

Impact of Parallel Projects Management

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Abstract

The dramatic increase in the number of projects with the fact of increased stiffness in competition, the strength of enterprises faces a challenge to deliver the expected on time. Enterprises seem to be in dilemma regarding the implications of running simultaneous projects. Yet only a few have investigated the implications of parallel projects. The need of the industry is to formulate a model that will help them to face this challenge without really making changes to their structures. Therefore this paper aims to highlight the influence of parallel project management on project schedule, budget and product's quality as well. To explore the implication, interviews were conducted among project managers from International Islamic University Malaysia (IIUM) who represented different work sectors. There seems to be a consensus that handling more than one project at a time is a challenge. The findings of this study show that most of project managers suffer from the problem of change of focus from one project to another. As a result, some projects do not finish on time, lack quality standards, and need extra budget.

Keywords: Project, Parallel, Impact, Management

1. Introduction

The benchmarks of project success - delivering on time and with quality inside the proposed budget are a strong challenge and a key requirement in the highly competitive environment that the world faces today. The success charts seem to be decreasing as achieving the benchmarks is getting difficult. While some businesses try to employ strong project teams for a single project lead by an experienced project manager, yet the achievement of success factors seems to be a harsh reality. In this time when project success seems to be a hard job for those managing single projects, management of multiple projects simultaneously seems to be an awkward concept. Yet this practice is already very popular inside the circles of management.

Having all these factors in mind, businesses are trying to adapt better practices which focus not only on single project success but at the same time involving themselves in the multiple project management practice. The need of the time is to understand the impacts of this vastly growing practice and to understand its implications on the industry with the concept of proposing suggestions based on past experiences.

Studies have already been conducted for studying the implication of normal project management but the issue of implications of parallel project management seems to be hardly addressed till now. The objective of this study is to investigate the reasons behind handling multiple projects in parallel and their implications. The next section will try to explore the work associated with this area in order to understand diversely to some extent the implications of parallel project management.

2. Background

Parallel project management is the practice of handling more than one project at a time. It has become quite a popular practice among many companies. On date many studies have been conducted for studying the implications of normal project management. However, a few studies try to explore the implications of managing multiple projects simultaneously. The factors such as over schedule, over budget and quality are always a challenge for the project managers when they just try to manage a single project. The question arises about the situation of project managers handling more than one project at the same time.

In his book, “*Simulation-based Multiple project management in Engineering design, The Future of Product Development*”, T. Licht stated that, when the underlying tasks use the same personnel and resources (tools, lab, and test centre), the management of such multiple projects is quite challenging”[5]. Moreover, a significant research has been conducted by Scott E in 2002 to study the challenges of multiple project management. According to Scott, the goal of research was to investigate the specific problems associated with management of multiple engineering projects in manufacturing support environment, with intent to identify common factors of success [6]. In this research, Scott interviewed the managers from different departments of four manufacturing companies. The findings of this studies showed that the main problem of multiple project management was the short staff. Many engineers in departments studied were responsible for leading two or three projects at one time. In addition they were expected to participate in one or two smaller or less critical projects. [6].

A recent research has been conducted by Ismah Noor and Nicholas Chileshe in 2012 with the goal of investigating the major challenges of managing multiple project environments in Australia’s construction industry. The views from Australian project management practitioners from various industrial sectors were collected via an e-mail questionnaire survey. The respondents were asked to rate a list of 22 challenges that affect the management of multiple project environments based on the literature review [4]. The finding of this study revealed that the most important challenges related to three major aspects- organizational culture, resource allocation and competencies of project manager. Another study conducted by L.Dooley suggests that multiple projects need to be viewed as integrated portfolio rather than a disjoint collection [2]. The study also emphasizes that it is required to maintain control over a varied range of specialist projects, balance often conflicting requirements with limited resource and co-ordinate the project portfolio to ensure the optimum organizational outcome is achieved. The additional challenges associated with achieving the most effective output from managing multiple project management have been categorizes in three headings- alignment management, control and communication, and learning and knowledge management.

More problems related to multiple project management have also been addressed by Zhuo Hang & Hui qiqng LI in their research which aimed to examine the theory of single and multiple project management and develop a framework to facilitate the management of a portfolio for multiple projects. The researchers found that when the project increases to a certain degree, it is needed to increase levels of effective management. Moreover it is hard to share resources. Each project manager vigorously strives for needed resources for their own project, but they do not give a thought to the entire organization’s bearing capacity [1].

Finally, talking about the research conducted by Senarath and Dr. R. Halwathra, their studies show that the conflicts occur usually in managing more than one project simultaneously within an organization due to constraint in sharing resources [3]. Recent studies discuss the challenges of multiple project management from different angles. However, none of these studies highlight the effect that parallel project management has in terms of schedule, quality and the budget. Our attempt has been to understand these affects and to suggest the methodology to handle these issues which remains a million dollar question for the industry.

3. Methodology

This study applies qualitative method in order to analyse data and get important information from different respondents. In order to understand the concepts clearly, interviews were conducted with the project managers from different departments of International Islamic University, Malaysia. Analysis from the notes taken from the interviews was done and the tables were formulated to represent the key areas of this issue. This study is also supported by exploring books, articles and texts as well as online resources in order to gain in-depth knowledge about the research topic paragraphs must be indented.

3.1 Data collection

The whole data is qualitative, collected by interviewing experienced project managers who have undertaken several parallel projects at times in their respective fields. The interviewees were presented with open questions and notes were taken from their experiences based on the criteria of managing several projects such as the characteristics of the project in the department and techniques that they used to manage these projects. The questions were designed in such a way that they address the topic of the underlying research. . Mostly questions focused on the challenges and opportunities of handling parallel projects in terms of quality, time, and budget. The interviews were conducted face to face in order to get more relevant information of our research.

3.2 Data analysis

The information collected from the interviews was structured into key areas of focus that gave a concise picture of the impact. The major factors such as work area, max no. of parallel projects taken, and average team size were tabulated in order to have an estimate about the situation. The effects of parallel project management on four major things that are a key focus of this research were again tabulated. The results were derived after a careful comparison, analysis and brain storming through the tabular information and also looking at each minor note that were taken during the interview Furthermore, the themes in these particular interviews were extracted and analyzed according to the research questions and more critical issues from literature review that are more important in this study.

4. Findings and Results

The results based on the interviews that have been conducted show that Projects suffer in terms of quality, time and budget as a consequence of project managers getting involved in parallel projects, (table I). This practice not only affects the projects and becomes a source of failure for many of them but even it affects the project managers themselves in terms of increasing the stress level especially when the project team does not meet the high end technical and management specifications. The problem remains majorly in maintaining the coordination for several projects by the project managers. As the project managers start looking towards one project in a better detail, the focus on the others is spontaneously reduced. The change management suffers to a large extent as the project managers are already over-burdened with projects running simultaneous. They can't take on even the minor changes out of the project scope and sometimes due to the mismanagement in dealing with the stake holders the projects fail way before their dead line.

5. Discussions

As we have seen that the tendency of projects to suffer when the parallel project practice is carried out by the project managers, we still find project managers deeply in this practice. The main reason behind it is that either the project manager doesn't really have a choice or it is kind of an order from a higher authority in the office and the project manager has to do the task even if he doesn't want to take it. But sometimes even the project managers who are working independent of organizations even tend to practice parallel project management because they tend to make a lot of money simultaneously from many projects running at the same time. The main problem at this time is that statistics show that there are a very few number of project managers with knowledge, expertise & experience which further enhances the practice of parallel project management. So whatever the cause may be the practice has become so wide-spread that we need to find a way so that even if the practice continues, it shouldn't affect the quality, budget and time of the projects that are running parallel. So as we went throughout the survey we noticed, observed and based on the comments from project managers, we found that if the following factors are included in this practice, it can be a success and we may able to continue this practice without any problems. The various factors for successful parallel project management can be as follows:

1. Having good players on Board:

Good team means half work done. If you have a team with good technical & management expertise in their respective fields, they can be your sub-project managers-in turn acting as the project managers for a level till a specific period and once their part is done, they run again from the managers to simply the staff on team. This will reduce the focus load of a project manager and the best thing is that the quality, time & budget have a good chance of being maintained in accordance with the base line plan.

2. A well set and focused Project management Office (PMO):

A focused and well set project management office can be a key driver for the Parallel Project Management. It can be beneficial for the project manager as well as it can greatly help in maintaining the quality, budget, and the schedule which remains the key focuses of the stake holders especially the business class on date. A PMO can be a good tool that can help in minimizing the resources and allocating the correct ones to the correct destinations at the right time. It can actually help you in providing the actual scope picture at any time during the project life cycle. And at the same time ongoing project statuses can help each other. And the best part that the PMO can contribute towards is that it helps in knowledge based management and economy.

6. Conclusions

In conclusion, the challenges faced by parallel project management and the results it yields clearly depicts that it isn't really a good practice on date. It can be a deadly activity as far as the project budget, time and quality are concerned. It can badly lead to degrading the morale of the project manager and the project team.

Yet in future if we are able to employ techniques as selecting the best people on the team, setting up an efficient PMO and may be other techniques, there is a good amount of chance that this practice can be carried on without it affecting the projects and the project team.

	Work Area	Max. No Of Parallel Projects Handles	Average Team Size
Project Manager 1	Construction	2	12
Project Manager 2	Development	5	8
Project Manager 3	IT	3	10
Project Manager 4	IT	4	9

Table I: Summarized Case Information

	Case I	Case II	Case III	Case IV
Quality	✓	✓	X	✓
Budget	✓	X	✓	x
Time	✓	✓	X	✓
Change	X	✓	✓	✓
Stress Levels	✓	X	✓	✓
Effect on the normal flow of projects (in percentile) an approx.	80	60	50	80

Table II: Effect of Parallel Project Management

References

- zhuo-jun Hang. , Hui-qiangli. 2011. IEEE journal. *Multiple project management system of real estate enterprises*.
- L. Dooley. , G. Lupton. , D. O'Sullivan. 2005. Journal of Manufacturing Technology Management, emerald. *Multiple project management: a modern competitive necessity*
- Senarath Bandara. , Dr. R. U. Halwathura. 2011. *Project control in multi-project environment in Sri lank*.
- Ismah Noor Hashim. , Nicholas Chileshe. 2012. Journal of Engineering, Design and Technology, Emerald. *Major challenges in managing multiple project environments (MPE) in Australia's construction industry*.
- T. licht, L. Schmidt, C.M. Schlick, L. Dohmen, H. Luczk, 2007, *Simulation-based Multiple project management in Engineering design*, The Future of Product Development 2007, Part 10, 543-554, DOI: 10.1007/978-3-540-69820-3_53.
- Scott E., Shenhar Aj., 2000, Managing multiple engineering projects in manufacturing supports environment, IEEE transactions on engineering management; 47(2):258-68