



Software Project Management

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Project Closeout



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Introduction

- Every project must come to an end sometime or other.
- This is the last phase of project management life cycle.
- It is the responsibility of project manager to decide the appropriate time to close a project.
- Project closure activities can be divided into 2 types: **administrative closure** and **contract closure activities**.

Introduction cont ...

- **Administrative closure activities** consist of ensuring that all of the project deliverables are achieved and the project know-how are transferred to the other personnel and are properly documented and archived.
- **Contract closure activities** verify that all the terms of the contract with the customer as well as various subcontractors are met and satisfactorily closed.



Reasons for project closure

There are 2 main reasons for closing a project.

1. All the project goals have been successfully accomplished.
2. It has been found that the project is unlikely to achieve its stated objectives and has to be prematurely terminated.



Reasons for prematurely terminating a project

There can be many reasons for prematurely terminating a project. A few important reasons for project termination are the followings:

- Lack of resources
- Changed business need of the customer
- The perceived benefits accruing from the project no longer remain valid, e.g. meanwhile competitors arrive in market.



Reasons for prematurely terminating a project cont ...

- Incomplete requirements.
- Changes to the regulatory policies (e.g. permission not granted to use satellite communication-based product)
- Some key technologies used in the project have become obsolete during project execution.
- Risks becoming unacceptably high



Why are projects not properly closed?

- Lack of interest by the project team
- Underestimation of how fast know-how can get lost and how much implicit knowledge exists with the team members
- Emotional factors
- Indecision regarding project closure



Lack of interest by the project team

- Since project closing activities are usually rather mundane and require little creativity, the project team may lose interest to participate in these activities.
- This may especially be the case, if the project team members have already started working on other projects.
- There can also be reluctance on the part of the project team to actively participate in project termination activities for reasons such as apprehension about their redeployment, once the project gets closed.



Underestimation of how fast know-how can get lost & how much implicit knowledge exists with the team members

- Usually team members working on a project build up significant knowledge on the project and the associated technologies.
- One of the important outcomes of proper project termination is transfer of know-how to other employees of the company, documentation and archival of the knowledge pertaining to the project.
- However, it is often underestimated by the stakeholders as to how much knowledge pertaining to the project exists with the team members and how fast can the knowledge decay and get lost.
- Unless the knowledge with the team members is appropriately transferred to others or is archived, it may be lost forever. If the project manager and the other stakeholders overlook this, they may get busy with other activities and accord low priority to project closure.



Emotional factors

- After working for some time on a project, it may be possible that the team members and the project manager may become emotionally attached to the project and would want the project to continue as long as possible.



Indecision regarding project closure

- Often some tough decisions might have to be taken by the project manager and the senior management regarding projects facing premature termination.
- At times, they may delay taking the required decisions, thereby, letting the project to run longer than necessary.



Problems of improper project closure

Time and cost overrun

- If project termination is delayed, the project as a cost centre runs up expenditure in the meanwhile, leading to cost overrun.
- Also the project duration appears to be longer than what it should actually be.



Problems of improper project closure cont ...

Locking up valuable human and other resources

- When there is delay in closing a project, redeployment of project personnel and other resources get delayed.
- As a result, valuable resources and manpower that could have been gainfully utilized in other projects gets wasted.

Problems of improper project closure cont ...

Stress on the project personnel

- The project personnel often lose out on experience that they could have gathered on other projects on which they might have been deployed, had the project closeout occurred at the appropriate time.
- The feeling of not doing anything challenging, missing out on the learning opportunities, and the impact of these on their future career can be stressful for the team members.



Issues associated with project termination

- The problems with project termination are two-fold. One is **emotional** and the other **intellectual**.
- The emotional issues can concern both the team members and the clients.

Issues associated with project termination cont ...

- The **emotional issues** that the team members may experience include the **uncertainties** and **apprehensions** concerning their assignment to the next project.
- This may manifest as general loss of interest in work and lack of enthusiasm to perform the remaining project work.
- There can also be diversion of attention. The team members may pay more attention to issues such as getting reassigned to a project of their choice and the project work can take a back seat.



Issues associated with project termination cont ...

- On the client side, there can be a sudden change in attitude and loss of interest in the project.
- The client may even change the personnel dealing with the project, and thereby causing further disconnect and difficulties in project closure.

Issues associated with project termination cont ...

- The **intellectual** problems may include handling some sensitive issues.
- When a project is to be prematurely terminated, the terms of contract and the list of deliverables need to be renegotiated.
- Also, even when some deliverables and tasks that are considered to be not necessary any more, however, before dropping these it needs to be verified with the client.
- Also, the closure decision has to be effectively communicated to all stakeholders.

Project Closure Process

- Before the project closure process can be initiated, the decision regarding closing the project needs to have been taken in consultation with the top management.
- For **successful projects**, it is expected that the requisite technical documentation, user manuals, testing and user training should have been completed and it should have been ensured that the project outputs are usable by the customer without any difficulty.
- It also needs to be ensured that administrative activities such as settling their claims and archiving their deliverables for future use have been accomplished.

Project Closure Process cont ...

- For a **project facing premature termination**, the project manager in consultation with the top management and the customers has to take the decision as to whether to terminate the project immediately or to keep it under watch for some more time.
- For both normal closure and premature termination categories of projects, it has to be ensured that there are no further obligations.



Project Closure Process - Steps

1. Getting client acceptance
2. Archiving project deliverables
3. Preserving project know-how
4. Performing a financial closure
5. Performing post-implementation project review
6. Preparing post-implementation review report
7. Releasing staff



Getting client acceptance

- The mechanism for client acceptance varies across different types of projects.
- When the client is a sister organization, or another department in the same organization, no formal record for acceptance of project deliverables is required. The acceptance tends to be informal and gets conveyed in meetings.
- When the project client is an external organization, a formal procedure for accepting the project deliverables is needed. In this case, the client approval is obtained after a formal acceptance testing by the client and a written acceptance of the project deliverables is required.



Archiving project deliverables

- The project documents are usually archived electronically, so that these can be easily retrieved whenever required in the future.
- The project archive should be properly documented, so that anyone trying to use the archive in the future does not face any problem.
- This document should at least contain information regarding the description of the documents archived, the application used to create the archive, the locations where these are stored and the persons to contact for further information.



Performing a Financial Closure

- Every project is usually undertaken based on some financial grant.
- This grant can have different components such as capital and contingency budgets.
- All these components have to be reconciled and book transfer of any capital goods that were purchased should be carried out.
- Also, it has to be ensured that all the subcontractor payments are complete and have been reconciled.



Post-implementation project review

- The goal of a **post-implementation project review** (sometimes called **post-mortem**) is to perform a critical analysis of the project in order to learn and improve, and avoid repeating the same mistakes in future projects.
- By analysing past mistakes, the project teams can learn to do better by improving their methods and practices.
- Not only the successful ones, even the unsuccessful projects implicitly hold a lot of information that can be identified, documented and disseminated to benefit other projects.



Steps of post-implementation project review

1. Conduct project survey to collect various types of information
2. Collect objective information / project metrics (e.g. cost/schedule/quality metrics)
3. Hold a debriefing (preparatory) meeting
4. Hold the final project review meeting and prepare post-implementation review report
5. Publish the report



Project Closeout Report

- It documents the important results obtained from various project closeout tasks.
- It starts with a historical summary of the projects deliverables and baseline activities over the course of the project.
- Subsequently it presents the summary of the survey results and the quantitative data gathering about the project's performance.
- Finally, the results of the final project review are presented. The reasons for variances from the baseline plan, lessons learned, best practices and disposition of project resources are highlighted.
- It also contains recommendations for improvement for other similar projects.



Result publication

- The project leader summarizes the positive and negative findings as well as the prescriptions for improvement.
- The summary is published so that all the teams can refer to it and also the management can take initiative for any necessary corrections based on it.
- The important findings of the post-implementation project review audit can be published in a document. The document can be used to disseminate the lessons learned and to work as a reference for similar future projects.

Result publication cont ...

- A typical way in which the post-implementation project review report can be organized is as follows:
 - Project description: Information about the project, to give context
 - What worked well
 - The factors that impeded the performance of the project
 - A prescription for other projects to follow

Releasing Staff

- This is the final step of the project closeout process.
- This is the last meeting before the project team members disburse to different other projects.
- The project manager should see that the team members are assigned to proper projects according to their expertise and skill.
- This meeting is also the ground for celebration before the team members disperse to different projects and for recognizing exceptional performance by the team members and recognizing the experience and proficiency gained by the team members.

Summary

- Discussed the reasons for project closure
- Discussed the problems of improper project closure
- Explained the issues with project termination
- Presented the steps for closure of a project
- Presented the structure of a typical project closure report



References:

1. B. Hughes, M. Cotterell, R. Mall, *Software Project Management*, Sixth Edition, McGraw Hill Education (India) Pvt. Ltd., 2018.



Thank you