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**COURSE : BSc. INFORMATION TECHNOLOGY**

**UNIT NAME : MANAGEMENT INFORMATION SYSTEM**

**TASK : ASSIGNMENT 1**

**QUESTION**

1. **Briefly describe the role of an IS at each of the following levels of organization structure. Also state the types of IS that operate at each of the levels. (10marks)**
2. **Operational-level**

Operational level systems help operational manager keep track of the firm’s day-today activities. The principle purpose is of operational level system is to answer routine questions and to track the flow of transactions through the organization.

Type of IS operate at this level: *Transaction Processing Systems (TPS)*

1. **Knowledge-level**

Knowledge level systems help knowledge and data workers design product, distribute information and cope with paperwork. The main purpose is to help integrate new knowledge into the business and to help the organization control the flow of paperwork. Knowledge level systems, especially in the form of workstations and office systems are the fastest-growing applications in business today.

Type of IS operate at this level: *Knowledge Work Systems (KWS)* and *Office Automation Systems (OAS)*.

1. **Management-level**

Management level systems help middle managers monitor and control. It typically provides periodic reports rather than instant information on operations. It supports the monitoring, controlling, decision-making and administrative activities of middle managers. Some of the management level systems support non-routine decision making where they tend to focus on less-structured decisions for which information requirements are not always clear.

Type of IS operate at this level: *Decision-support Systems (DSS)* and *Management Information Systems (MIS)*.

1. **Strategic-level**

Strategic level systems help senior manager with long-term planning. The principle concern at this level is matching changes in the external environment with existing organizational capabilities. It supports the long-range planning activities of senior management. It also helps the senior management to tackle and address strategic issues both in the firm and in the external environment.

Type of IS operate at this level: *Executive Support Systems (ESS)*.

1. **Information Systems can enable a firm move from good company to a great company. Discuss how a business organization can gain a competitive advantage using Information systems**

**i) Product differentiation**

Firms can develop brand loyalty by product differentiation – creating unique new products and services that can be easily be distinguished from those of competitors, and that existing competitors or potential new competitors can’t duplicate. Manufacturers are starting to use information systems to create products and services that are custom-tailored to fit the precise of individual customers.

**ii) Developing tight linkages to customers and suppliers**

Firms can create ties to customers and suppliers that can bring customers into the firm’s products and that tie suppliers into a delivery timetable and price structure shaped by the purchasing firm. This raise switching costs (the cost for customers to switch to competitors’ product and services) and reduces customers’ bargaining power and the bargaining power of suppliers. This is similar to the *just-in-time* delivery or inventory systems which reduce the cost of inventory, the space required for warehousing and construction time.

**iii) Becoming the low-cost producer**

To prevent new competitors from entering their markets, business can produce goods and services at a lower price than competitors. Strategically oriented information systems help firms significantly lower their internal costs, allowing them to deliver products and services at a lower price (and sometimes with higher quality) then what the competitors can provide.

**iv) Focused differentiation**

Businesses can create new market niche by focused differentiation – identifying a specific target for a product or service that it can serve in the superior manner. A firm can provide a specialized product or service that serves this narrow target market better than existing competitors and that discourages new competitors. An information system can give companies advantage by producing data to improve their sales and marketing techniques.

**v) Lowering cost:**

information systems can help to reduce the cost that a business spends in production. This can be achieved by using technology to enhance the production process and thus making it more efficient.

**vi) Raise barriers to market entrants**-

through information systems a company can gain advantage if it deters potentials entrants into the market, leaving less competition and more market potentials.

**vii) Establish high switching cost**-

through information systems company can gain advantage if it creates high switching costs; making is economically infeasible for customers to buy from competitors.

**viii) Creating new business:** the implementation of information systems can help to give rise to new areas of business. It can make businesses that were seemingly impossible in the past to be feasible now. It can also create new businesses within old ones.

**ix) Enhancing differentiation (focused and product):** information systems also comes in handy in the differentiation of produces through customization of the product. This further differentiates a business and its products from what its competitors have on ground.

**x)Enhance new products or services**: A company can gain advantage if its product or service is better than anyone else’s. by using information systems, a company can research on how to enhance product and services thus creating a competitive advantage.

**xi) Establish alliances:** Companies from different industries can help each other gain advantage by offering combined packages of goods or services at special prices. By the use of information systems, the company will be able to establish alliances thus creating a competitive advantage.

**xiii) Lock in suppliers or buyers:** A company can gain advantage if it can lock in either suppliers or buyers, making it economically impractical for suppliers or buyers to deal with competitors.

On conclusion, businesses that intend for their operations to grow and succeed should make an effort to unearth how they utilize their information systems, time wise and energy wise. If most of the business’ resources are spent in maintaining their technology, then it is clearly evident that the business is doing the wrong thing and thus is missing out on the benefits that information systems has to offer.

1. **Briefly discuss the effects of information system to the organization in terms of decision making and organizational structure. (4marks)**
2. It helps indirectly to pull the entire organization in one direction towards the corporate goals and objectives by providing the relevant information to the organization.
3. It creates information –based working culture in the organization
4. The MIS calls for a systematization of the business operations for an effective system design. This leads to streaming of the operations which complicates the system design.
5. MIS supports the management of marketing, finance, production and personnel becomes more efficient.
6. **Explain the steps involved in developing an information system**

* **Feasibility study**

This is the stage where information analyst makes a study of whether the management’s concept of the desired new system having is achievable. It may be that development of a new system is not needed instead an update of the existing is enough.

* **Analysis**

This is where users and IT specialists work together to collect and comprehend business requirements. Based on requirements both will work on the design and discuss the tasks to be done. The user and IT specialist signs on the joint application design to formalize the business requirements.

* **Design**

This is the stage where systems blueprint is created. The technical architecture is designed which includes telecommunications, hardware and software suited for the system.

* **Development and Testing**

This is where building of the technical architecture, database and programs are executed. It is also the stage where the system is tested using the established test scripts and compare the expected outcomes to actual outcomes

* **Implementation**

This is where the system is in place and is used by the actual workforce. User guide manual and training are provided to users

* **Evaluation**

It is the stage where system need to be evaluated for any bug from time to time

* **Maintenance**

This is where the systems need to be enhanced or strengthened in order to meet the goals of the organization.

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