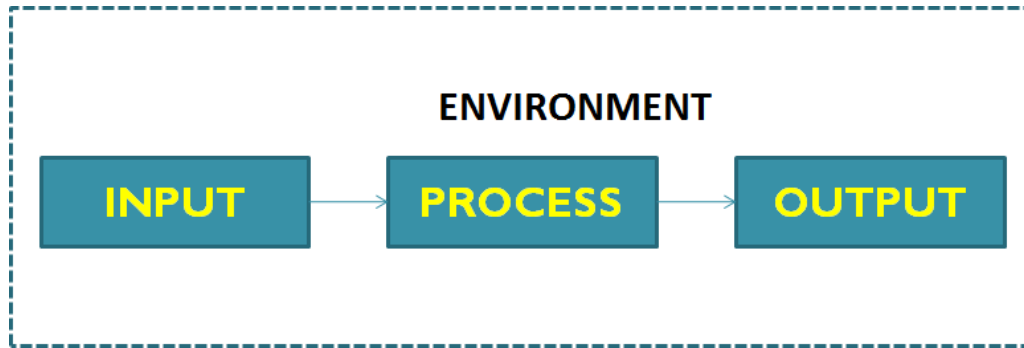


Chapter –2 Concepts of Systems

System in Organization

System is defined as a set of elements arranged in an orderly manner to achieve an objective or goal.



- System have input, processing, output and Feedback.
- A system is a set of elements arrange in the order that interacts with each other to achieve certain objective or goal.

Different types (Classification of System)

There are different types of system as mentioned below:

1. Open System.
2. Close System.
3. Deterministic System.
4. Probabilistic System.

Open System:

- If the system which interacts with the environment and makes the changes in the system by the environment is known as open system.
- The system which are required to response to change in the environment such as marketing, forecasting are example of open system.
- If the system has exchange or interacts with the environment and is influenced by the environment then it is called an open system.

Close System:

- The system which does not interact with the environment and doesn't make any changes in the system by the environment is known as close system.
- Most of the close system depends on the principle and rules.

Concept of System

- If a system is functioning in isolation from the environment, then the system does not have any exchange with the environment nor is it influence by the environment changes. Such a system is called a closed system.
- Example: Manufacturing System.

Deterministic System:

- A system is called a deterministic if output of the system can be predicated by the certain time period.
- For example-Accounting System.
- Deterministic system performs their functions (operation) in a predictable manner.
- Generally deterministic system is closed system.

Probabilistic System:

- A system is called probabilistic, if the output is not predictable at certain time period.
- For example Whether Forecasting, Demand Forecasting.
- Probabilistic system operates in an unpredictable manner.
- Generally probabilistic system is open system.

What is Organization?

An organization is a stable, formal, social structure that takes resources (input) from the environment and processes them to provide output.

Organization Structure

Organization structure is based on the basic four principle of organization:

Principle:

1. ***Hierarchy of Authority.***
2. ***Specialization.***
3. ***Standardization or formalization.***
4. ***Centralization.***

- **Hierarchy of Authority:**

The degree and knowledge of the person decide the authority of the person in the organization. The authority depend on the level at which the person holding position in the organization. The authority is measure on the basis of control of resources, the risk of business and the decision making power etc. When the authority is divided into level by its position it is known as the hierarchy of authority.

- **Specialization:**

Second principle of organization structure is specialization which can be divided in a number of ways, arranging all similar task and associated task under one hand (person).

Example: A business organization can be structure on specialization like manufacturing, marketing, accounting, finance and personal and so on.

Another example, hospital can be structured on a basis of specialization such as heart specialists, eye specialists and so on.

- **Standardization or formalization:**

The purpose of standardization or formalization is to make a person in an organization independent so that they require less interaction between the individual in the organization.

- **Centralization:**

Centralization refers to the location or position where the decision making centre is fixed (located). In a high centralized organization decision making is at the top level.

Organization Structure

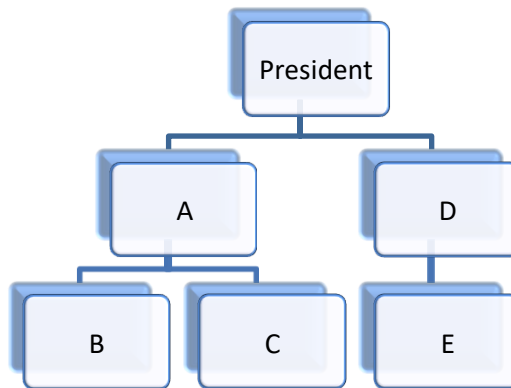
An organization structure refers to organization sub unit of the way they relate to the overall organization. The organization structure is typically divided into four parts:

1. ***Traditional.***
2. ***Project.***
3. ***Team.***
4. ***Multidimensional.***

- **Traditional**

Organizational structure in major department which follows traditional structure reports to the president who is at the top level (manager) in the organization.

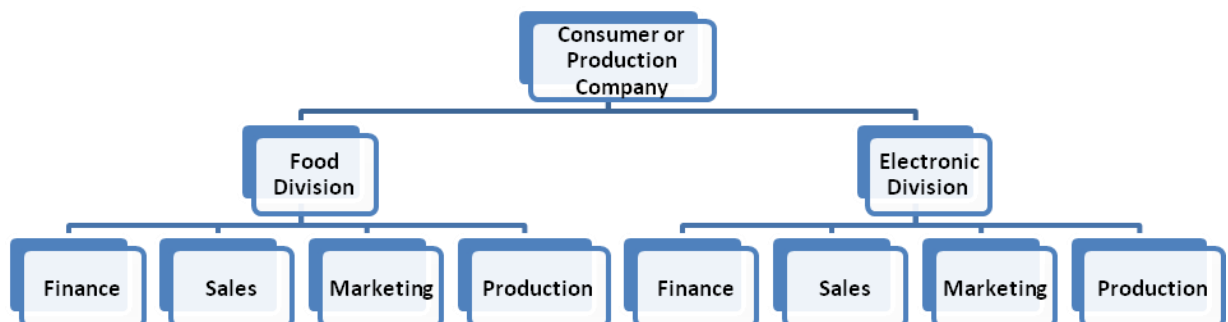
The traditional structure also refers to the hierarchical structure. This structure has a top level with the higher priority, power and authority.



- **Project**

A project organizational structure has a centre and major services or products. For example, in a manufacturing company and any production company there are different types of project or services like food division, electronic division, and garments division and so on.

All the products or services are also known as unit.



- **Team**

The team organization structure has different work station or groups. In some cases this team are small or may be large in size. Typically in the team organization structure there is one team leader who control or manages all the processes in the organization.



- **Multidimensional**

It is also known as matrix organization structure. Multidimensional organization structure combines more than one organization structure. For example in any organization, it may have project organizational structure as well as team organizational structure.

