APM600 - Advanced Project Methodolgy

VT22, LP3

Individual Assignment
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1 Introduction

Project management is the process of planning, organizing, and managing tasks and resources in order to achieve a certain goal while staying within budget and time restrictions. Most of the projects, be it small or large can be planned by breaking them down into small, easily achievable tasks, scheduling them, and then tracking them as the project progresses. A project may not necessarily be a new one. It can be a continuity of an existing project or a budding project from a previous project. In short, any project has some specific requirements such as time, cost, and performance that has to be met. Every project has certain universal traits that will be shared during every phase. They all have a clear and well-defined purpose and have different duration pertaining to each task. It can be rightly said that *"Tools, people, and systems are all part of project management."*

This paper discusses about a software development project with limited coverage on the pre-project phase, a wider area covering the developmental stages and finally the post completion of the development and project closure activities are discussed. The organization structure, project structure and it's deliverable along with the reflections, recommendations that could have been utilized has been discussed. Lastly, the pros and cons of the project management has been presented.

2 About the Organization

Much of the information provided in this section about the organization is from the previous experience and the current data. *Oracle Financial Services Software Limited*, formerly '*i-flex solutions*' is one of the leading IT service provider and consulting in India. It was founded in 1990 and ran as a sole body. Later, became a subsidiary of Oracle corporation. The organization aims to provide retail and corporate banking services to financial sector. Current figures predict that, the organization is well-established with a numerous clients spanning across US, Europe, Middle East and Asia-Pacific regions which comes to a total of 142 countries.(OFSS,2022) Branches has been running globally across different locations with headquarters in Mumbai, India.

3 About the project

This section discusses about the project that was carried out around a decade ago. '*Flexcube*' core banking solution in the form of an application was the project deliverable to one of the private banks in Ukraine. The project was a new one, but more of a migration project which involved a lot of technical changes and a limited functionality changes. Technical specifications of the project involved *PLSQL, Oracle Reports, Javascript, IBM Clearcase and BugzDB*. Having worked as a front end and back end developer and with a limited knowledge of Project Management during that time, the phases of the project has been outlined in the following sections.

3.1 Project structure

Any project in the organization has to adhere to the hierarchy that the organization has established. Since, there were multiple projects running with multiple clients, division of

regions made it easier for work allocation among different teams. A specific region was under the control of a regional head who had authoritative role over the regional manager. The regional manager had powers to direct the Project Manager who had the team leaders and the development team under his control. The top management positions were the CEO, CFO, Project sponsors, board members and Marketing head. Figure 1 represents the hierarchical structure that was followed in this project.

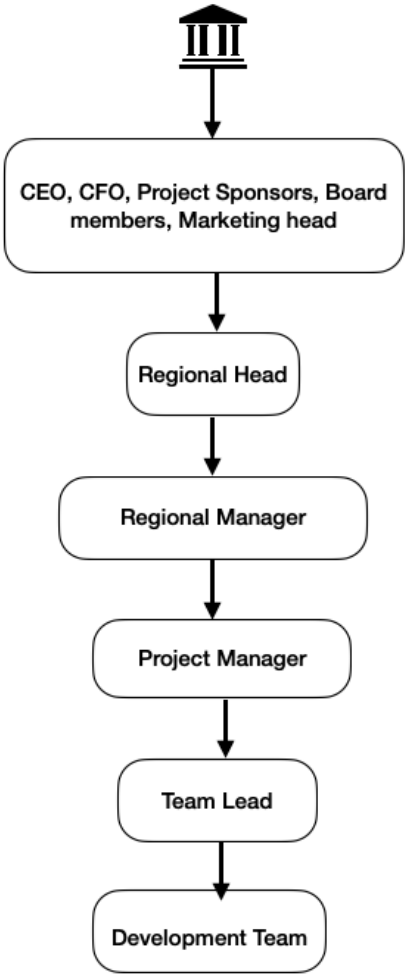

Figure 1: Organizational structure

3.2 Pre project phase

The whole life cycle of the project followed a predictive approach. So, it was quite clear that only after the requirements approval, the project was initiated. At this stage, business analysts who were in charge of the product documentation pertaining to specific regions were consulted. This was a notable factor such that, the requirements given by the clients were analyzed. Any requirement that could or could not be met or had a deviation from the existing application had to be discussed and agreed upon with the client. This was very important as it had an impact on the allocated budget, resources, time and quality. Analysis of the requirement and approval of the same is the head start for the project commencement. Business case document was written and submitted for approval by the project sponsors, client and the board members.

3.3 Project Initiation and Planning

It is assumed that the project sponsors were happy with the business case scenario and the funds has been released, which in turn gives a 'green' signal for the project. With the help of business case, project charter has been drafted successfully by the project manager. So, this gave way for the project planning. On the presumption that the planning process has been successful, the following factors has been finalized.

- Scope baseline
- Schedule management
- Resource allocation
- Cost estimation
- Analysis of risk factors
- Quality management protocol.

Each of the planning process with some of the notable inputs, tools and techniques, outputs with reference to the course literature (Project Management Institute, 2017) are briefly discussed as follows.The project lifecycle followed a predictive approach as shown in figure 2

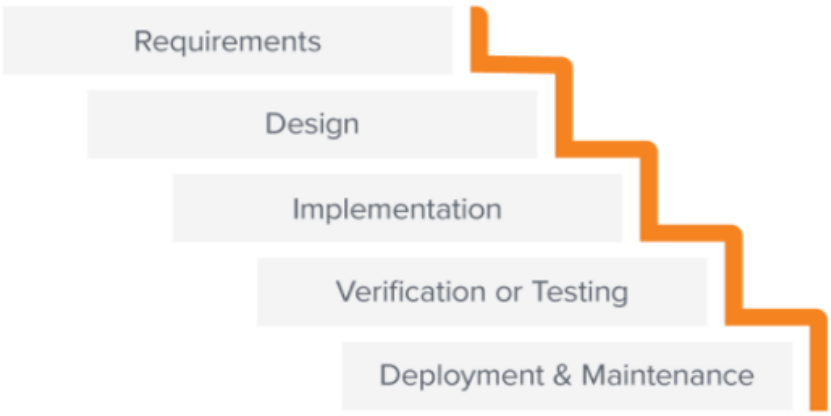

Figure 2: Project life cycle approach

Scope management

Project scope - To provide banking software to the client which helps in retail and corporate banking.
Project deliverable - To deliver a working software with the intended functionalities and version as requested by the client in the requirement document with minimal errors.
Timeline - The project span around 9 months including all the phases of the project from the date of approval.
Process - Project life cycle followed predictive approach, while the development lifecycle followed incremental model.

Schedule management

Every project members were mapped to a Project ID (PID) on the internal schedule management portal provided by the organization. Right from the start of the project to closure, every project members were asked to submit the *timesheet* every week on Friday with their respective extra hours worked on the project, default being 8 hours per day. The timesheet was reviewed by the team lead and further sent for approval by the Project manager.

Resource Management

Both the physical resources and personnel were allocated for the project on a timely basis. Desktop computers were provided to everyone in the project with the required software and applications pre-installed to be used in this project. The project never ran short of the physical as well as human resources. Every team member mapped to this project worked on a full-time basis with default of 40 hours per week. In-house trainings related to the functionality of the product was conducted during the initial stages of the development. Virtual learning platforms were much limited at that time.

Cost Management

Approval of funds and allocation of the same were handled jointly by the Regional manager, Regional lead and Project Manager. Employees who were expected to work on weekends were rewarded with few options like lunch reimbursement and an additional payload. All the cost estimates were done in Indian Rupee (INR).

Risk management

Few risk factors that could hardly be related to the project are scope creep, budget outrun and unexpected delay in product release. It is assumed that the risk response plan was already in place. This way, the project went smoothly with some minor risks like code deployment failure in the development environment which was handled by the IT operations team, before the next working day began.

Quality management

Being a well established organization, quality was never a compromise. This helped with the product sustainability in the global market. Every project member has to adhere to the quality management protocol issued by the organization. There were coding standards set and employees were restricted to share any information about the product or it's features, share price outside the organization. Also, the product has to comply with the respective regional GDPR guidelines.

Communication management

A hierarchical structure was followed and the employees was expected to adhere with. Any technical or non-technical issues like leave management, conflicts, functionality break, etc., experienced by a development team member were supposed to be reported to the Team lead first hand,unless there was a valid reason for the project manager's interference.

- Meetings were not held frequently between the developers and Project manager. But, few meetings were held between the developers and Team leads for distribution and allocation of tasks.
- Any technical issues related to software installation, security checks, version upgrade were to be reported to the IT operations team through an internal tool where a ticket would be raised and Team Leads, Project Managers are aware of it.
- With a limited memory, it can be agreed that frequent virtual meetings were held between the clients, Regional managers and Project managers.

As a developer, stakeholder engagement and procurement management was out of reach.

3.4 Execution of tasks

Now that the project has been initiated and planning process has been reviewed and approved by the assigned authorities, the development team started with the assigned tasks. As already mentioned, the development team followed a incremental model. Speaking in terms of banking, Suppose Customer Information belonged to Module 1 and Accounts belonged to Module 2, Module 2 will wait for the module 1 design phase to be completed and then start with the design of module 2. So, there were some dependencies but did not hinder the development of other tasks. Every development task went as planned. As there was a mix of experienced personnel, collaboration between the development team members were also smooth and everyone helped each other. After completion of every development task, code changes were managed by version control tool. The lifecycle approach is shown in figure 3

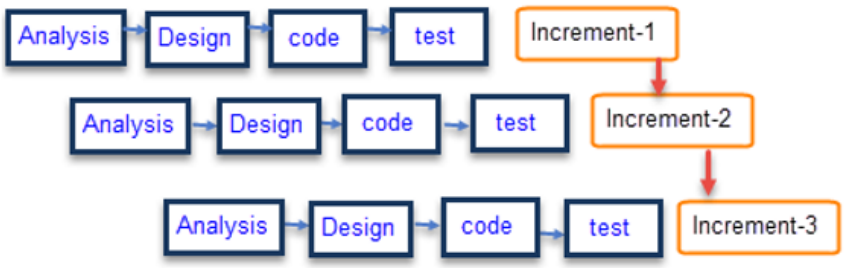

Figure 3: Development life cycle approach

There was a deadline set for the development team to complete their tasks, so that the testing phase can begin. It was very important that the testing team and development team had to be in pace during the whole process. As with every IT project, the testing team did their job of reporting bugs through a bug management tool. It was the responsibility of the development team member to fix and make sure that the ticket is resolved.Both the team members had to adhere to the quality management standards of maintaining the document for each bug reported. the hierarchical and reporting structure was almost similar.

3.5 Monitoring and Controlling

This section discusses about the monitoring process and managing the same with the help of tools, process involved in each phase.

- Any changes during the project initiation phase was looked upon by the regional manager. Major changes such as fund allocation or scope creep had the top management to be involved in such circumstances.

- Deviations in any of the planning process were reviewed and approved by the Project manager.

- During the developmental phase, each of the members activity was monitored by the team lead. Any deviation or non-adherence to the project were initially given an informal warning. With no improvements in place, a formal warning was sent through mail. The next level of escalation was the interference of Project Manager.Similar process was followed in the testing team also.

- During the testing process, it was the responsibility of the team lead to assign the bugs and made sure the whole process was followed. Another notable factor is that the testing team had to work synchronously with the task ids of the development. This was achieved with the help of a *Work Breakdown Structure.*

- There was a status report at the end of the day which gave the number of bugs fixed, left to fix,etc., which was tracked by the Project Manager.

- Any major deflections involved throughout the project had the interference of Change Control Board, being a large organization. There existed a formal change request procedure which will be reviewed and approved or rejected by the Change control committee members based on the level of impact it might cause to the project or the organization.

3.6 Project closure

With proper planning, managing and control of the entire project,it can be proudly said that the entire project was a *success*. There was a successful launch and the client was satisfied with the whole delivery process. At the end of the project, there was a well-organized lunch buffet with all the team members. With successful launch, it gave way to a new project which involved support and maintenance.

4 Reflections

The whole project involved a lot of process right from the beginning phase to the closure phase. As an associate developer, there are few thoughts on the process which worked well and which did not.

Pros:

- The entire team members were very supportive during the whole journey. New use of technologies

- New use of technologies were an eye-opener for less experienced person.

- The hierarchical structure was maintained and the process was more disciplined.

- On the whole,it was a learning phase of an entire software development life cycle.

Cons:

- Initial process was unclear.
- A lot of documentation was involved which interfered with the schedule.
- Only limited training were provided to understand complex functionality of the product.
- Client expectations were very high which was an unknown factor to the development team.
- Development process was slow in the beginning, but later managed to speed up.
- Testing phase was incomplete. In the sense, few bugs were resolved at the last minute with additional much experienced resources, but it still remains as an unknown mystery how such a huge number was resolved in a short amount of time.
- Recognition and reward system were only at the end of the project and the criteria for selection was not transparent.

5 Recommendations

Few recommendations that could have been followed and made the project delivery faster is as prescribed. This is important such that the impact on the budget, resource and quality management is interlinked.

- Every process in the project must be transparent.
- Every team member in the project must be approachable.
- More of technical and non-technical trainings should be offered to cope up with the emerging trends and technologies.
- Agile approach in development would have made the product delivery faster.Development and Testing could have been overlapped. Less documentation with working software could have been achieved. Also, the development team would have been self-organized and efficient communication established.
- Recognitions/Rewards could have been offered in between the project as a boost-up for other team members.
- Entire project team should be made aware of Product launch.

6 Conclusion

Project management is a very important process which is all about communication, tools and processes involved. It is intertwined between clients, team and the management. Not only the processes, but the productivity at each stage which will assist professionals in their long run career. Thus, a project manager should possess certain qualities to execute and run a project successfully and a hit in the market. But with more organizations adopting agile approaches, it lies in the interest of these companies to have project managers. A

project usually consists of resolving conflicts, solving unexpected problems, risk analysis and at the end learning from mistakes along the way. With proper time management, team work, cost estimates, proper tools a project manager can manage and complete even a complex project out there.

References

OFSS,2022.[online] Available at: https://en.wikipedia.org/wiki/Oracle_Financial_Services_Software Accessed:17-Feb-2022

Project Management Institute, 2017. A Guide to the Project Management Body of Knowledge (PMBOK® Guide) 2017
https://ebookcentral.proquest.com/lib/vast-ebooks/detail.action?docID=5180849