

System Approach:

Concept and components of system theory:

1. A system as an assemblage of parts must be viewed as a whole.
2. A system can be regarded as either closed or open. It is open when it exchanges information, energy or material with its environment: and closed , when it does not have such information with its environment.
3. To distinguish the system from its environment, a system must have boundaries.
4. If an open system is to survive, it must achieve a steady state or dynamic homeostasis.
5. If a system is to achieve steady state, it must have feedback.
6. A system has sub-systems and is also a part of a supra-system.
7. As social systems, forming part of open system grow, they tend toward increased elaboration and differentiation.
8. Systems theorists emphasize that open systems can achieve the desired results in various ways by means of a concept or process referred to as equifinality.

In brief, the system approach views the organization as a whole and involves the study of the organization in terms of the relationship between technical and social variables within the system. Changes in one part, technical or social, will affect other parts and thus the whole system. The concept of the organization as a 'socio-technical' system directs attention to the conversion process itself, to the series of activities through which the organization attempts to achieve its objectives. The socio-technical system is concerned with the interactions between the psychological and social factors and the needs and demands of the people in the organization, and its structural and technical requirements.

Organization as open and closed systems

Open systems:

Characteristics of an open system:

- i. Exchange of information.
- ii. Transformation of inputs
- iii. The outputs
- iv. Steady state
- v. Feedback
- vi. Differentiation and elaboration
- vii. Equifinality

Closed system

A system can be regarded as closed if it does not have such interactions with its environment. The closed systems are characterised by entropy. Entropy is 'the ultimate state reached in the degradation of the matter and energy of the universe.' The tendency of a closed system is to move toward chaotic or inert state over a period of time. In a closed system no external inputs are provided, hence it decays and entropy

destroys it totally. In open social systems entropy could be kept under control. Through the introduction of external inputs it could be transformed into negative entropy. For the survival and continuity of the social system, proper balance between the maintenance and adaptive forces is necessary. The concepts of adaptive mechanisms, maintenance mechanisms contrived adaptivity, entropy and flexible equilibrium are useful for the comprehension of the dynamic and complex modern organisations.