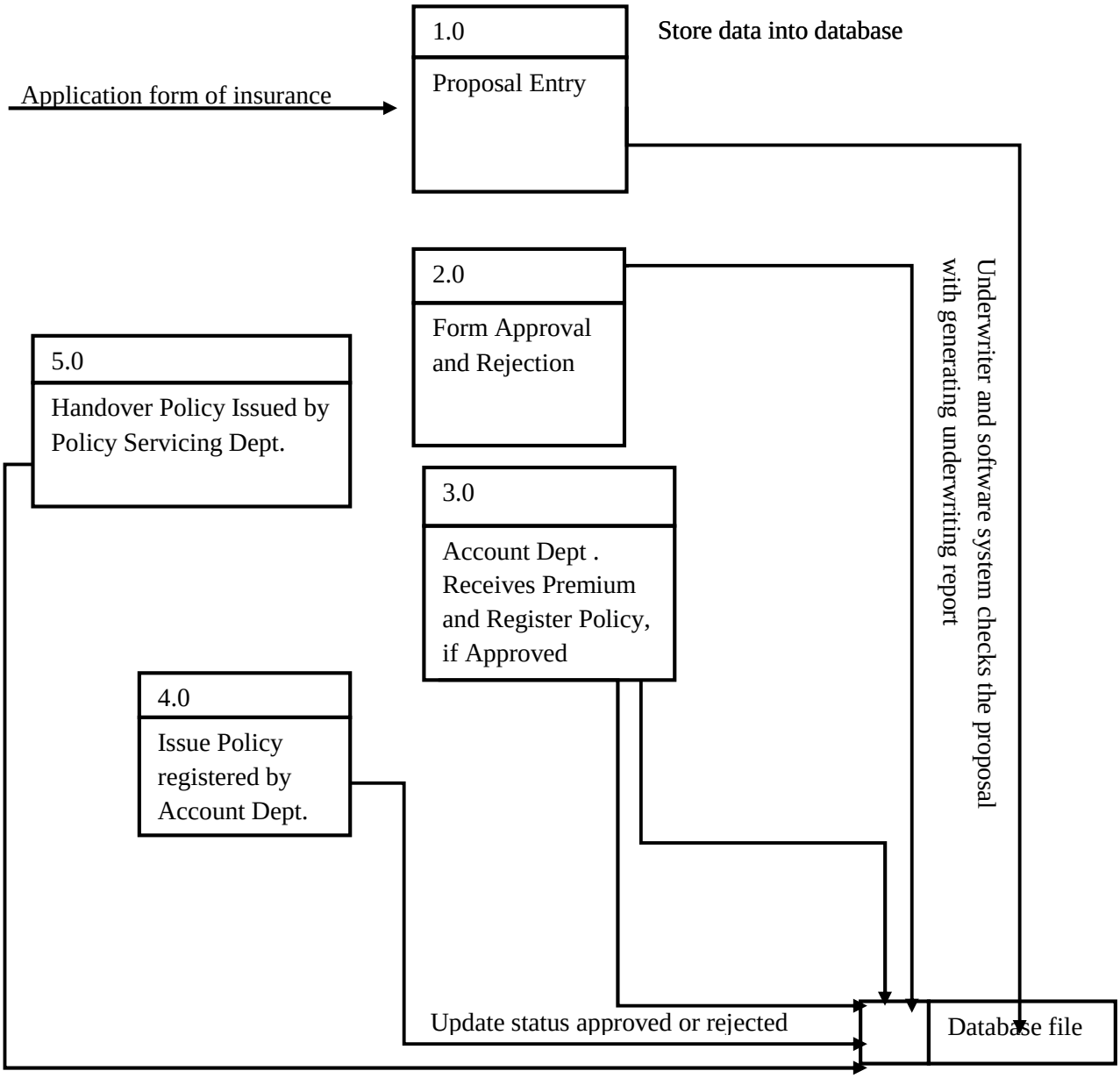


4.3.2 Zero Level (System Level) DFD

Zero level DFD shows some of the detail of the system being modeled. The Level 0 DFD shows how the system is divided into sub-systems (processes), each of which deals with one or more of the data flows to or from an external agent, and which together provide all of the functionality of the system as a whole. It also identifies internal data stores that must be present in order for the system to do its job, and shows the flow of data between the various parts of the system. Here is presented an example of the context level diagram existed in the MIS of the GLIC.

Figure 4.4

Zero Level DFD



4.4 System Analysis

In Nepalese Insurance companies, there is not fully MIS supported software system due to lack of skilled manpower involved in the field of software designing for life insurance business. So, that to build the computer based Management Information System in life insurance companies, they have to hire skilled manpower to convince about system requirements to the system developer or system vender, hire the latest hardware/software/network

infrastructure to smooth running of system and blending restructure of organization by the IT tools and IT infrastructure. While analyzing the system we should consider software system, network structure, hardware system and people resource. Hence, here is briefly presented about software system, network structure, hardware and people resources in the GLIC as follows.

4.4.1 Software System

Set of programmes for practical use is known as software.

- System software
- Application Software
- Utility Software

Software that activates the computer system and provides a operating environment for other applications program are called system software. e.g. Windows, Linux, Unix, Mac OS. Software which are applicable for daily use these are two forms; packaged software and customized (custom made) software. Software that increases the utility of hardware and applicable for hardware management is called utility software e.g. Antivirus, Scandisk, Registry cleaner etc.

However, GLIC has been used Windows Server 2008 for the server computer and Windows Xp SP3/SP2 for the Client computers as operating system software and Kaspersky 2012 and NOD 32 as utility software. For daily operation, it is using SIDDHILIFE software for the department of underwriting, agency and account. SiddhiSMS for the Mobile SMS System. And Quantum Solutions as Attendance Management System for HR department.

4.4.2 Network Structure

Computer net working is the engineering discipline concerned with communication between computer systems or devices. Computer networking is

sometimes considered a sub-discipline of telecommunications, computer science, information technology and/or computer engineering. Computer networks rely heavily upon the theoretical and practical application of these scientific and engineering disciplines.

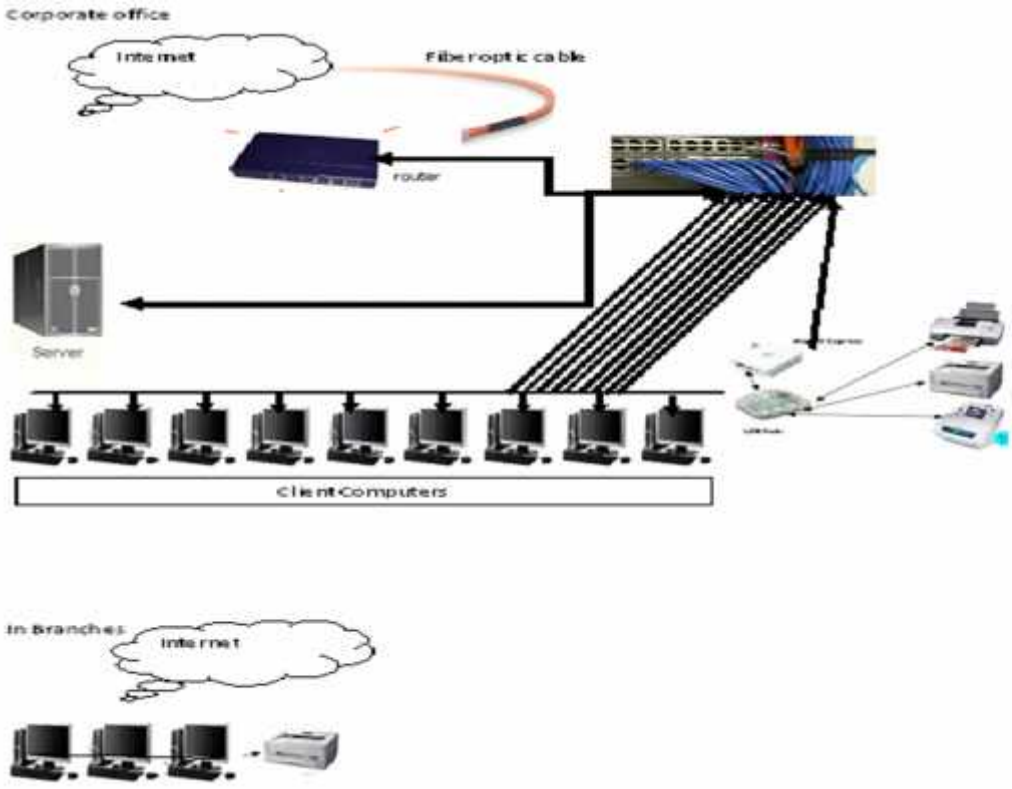
A computer network is any set of computers or devices connected to each other with the ability to exchange data. Examples of networks are:

- Local area network (LAN), which is usually a small network constrained to a small geographic area.
- Wide area network (WAN) that is usually a larger network that covers a large geographic area.
- wireless LANs and WANs (WLAN & WWAN) is the wireless equivalent of the LAN and WAN

Network Structure in Gurans Life Insurance Company Ltd.

Figure 4.5

Network Structure in GLIC



4.4.3 Hardware

Devices connected to the computer systems are hardware.

Input devices:- Mouse, Keyboard, Scanner, Camera.

Processing: CPU, Memory.

Output devices: - Printer, VDU, Speaker, etc.

GLIC has been using the following specifications as hardware resources

Database Server

OS: Windows server 2008

Dell 2900 series

Application Server

OS: Windows server 2008

Dell 2900 series

Client Computers

OS: Windows Xp/Windows 7

Dell Optiplex 330/360/380/390 series

HP

4.5 Limitation of Existing System

The Insurance Companies of Nepal have not operated totally computer based Management Information System. As concern to the GLIC, for its daily operation or TPS, GLIC is using SIDDHILIFE software for the department of underwriting, agency and account. SiddhiSMS for the Mobile SMS System. And Quantum Solutions as Attendance Management System for HR department.

The limitations of the existing system can be pointed as follows:

- In the market of Nepalese scenario, there is not satisfactory after sales service on any software.

- There is lack of skilled manpower involving in the insurance companies and insurance software developer companies.
- Due to complex procedures of Life Insurance Company they could not convince to the software developer about control flow, data flow and flow charts of the procedures.
- Reporting part of the software is not user friendly.
- Different procedures of the software are not fully automated and some features semi-automated.
- Vender of the software has not charm of developing software.
- The regulatory body of the insurance company has not responsible for which kind of software they have to use.
- Each and every insurance company has its own products and its features. There is not uniformity in the product of Life Insurance Company. This makes quite tedious to develop software and developer does not show the charm of doing work.

4.6 Feasibility Analysis of Existing System

While considering about feasibility analysis any systems we should consider following five common factors.

4.6.1 Technology and System Feasibility

Technology and system feasibility can be feasible because of the existing data are not in huge amount and not so difficult in transferring new system, existing is in also standard DBMS. Hardware and software system is also updated. Here is already IT department and IT staffs.

4.6.2 Economic Feasibility

The system is economically feasible because after bringing new system company can be developed in the area of IT. In this age developing IT can minimize the operational cost, can provide quality service to its clients in time and can grow business. So, growing business absolutely, increases to profits.

4.6.3 Legal Feasibility

Instead of conflicts with legal requirements, it will care of legal body of the country in the field of the IT.

4.6.4 Operational Feasibility

Manpower and other requirements for the new system is available so, the operational feasibility won't be boundary for the system and it will optimize the usage of software and hardware.

4.6.5 Schedule Feasibility

New system is not totally new brand system; new system means the adding some features in the existing. That’s why, if it won’t be finished in scheduled time, it won't be big issue.

4.7 Usage of MIS in the Insurance Companies

In this research study there were used both primary and secondary sources of data collection methods. Hence, I have presented the survey designed for the opinion of staff of Gurans Life Insurance Company Ltd. with Usage of MIS in Insurance Companies. It was designed in different questionnaires asked to the 38 staffs and other persons concerned with life insurance companies as presented below. And questionnaires are presented in the appendix section of this research study.

Table 4.2

Knowledge about MIS Among the Staff.

Opinion Details	No. of Respondents
Highly Knowledge	8
Moderate Knowledge	15
Low Knowledge	10
No Idea	5

Figure 4.6

Knowledge about MIS Among the Staff

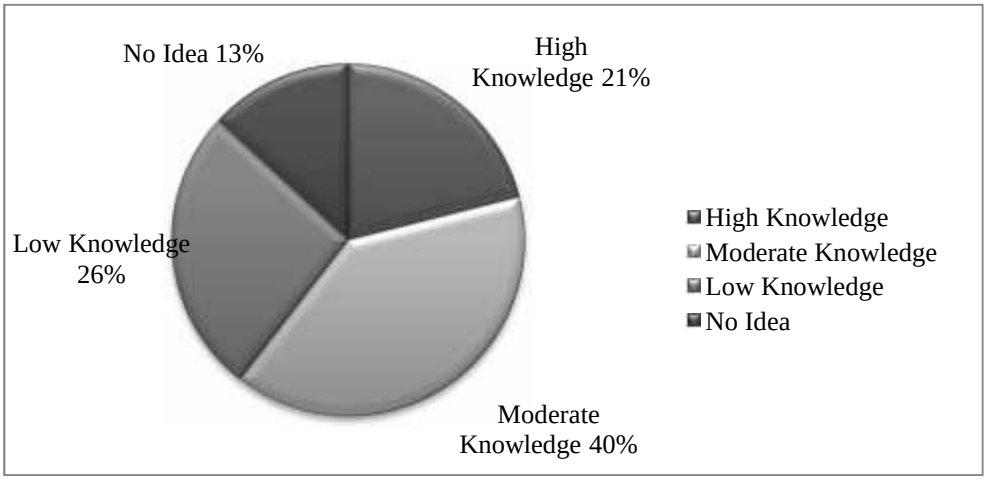


Table 4.3

Usage of Computer System in Daily Works.

Opinion Detail	No. of Respondents
High	20
Moderate	10
Low	8
No usage	0

Figure 4.7

Usage of Computer System in Daily Works.

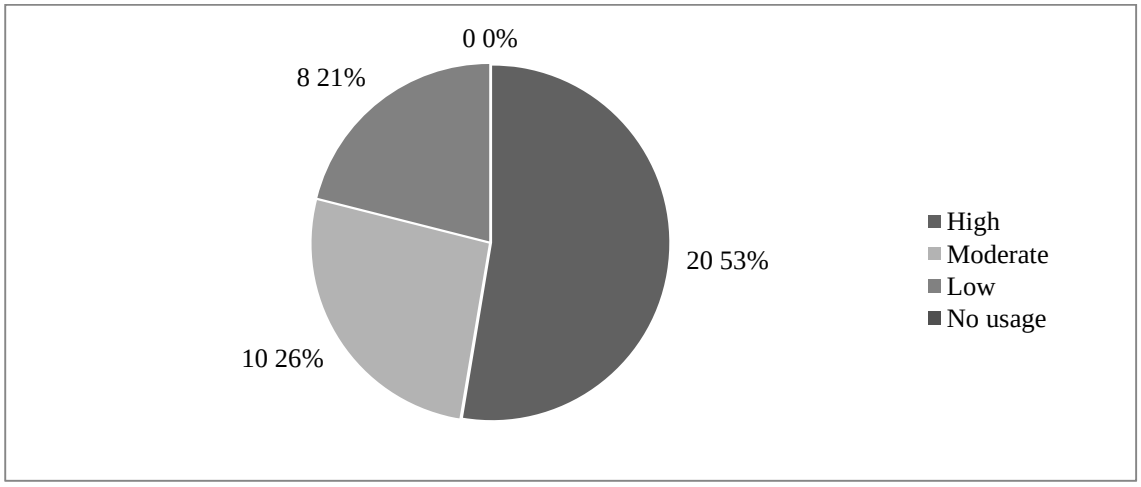


Table 4.4

Importance of MIS in the Organization

Opinion Detail	No. of Respondents
Highly Important	25
Moderate Important	6
Low Important	7
Not Important	0

Figure 4.8

Importance of MIS in the organization

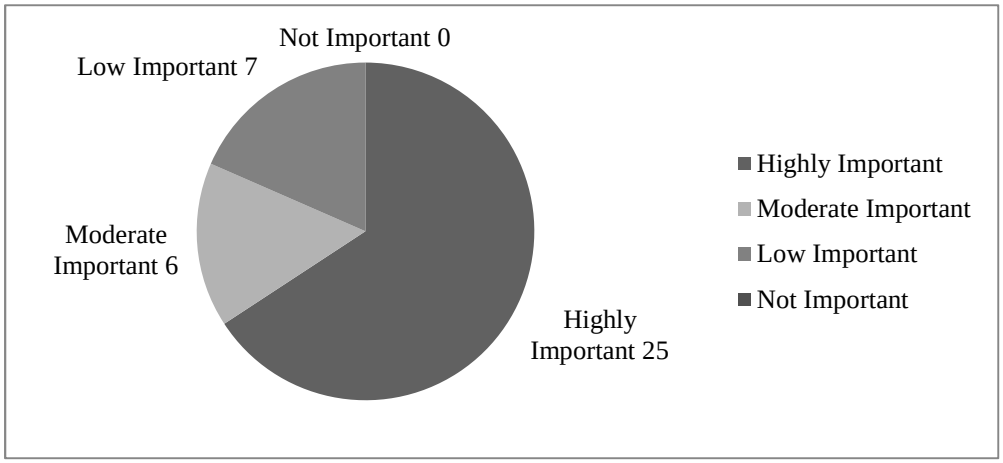


Table 4.5

Satisfaction from Current Information System

Opinion Detail	No. of Respondents
Highly Satisfied	5
Moderate Satisfied	12
Low Satisfied	7
Not Satisfied	15

Figure 4.9

Satisfaction from Current Information System

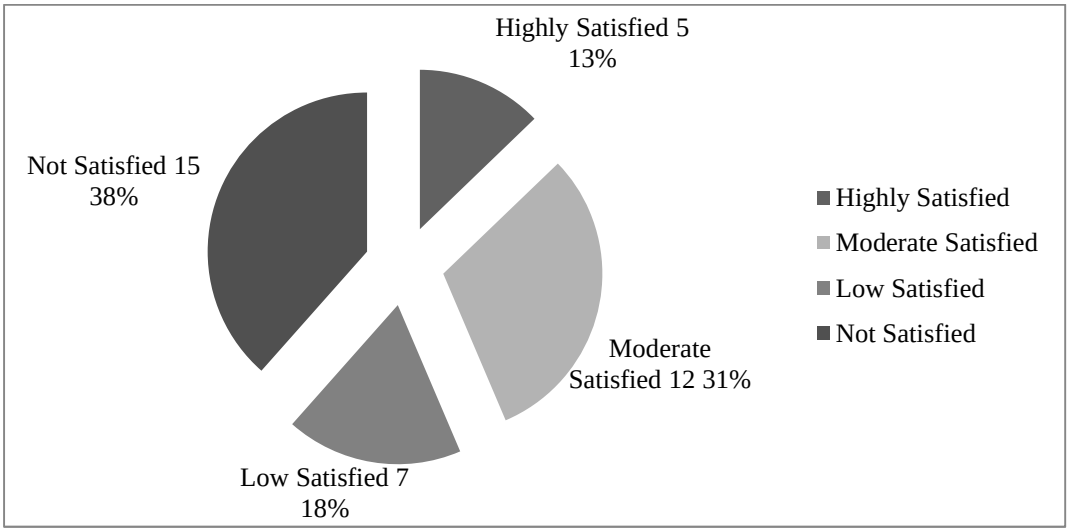


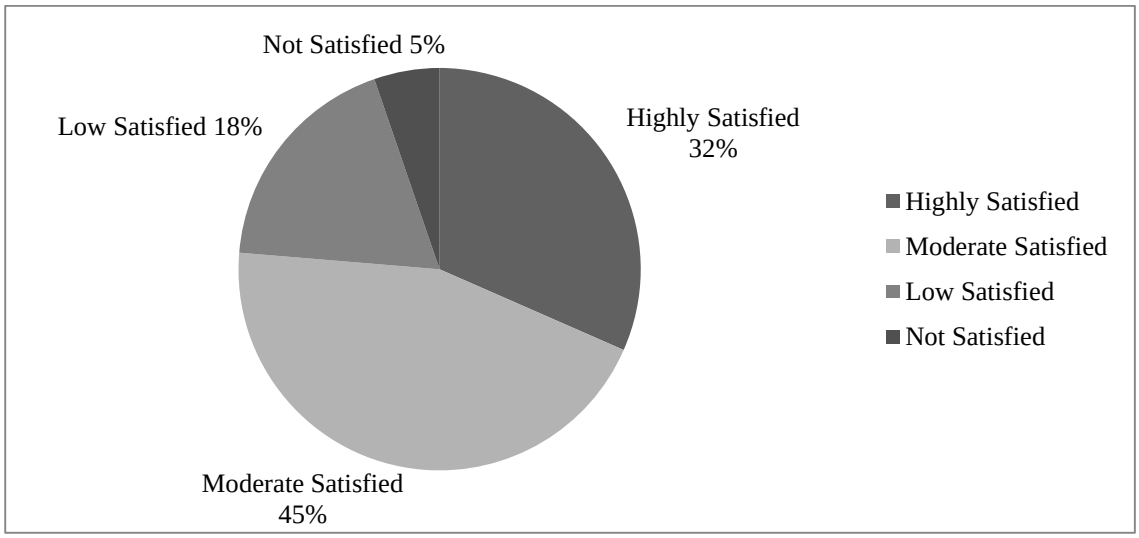
Table 4.6

Satisfaction from MIS Implementation.

Opinion Detail	No. of Respondents
Highly Satisfied	12
Moderate Satisfied	17
Low Satisfied	7
Not Satisfied	2

Figure 4.10

Satisfaction from MIS Implementation



4.8 Concept of New System or Modify the System

The concept of new system is not totally new system it is modifying and adding some features in the existing system. It should be integrated. For the insurance software solution we should consider in the following thins.

- Insurance Policy Administration System
- Claims Management Systems
- Insurance Agency Management System
- Insurance Agents Management System
- Policy Management System
- User Management System
- Endorsements Management System
- Data import / Export system
- Policy Registration and Quotations Engine
- Insurance Administration Management System
- Content Management System Module
- Insurance Document Management System
- Insurance Accounting and automation
- Workflow solutions
- Auditing
- Business Intelligence
- Online Data Back-up System

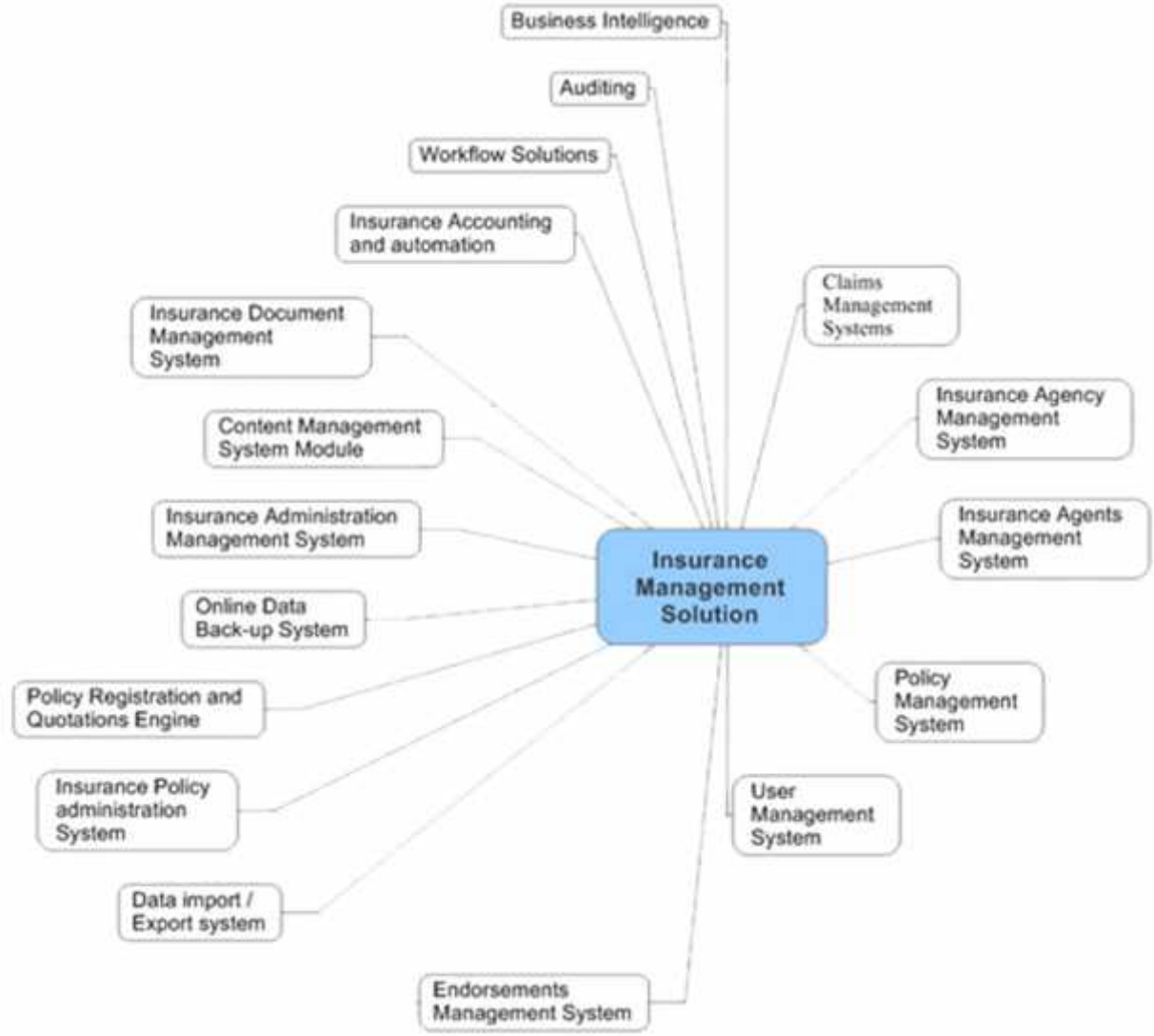
4.9 Application Modeling

In GLIC, there is no need of bringing totally new system, the main problem is that adding some features and modifying the existing system. And integrate the software used in different departments. So that application modeling is remains as existing system.

New application Modeling for the GLIC

Figure 4.11

Application Modeling



4.10 DD, DFD and ERD for New System

For designing the new application there two different components used to be considered such as Frontend and Backend. In the each component there are also sub components. For the backend there may be DD, DFD and ERD. So, here is presented below some database definitions.

4.10.1 Data Dictionary (DD)

Table 4.7

Agent Table Design

Fields	Data type
Agent Code	Number
Agent Name	Text
Address	Text
License Number	Number
License Renew Date	Date
License Expiry Date	Date
Staff Code	Text

Table 4.8

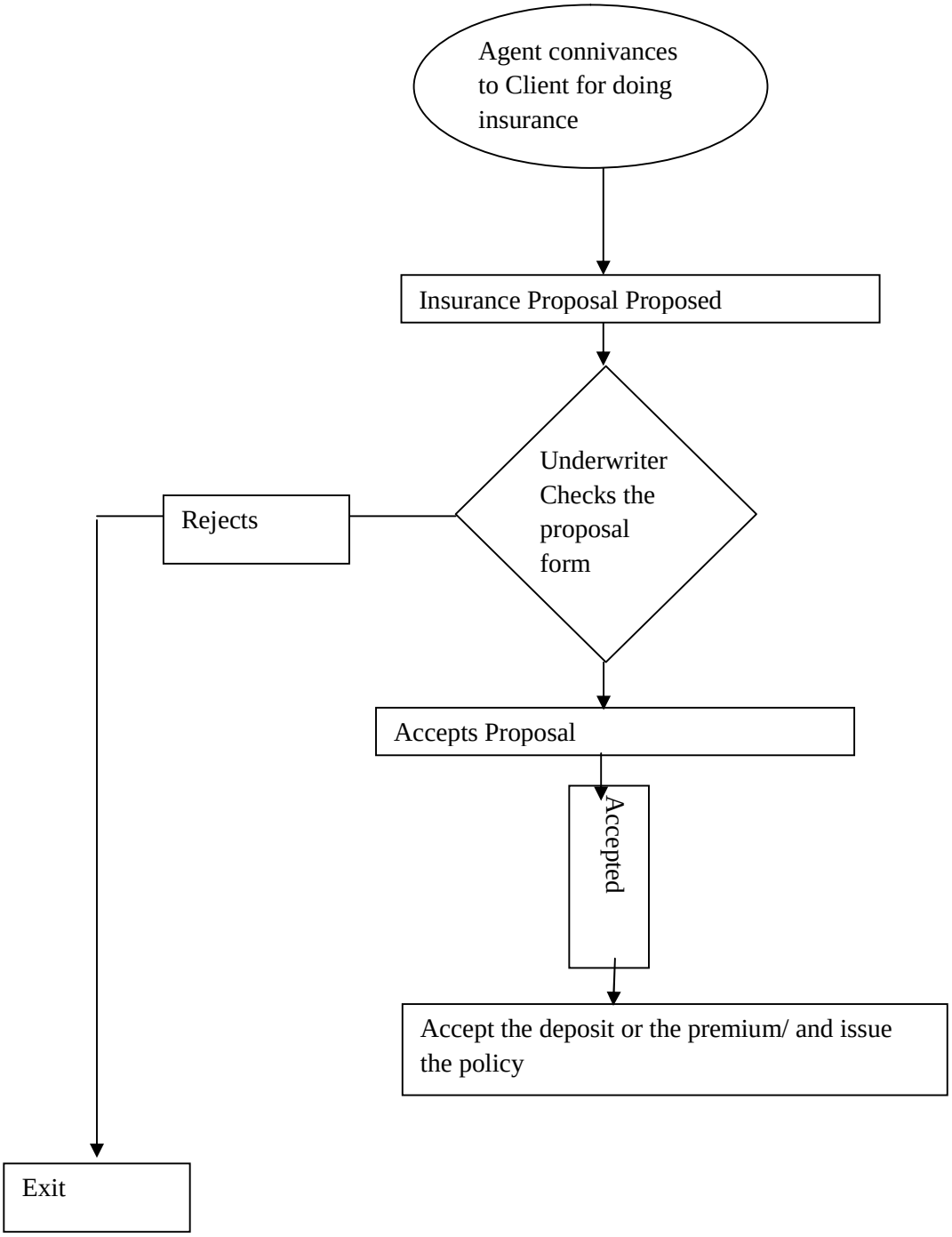
Agent Table Design

Fields	Data type
Proposal Number	Number
Assured Name	Text
Address	Text
Term	Number
Date of birth	Date
Plan Code	Text
Sum assured	Money/Currency
Commence Date	Date
Age	Number
Benefits	Money
Benefit Amount	Money
Premium Rate	Money
Premium Amount	Money
Status	Text

4.10.2 Conceptual Design

Figure 4.12

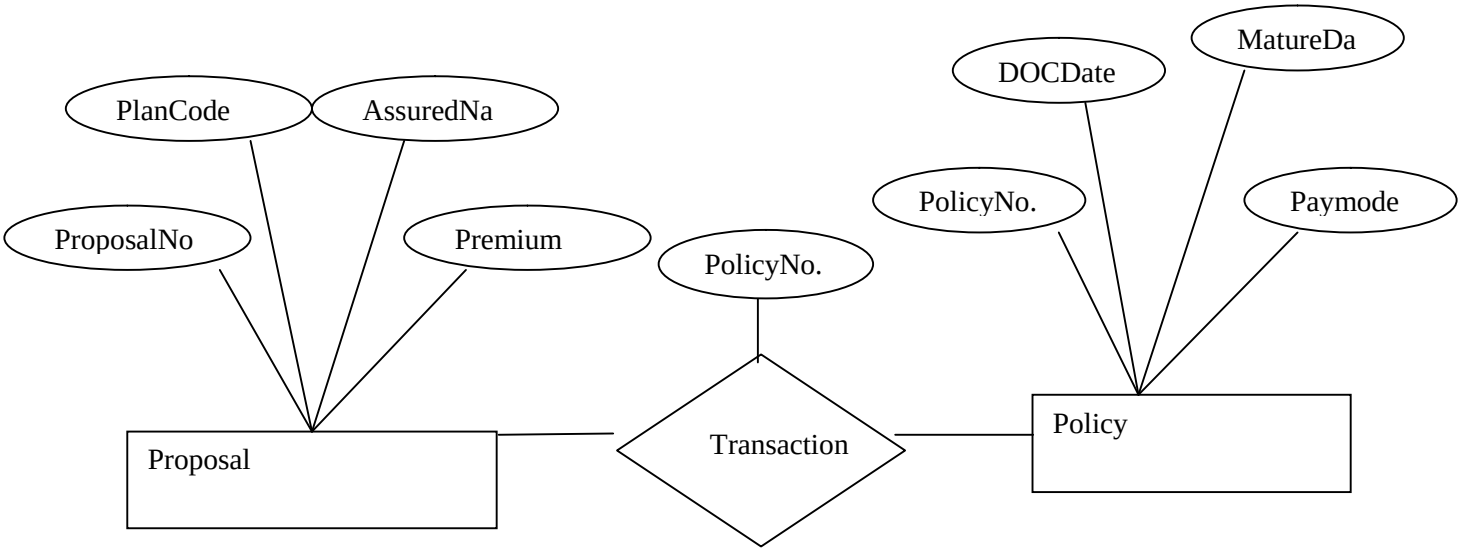
Conceptual design



4.10.3 Logical Design

Figure 4.13

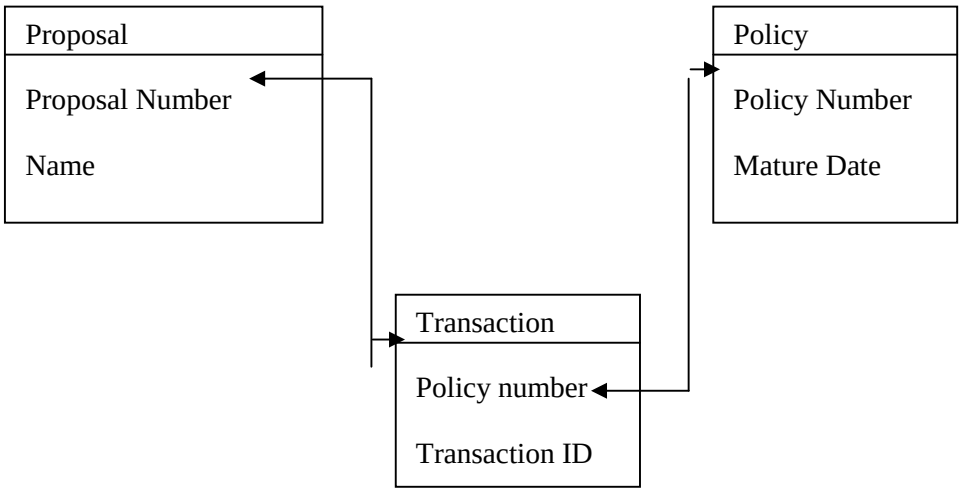
Logical design



4.10.4 Physical Design

Figure 4.14

Physical Design



4.11 Major Finding of the Existing Systems.

The research was based on the review of articles, researchers, observation and working experience in the company for the topic of Management Information System in Insurance Companies. The case study was performed in the Gurans Life Insurance Company. I have found and learned a lot of thing while accomplishing this research study, some points can be pointed as follows.

- For the customer care there was developed SMS Alert System in the life insurance companies which is good for both party client and organization.
- In the Nepalese scenario, there is not satisfactory after sales service on any software.
- There is lack of skilled manpower involving in the insurance companies and insurance software developer companies.
- Due to complex procedures of Life Insurance Company they could not convince to the software developer about control flow, data flow and flow charts of the procedures.
- Reporting part of the software is not user friendly so, reporting should make user friendly.
- Different procedures of the software are not fully automated and some features semi-automated.
- Vender of the software has not charm of developing software.
- The regulatory body of the insurance company has not responsible for which kind of software they have to use.
- Each and every insurance company has its own products and its features. There is not uniformity in the product of Life Insurance Company. This makes quite tedious to develop software and developer does not show the charm of doing work.
- There was not fully integrated Management Information System. Different departments used to work in different software.

CHAPTER V

SUMMERY, CONCLUSION AND RECOMMENDATIONS

5.1 Summery

Simply, Management Information System (M.I.S.) is basically concerned with processing data into information, which is then communicated to the various Departments in an organization for appropriate decision-making. Data collection involves the use of Information Technology (IT) comprising: computers and telecommunications networks (E-Mail, Voice Mail, Internet, telephone, etc.). In other words, Management Information System is an information system integrated with the different functional areas of management. The term Management Information System can be segregate into three different words; Management, Information and System. Management is the process of getting things done through and with people. It includes Planning, Organizing, Staffing, Directing and Controlling. Information is data that is processed in a form which helps the management to take decisions. A System is a set of elements joined together to achieve a common objective(s). A business organization is the systems where the divisions, departments, function units are the subsystems.

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

While, completion of this thesis report, I have learnt a lot about the insurance sector and its operation. The study has been fruitful in many ways for me. It has helped me a lot to learn more about the work environment and the culture that is required to be in an individual. During preparation of thesis, I have learnt a lot of other aspects other than the insurance sector as to socialize with

the people, to deal with the senior staffs, and to deal with the intern colleague so as to make the working environment cozier and friendlier. I have also learnt that the behavioral issues are most important inside the organization. Customer feel satisfied when they are behaved properly. Their queries are needed to be answered in a friendly way so as to retain them in the organization.

Now, I would like to conclude that Management Information System in the Life Insurance Companies is not matured information system. They are in the phase of developing phase; they do not have competent software solutions with comparison of banking sectors in Nepalese scenario. They have to do a lot of things for developing fully MIS support software solutions. Insurance companies didn't make educate investments on developing IT. However, GLIC is in the process of developing IT. Developing IT is the developing of the MIS. It has been introduced the Electronic Attendance Management System for HR Management and SMS Alert System for maintaining Customer Relationship, which is remarked as good while underwriting and account's software have quite difficulties in some manner which is not big issue for meeting the goal. By overcoming their weakness and playing with their strength the company can meet its strategic intent i.e., to be the best insurance in this region.

5.2 Conclusion

The research was based on the review of articles, researchers, observation and working experience in the company for the topic of Management Information System in Insurance Companies. The case study was performed in the Gurans Life Insurance Company Ltd. I have found and learned a lot of things while accomplishing this research study, some points can be pointed as follows.

- For the customer care there was developed SMS Alert System in the life insurance companies which is good for both party; client and organization.

- In the Nepalese scenario, there is not satisfactory after sales service on any software, that's why user of the software does not able to get updated softwares.
- There is lack of skilled manpower involving in the insurance companies and insurance software developer companies.
- Due to complex procedures of Life Insurance Company they could not convince to the software developer about control flow, data flow and flow charts of the procedures.
- Reporting part of the software is not user friendly so, reporting should make user friendly.
- Different procedures of the software are not fully automated and some features semi-automated.
- Vender of the software has not charm of developing software or there is the development of the software is very slow motion.
- The regulatory body of the insurance company has not responsible for which kind of software they have to use.
- Each and every insurance company has its own products and its features. There is not uniformity in the product of Life Insurance Company. This makes quite tedious to develop software and developer does not show the charm of doing work.
- There was not fully integrated Management Information System. Different departments used to work in different software.
- The governed body of the insurance companies had not clearly addressed about which type of software system they have to use or they need.

5.3 Recommendation

With the researcher prospective view I would like to recommend regarding MIS, There is not satisfactory Management Information System. There are a lot of problems while integrating the information system in different functional areas of management. It is using different software company's different software for the various departments. Which is very difficult to integrate the in

a single system. GLIC has not a clear IT policy which type of software it has to install and it should be clear in about such policy.

I have pointed the some recommendation for the company as follows

- There is not full fazed Management Information System; which is difficult to report in different levels of the management. So, to make efficient Management Information System, GLIC has to spend in the infrastructure development for the MIS, which is the basic need for the success of any organization in today's age.
- There is lack of the professionalism in the sector of the IT. To operate even day to day transaction there is need of IT professionals for the succession of the organization.
- To make user-friendly MIS in the organization, even in Nepalese scenario there is need of the recruitment of the System Analyst and System Designer.
- There is lack of skilled manpower involving in the insurance companies and insurance software developer companies so, they should consider about it.
- Due to complex procedures of Life Insurance Company they could not convince to the software developer about control flow, data flow and flow charts of the procedures to make solution about this problem companies have to hire specialist of different subjects.
- Reporting part of the software is not user friendly so, to make user friendly, they have to follow up the software developer, and he can make these reports user friendly.
- There is not fully integrated Management Information System. Different departments used to work in different software. Companies have to make the integrated system and it is necessary for even operating the business smoothly.

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APPENDIX

Questionnaire on opinion survey with the staffs and other concerned persons of life insurance companies to MIS.

The following questionnaires designed to know the opinion of the employees and other related persons.

a. Do you have knowledge about MIS?

i. Highly knowledge. [ ]
ii. Moderate knowledge. [ ]
iii. Low knowledge. [ ]
iv. No Idea. [ ]

b. How much usage of computer system in daily works?

i. Highly. [ ]
ii. Moderate. [ ]
iii. Low. [ ]
iv. No use. [ ]

c. How much importance of MIS in the organization?

i. Highly Important [ ]
ii. Moderate Important [ ]
iii. Low Important [ ]
iv. Not Important [ ]

d. Are you satisfied from current Information System?

i. Highly Satisfied [ ]
ii. Moderate Satisfied [ ]
iii. Low Satisfied [ ]
iv. Not Satisfied [ ]

e. Will you satisfy from MIS implementation?

i. Highly Satisfied [ ]

ii. Moderate Satisfied [ ]

iii. Low Satisfied [ ]

iv. Not Satisfied [ ]