

FEASIBILITY STUDY

(an assessment of the practicality of
a proposed plan or method)

Uncovers strength and weaknesses

Introduction

Once the need for the system and its business requirements have been defined , the approval committee may authorize the system to prepare a more detailed business case to better understand the proposed information system project.

Feasibility study guides the organisation in determining whether to proceed with the project. It identifies the important risks associated with the project that must be managed if the project is approved.

(Each organisation->own process->feasibility analysis)

Mainly:-

Technical feasibility, Economic feasibility and organisational feasibility

#Feasibility analysis context now within context of project initiation

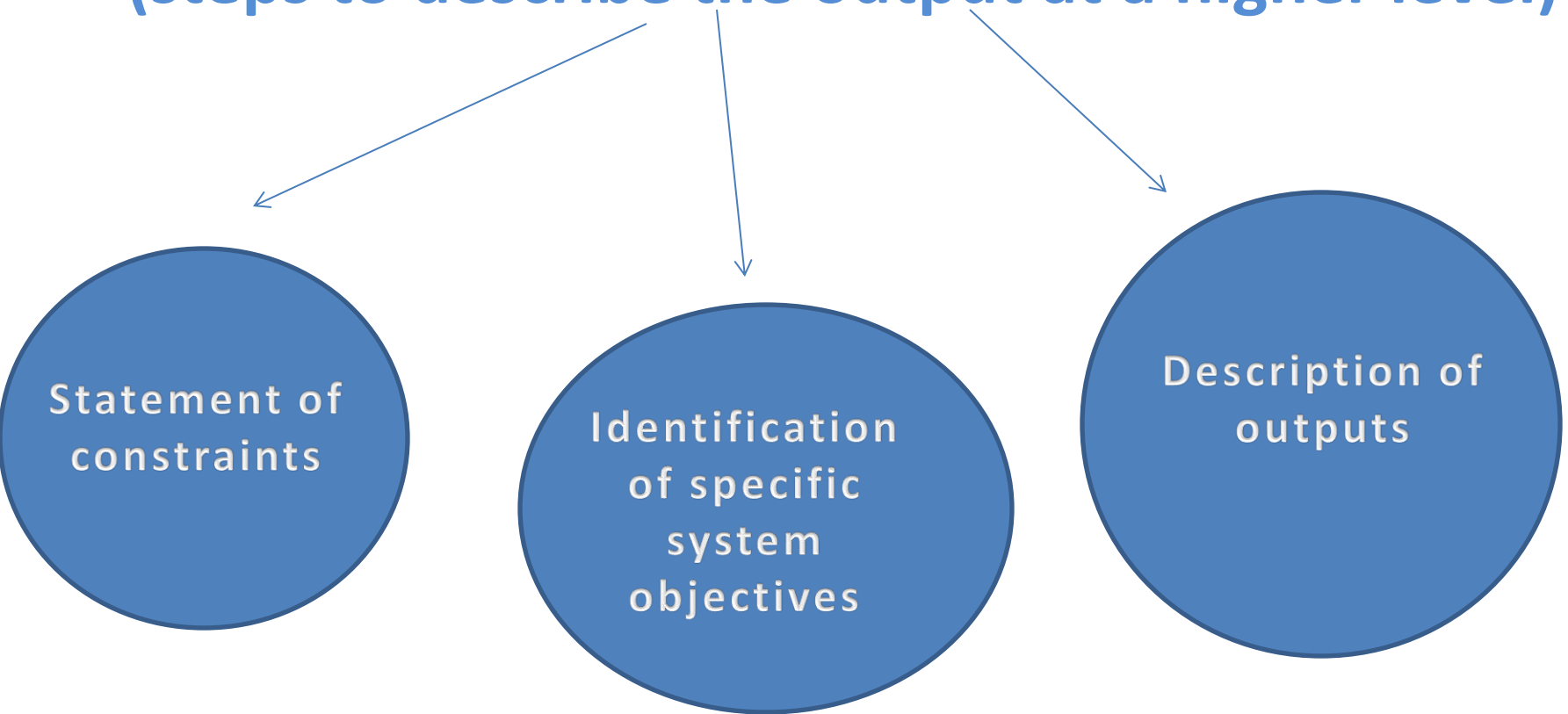
- **Technical feasibility**:- (Can we built it??)
- <examining risks associated with user and analyst familiarity with application>
- *Less familiarity->application/technology->more risk*
- *Large project size->More risk*
- *Less compatibility(two or more things working together without conflicts)->More risk*

- **Economic feasibility**:- (Should we built it??)
- <Cost benefit analysis>
- Development costs
- Annual operating cost
- Annual benefits

- **Organisational feasibility**:- (If we built it,will they come??)
- <assess how well system will be accepted by user >
- Users
- Other stakeholders
- Project aligned with business(eg:-cloth machine for making chocolates)

System performance Definition

(steps to describe the output at a higher level)



Statement of constraints

Constraints-> *Factors that limit the solution of problem*

Some constraints-> *identified during*-> *initial investigation*-> *discussed with user*

For Example:-

Cosidering Ram rahim case to illustrate these points:-

Punishing him as per laws revealed following constraints:-

- Millions of supporters
- Hartals and destruction of govt. properties to save him
- Basically all these stupid activities were hindering the working of government!
- Same way constraints are the factors that hinders in finding solution for particular problem
- (example of safe deposit billing->explained in book)

Identification of specific system objectives

- Once the constraints are spelled out , the analyst proceeds to identify the system's specific performances objectives.
- For example:-
- In our scenario, the candidate system's anticipated benefits are as follows:-
- **Improved collection schedule**->*advance payment*
- **Cost reduction**->*reducing pay*->*online*->*less working hrs*
- **Physical space reduction**->*introducing microcomputers*
- **Improved customer services**->*using mater cards*
- (each benefit is analysed and translated into measurable objectives)

Description of output

- Final step
- Actual sketch of format and contents of layout as well as specifications used.
- Specifying exactly what the output will look like leads to an estimate of computer storage requirements.
- Analyst is now ready to evaluate the feasibility of candidate systems to produce these outputs.

THE FEASIBILITY STUDY CAN BE ADDRESSED BY ANSWERING THE FOLLOWING QUESTIONS-

- Can this system meet the required business needs?
- Is the system development process suitable/useful?
- What are the risks involved in this system?

Feasibility considerations

- Organizational /Behavioral feasibility
- Economic feasibility
- Technical feasibility
- Operational feasibility
- Legal feasibility
- Schedule feasibility

1- Economic feasibility

- Most frequently used method for evaluating the effectiveness of a candidate system.
- Also known as cost/benefit analysis.
- Procedure is to determine the savings and benefits that are expected from a candidate system and compare them with the costs.
- If $\text{benefit} > \text{costs}$ = decision is to implement the system otherwise further justification.

2- Technical feasibility

- *Centers around the existing computer system(hardware/software etc.)
- *major concern of this is just to observe whether the reliable hardware and software of organisation meets the needs of proposed system or not.

3- Organisational/behavioural feasibility

- This deals with requirement of special efforts to educate, sell and train the staff on new ways of conducting business.
- Basically it determines the feasibility of system in terms of organisation and behaviour of employees.

4- Operational feasibility

- Responsible for operations of management, employees, customers and suppliers involved in a project.
- Examines the system's operation while developing and installing system.

5-Legal feasibility

- Refers to viability of system
- Checks whether system abides by all laws and regulations or not.

6-Schedule feasibility

- Evaluates whether system finishes task in given time period.

7-Social feasibility

- It is a determination of whether a proposed project will be acceptable to people or not.

8- Management feasibility

- Determination of whether the proposed project will be acceptable to the management or not.
- A project can be considered feasible only if the project proposal passes all the tests.
- In this stage the infeasible projects are discarded unless these projects are resubmitted as new proposals.

Steps in Feasibility Analysis

- Prepare a project team and appoint a project leader.
- Prepare system flowcharts.
- Enumerate potential candidate systems.
- Describe and identify characteristics of candidate system.
- Determine and evaluate performance and cost effectiveness of each candidate system.
- Weight system performance and cost data.
- Select the best candidate system.
- Prepare and report final project directive to management.

Feasibility Reports

The feasibility reports should contain the following:-

1. Finding the conclusions of the study.
2. Description of work done in feasibility study.

Primary contents of the reports are:

- (a) The estimated cost of the system.
- (b) User involved
- (c) Changes needed for successful implementation.
- (d) Benefits that system will give(in terms of cost & efficiency)
- (e) Future achievements of proposed system.