# 7.5 Investigates the need for a new information system and its feasibility

Time: 2 periods

**Learning Outcomes**

- Describes the tasks in preliminary investigation stage
- Identifies information problems in an organization
- Identifies priorities of the problems to be solved

## Preliminary Investigation

This is the first stage of system development life cycle. This gives a clear picture of what actually the physical system is?

Preliminary investigation is done in two phases namely,

1. Problem definition
2. Feasibility study

**In the problem definition**, a preliminary survey of the system is carried out to identify the scope of the system.

**In the feasibility study**, the proposed system is evaluated for its feasibility. Feasibility of a system means whether the development of a new or improved system is practical and beneficial.

## What is Feasibility Study?

Feasibility is defined as the practical extent to which a project can be performed successfully.

To evaluate feasibility, a feasibility study is performed, which determines whether the solution considered to accomplish the requirements is practical and workable in the software.

Information such as resource availability, cost estimation for software development, benefits of the software to the organization after it is developed and cost to be incurred on its maintenance are considered during the feasibility study.

**The objective of the feasibility study**

- To establish the reasons for developing the software that is acceptable to users, adaptable to change and conformable to established standards.
- To analyze whether the software will meet organizational requirements.
- To determine whether the software can be implemented using the current technology and within the specified budget and schedule.
- To determine whether the software can be integrated with other existing software.

**Types of Feasibility**

Various types of feasibility that are commonly considered,

- Feasibility study
- Technical feasibility
- Economic feasibility
- Operational feasibility
- Organizational feasibility

**Technical feasibility:** this evaluates whether the developers have ability to construct the proposed system. The technical assessment helps answer the question such as whether the technology needed for the system exists, how difficult system will be to develop, and whether the developers have enough experience using that technology

**Economic feasibility:** this studies cost and benefits to evaluate whether the benefits justify the investments in the system development. Can the development cost be justified? An important outcome of the economic feasibility study is the cost benefit analysis.

**Operational feasibility:** this assesses the willingness and ability of the users to support and use the proposed system. Will the system be used

when it is developed and installed? Will there be resistance from users to the system development?

**Organization feasibility:** this determines the extent to which the proposed system supports the objectives of the organization's strategy. In here, the system is taken as a subset of the whole organization.

The result of the feasibility study is a formal document, a report detailing the nature and scope of the proposed solution.

Once the feasibility study is done, the project is approved or disapproved according to the results of the study. If the project seems feasible and desirable, then the project is finally approved otherwise no further work is carried out.

References

Teachers' Guide -2017

http://ecomputernotes.com/software-engineering/feasibilitystudy