

MANAGEMENT INFORMATION SYSTEM

MODULE 3

INTRODUCTION

In the manufacturing sector, physical goods are to be manufactured for the customer, but this is not the case in the service sector. Unlike the manufacturing sector, the service sector does not involve any manufacturing of the physical goods for the customer. So now it can be said that the Management Information Systems that are generally used in the manufacturing and the selling organization cannot be used in the service sector.

Payroll, accounting, inventory etc form a very important part of the data processing applications and are used in the service sector only sometimes but an important point to be kept in mind here is that these applications are not that much critical for the service sector. The main mission in this service sector is to provide service to the customer that ultimately satisfies him but this is not the case in the manufacturing sector as here this concept varies from industry to industry and from organization to organization. The service industry consists of some of the major applications which need to be controlled in a very good way for getting the best stuff out of them.

By these applications, the service organization becomes efficient in the nature and then is able to provide with the best type of the services to the customer. In the today's world, there occurs a tremendous competition between the companies in order to achieve the maximum profit and this competition also exists a lot in the marketing world, one company directly or indirectly always tries to show the other company inferior to it. So in this competitive scenario, one of the major needs of the industry is to get a service distinction, in order to create a position and a particular identity and growth to remain ahead of the various other industries. In the service sector, the identification of the segment to be served can be obtained by the sensitive market and also with the help of the consumer research. The service

demands are very dynamic in the nature and as a result of all this, for the up gradation of the service facilities, it is very much necessary to conduct a research on the requirements, expectations and the perceptions.

SERVICE CONCEPT

Marketing, on the whole, can be divided into goods marketing and services marketing. Although according to Philip Kotler, besides goods and services, a marketer also markets eight other entities like Events, Experiences, Persons, Places, Properties, Organizations, Information and Ideas; yet it is generally clubbed together and is widely known as goods and services. In marketing, services marketing essentially deals with the products, which are intangible in nature. Services are created through a direct interaction between the service provider and the customers.

Goods are physical, tangible articles, while Services are nonphysical and intangible in nature and can also satisfy a need like goods. Financial services – Banking, Telecom, DTH, Courier, Hotel, Airline, Multiplex, Train, Doctors, Lawyers, Healthcare and Management Consultancy are all examples of services. A service business is one in which the perceived value of the offering to the buyer is determined largely by the services provided to him than the products offered. This includes the business of all intangible services delivered to the customer. Some of the tangible services where both the goods and services are provided to the customer, like restaurants and supermarkets, also come under the purview of the services marketing. The spectrum of services range between the degree of intangibility and tangibility of the offerings delivered to the user. Some offerings are clearly services like enjoyment of movie, art exhibition or an athletic event.

Some of the service offerings also have the product component like the buying of contact lenses also requires proper eye examination and evaluation of the vision parameters are the offerings of the service in the process.

The characteristics of services are briefly stated here:

(i) It is a core area or an activity or a task of business,

- (ii) It is a major component and denotes a parallel size of business,
- (iii) Services may be collateral activity and have a supplementary service to support the core area of business,
- (iv) A service is an act or performance offered by one party to another,
- (v) It is an ideology or concept or an approach based on customers' orientation,
- (vi) A service is an economic activity that creates values and provides benefits for customers,
- (vii) The service process may be tied to a physical product and the performance is transitory,
- (viii) Services are based on the concepts of rational behavior and the norms of ethical values,
- (ix) Services may be treated as the philosophical part in the form of art and a systematical part in the form of 'science',

Services and Goods: A comparative Analysis

Tom Peters in "The Service Edge" states five principles of a distinct service –

1. Listen, understand and respond to the customers.
2. Define a superior service and establish a service strategy.
3. Set the standards and measure the performance.
4. Select, then train and then empower the employees to work for the customers.
5. Recognize and also reward the accomplishments.

The service industries these days involve the front end facilities, which help in serving the customers in order to clear the immediate needs and to make him comfortable for the other service demands. All the human interactions are mainly based on the knowledge, so all the systems making the human interaction effective are the mission critical applications and here the main responsibility of the service sector is to provide these to offer the

most satisfying service. Changes in the service organizations tend to occur more quickly than the manufacturing sector and also the returns in the service industry are very immediate if compared to the manufacturing sector. At this point, it actually becomes a necessity to understand the meaning of the creation of an outstanding service. This creation of the distinctive service is actually a willful conscious and deliberate management endeavor etc. The management of the service business calls for these willful conscious and deliberate act to create a distinctive service and hence to remain in the business. In order to manage a service effectively, it is a necessity to have in depth understanding about the distinctive characters between the product and the service, the customer expectation and the perception.

S.NO.	Service	Product
1.	Is not tangible in the nature.	Is tangible in the nature.
2.	Does not consume a shelf space.	Consumes a shelf space.
3.	Is not having a shelf life.	Has a shelf life.
4.	Has no physical unit of measure.	Has a physical unit of measure.
5.	Offered on the demand.	Offered on the payment.
6.	Quality control is difficult due to its reference to the customer's expectations.	Quality control is possible with the reference to the determined standards.
7.	Cannot be demonstrated before the actual sale.	Can be demonstrated before the actual sale.

8.	Has to be produced, sold and consumed simultaneously.	Can be produced, sold and consumed in stages.
9.	Receiver and the provider are very close to each other.	There exists a gap between the two of them.

Distinctive characteristics of services

1. Intangibility

Services cannot generally be seen, tasted, felt, smelt, heard before being bought. The potential customer's is unable to perceive the service before the service delivery. Service is totally intangible and cannot be seen what is done.

Intangibility presents problems in the sense that the customer may experience difficulty in knowing and understanding what is on offer before and even after in receipt of the service. The challenge for a service provider is to make the service tangible which implies resort to make some form of measurement and to provide-tangible evidence, e.g., computerized representation of hairstyle or a university prospectus.

Service cannot be inventoried and therefore fluctuations in demand are often difficult to manage, e.g., resort owners have same number of rooms to sell year around but demand varies during peak and non- peak seasons. Services cannot be easily patented and new service concepts can therefore be easily copied by customers; Services cannot be readily displayed or easily communicated to customers, so quality may be difficult for consumers to assess.

2. Inseparability

There is marked difference between physical goods and services in terms of the sequence of production and consumption.

Goods are first produced stored finally sold and consumed, whereas services are first sold then produced and consumed simultaneously. For various services at production site customers presence is must, e.g., counseling, rail travel, hotels, etc. Some services are produced and delivered in the absence of customers, e.g., carpet

cleaning, plumbing, etc. Whatever be the nature and extent of contact the potential for inseparability of production and consumption remains.

The involvement of customers in production and delivery of services implies service provider must take care in what is being produced and delivered. Proper selection and training of customer contact personnel are necessary to ensure the delivery of quality of services.

3. Variability

An unavoidable consequence of simultaneous production and consumption is variability in performance of a service. The quality of a service may vary depending upon who provides it as well when and how it is provided, e.g., an airline company provides on time services to and fro, whereas some other airline provides though regular service but not on time. Within a service provider one employee may be courteous and helpful others might be inefficient as well as rude. Reducing variability involves determining the causes. It may be due to unsuitable personality traits in an employee which is difficult to determine at the selection stage. There may be good sound reasons for variations in performance, e.g., it could be due to poor training and supervision, lack of communication and performance and also lack of general support.

4. Perishability

Services cannot be stored for later sale or use, e.g., hotel rooms not occupied, airline seats not purchased and college places not filled cannot be reclaimed since services are performances, they cannot be stored. If demand exceeds supply it cannot be met as things cannot be taken out from warehouse. Even if capacity exceeds demands the revenue value of the service is lost.

Fluctuations of demand being one of the characteristics of service organization pose a great problem when these fluctuations are unpredictable, e.g., increase in the number of patients in any hospital due to a sudden calamity, the hospital beds being the same. So, there should always be strategies to provide a match between demand and supply. Services unlike goods cannot be stored. A producer of cars which is unable to sell all its output in the current period can carry forward stocks to sell it in the subsequent years.

5. Heterogeneity

To handle a service sector even though standard sectors may be used, e.g., to book in the cab service, to quote for insurance in one's life, etc., each unit may differ from each other unit. Franchise operations ensure to bring a standardization but ultimately it is difficult to ensure the same level of output in terms of quality. From customers viewpoint also it is difficult to judge quality without using it.

Capacity levels should be available on cope which surge in demand before service levels falls. Equal attention has to be given in times of low levels of usage to manage the spare service, e.g., different programmes can be adopted to compensate for uneven demand like theatre halls can go for weekend specials, films festivals, dentist – family discounts, etc.

6. Lack of Ownership

Lack of ownership is the basic difference between a service industry and a product industry as a customer gets an access for a service after paying for it but not owns it, e.g., hotel rooms, hospitals beds, etc. So, service industry should put a stress on easier payment terms in order to facilitate better growth of service sector. Ownership relates to the notion that the consumers of services do not own them overall, but only have temporary access to them

Marketing Mix of Services

It is to be reiterated that the marketing concept is equally applicable to goods, services and ideas. Thus, service marketers, like goods marketers, must strive to provide a bundle of benefits that satisfies the needs of consumers.

Unfortunately most of the firms providing services do not give any importance to the marketing planning as in the case of products. Most producers feel that a service is a necessity and hence the demand will be instantaneous. This seems to be an incorrect philosophy. On the contrary, adoption of proper planning in service marketing could work wonders. Because, there are innumerable services that could

be offered almost simultaneously. Theodore Levitt's concept of 'Marketing Myopia' is found to have influenced in preventing the adoption of marketing planning in its full perspective in the area of marketing of services. For instance, the activities of a film studio are often described as – “making movies” instead of “marketing entertainment”.

In developing a service marketing strategy many firms were seen to consider the following seven areas:

- i. Marketing should occur at all levels, from the marketing department to the point where the service is provided.
- ii. Wherever possible, establish direct contact with the customers.
- iii. Use only high-quality personnel for marketing job.
- iv. Creation or loyalty among existing customers.
- v. Ensure quick resolving of problems faced by customers.
- vi. Provision of improved services at lower cost.
- vii. Brand the services offered.

1. Service Mix:

Goods can be defined in terms of their physical attributes, but services cannot be because they are intangible. But there are also tangibles (such as – facilities, communications) associated with a service. These tangible elements help form a part of the product and are often the only aspect of a service that can be viewed prior to purchase, which is why marketers must pay close attention to associated tangibles and make sure that they are consistent with the selected image of the service product. All other components of product mix are relevant here also. However, a caution may be noted. The service product is often equated with the service provider; for example, the teller becomes the service of a bank or the beautician becomes the service a beauty parlor provides.

Because consumers tend to view services in terms of the service personnel and because personnel are inconsistent in their behavior, it is imperative that marketers effectively select, train, motivate and control contact people. It is true to say that service marketers are selling long-term relationships as well as performance.

2. Price Mix:

Another difference between the sale of products and services lies in the techniques of pricing. It has been observed earlier that pricing a new product is one of the most important and puzzling marketing problems. This is more so in the case of services where pricing plays both an economic and a psychological role. It is psychological because consumers rely on price as the sole indicator of service quality when other quality indicators are absent. In its economic role, price determines revenue and influences profits.

Pricing of services can also help smooth fluctuations of demand. Given the perishability of service products, this is an important function. A higher price may be used to reduce demand during peak periods, and a lower price may be used to stimulate demand during slack periods. For example, if a room in a hotel is not rented out or if there are vacant seats in a bus, the potential income is lost permanently. The concessional charge allowed for telephone calls in the night proves the stimulation of demand during off peak period.

Requirement for advance payment is another feature in pricing of service products. This is also related to the perishability of the services. When a potential customer indicates interest in a service, the seller often wants to make sure that the buyer makes a firm commitment. For this the seller often insists on a guarantee from the buyer preferably in the form of receiving an advance payment. When we would like to travel, for example, we could reserve a ticket by paying a fee and sometimes by paying the full fare and obtaining a ticket.

The same is applicable to a cinema or a music concert when the buyer of the service will have to pay in full the price of the ticket in advance. Unless such a guarantee is obtained, in the event the buyer does not turn up, the seller loses completely. This is not the case with a product which could be sold to someone

else later. Negotiated price – In many of the service industries, the prices are settled after negotiations. For example, the price for management consultancy services is negotiated and fixed. The negotiated price gives an opportunity to the seller and the buyer to determine just the services required meeting the specific needs.

3. Physical Distribution Mix:

Distribution for services is usually simpler and more direct than channels of distribution for goods. This is due to the intangibility of services. The marketer of services is often less concerned with storage, transportation and inventory control, and shorter channels of distribution are typically employed. Further, the element of inseparability (i.e., services cannot be separated from producers) has created a feeling that direct sale alone is possible in the matter of sale of services. This is, however, not completely true. It is quite common to recognize some middlemen in certain areas.

4. Promotion Mix:

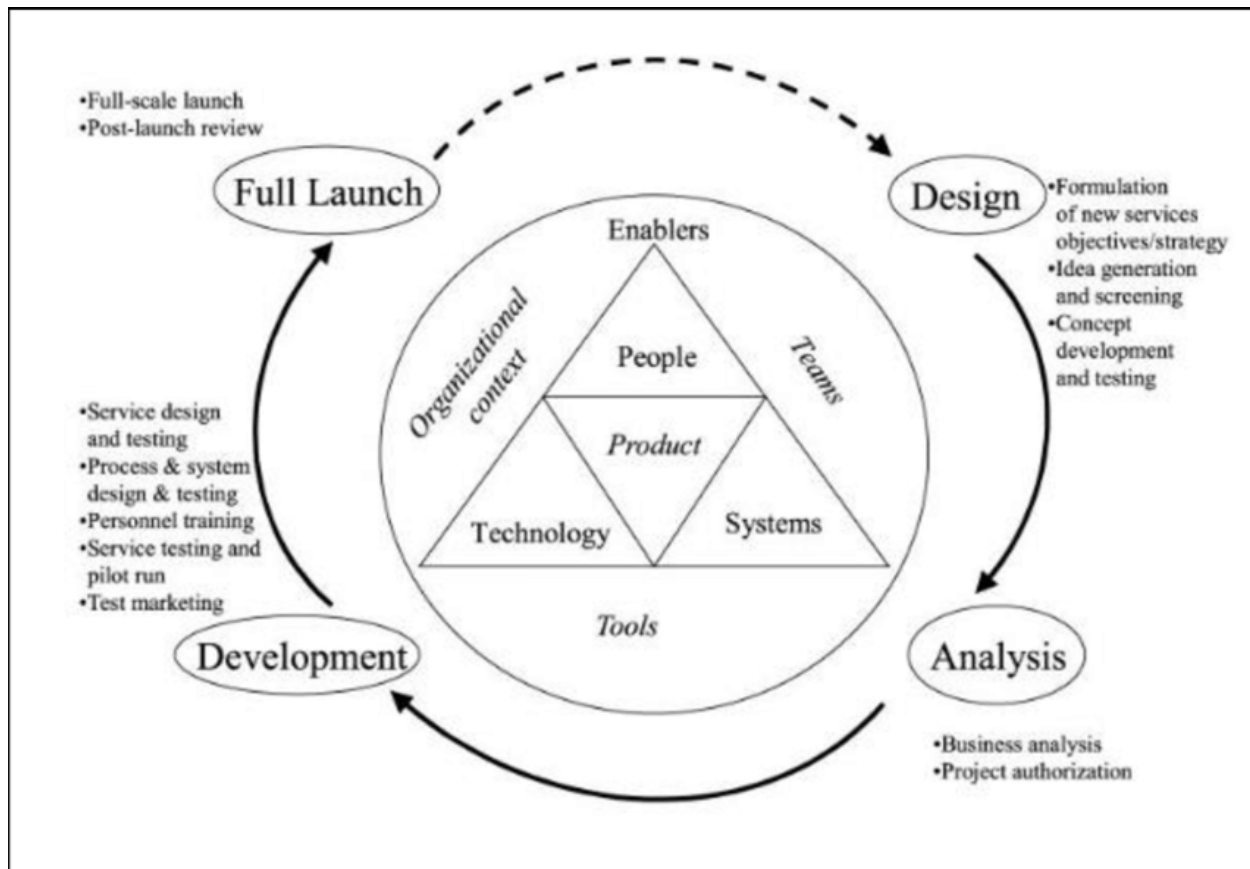
Promotion mix is definitely an important aspect of the marketing mix for services. For instance, the advertising of services is somewhat challenging because they are tangible-dominant products. The intangibility makes it difficult to use different media of advertising.

Service advertising should thus emphasize tangible cases that will help consumers understand and evaluate the service. The cues maybe the physical facilities in which the service is performed or some relevant tangible object that symbolizes the services itself. For example, hotels may stress their physical facilities — clean, hygienic room facilities, etc. Personal selling is potentially powerful in services because this form of promotion lets consumers and sales people interact. Customer contact personnel can be trained to use this opportunity to reduce customer uncertainty, give reassurance, reduce dissonance, and promote the reputation of the organization.

Sales promotions, such as contests, are feasible for service firms, but other types of promotions are more difficult to implement. For instance, a service can neither be displayed nor can it give free samples. Although the role of publicity and the

implementation of a publicity campaign do not differ significantly in the goods and service sectors, service marketers appear to rely on publicity, much more than goods marketers do.

SERVICE PROCESS CYCLE



The service process cycle also called as NSD process (New service development process) employed by the firm is a vital element in the development of new services.

SERVICE MANAGEMENT SYSTEM

The Service Management System is a dynamic mechanism, which may be fully or partially automated or manual used in service management by a service provider to

direct and control resources, activities and service to achieve and sustainably maintain the desired state of providing value to stakeholders in the form of service, overtime and through changes to stakeholders needs and what technology makes possible. The SMS includes mechanism to support how services are planned, designed, developed, deployed, promoted, delivered, supported, maintained and improved.

Accordingly service management system must be a dynamic mechanism because with the passing of time, stakeholder needs change and new technologies created new possibilities and so the value equation changes.as a result we must continuously improve services, by adding or changing services, feature sets and retiring services that no longer add value.

MIS APPLICATION IN SERVICE INDUSTRY

Unlike the manufacturing sector, the service sector does not have physical goods to be manufactured for the customer. The mission in a service industry is of providing the most satisfying service of the customer, while in a manufacturing industry, it could differ from industry to industry and from organization to organization. In a competitive situation, this industry requires service distinction to create an identity, a position and a growth, to remain ahead of the competition. In a service industry, a sensitive market and consumer research is necessary to identify the segment to be served and to study its service requirements, expectations and perceptions. The entire managerial effort in a service industry is to create a distinctive service to remain competitive

Application of MIS in banking

A bank is understood as a place where the financial services such as checking/savings and providing credit to the customers are offered. The scope of this service in today's world is expanded to a "Financial Services Super Shoppe" where the banks have become an instrument in providing financial assistance to some activities as a policy or by regulation or for meeting sociology-economic obligations. In banking also, the concept of the financial product has come in.

The customers choose a bank mainly on the following three factors:

- I. The ease of doing business.
- II. The quality of personnel and service.
- III. The range of the financial services.

The factors outrank the factors such as the location, interest rates, layout, banking hours, etc. The bank has a broad range of customers like individuals, institutions, trusts, business organizations, Government, and local bodies. The banks deal with some transactions, which also vary widely regarding length and complexity. The bank customer, like any other service industry, is interested in getting final results quickly. The unique service in banking mostly means solving the customers' problems in the financial matters, and the single most widely used measure of quick service is the elapsed time of transaction execution. For example, the time is taken for crediting the amount, withdrawal of cash, the sanction of a loan or credit facility, etc. are the norms of deciding an excellent service. The MIS in banking industry revolves around this aspect. The customer of the bank would like to know the status of the account very fast to make decisions on withdrawals or payments. He is interested in obtaining the loan assistance for his particular need with a reasonable rate of interest. Some customers would be interested in tax consulting and tax planning. Mother group of customers would be interested in investment guidance for investing in stocks and securities. To avoid the inconvenience of going to some places for payment of small amounts, customers need service at the counter to pay electricity bills, telephone bills, taxes and duties to the local bodies and the Government. Hence, the MIS is to be designed to identify, decide and develop a service strategy for offering a distinctive service to the broad range of customers seeking a variety of service demands. The following points should be taken care of while designing an MIS for a bank:

1) Customer database

The service expectations and perceptions revolve around the following factors:

- Customer — individuals, company, institutions, etc.
- Operator — housewife, employee, the officer of the organization. The range of service — savings, credit checking and payment, other financial services.
- Class of customers — income group, corporate bodies, etc.
- Working hours — morning, afternoon, evening, etc.

The management of the bank should create a customer database and analyze the needs of the customers from time to time to create suitable service package.

2) Service to the account holders: the customers (account holders) need constant advice on the status and its operations. Most of the customers use their account for routine payments affecting the balance. Many times the account holds a large amount and it is not transacted for any purpose.

The MIS should give following reports to the management:

- The non-moving account.
- The account was having the balance of more than, say Rs.50, 000.
- The account was going down below minimum balance.
- The regular payments not made.
- The routine credits not arrived.
- The defaults on loan repayment.
- The delays on crediting cheque amounts.
- A sudden rise and fall in the account movement.
- The account holders were giving 80% business to take personal care of their service expectations and perceptions (the CRM perspective).

Based on these reports, the management of the bank should alert or warn the customer to act on his account to correct the situation. The personal and individual account holders need such a service badly as they have to manage their domestic or business activities in a tight money situation. The MIS built around such demands would help not only the bank manager but also the account holder.

3) Service for business promotions: The bank finances can be utilized in some ways to increase the banking operations by offering credit to the right kind of customers. It is, therefore, necessary to study the trend in the business industry and solicit the customers from the upcoming and growing business sector. The MIS should concentrate on data collection from various sources to analyze and conclude the future corporate strategy. Such information will help the banker to move out to talk to the customer to obtain business for the bank. Such support will also reduce the risk of the account going into the red and bad debt.

4) The index monitoring system: One more feature of the MIS is to monitor the variety of indices and ratios related to banking operations, which are internal to the banking business. Some of these ratios fulfill the legal needs like the Cash Reserve Ratio (CRR)/ Statutory Liquidity Ratio (SLR); some meet the policy needs like the priority sector ratio to total advances and so on. It is necessary to build the MIS applications to support the bank manager in making decisions to keep different norms and ratios within the acceptable limits. He should also get support through Decision Support Service to handle the problem of not meeting these legal standards.

5) Human resource upgrade: there is a lot of human aspect in the banking operations. With computerization, the service may become faster or quicker, but still, it requires a human touch and skill. It is, therefore, necessary to upgrade the expertise and knowledge of the bank employees to offer proper service to the customers. The financial world changes so fast that retaining a client base is a challenge. The financial service business is becoming competitive and offering an excellent, distinctive service is the only solution to improve the business prospects. The service has to be more aggressive for particular problem solving of the customers. The MIS should identify such needs and offer help to the management

in designing training courses for the employees to improve their knowledge about banking and the financial world. In the banking industry, the traditional methods of real performance are at odds with good service. An excellent financial performance may not necessarily mean a good service quality. The customers of the bank expect the service to be delivered in a smooth, problem-free, efficient and timely manner. The managers in the bank have the service as well as the financial goals to achieve. It is, therefore, necessary to set the internal standards, accuracy, responsiveness and timeliness. The systems and the resources provided to meet these standards need monitoring, and the MIS will provide feedback on these standards so they can be regulated and controlled. For example, a multinational bank has set standards on satisfying the queries in the first phone call, cheque clearance time, waiting time, etc. It has set eighty-one separate 'Quality Indicators' for the Bank Card business and so on. The MIS measures these standards and gives feedback on achievement or non-achievement.

Need of MIS in banking

- Regulatory requirement indicated by the RBI for preparation of off-site monitoring surveillance reports on a regular basis in electronic format
- Need for timely submission of balance sheets and profit & loss accounts
- Need for interbank reconciliation of accounts within a definite time frame
- Need to undertake risk management strategies and for this purpose build up appropriate sets of data and market intelligence report.

Identification of key operation for MIS in banking

It has been more than 20 years since computer were first used in banking. In these years more and more of the operation of banks dependent on computers

Anytime Banking: With introduction of ATMs, Tele-Banking and internet banking, customers can conduct their business anytime of the day and night. The 'Banking Hours' is not a constraint for transacting banking business.

Anywhere Banking: Refers to banking not only by ATMs, TeleBanking and internet banking, but also to core banking solutions brought in by banks where customer can deposit his money, cheques and also withdraw money from any branch connected with the system. All major banks in India have brought in core banking in their operations to make banking truly anywhere banking.

ATM: ATMs are Automatic Teller Machines, which do the job of a teller in a bank through Computer Network. ATMs are located on the branch premises or off branch premises. ATMs are useful to dispense cash, receive cash, accept cheques, give balances in the accounts and also give mini-statements to the customers.

Cheque Truncation: Cheque truncation, truncates or stops the flow of cheques through the banking system. Generally truncation takes place at the collecting branch, which sends the electronic image of the cheques to the paying branch through the clearing house and stores the paper cheques with it.

Core Banking Solutions (CBS): Core Banking Solutions is a buzz word in Indian banking at present, where branches of the bank are connected to a central host and the customers of connected branches can do banking at any branch with core banking facility

EFT - (Electronic Fund Transfer): EFT is a device to facilitate automatic transmission and processing of messages as well as funds from one bank branch to another bank branch and even from one branch of a bank to a branch of another bank. EFT allows transfer of funds electronically with debit and credit to relative accounts.

Real Time Gross Settlement (RTGS): It is defined as the continuous (real-time) settlement of funds transfers individually on an order by order basis (without netting). 'Real Time' means the processing of instructions at the time they are received rather than at some later time. 'Gross Settlement' means the settlement of funds transfer instructions occurs individually (on an instruction by instruction basis). Considering that the funds settlement takes place in the books of the Reserve Bank of India, the payments are final and irrevocable.

APPLICATION OF MIS IN INSURANCE

Insurance businesses are today much more concerned about the effect of competition than they were a few years ago. They must react to the competitive threats not only from local source but also from regional, national and international source; likewise they must seek to explore all opportunities that are available in the immediate, national and Global environment. Deregulation has also increased competitive pressure for insurance organizations to survive, grow and prosper. In such a competitive environment, insurance managers must employ a lot of the resources at their disposal as efficiently as possible so as to accomplish the objectives and goals of the enterprise. Management Information System provides information in form of reports and displays to insurance managers and many business professionals. Management information system aids the functioning and monitoring of an insurance organization. It also describes the components and resources to ensure the proper functioning of insurance.

Management information system has changed the physical layout of offices to accommodate local networks and departmental integrated systems. It is also a formalized procedure to provide management at all levels and in all functions with appropriate information from all relevant source to enable them make timely and effective decisions for planning, directing, evaluating, and controlling the activities for which they are responsible for

MIS handles three major areas of insurance company

1. The development of new policies

- Finding out the risk incidence cost of risk management, identifying the conditions for giving the insurance offer
- It is focused on the trend in the business and industry
- Assessment of insurance premium

2. The settlement of claims

- This is very critical application in MIS and needs effective design so that managers can take easy decisions.
- Report generated by MIS should bring out exception reports on the claim pending, their disputes, not settled and rejected claims due to certain reasons

3. Administration and management of policies

- This is critical application in the insurance business, which manages the existing policies of policy holder
- Management of policy includes- renewal of policy and the revision of policy
- MIS must help in generating automatic reminder

Life Insurance Applications

a) Life Administration Module:

- **Policy servicing of existing policies:** The existing policyholders may require various services after taking the insurance policy fore.g.: Change of Nominee, Change of address, of change in mode of payment, assignment of the policy, Claims payment etc. These changes or payment can be made very easily through computers.
- **New Business:** As and when the new business is acquired the initial data of a policyholder is quite large and as stated above the data is to be maintained for longer period therefore storage of data in computer is useful
- **Renewal notice/Billing:** Renewal notices to be sent for the payment of the premium and with a no. of policyholders are very large and the renewal is on different dates. The computer generates the renewal

notice at very high speed and does it automatically. The intermediary bills are generated very fast and quickly

- **Loans:** The Policyholders do take loans and the insurer has to maintain the records as the insurer has to recover the loan from the policyholder along with the interest. The recovery of loan may be regular or recovery at the time of payment of claim

(b) Statistics and MIS Claims: As the data in computer can be stored for longer period the data may be useful for the insurer to prepare the type of policies are sold in the market and type of claim arisen in the particular region. These types of data will be useful for management to take any decision.

(c) Archiving of historical data and imaging Systems: As the past data is available with life insurer therefore they can design the new products and price them accordingly.

General Insurance Applications

a) Front Office System

- Policy Management and underwriting system
- Co-insurance z Reinsurance
- Claims Management System
- Financial' Accounts and Audit
- Statistics and MIS

b) Reinsurance System

- Inward insurance
- Outward Insurance

- Reinsurance Account

Modules followed by Life Insurance Company (LIC)

The module followed by Life Insurance Corporation (LIC) for the Front End Application for the branches:

1. New Business module (N B Module): The NB Module takes care of premium calculation, adherence to policy terms and conditions such as minimum or maximum age at entry maximum age at maturity, policy term, sum assured, mode of payment of premium etc. The program checks the validity of individual entry and does consistency checks eg. date of birth and age, data of commencement age, term, and date of maturity, plan, mode of payment etc as expected in the policy conditions end underwriting rules, The Arithmetical part of the Underwriting process, as referred to above, having been taken care of in the Module, the underwriter is free to concentrate on other areas such as Medical Report, Moral Hazard Report. Special Report etc, thereby enhancing the quality of Underwriting Standards. Many jobs manually done previously, such as proposal review slip typing, writing of proposal register and completion advice, outstanding deposit schedule etc has been taken over by the Computer.

2. Cash Counter Module: The cash module mainly caters to the needs of the cashier and some of the function of the Accounts Department. The premium receipts, policy and proposal deposit receipts, Loan and interest receipts, and miscellaneous receipts are printed through the use of the Computers. The receipts are generated on-line and there is no need to generate Special Premium receipts (as was the practice earlier). There is no need to keep the preprinted renewal premium receipts. The Renewal Premium history file is updated; this eliminates the ledger posting (i.e. posting of the collection of the premium in the individual ledger, which is a laborious, time consuming job). The cash book, cash and cheques collection list policy deposit schedules etc could now be printed under the CASH MODULE, thereby eliminating the manual preparation of the cash books and Outstanding Policy Deposit schedule.

3. Policy Servicing Module: This module enables recording of the Change of Address, furnishing Revival and Surrender Value quotations, Requested File Maintenance (RFM) actions, displaying Policy Deposit position, displaying premium history refunding policy deposits etc.

4. Claim Module: This module mechanizes all the jobs related with claims that are currently done manually starting from printing discharge voucher, data sheet to the final printing of various MIS statement.