

It project management

Engineering, Project Management



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The first risk is the pressure on the project implementation team to deliver the project within a short period of time.

If the team was to complete the project within the set time of eight weeks, some of the activities of the project will be incomplete. This will mean that the system will lack some of the functionalities that were intended.

The response to this risk would be to extend the deadline for project completion or creating more time by project crashing.

The second risk is that the new IT staffs do not possess any experience in implementation of new projects and they are to work in an environment where things were previously done informally.

If the staffs do not receive guidance and support from experienced staff, the quality of the system will be compromised.

The response to this risk is to create a structure that will guide the team in developing the different system components and to bring in experienced staffs.

The third risk is that most of the resources will be outsourced from contractors and consultants.

Outsourcing most of the resources will cause lack of co-ordination between the contractors, time wastage and push up the cost of the project.

The response to this is to develop some of the system components in-house and combine some project activities in order to reduce the number of contractors/ consultants.

Question 6

Estimating Software Development

According to Roetzheim, one of the major causes of failure in software development is improper or poor planning of the project. This results in time wastage and increased costs which negatively influence project implementation. The aims of estimation are to determine the amount of effort required for the project, the cost and calendar time required (Dhilon). In his article, Roetzheim writes about some of the simple methods used to estimate software development projects.

Roetzheim begins by writing about estimating a project's lifecycle and writes about the level of accuracy that can be achieved. Since inaccuracies in estimation result in uncertainties, it is always good to work and reduce inaccuracies in the early stages of software development. This means that once the project is later understood, the inaccuracy level will reduce.

The author writes that one of the steps in estimation is estimating project volume. There exists different approaches to this but Roetzheim writes about Constructive Cost Model (COCOMO) that uses Source Lines of Code (SLOC) as a unit of measure. This method uses effort which is the product of Linear Productivity Factor and SLOC. Effort gives an estimate of the person months for the software development project. According to Dhilon, effort is also affected by the size of the project since for a smaller projects, less time is used for communications thus individual productivity is high. Roetzheim's article goes ahead and explains how to estimate software size and he writes that one can use direct points approach or function points approach. Direct estimation involves breaking down the project and using expert assistance to

determine the number of lines of code. Function points method involves creating function points which are later converted to lines of code by a process called backfiring. The first step is to determine a logical flow of the software to be developed by identifying the input, processing and output points. Then raw values are extracted from the logical steps created and they are multiplied by a factor to give function points. Lines of code are obtained from the product of these function points and common conversion values provided.

Works Cited

Roetzheim, William. " Estimating Software Costs." 9 January 2014. Computer and Information Science. 15 November 2014 .

Dhillon, B. Life cycle costing: techniques, models and applications. Routledge, 2013.