Solved Question Paper June 2013

System Analysis And Design

3.a)What are the various activities involved in the feasibility study ? Discuss any three feasibilities need to be studied during feasibility analysis.(10marks)

Feasibility consists of activities which determines the existence of scope of developing an information system to the organization. This study should be done throughout the life cycle.

Feasibility study starts from the preliminary investigation phase. At this stage, the analyst estimates the urgency of the project and estimates the development cost.

The next checkpoint is problem analysis. At this stage, the analyst studies current system. S/he does it to understand the problem in a better way. It helps him/her to make better estimates of development cost, and also to find out the benefits needed from the new system.

In feasibility study, we need to study the following :

- Technical feasibility
- Operational feasibility
- Economic feasibility
- Legal feasibility

1. Technical Feasibility :

Technical feasibility is concerned with the availability of hardware and software required for the development of the system, to see the compatibility and maturity of the technology proposed to be used and to see the availability of the required technical manpower to develop the system.

The below three issues are addressed in this study.

1. Is the proposed technology proven and practical? : In this stage, the analyst has to see or identify the proposed technology, its maturity, its ability or scope of solving the problem.

2. Does the firm possess the necessary technology it needs. : In this, we have to ensure that the required technology is practical and available. Does it have the required hardware and software.

3. Availability of technical expertise. : Software and hardware are available. It may be difficult to find skilled manpower. The company might be equipped with ERP software, but the existing manpower might not have expertise in it. So, the manpower should be trained in the ERP software. This may lead to slippage in the delivery schedules.

2. Operational Feasibility :

Its all about the problems that may arise during operations. Two aspects related with this issue are :

- What is the probability that the solution developed may not e put to use or may not work?
- What is the inclination of the management and end users towards the solution? Though, there is very least possibility of management being averse to the solution, there is a significant probability that the end users may not be interested in using the solution due to lack of training, insight etc.

Other issues related with operational feasibility are :

Information : The system needs to provide adequately, timely, accurate and useful information. It should be able to supply all the useful and required information to all levels and categories of users.

Response time : It needs to study the response time of the system in terms of throughput. It should be fast enough to give the required output to the users.

Accuracy : A software must operate accurately. It means that it should provide value to its users. Accuracy is the degree to which the software performs its required functions and gives desired output correctly.

Security : There should be adequate security to information and data. It should be able to protect itself from fraud.

Services : The system needs to be able to provide desirable and reliable services to its users.

Efficiency : The system needs to be able to use maximum of the available resources in an efficient manner so that there are no delays in execution of jobs.

3. Economic feasibility : It is the measure of cost effectiveness of the project. The economic feasibility is nothing but judging whether the possible benefit of solving the problem is worthwhile or not. At the feasibility study level, it is impossible to estimate the cost because the customer's requirements and alternative solutions have not been identified at this stage. When the specific requirements and solutions have been identified, the analyst measures the cost and benefits of all solutions, this is known as "cost benefit analysis". A project which is expensive when compared to the savings that can be made from its usage, then this project is considered "economically infeasible".

4. Legal feasibility : This type of feasibility studies issues arising out of the need to the development of the system. This might include copyright law, labour law, foreign trade, regulation etc. Legal feasibility plays an important role in formulating contracts between vendors and users. If the ownership of the code is not given to the user, it will be difficult to install it without proper permission to other systems. Whenever an IT company and the user company do not belong to the same country then the tax laws, foreign currency transfer regulations, etc. have to be taken care of.