**An Introduction to information system:**

**An information system** consists of a planned network of people, infrastructure, hardware and software that are used to gather, organize, store and communicate information within the business.

* Data are simple values or facts.
* Information is data that has undergone processing.
* In order to for data to be used in conjunction with decision making a IS will transform raw data into valuable information.

**Components of an information system:**

* Hardware – physical elements e.g. computer, telephones.
* Software – computer programs to organize and analyze data.
* Databases – large data stored in tables and files.
* Network – interconnecting different elements.
* Procedures – define how data will be processed and analyzed.
* People – the users.

**Functions of an information system:**

* Input, process, output – to make the information the business needs.
* Environmental actors – customers, suppliers, competitors.
* Feedback – opinions returned to the enterprise from end-users regarding output quality.

**Different types of information system:**

* **Executive Support System (ESS)** makes it possible for senior managers to access executive information and it supports their decision making needs.
  + Facilitates senior management.
  + Discuss non-routine decisions, requiring evaluation, judgement and insight.
  + Involve data concerning outside events as well as summarized info from TPS/internal MIS.
* **Decision support system** **(DSS)** is a software orientated system allowing managers to compile valuable information from raw data, to assist in identifying problems and working towards a solution.
  + Operates in middle management
  + Non-routine decision making takes place.
  + May use external info as well as TPS/MIS to obtain a solution.
  + Model driven, may introduce a voyage-estimating system.
  + Data driven, offer systems to analyze marketing data.
* **Management IS** is a computer-based system offering management with tools to organize, evaluate and effectively manage departments in the organization.
  + Operates in middle management.
  + They write reports on firms current performance based on data from TPS.
  + Provide answers to routine questions with a predefined procedure for answering them.

* **A transaction processing system** consists of methods of retrieving all daily transactions needed to conduct business.

**Business functions of information systems:**

* **Sales and marketing –** promoting and selling of company products and services.
* **Manufacturing and production –** producing or making the final end product or service.
* **Finance and Accounting** –managing and maintaining financial records and assets
* **Human Resources –** develop productivity of the labour force as well as assisting in maintaining employee records.

**Strategic business objective of information systems:**

* + Keep up with competition.
  + New products and service innovations.
  + Customer and supplier intimacy e.g. Offer free internet for students at university.
  + Overall improvement of efficiency and productivity in the workspace.

**Organizational dimensions of information systems:**

Organizations often have a clear structure and application of division of labour.

At management level:

* Senior management – responsible for long-term strategic decisions affecting the company’s overall direction and performance.
* Middle management – carry out tasks and projects put in place by senior managers.
* Operation management – responsible for day-to-day decisions in business operations, such as paying off order payments.

At work level:

There are two types of workers.

* **Knowledge workers** e.g. engineers, scientists – they come up with innovative ideas for products.
* **Data workers** e.g. secretaries, clerks – assisting with scheduling and communication at all times.

At technology level:

* Computer hardware - physical components for the purpose of input, processing and output data.
* Computer software – programs giving instructions to hardware.
* Networks – linking all devices and computer to communicate with each other.
* Internet – used to provide services in the form of web pages and links.
* Intranet – create a internal corporate network.