UNIT II

SUBJECT NAME	SUBJECT CODE	SEMESTER	PREPARED BY
Management Information System	**I8BBA62C**	**VI**	**Dr.K.Karthikai, Assistant professor in BBA**

MANAGEMENT INFORMATION SYSTEM

Definition of Management Information System

Gorden B.Davis defines MIS as, an integrated, user-machine system for providing information to support operations, management, and decision making functions in an organisation. The system utilizes computer hardware and software; manual procedures, models for analysis, planning, control and decision making and a database.

Meaning

A management information system is - An integrated user-machine system -> For providing information -> To support the operations, management, analysis, and decision-making functions -> in an organisation.

The system utilises –> Computer hardware and software , manual procedures, models for analysis, planning, control and decision making and a database.

Characteristics of MIS

MIS is a comprehensive coordinated set of Information Sub-systems, which are rationally integrated and transform data into information, in a variety of ways to increase productivity in conformity with the management style of working. Thus, the following are the main characteristics of MIS:

1) **MIS is an Integrative System:** A MIS is rationally integrated. Integration is significant so as to produce more meaningful MIS. Sub-systems are integrated so that the activities of each are inter-related with those of the others.

2) **MIS is a Sub-System Concept:** Even though the system is viewed as a single entity, it must be broken down into digestible subsystem that can be implemented one at a time. The breakdown of MIS into meaningful subsystems set the stage for a prioritized implementation.

3) **MIS Provides Relevant Information to Management:** A MIS should provide only relevant information. Determining what information is relevant may be difficult in situations in which analysis vary for different managers or according to particular circumstances, such as in the case of special problems.

4) **MIS is Flexible:** MIS must be designed to be easily modified. Information system should be capable of being easily expanded to, accommodate growth or new types of processing activities and also easily contracted.

5) **MIS Enhances Productivity:** MIS enables routine tasks such as document preparation to be carried out more efficiently, provides higher levels of service to external organizations and individuals, supplies the organization with early warnings about internal problems and external threats, gives early notice of opportunities, facilitates the organization's normal management processes and enhances managers' ability to deal with unanticipated problems.

6) **MIS is Coordinated System:** Management information system is centrally coordinated to ensure that its data processing, office automation, intelligence and decision support systems as well as other components, are developed and operated in a planned and coordinated way.

7) **MIS is a Feedback System:** A management information system should provide feedback about its own efficiency and effectiveness.

8) **MIS is Management Oriented:** This is a more significant characteristic of MIS. The system is designed from the top down. This does not mean that the system development starts from an appraisal of management needs and overall business objectives It's possible that middle management or operating management is the focus of the system, such that their needs are the cornerstone on which the system is built.

9) **MIS is Management Directed:** Because of the management orientation of the MIS, it is imperative that management actively directs the system development efforts Management must determine what information is necessary to improve its control of operations.

10) **MIS is Common Database:** In the integration concept of MIS there is an opportunity to avoid duplication and redundancy in data gathering, storage and dissemination.

11)) **MIS is Distributed Data Processing:** The majority of companies implementing MIS have a geographic network of sale offices, distribution points, manufacturing plans, divisions, subdivisions and so on. More often, the remote sites do have a connection with each other and with a host operation. In order to create an effective MIS with geographic boundaries, some form of distributed data processing is necessary. DDP (Distributed Data Processing) can be thought of as the delivery system, placing information in the hands of those who need it when they need it.

12) **MIS is a Computerized System:** It is possible to have a MIS without using # computer. But its use increases the effectiveness of the system. In fact, its use equips the system to handle a wide variety of applications by providing quickly these information requirements.

13) MIS Transforms the Data into Information: When data is processed and is useful to a particular manager for a particular purpose, it becomes information, There are different ways in which data must be transformed within an information system.

MIS Structures

MIS has been introduced as a broad concept referring to a federation of subsystems. Two approaches to defining the structure of an MIS are according to

(I) Managerial activity for which they are used

(II) The organisation functions which they support.

I. Management Information System Based on Management Activity:

Management information systems support management activity. This means that the structure of an information system can be classified in terms of a hierarchy of management planning and control activities.

Hierarchy of Management Activity: The three levels of management activity can be differentiated on the basis of planning horizon for each level. The following categories of management planning and control are:

(a) **Strategic Planning** - Deals with long range considerations. The decisions to be made are concerned with the choice of business direction, market strategy, product mix, etc.

(b) **Management Control and Tactical Planning**: It has a medium-term planning horizon. It includes acquisition and organisation of resources, structuring of work and acquisition and training of personnel. It is reflected in the capital expenditure budget, the three-year staffing plan, etc.

(c) **Operational Planning and Control:** It is related to short-term decisions for current operations. Pricing, production levels, inventory levels, etc. are a result of operational planning and control activities.

A particular manager may have responsibility for a mix of management activities, but proportions shift with management level. For instance, a shop floor-supervisor will spend most of his or her time on operational planning and control. An executive vice-president will devote, by comparison, more time to strategic planning. The activities and information processing for the three levels are interrelated.

The following three sections summarize the characteristics of information system support for the three levels of the hierarchy of management planning and control,

(A) Information Systems for Operational Control :

Operational control is the process of ensuring that operational activities are carted out effectively and efficiently, Operational control makes use of pre-established Procedures and decision rules, A large percentage of the decisions are programmable. The procedures to follow are generally quite stable,

Processing Support for Operational Control consists of

(1) Transaction Processing 2) Report Processing 3)Inquiry Processing

(B) Information Systems for Management Control:

Management control information is required by managers of departments, profit canter's etc., to measure performance, decide on control actions, formulate new decision rules to be applied by operational personnel, and allocate resources. Summary information is needed; it must be processed so that trends may be observed, reasons for performance variances may be understood, and solutions may be suggested. The control process requires the following types of information :

(1) Planning performance (standard, expected, budgeted, ete.,

(2) Variances from 'planned performance

(3) Reasons for variances.

(4) Analysis of possible decisions or courses of action.

The database for management control consists of two major elements- the database provided by operations, and the plans, standards, budgets etc.,which define management expectations about performance, he processing requirements to support management control activities are the following —

(1) Planning and budget models to assist managers in finding problems in direction and preparing and revising plans and budgets

(2) Variance reporting programs to process scheduled reports showing performance and variances from planned performance or other standards such as competitor performance.

3) Problem analysis models to analyze data to provide input for decision making.

4) Decision models to analyze a problem situation and provide possible solutions for management evaluation.

5) Inquiry models to assist in responding to inquiries.

The outputs from the management control information system are plans and budgets, scheduled reports, special reports, analysis of problem situations, decision for review and inquiry responses.

(C) Information Systems for Strategic Planning The purpose of strategic planning is to develop strategies by which an organisation will be able to achieve its objectives, The time horizon for strategic planning tends to be fairly long, so that fundamental shifts in the organisation may be made. Strategic planning activities do not have to occur on a periodic, regular cycle as do management control activities. They can be somewhat irregular, although some Strategic planning may be scheduled into the yearly planning and budgeting cycle. Data requirements for strategic planning are generally for processed, summarised data from a variety of sources. There is need for external data, For example- (1) The evaluation of current capabilities is based on internal data generated by operational processing requirements, but it may need to be summarized in a special way for planning use.
(2) The initial projections of future capability can be developed by analysis of past data, This first approximation is adjusted by management on the basis of judgement and experience.
(3) Fundamental market data on the industry and competitors can probably be kept in the organisation's database. (4) Databanks of public information regarding the industry and competitors may be purchased in machine-readable form for use with planning and decision models.

II. Management Information System Based on Organisational Function

The structure of an information system can also be described in terms of the organisational functions which use information. There is no standard classification of functions, but a typical set of functions in a manufacturing organisation includes. production, sales and marketing, finance and accounting, logistics, personnel and information systems. Top management can also be considered as a separate function, Each of these functions has unique information needs and each requires information system support designed for it, An organisation may not actually be organised along functional lines but in general the logical information system will follow functional lines.

1. **Sales and Marketing Subsystem** -The sales and marketing functional generally includes all activities related to the promotion and sales of products or services, the transactions are sales orders, promotion orders, etc. The **operational control activities** include the hiring and training of the sales force, the day-to-day scheduling of sales and promotion efforts, and periodic| analysis of sales volumes by region, product, customer, etc. **Managerial control** concerns comparisons of overall performance against a marketing plan.

Information for managerial control may include data on customers, competitors, competitor Product and sales force requirements. **Strategic planning** for the marketing function involve consideration of new markets and new marketing strategies. The information requirements for strategic planning include customer analysis, competitor analysis, consumer survey information, income projection, demographic projections and technology projections.

2. **Production Subsystem -** The responsibilities of the production or manufacturing function include product engineering, planning of production facilities, scheduling and operation of production facilities, employment and training of production personnel, and quality control and inspection. Typical transactions to be processed are production orders (based on an explosion of the sales orders and inventory requirements into component Parts), assembly order, finished parts tickets, scarp tickets and time keeping tickets. **Operational control** requires detailed reports comparing actual performance to the production schedule and highlighting areas where bottleneck occur. **Management control** requires summary reports which compare overall planned or standard performance to actual performance for such classifications as cost per unit and labour used. **Strategic planning** for manufacturing includes alternative manufacturing approaches and alternative approaches to automation.

3. **Logistics Subsystem -** The logistics function encompasses such activities as purchasing, receiving inventory control and distribution. The transactions to be processed include purchase requisitions, purchase orders, manufacturing orders, receiving reports, tickets for inventory, shipping orders, and bills of lading. The **operational control** function uses information contained in reports such as past-due purchases, past due shipments to customers, out-of-stock items, overstocked items, inventory turnover reports, vendor performance summaries and shipper performance analysis. **Managerial control** information for logistics consists of overall comparisons between planned and actual inventory levels, costs for purchased items, stockouts, inventory turnover, etc. **Strategic planning** involves the analysis of new distribution strategies, new policies with required to -vendors, and ‘‘make versus buy” strategies. Information on new technology, distribution alternatives, etc., is required.

4. Personnel Subsystem - The personnel subsystem includes hiring, training, record keeping, payment, and termination of personnel. The transaction result in documents describing employment requisitions, job descriptions, training specifications, personnel data (background, skills, experience), pay rate changes, hours worked, paychecks, benefits, and termination notices. **Operational control** for personnel requires decision procedures for

action such as hiring, training, termination, changing pay rates, and issuing benefits, **Management control** of the personnel function is supported by reports and analysis showing the variances resulting from differences between planned and actual performance for such classifications as number of employees hired, cost of recruiting, composition of skills inventory, cost of training (by employee, by program) salary paid, distribution of wage rates, and conformance with government, equal opportunity requirement. **Strategic planning** for personnel is involved with evaluating alternative strategies for recruiting, salary, training, benefits, and building location to ensure that the organisation obtains and retains personnel necessary to achieve its objectives. The strategic information required include analyses of shifting: patterns of employment, education, and wage rates by area of country (or world).

5. **Finance and Accounting Subsystem** - Finance and accounting are somewhat separate functions but are sufficiently related to be described together. Finance is responsible for ensuring adequate organisational financing at ay low a cost as possible (in a manner consistent with other objectives), This function covers granting of credit to customers, collection processes, cash management, and financing arrangements (loans, sales of stock, leasing). Accounting covers the classification of financial transactions and summarisation into the standard financial reports (income statement and balance sheet), the preparation of budgets, and classification and analysis of cost data, Budget and cost data are input for managerial control applications in all functions, Among the transactions associated with finance and accounting are credit applications, sales, billing, collection documents (statements), payment vouchers, checks, journal vouchers, ledgers and stock transfers. **Operational control** over the function itself requires daily error and exception reports, records of processing delays, reports of unprocessed transactions etc. The **managerial control** level for accounting and finance utilizes information on budgeted versus actual cost of financial resources, cost of processing accounting data, and error rates. The **strategic planning** level for accounting and finance involves a long-run Strategy to ensure adequate financing, a long-range tax accounting policy to minimize the impact of taxes, and planning of systems for cost accounting and budgeting.

6. **Information Processing Subsystem** - The information processing function is responsible for ensuring that the other functions are provided the necessary information processing services and resources. Typical transactions for information processing are requests for processing, requests for corrections or changes in data and programs, reports of hardware and program performance and project proposals. **Operational control** of

information processing operations requires information on the daily schedule of jobs, error rates, and equipment failures, for new project development it requires daily or weekly schedules of programmer progress and test time. **Managerial control** over information processing requires data on planned versus actual utilisation, equipment costs, overall programmer performance and progress compared to schedule for projects to develop and implement new applications. **Strategic planning** for information systems involves the organisation of the function (such as centralized of decentralized), the overall information system plan, selection of strategic uses of information and the general structure of the hardware and software environment.

7. **Top Management Subsystem -** The top management function (chief executive officer plus staff) operate separately from the functional areas, but also includes the functional vice president acting in a top Management capacity such as in management committees, transactions processed by top management are primary inquiries for information and support of decisions. The transaction documents, therefore, tend to be letter and memoranda. Responding to the inquiries and making decisions requires either, access to the database and decision models of the organisation or transmittal of the requests to other parts of the organisation. The information for **operational control** in the top management function includes meeting schedules, correspondence contra files, and contact files. **Managerial control** by top management uses information which summarizes the management control being exercised by other functions to evaluate, whether the functions are performing as planned, This requires access to the planning and actual performance of all the functions. **Strategic planning** activities relate matters such as direction of the company (which business it should be in) and plan for ensuring necessary resources. The strategy determined by top management set, the framework for strategic planning within function and also coordinates planning to remove major inconsistencies. Strategic planning at the top management level requires a wide variety of summarized external and internal data. Information system support for strategic planning may include adhoc retrieval of data, adhoc analysis, decision support systems.

MIS AS COMPETITIVE ADVANTAGE

Competitive advantage may be achieved with many techniques in business, Information technology is one area that may provide several opportunities. 1n general MIS techniques may not be better than other methods. However, some firms have experienced considerable success from using these techniques, so they are well worth considering. Additionally, the rapid changes in technology often lead to competitive advantages if your firm is the first to

find a creative use for the new technology. The other side of the coin is that untested new technologies may not work as planned, Hence, the pioneer is taking a risk - If the project fails, the development costs may put the firm at a competitive disadvantage. The fundamental mechanism for gaining competitive advantage are barriers to entry, switching costs, lower production costs, product differentiation control over control over distribution channels, innovations and quality control.

INFORMATION SYSTEM FOR BUSINESS

There are as many ways to use information systems in business as there are business activities to be performed, business problems to be solved, and business opportunities to be pursued. As a prospective managerial end user, you should have a general understanding of the major ways information systems are used to support each of the functions of business. We will use the term business information systems describe a variety of types of information systems (transaction processing, information reporting, decision support, etc.) that support a business function such as accounting, finance, marketing, or human resource management. Thus, applications of information systems in the functional areas of business are called accounting information systems, marketing information systems, human resource information systems, and so on.

MARKETING INFORMATION SYSTEM

Marketing information is one of the most important information systems to most businesses, yet it is most often the one overlooked. Few marketing executives use information effectively on their jobs; many of them rely on intuition" as a basis for decisions, The basic function of marketing is concerned with the planning, Promoting and sale of existing products in existing markets, and the development of NEW Product and new markets to better serve present and potential customers. Business firm' have increasingly turned to computers to help them perform vital marketing function, in the face of the rapid changes of today's environment.

The major applications and objectives of various sub systems in marketing information system are ;

1. **Sales Management**-Sales manager must plan, monitor, and support the performance of the sales people in their organizations. So in most firms, computer-based systems produce sales analysis reports that analyze sales by product, product line, customer, type of customer, salesperson, and sales territory. Such reports help marketing managers monitor

the sales performance of products and salespeople and help them develop sales support programs to improve sales results.,

2. Sales Force Automation – However, sales analysis is only one aspect of the use of computers for sales management and support. Increasingly, computer-based information systems are providing the basis for sales force automation. In many companies, the sales force being outfitted with laptop computers, This not only increases the personal productivity of salespeople, but also speeds up the capture and analysis of sales data from the field to marketing managers at company headquarters. In return, it allows marketing and sales management to improve the support they provide to their sales people. Therefore, many companies are viewing sales force automation as a way to gain a strategic advantage in sales productivity and marketing responsiveness.

3. Advertising And Promotion- Marketing managers need information to help them achieve sales objectives at the lowest possible costs for advertising and promotion. Computers use market research information and promotion models to help (1) select media and promotional metbads, (2) allocate financial resources, and (3) control and evaluate results of various advertising and promotional campaigns.

4. Product Management - Product managers need information to plan and control the performances of specific products, product lines, and brands. Computers can help provide price, revenue, cost, and growth in formation for existing products and new product development. Information is also needed on the manufacturing and distribution resources proposed products will require. Computer-based models may be used to evaluate the performances of current products and the prospects for success of proposed products.

5. Sales Forecasting-The basic functions of sales forecasting can be grouped into the two categories of short-range forecasting and long range forecasting. Short-range forecasting deals with forecasts of sales for period upto one year, whereas long-range forecasting is concerned with sales forecasts for a year or more into the future. Marketing managers use systems to capture market research data, historical sales data, and promotion and to manipulate statistical forecasting models to generate short-range and long-range sales forecasts.

6. Market Research-The market research information system provides marketing intelligence , help managers make more effective marketing decisions. It also provides marketing, managers with information to help them plan and control the market research project of the firm, Computers help the market research activity collect, analyze, and maintain, an enormous amount of information on a wide variety of market variables that are

subject to continual change. This includes information on customers, prospecting consumers, and competitors. Market, economic, and demographic trends are also analyzed. Data can be purchased in computer-readable form from external source, or computers can help gather data through telemarketing and computer-aided telephone interviewing techniques. Finally, statistical analysis software packages help managers analyze market research data and spot important marketing trends.

7. Marketing Management - Marketing managers use computer-based information systems to develop short-and long-range plans. Outlining product sales, profit, and growth objectives they also provide feedback and analysis concerning performance-versus-plan for each, area of marketing. Computer-based marketing models in decision support systems and expert systems are also being used to investigate the effects of alternative marketing plans. In addition, the fast capture of sales and marketing data by sales force automatic systems helps marketing management respond faster to market shifts and sale, performance trends and develop more timely marketing strategies.

HUMAN RESOURCE INFORMATION SYSTEM: (HRIS)

The human resource management (or personnel) function involves the recruitment, placement, evaluation, compensation, and development of the employees of an organisation. Originally, businesses used computer-based information system to (1) produce paychecks and payroll reports,(2) maintain personnel records, and (3) analyze the use of personnel in business operations. Many firms have developed human resource information systems that also support (1) recruitment, selection, and hiring . (2) job placement; (3) performance appraisals; (4) employee benefits analysis (5) training and development ; and (6) health, safety, and securityThe goal of human resource management is the effective and efficient use of the human resources of a company. The major applications and objectives of information systems in human resource management are:

1. Recruitment - Properly managed, the recruitment system forecasts personnel needs and skills and recruits the personnel at the proper time to meet organizational needs. A properly designed information system will furnish information concerning (a) skills required for company programs and processes and (b) inventory of skills available in the organization. Work force tables, job specifications, and other personnel data are also useful in this subsystem.

2. Placement - This system is perhaps the most vital of all personnel functions because it matches available personnel with requirements, and hence the effective use of labour as a resource takes place within this system. A properly designed placement information system

takes account of the latest behavioural tools and techniques to ensure that, the capabilities of people are identified and placed with properly organized work requirements.

3. Training and Development - As technological changes and demands for few skills accelerate, many companies find that they must necessarily develop talent requirements from internal sources. In addition, a large part of the work force must be constantly updated in new techniques and developments.

4. Compensation. The pay and other values (fringe benefits, for example) for the satisfaction of individual wants and needs and for compliance with government, union and other requirements is the basic function of the compensation system.

5. Maintenance-This system, largely for the benefit of operating managers, should be designed to ensure that personnel policies and procedures are achieved. It may extend to the operation of systems to control work standards, those required to measure performance against financial plans or other programs, and the many subsidiary records normally associated with the collection, maintenance, and dissemination of personnel data.

PRODUCTION/MANUFACTURING INFORMATION SYSTEM

Manufacturing Or production information system provides information on production/operation activities of an organisation and thus facilitates the decision-making process of production managers of an organisation. Manufacturing is another important functional area of an organisation that is engaged in producing goods from raw materials. It is clear that manufacturing is not an activity for every organisation selling goods. Some of these organisations may only be in the business of trading, ie. buying goods from one organisation and selling it to customers ; thus performing the function of either a retailer or a Wholesale, Such organisations are also called merchandising organisations. The concept production can also be extended to the service organisations, where Production is understood as a discharge of some function which has some utility. The main decisions to be taken in the manufacturing system are given below, (i) Product design (ii) Plant location and layout (iii) Production planning and control, and (iv) Quality control.

(i) Product design - Product design, which is also known as product Engineering, includes the entire development of the product through all initial stages until actual manufacturing starts, Preparation of drawings, specifications, experimental and developmental efforts are the activities involved in the product design, Now a days Computer Aided Design [CAD] and Computer Aided Engineering [CAE] approaches are used in product design.

(ii) Plant location and layout-Plant location determines the establishment of an organisation at a particular place. It is an important decision because (a) location of plant

partially determines operating and capital costs. (b) each prospective location implies a new allocation of capacity to respective market area. Plant layout designs can be prepared by using mathematical and simulation models, for which computers play an important role. The layout software may be used to prepare altogether a new plant or to improve upon a specified one.

(iii) Production planning and control - This function is responsible for planning, directing and controlling of the material supply and other production processing activities. Production planning :

The task of production planning is accomplished through :

(a) Routing. This is the determination of path or route over which each piece is to travel in the process of transformation of raw materials into the finished product.

(b) Scheduling. It is about deciding 'when' each operation in a production process is to be carried out.

c) Loading. It is to know when a particular equipment/machine will be available for work on each order or item, Loading provides information about whether the work load is greater or less than the capacity of the equipment.

Production control is a procedure to regulate an orderly flow of material and co-ordinate various production operations so as to ensure that the desired items are produced in the right quantity, of the desired quality, at the required time, and at the optimum cost.

(iv) Quality Control - It relates to activities that ensure that the finished product conforms to the standard (pre-set) specifications laid down either by the manufacturer or the customer. Various techniques which are used in controlling the quality of a product include inspection, statistical quality control, and control charts.

INVENTORY CONTROL SYSTEM

All organisations need an efficient system to maintain and control the optimum level of investment in all types of inventories. 'Inventory' refers to the stock of raw materials and finished goods available in the firm for production and sale. An inventory control system ensures that proper stock levels of each item are maintained. The improper stock levels (low or high) cause the following problems:

1. Low inventory of raw materials leads to idle time in a production process and hence, causes wastage of resources (labour, power, equipment's etc.) needed for production. It may also lead to decrease in sales due to out-of-stock especially during periods of peak demand.

2. Low inventory of finished goods leads to backorder, lost sale and loss in goodwill of the company due to out-of-stock positions.

3. High inventory of raw materials and finished goods leads to unnecessary investments and hence, causes a financial burden on the firm. Therefore, maintaining of optimum level of inventories (neither high nor low) becomes critical for an organisation.
The major objectives for implementing a computerised inventory control in an Organisation are :

1. Maintaining an optimum level of raw materials and finished goods inventory.

2. Preparation of purchase orders and inventory status reports accurately and on time ;

3. Preparation of various analysis reports ;

4. Generation of MIS reports that help management for making effective and timely decisions.

SALES ORDER PROCESSING SYSTEMS

Sales order processing is an important transaction processing system that Captures and processes customer orders and products invoices for customers and data needed for sales analysis and inventory control. The order processing system is implemented in a batch data processing system as it involves common shipping of several items to one destination to several customers and for other reasons. If immediate response is required to many customer orders, then it is operated not in a batch. Further, warehousing operation can be made more efficiently if picking orders are prepared in batches with items arranged by warehouse stock location so that items that are physically close to one another in the warehouse are close to one another on the packing lists.

ACCOUNTING INFORMATION SYSTEMS

Accounting information systems are the oldest and most widely used information systems in business. They record and report business transactions and other economic events. Accounting information system are based on double-entry book keeping concept, which is hundreds of years old, and other, more recent accounting concepts such as responsibility accounting and profitability accounting. Computer based accounting systems record and report the flow of funds through an organization on a historical basis and produce important financial statements such as balance sheets and income statements. Such systems also produce forecasts of future conditions such as projected financial statements and financial budgets. A firm’s financial performance is measured against such forecasts by other analytical accounting reports.Operational accounting systems emphasize legal and historical record-keeping and the production of accurate financial statements. Typically,

these systems include transaction processing systems such as order processing, inventory control, accounts receivable, accounts payable, payroll, and general ledger systems. Management accounting systems focus on the planning and control of business operations. They emphasize cost accounting reports, the development of financial budgets and projected financial statements, and analytical reports comparing actual to forecasted performance.

Several important accounting information systems are:

1. Order Processing: Order processing, or sales order processing, is an important transaction processing system that captures and processes customer orders and produces invoices for customers and data needed for sales analysis and inventory control. In many firms, it also keeps track of the status of customer orders until goods are delivered.

2. Inventory Control: Inventory control systems process data reflecting changes to items in inventory. Once data about customer orders are received from an order Processing system, a computer-based inventory control system records changes to inventory levels and prepares appropriate shipping documents. Then it may notify managers about items that need reordering and provide them with a variety of inventory status reports. Computer-based inventory control systems thus help a business provide high-quality service to Customers while minimizing investment in inventory and inventory carrying costs.

3. Accounts Receivable: Accounts receivable systems keep records of amounts owed by customers from data generated by customer purchases and payments. They produce monthly customer statements and credit management reports. Computer-based accounts receivable gstems stimulate prompt customer payments by preparing accurate and timely invoices and monthly statements to credit customers. They provide managers with reports jo help them control the amount of credit extended and the collection of money owed. This activity helps to maximize profitable credit sales while minimizing losses from bad debts.

4. Accounts Payable : Accounts payable systems keep track of data concerning purchases from and payments to suppliers. They prepare checks in payment of outstanding invoices and produce cash management reports. Computer-based accounts payable systems help ensure prompt and accurate payment of suppliers to maintain good relationships, ensure a good credit standing, and secure any discounts offered for prompt payment. They provide tight financial control over all cash disbursements of the business. They also provide management with information needed for the analysis of payments, expenses, purchases, employee expense accounts, and cash requirements.

5. Payroll : Payroll systems receive and maintain data from employee time cards and other work records. They produce pay checks and other documents such as earning statements, payroll reports, and labour analysis reports. Other reports are also prepared for management and government agencies. Computer-based payroll systems help businesses make prompt and accurate payments to their employees, as well as reports to management, employees, and government agencies concerning earnings, taxes, and other deductions, They may also provide management with reports analysing labour costs and productivity.
6. General Ledger: General ledger systems consolidate data received from accounts receivable, accounts payable, payroll, and other accounting information systems. At the end of each accounting period, they close the books of a business and produce the general ledger trial balance, the income statement and balance sheet of the firm, and various
A summary of six widely used accounting information system 1) Order Processing : Captures and processes Customer orders and produces customer invoices. 2) Inventory Control: Process data reflecting changes in inventory and provides shipping and reorder information.3)Accounts Receivable: Records amounts owed by customers and produces monthly customer statement and credit management reports 4) Accounts Payable: Records purchases from, amounts owed to, and payments to suppliers, and produces cash management reports Payroll 5) Records employee work and compensation data and produces paychecks and other payroll documents and reports.6)General Ledger :Consolidates data from other accounting systems and produces the periodic financial statements and reports of the business.

FINANCIAL INFORMATION SYSTEM

Financial information system, is a sub-system of organisational management information system. Financial information systems support financial managers in decisions concerning (1) the financing of a business and (2) the allocation and control of financial resources within a business. Major financial information system categories include cash and securities management, capital budgeting, financial forecasting, and financial planning. Accounting information systems are frequently included as a vital category of financial information systems. The financial manager of a business may rely on a variety of financial planning, reporting, and transaction processing information systems to make financing, investment, and accounting decisions. Important financial information systems are:

1. **Cash and Securities Management :** Information systems collect information on all cash receipts and disbursements within a company on a real time or periodic basis. Such information allows businesses to deposit or invest excess funds more quickly, and thus

increase the income generated by deposited or invested funds. These systems also produce daily, weekly, or monthly forecasts of cash receipts or disbursements (cash flow forecasts) that are used to spot future cash deficits or surpluses. Mathematical models frequently can determine optimal cash collection programs and determining alternative financing or investment strategies for dealing with forecasted cash deficits or surpluses and the allocation and control of funds within a business.

2. Capital Budgeting: The capital budgeting process involves evaluating the profitability and financial impact of proposed capital expenditures. Long-term expenditure proposals for plants and equipment can be analyzed using a variety of techniques incorporating present value analysis of expected cash flows and probability analysis of risk.

3. Financial Forecasting : A business must make financial and other forecasts of economic trends, variety of statistical forecasting packages provide analytical techniques that resulting economic or financial forecasts of national and local economic conditions, wage levels, price levels, and interest rates. This forecasting may involve the use of data about the external business environment.

4. Financial Planning : Financial planning systems use financial planning models to evaluate the present and projected financial performance or of a business of one of its divisions of subsidiaries. They also help determine the financing needs of a business and analyze alternative methods of financing the business. Financial analysts use information concerning the economic situation, business operations, and types of financing available, interest rates, and stock and bond prices to develop an optimal financing plan for the business. Frequently they use electronic spread sheet packages and DSS generators to build and manipulate these models. Answers to what-if and goal-seeking questions can be explored as financial analysts and managers evaluate their financing and investment alternatives.

PAYROLL SYSTEM

Payroll systems receive and maintain data from employee time cards and other work records. They produce paychecks and other documents such as earning Statements, payroll reports, and labour analysis reports. Other reports are also prepared for management and government agencies. Computer-based payroll systems help businesses make prompt and accurate payments to their employees, as well as reports to management, employees, and government agencies concerning earnings, taxes, and other deductions. They may also provide management with reports analyzing labour costs and productivity.