

Programme Name: \_\_\_\_\_\_\_\_**BCS HONS**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Course Code: \_\_**ISYS 2400**\_\_\_\_\_\_\_\_

Course Name: \_\_\_\_\_\_\_**Management Information System**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Assignment** / Lab Sheet / Project / Case Study No. \_**1**\_\_\_

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1. **Information system, an integrated set of components for collecting, storing, and processing data and for providing information and digital products. Discuss the components of information system.**

**Answer:** An information system is essentially made up of five components hardware, software, database, network and people. These five components integrate to perform input, process, output, feedback and control.

* **Computer Hardware**:

Computer Hardware are the physical equipment used for input, output and processing. The hardware structure depends upon the type and size of the organization. It consists of an input and an output device, operating system, processor, and media devices. This also includes computer peripheral devices.

* **Computer Software:**

The programs/ application program used to control and coordinate the hardware components. It is used for analyzing and processing of the data. These programs include a set of instruction used for processing information.

Software is further classified into 3 types:

* System Software
* Application Software
* Procedures
* **Databases:**

Data are the raw facts and figures that are unorganized that are and later processed to generate information. A database is a place where data is collected and from which it can be retrieved by querying it using one or more specific criteria. Softwares are used for organizing and serving data to the user, managing physical storage of media and virtual resources. As the hardware can’t work without software the same as software needs data for processing. Data are managed using Database management system. Database software is used for efficient access for required data, and to manage knowledge bases.

* **Network:**

Networks resources refer to the telecommunication networks like the intranet, extranet and the internet. These resources facilitate the flow of information in the organization. Networks consists of both the physicals devises such as networks cards, routers, hubs and cables and software such as operating systems, web servers, data servers and application servers. Telecommunications networks consist of computers, communications processors, and other devices interconnected by communications media and controlled by software. Networks include communication media, and Network Support.

* **Human Resources:**

Human Resources are associated with the manpower required to run and manage the system. People are the end user of the information system, end-user use information produced for their own purpose, the main purpose of the information system is to benefit the end user. The end user can be accountants, engineers, salespersons, customers, clerks, or managers etc. People are also responsible to develop and operate information systems. They include systems analysts, computer operators, programmers, and other clerical IS personnel, and managerial techniques.

1. **A company can survive and succeed in the long run only if it successfully develops strategies to confront five competitive forces that shape the structure of competition on its industry. Explain competitive forces model of IT infrastructure to a business.**

**Answer:**

The competitive forces model can be used to determine how much to spend on IT infrastructure and where to make strategic infrastructure investments, starting out new infrastructure initiatives with small experimental pilot projects and establishing the total cost of ownership of information technology assets.

The competitive forces model of IT infrastructure to a business are:

Competitive Rivalry. This looks at the number and strength of your competitors. How many rivals do you have? Who are they, and how does the quality of their products and services compare with yours?

Where rivalry is intense, companies can attract customers with aggressive price cuts and high-impact marketing campaigns. Also, in markets with lots of rivals, your suppliers and buyers can go elsewhere if they feel that they're not getting a good deal from you.

On the other hand, where competitive rivalry is minimal, and no one else is doing what you do, then you'll likely have tremendous strength and healthy profits.

Supplier Power. This is determined by how easy it is for your suppliers to increase their prices. How many potential suppliers do you have? How unique is the product or service that they provide, and how expensive would it be to switch from one supplier to another?

The more you have to choose from, the easier it will be to switch to a cheaper alternative. But the fewer suppliers there are, and the more you need their help, the stronger their position and their ability to charge you more. That can impact your profit.

Buyer Power. Here, you ask yourself how easy it is for buyers to drive your prices down. How many buyers are there, and how big are their orders? How much would it cost them to switch from your products and services to those of a rival? Are your buyers strong enough to dictate terms to you?

When you deal with only a few savvy customers, they have more power, but your power increases if you have many customers.

Threat of Substitution. This refers to the likelihood of your customers finding a different way of doing what you do. For example, if you supply a unique software product that automates an important process, people may substitute it by doing the process manually or by outsourcing it. A substitution that is easy and cheap to make can weaken your position and threaten your profitability.

Threat of New Entry. Your position can be affected by people's ability to enter your market. So, think about how easily this could be done. How easy is it to get a foothold in your industry or market? How much would it cost, and how tightly is your sector regulated?

If it takes little money and effort to enter your market and compete effectively, or if you have little protection for your key technologies, then rivals can quickly enter your market and weaken your position. If you have strong and durable barriers to entry, then you can preserve a favorable position and take fair advantage of it.