SPM: Feasibility Study

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SPM
SOFTWARE PROJECT MANAGEMENT

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Feasibility Study

☐ **Definition of Feasibility Study in Software Engineering :-**

The word feasibility means feasibility or probability, that is, it is related to the possibility of being successful in some work. Under Feasibility Study in software engineering, it is studied that what can be the reasons for the failure or failure of a software project, that is, all the possibilities that can make a software project a failure, study them. is done under.

The main objective of the Feasibility study is to determine whether to develop the system financially and technically whether it is possible with apps or not.

The purpose of the feasibility study is not to solve the problem, but to determine whether the problem can be solved or not. In this, all the problems in the system are analyzed, and the system information is examined deeply And it is determined how success can be achieved in developing the system.

The process of feasibility study is done by the team of System Analysts before the software engineer starts the process of coding and an attempt is made to estimate what is the reason that this particular project failed. can make. This is a very helpful step in building a successful software project.

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☐ **Who will conduct feasibility study:**

(by whom is the process of feasibility study done?):- The process of feasibility study is usually done by System Analyst. But sometimes when required, it also includes software engineers i.e. coders, project managers, software testers, customers and employees working in customer's companies who are going to work on software products. For project success it is very important that all forms of feasibility study are followed before project construction otherwise a lot of money and time can be wasted.

☐ **When to do Feasibility study:**

(When is the process of feasibility study done?):-
The process of feasibility study is done during the second phase of Software Development Life Cycle (SDLC). In the first phase of the software development life cycle, the requirements of the customer are collected, only after that the process of feasibility study is done.

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☐ <u>**Types of Feasibility Study**</u>

Types of Feasibility Study:- Some of the major forms of Feasibility Study are as follows:-

1. ***Technical feasibility :-*** Under technical feasibility, it is assessed whether the proposed system being constructed can be made using current level of technical resources or not. It analyzes all the technologies used for project creation like hardware, software, programming languages and it is assessed that all the technical resources selected for the development and implementation of the project are capable of meeting the requirements of the project. Or not.

2. ***Economic feasibility: -*** Under economic feasibility, it is assessed whether the expenditure on the development, implementation and operation of the software project is within the budget allocated by the organization or not. In this, the cost of the technologies that will be used to manufacture the software, the cost of the software engineer and all the employees involved in the project, the hardware and other machines used to install the software, all are analyzed in detail.

3. ***Behavioural feasibility: -*** Under Behavioral feasibility, the employees working in the customer and the customer's organization who will use this software system, by evaluating their attitude or behavior, it is estimated that how capable the employees are, they should use the new software system. need to be trained to do so or not. In addition, behavioral feasibility seeks to determine whether the new system will have any impact on the existing business practices of the customer.

4. ***Operational Feasibility:-*** Operational feasibility is the analysis of how well the proposed software system solves the customer's problems and the needs of the customer's organization that were identified. enabled or not.

5. ***Legal feasibility :-*** Under legal feasibility it is assessed that the proposed software project properly supports the domestic and international legal rules in all respects and does not violate any legal rules. In this, the requirements of the customer and the proposed project are analyzed from the legal point of view and it is ensured that the construction of this project does not violate any kind of legal rules.

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6. ***Time feasibility: -*** Any software project is considered successful only if it is made available at the right time. If the project is not completed on time or it takes more time for the construction of the project, then many times the requirements of the customer change or the project is of no use to the customer. In this situation the whole project fails. Therefore, under Time feasibility, it is analyzed whether this software project will be ready at the right time or not and whether there will be any change in the requirement of the customer between the time taken for the construction of the project.

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☐ **<u>Advantages and Disadvantages of Feasibility Study in Software Engineering</u>**

Advantages of Doing Feasibility Study:

- It helps to eliminate all the factors that can make a software project successful, even before the process of project creation begins.

- It helps the members involved in a project to make important decisions.

- It helps in increasing the concentration of all the members involved in the project.

- It helps to identify new opportunities hidden in the project.

- It warns in advance of legal troubles that may arise in the future.

- Helps to find all possible options related to project and business.

Disadvantages of Doing Feasibility Study:-

- Adding this step in project construction increases the time and cost of project development.

- Detecting or estimating all types of hazards before the start of project construction work is a very difficult process and it is not necessary that all possible hazards are detected in advance. Many times, even after doing the feasibility study phases, many more problems arise during the process of project creation due to which the project fails.

☐ **<u>Conclusion on Feasibility Study:-</u>**

The process of building a software project goes through many different complex stages, in which a lot of time, effort and money has to be invested. Even after spending so much hard work and money, if a software project fails, then there is a lot of loss in it. Therefore, it is very important that before starting the construction of a software project, all the reasons related to the planning which can make it fail are thoroughly analyzed so that all the reasons that make the project fail can be found in advance. That's why feasibility study is a very important step, which is done before any software project is built.