

PROJECT MANAGEMENT – A MODERN MANAGEMENT PRACTICE IN IT INDUSTRY

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ABSTRACT

Information Technology (IT) plays an imperative role in almost every aspect of our lives. The world today has become one global village due to the widespread use of Information Technology. The government and business have become so reliant on IT that it is hard to imagine how they would function without it. It has become an ever-increasing resource with which organizations have created and sustained their competitive advantages. The IT sector basically consists of software and services, Information Technology Enabled Services (ITES) and the hardware segments which is called as projects. All these three have jointly contributed expansively towards the development and growth of all the countries in the world. Out of these, the software projects and services industry itself is a trillion dollar industry contributing tremendously towards the growth of the world economy. It has not only helped in generating large scale employment in number of countries but has also helped a number of developing nations to take a step forward towards developed nations.

Projects make a vital contribution to industrialization and hence the growth of a nation's economy. Projects are said to be important, its implementation can be an uphill task. Project management has become increasingly important in the development of any nation. Failure or Success in projects is a multi-dimensional issue and may be influenced by so many factors. Usually, projects are designed to meet stakeholder's objective. These objectives define the criteria for success of that project, and projects not satisfying these objectives are deemed to fail. Effective communication and clarity in the stakeholder's objective is vital to the project manager. Various researchers have discussed project management as a technique to help prevent against failure in projects. Others have established checklists to help prevent failure. All projects are constrained by inherent risks; knowledge of these risks will play an important role in achieving success and avoiding failure. Usually projects consist of three stages consisting of the approval, execution and evaluation stages. If any of these stages is not managed properly it may result to the failure of the entire project. Thus in various organization project management techniques has become bridging the gap between failure and success in implementation of projects.

Keywords: Project Management, Project Implementation, ITeS

Introduction

Since the middle of the last century, many organizations are using project management approach to bring about the change needed to meet organizational goals and objectives. Around the world, it is difficult to find two project management situations that are the same. This is partly because every software project, be it internal or external, offshore or onshore, carried out by an organization is unique, with its own unique set of challenges. Organizations initiate software projects with the best of intentions to succeed. But due to complex nature of software project activities, and the challenges associated with managing a project restriction or constraints of budget, quality and time are also unique and ever changing. Some external forces like government regulations, environmental forces, society, pressure groups, financial markets, labor markets, technology, customer influence, shareholder etc. are very dynamic

and much erratic. Internal forces also like changes in operating processes, management style, resources allocation, skills, internal conflicts etc. are becoming more adaptive to the external environment.

The success story of India has caught more and more attention of academia, policy makers, and businesses. It is widely believed that the software projects offers developing countries a unique opportunity to “break the shackles of economic under- development as a country”.

The major contribution of the growth of the Indian economy can also be attributed to the Indian software industry. It has been contributing substantially to increases in the GDP, urban employment and exports, to achieve the vision of a powerful and resilient India.

Project

“A project is a problem scheduled for solution” a definition by Dr. J.M.Juran. As in any organization, every department is set up and designated with specific functions in order to perform its business or purpose for that organization projects are classified as temporary with definite start and end dates; they are uniquely different for every product or service. “A project is a temporary endeavor undertaken to create a unique product or service”. Projects play crucial roles in an organization’s business strategy. In regard to a project’s purposes, they can be established to cover any areas in business dimensions like a correction, problem solving, development, campaign and so forth. Projects are also determined as progressively elaborated.

Defining Project Failure

From Penguin English Dictionary (1992), failure is define as unsuccessful project that fails to perform a duty or an expected action, non-occurrence or non-performance. Whereas success can be defined as the achievement of something desired, planned or attempted (Cambridge Dictionary, 2007). It is also said that success is an event that accomplishes its intended purpose (dictionary.com, 2007). Anything short of that is failure. Project failure is an unpleasant event that cost large amount of money to the organization.

Causes of Project Failure

Pinto and Mantel (1990) carried out a research on the causes of project failure and revealed a good explanation that encompasses both internal efficiency and external effectiveness. They state that project failure is a vague concept, which has evoked much as to its definition, as the case with the definition of project success. A project is considered a failure “whenever a project does not meet the expectations of the stakeholders”. This has lots of impact to both the organisation and all stakeholders to the project. They include: cost and time overruns, quality degradation, frustration and stress, sometimes resulting to people quitting, low corporate market value, low public opinion and negative media campaigns. The total effect can be very costly to the organization; at times even force the company into closure.

Bienkoski (1989) identified ten factors that can lead to project failure and they are:

- * Lack of change management- happens when there is no method to handle or recognize changes.
- * Communication- causes delay or even failure since team members do not have the information they needed, issues or changes do not get escalated, project reporting is sluggish
- * Inadequate resources- Task take longer than expected to complete, deadlines and milestones get missed, and project completion date comes into jeopardy, one end of working more than necessary (double shift) to get the work done

- * No one is in control, not even the project manager, who is assigned to the project but not given the free hand to manage the project. This is most problem encounters in matrix organization
- * Project lacks structure caused by things such as critical tasks being under rated
- * Inaccurate estimates. A top- down plan causes constraints on the prediction of the cost of the project
- * Poor risk management. The project initiation stage is not properly planned
- * Insufficient non-resources are not allocated to the project; for instance, it is not possible for a project to succeed if the right resources are made available for that project
- * Incompetent project management skill
- * Project changes from its original objective and goals. This can occur due to additional requirement from the client

Pinto and mantel (1990) argue that the major causes of project failure are changes in the project environment, as it goes out of hands of the management.

VALIDATION USING AN REAL CASE STUDY

UPGRADATION OF IPTV SOFTWARE PLATFORM

Overview of the Software Project The first case deals with a project outsourced to Sri Software Ltd. (name changed). Sri Software Ltd. is a software service export company established in the year 2000. The company has around 5000 employees worldwide and has a global footprint, through operations in more than 7 countries with 9 sales offices and 5 delivery centers. This case study is about a project which was outsourced by one of its clients in Europe to Sri Software Ltd.

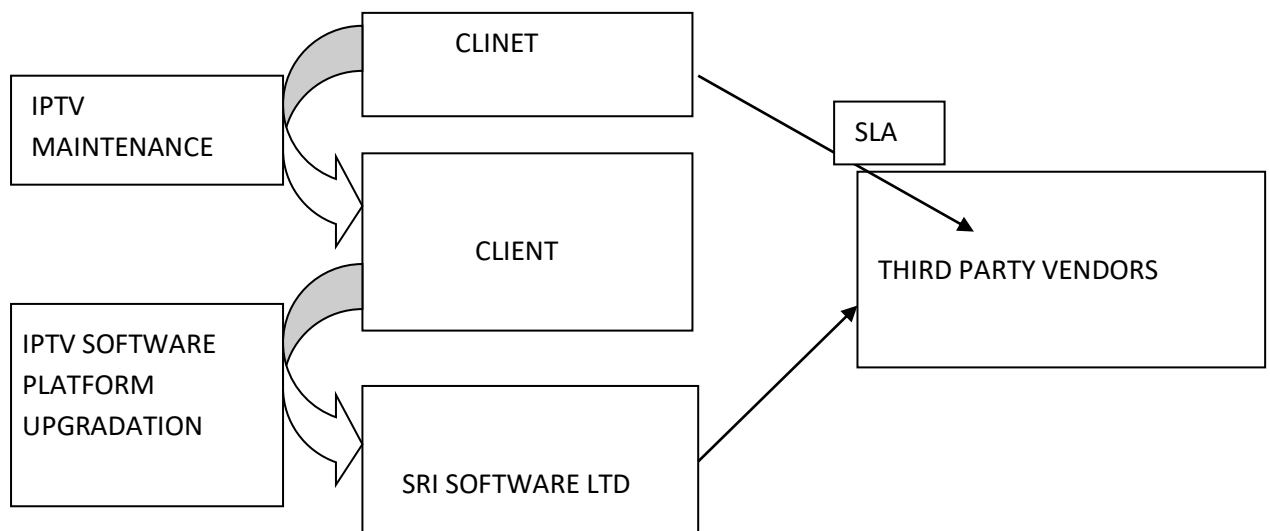


Figure 1: IPTV Project relationship

As is clear from the figure1, the Europe client sub-contracted a project to the Sri Software Ltd. The details of the project are as under:

The objective of the project was to provide an up-gradation of X version of IPTV software platform to Y version of software platform. All the four components namely, IPTV

middleware, Load balancer, VOD server, Database, Digital Right Management Services (DRMS) were required to be upgraded.

This was a very short term project with project duration of just 1 month. The total value of the project was estimated at 20,000 Euros.

A team of 4 members was assigned to this project, along with the project manager. The project was divided into two phases. The first phase was for 15 days in which middleware was to be upgraded. In the second phase i.e. the next 15 days, the other four components namely Load balancer, VOD server, Database, Digital right management services were to be upgraded.

Technical and Functional Issues The first phase went quite smoothly with 100 percent accuracy as the team members had a complete control over the middleware up-gradation without any third party dependencies. The client was very happy with the results. The issues started at the time of execution of the second phase. These problems occurred because:

Though the team was clear with the requirements but was not clear with the process of execution of these requirements. The team lacked the technical knowhow of the process of up-gradation. For the up-gradation of the other four components, the company contacted the third party vendors which were located in North America and Europe. These third party vendors charged higher amount than what the Sri Software Ltd. was charging from its client. Yet to meet the requirements of the client, these third party vendors were selected for upgrading all the four components. Though out of the four components, the three components namely IPTV middleware, Load balancer, VOD server, Database, were successfully upgraded with the help of the third party vendor. The problem erupted again at the time of up-gradation of the fourth component i.e. DRMS due to following reasons:

The offshore team was completely lacking any knowhow of this up-gradation, when the team uploaded the upgraded version delivered by the third party, the up-gradation failed resulting in a complete blackout of the T.V. PC.

This was a huge problem as there was a penalty clause agreement with the client according to which 12 hours of downtime was allowed and beyond that the Sri Software Ltd. was liable to pay back-to-back penalty to the client for every extra minute of downtime. Team got stuck in the middle of the project and they had no idea about the next step. The team was so novice in this area that they were not even aware of the escalation points and whether the concerns were being raised at right forum or not. The team was unable to identify the cause of failure of DRMS. When the team tried to contact the client's support vendor, they refused to address the team concerns as the support agreement (Service Level Agreement-SLA) between the main client and the support vendor had expired. The team escalated this to their immediate client. The agreement got renewed but at the same time the support vendor also escalated the concern to the Sri Software's client that the team was pressuring them and asking too many questions (figure 2).

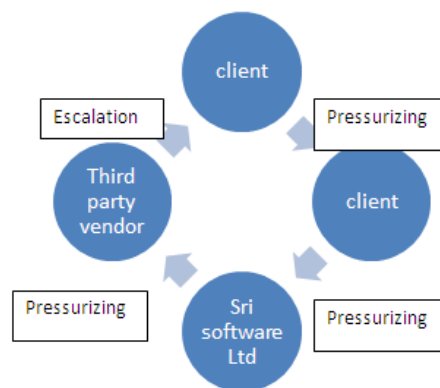


Figure 2: Lack of Domain Expertise Leading to an Embarrassing Situation for Sri Software Ltd.

The company had a very bad image in front of all the clients and the support vendors. Finally, the team did realize the point of problem; changed few parameters and the up-gradation was successfully deployed, but with a delay of 10 days. SR, a team member pointed out “since we were not aware of the parameters, a 2 minute task actually took us 10 days”. Though the project was finally delivered but the project not only escalated in terms of budget but also in duration. While the initial budget was Euros 20,000, in the end the budget escalated to Euros 40,000. The difference of which was borne by Sri Software Ltd., since it was a fixed bid project. The client was satisfied with the end product but it resulted in a loss to the Sri Software Ltd. There was also a schedule variance of almost 1 month in the project.

Outcome of the Case The project could be called a failed project if strictly viewed from the traditional definition of success i.e. meeting the schedule, budget and quality constructs. However, if viewed from the contemporary definition then there was sufficient learning involved in the project with the company getting an exposure of the new technology. The main problem was the lack of experience in handling similar projects. This problem resulted in inaccurate cost and timelines estimations. Furthermore, the lack of top management support and an ineffective and poor supervision further escalated the problem of low morale and lack of commitment towards the project. These were the main causes of the poor project performance. Lack of similar project experience is a part of SRS variability risk; in fact it is one of the major causes of SRS variability risk. Lack of commitment and low morale are a part of team composition risk. This project was of a very short duration project and it was exposed to SRS variability, team composition, control processes and dependability risks. Had the project manager kept all these risks into account, the project could have been a successful project.

Conclusion

Project success makes organization stronger and better, and that means it is important to ensure that organization choose the right project; allocate the right resources, track progress along the way and taking an unflinching look at actual result which is called as project management. It is critical for a project manager to understand what the stakeholders consider as a successful project. But with an effective project management makes the organization to deliver the project in success way.

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