

Recent Issues Review In Project Management

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Abstract: This paper examines project management research from the perspective of its relationship in the management field. Delays have been frequently reported as the cause of several conflicts that affect the project. Project management now a day is regarded as a very high priority as all companies or organizations. The development of project management has always been in parallel to the development of general trends in worldwide economics, research has substantial elements of creativity, innovation and predicting the outcome of research the analysis of project management disciplines reveals an explosion of popularity and strong interest in the last 50 years are i) strategy / portfolio management ii) operations research iii_ organizational behavior iv) information technology v) technology application / innovation vi) performance management vii) engineering and construction and viii) quality management / six sigma. Result of this study help us to better understand the evolution of project management as a in the field of practice and an academic discipline and also us our suggestions for future project management research opportunities.

Keywords: Project Management, Planning, Clauses, life cycle.

I. Introduction

It is considered that the man have been using actions that turns to practices of project management since long time ago. According to the authors, the construction of the pyramids of Egypt, the Great Wall of China and the coliseum in Rome represent the example of man efforts that must follow by principles of project management. According to the authors, Taylor (1911) was a pioneer in the science of project management and Gantt (1919) was another student of these sciences. Both contributed great practices of modern project management.

Projects do not give another chance, as depicted in the famous rhyme

**“Humpty dumpty sat on a wall,
Humpty dumpty had a great fall”
All the king’s horses,
And all the king’s men,
“Couldn’t put humpty together again”.**

One you fall down, you will not get an opportunity to stand up again in a project. You do not get a second opportunity general in a project, even if you get it is a very costly affair. So, it is risky and needs attention at each stage of implementation. It follows the saying past is passed.

II. Era Of Project Management

In general project management can be defined as an art of managing new challenges coming frequently and breaking the whole challenge into smaller, comfortable activities to accomplish them in an effective and efficient way. So, project management uses os many tools to accomplish a project in a comfortable way. The tools used are work breakdown structure(WBS), networking , critical path method (CPM), Project Evaluations and Review Technique (PERT) [1].

To present the evolution of project management practices and represents, as shown in table-1

Period	Event
Postwar	Creation of PERT/CPM net
1900	Henri Gantt introduced the Gantt chart for tracking the project.
1950	NASA developed PERT and DuPont developed CPM.
1962	NASA introduced Work Breakdown Structure.
1967	International Project Management Association (IPMA) founded.
1969	Project Management Institute (PMI) formed.
1983	Harvard Project Manager, planning software was launched.
1984	The first version of Microsoft Project was released by a company working ofr Microsoft Corporation Inc.
1990	The first Windows version of Microsoft Project was released.
2013	Latest version till date for Microsoft Project has been launched

Table – 1 Project Management Evolution

III. Aspects Of Project

The following are the important aspects of a project:

- Starting date
- Specific goals and conditions
- Defined responsibilities
- A budget
- A planning
- A fixed end date
- Parties involved

Every project has a specific date to start. It is planned to attain a specific goal under a specific condition. A project needs well-defined responsibilities of everyone involved in it. It needs careful planning as an effective planning of a project is the project half done. There is always a fixed budget to accomplish a project. It has a fixed tenure, so it should be completed on a specified date.

IV. Project Characteristics

Project characteristics are shown in fig

Major project characteristics are explained below:

Objectives- a project has a set of objectives or a mission. Once the objectives are achieved, the project is treated as completed. For example, the objective of a project may be construction of a highway connecting two cities 'A' & 'B', covering a distance of 20 Km. Once the construction of the highway is completed the project comes to an end.

3.1 Life Cycle – A project has a life cycle. The life cycle consists of the following stages:

- Conception stage: where project idea are conceived
- Design stage: where detailed design of different project areas are worked out.
- Implementation stage: Where the project is implemented as per the design.
- Commissioning stage: Where the project is commissioned after implementation. Commissioning of a project indicates the end of its life cycle.

3.2 Uniqueness – every project is unique and no two projects are similar. Setting up a cement plant and construction of a highway are no doubt two different projects having unique characteristics. Construction a highway between cities C & D are also unique in themselves, in view of the difference existing in the organization, infrastructure, location, technical specification and the people behind the project.

3.3 Team work – a project normally consists of diverse areas. There will be personnel specialized in their respective areas. Any project call for the services of experts from a host of disciplines. Co-ordination among the diverse areas for all for teamwork. Hence a project can be implemented only with teamwork.

3.4 Risk and uncertainty – projects are risky as the activities involved in projects are non-retrievable. Thus, risk is unavoidable. However, risk can be reduced considerably using various forecasting techniques and project management and control tools. It should be known that as time horizon of any plan. There are some controllable and foreseen risk components, which can be foresighted and accounted for, in the course of planning. A frequent review and close control are essential to encounter the unforeseen risk enhancing factors.

3.5 Multi-skilled staff – the staff needed for a project, including the project manager, needs to have a wide range of skills, negotiation skill, etc.

3.6 Made to order- projects are always made to order and follow 'pull' rather than 'push'. The customer always decides the objective and informs the constraints like time and cost.

Subcontracting – subcontracting is practically unavoidable in project management. As specialized knowledge or workforce is needed for a very small duration in a project, it is difficult and costly to employ or retain. Therefore, they are just hired for small duration or specific job from outside agency. For example, a civil contractor never hires an electrician or an excavator machine (earth moving m/c) on a regular basis. They are hired only for the time being and paid for the same.

Single entity – generally, projects are the responsibilities of a single person / entity, but certainly there are many participants in a project, who are helping the single entity in the accomplishment of project objectives.

3.7 Tenure – every project has a fixed tenure. Project is never a continuous activity; it has to come to an end. Its life span is fixed; a successful project is completed within the stipulated time.

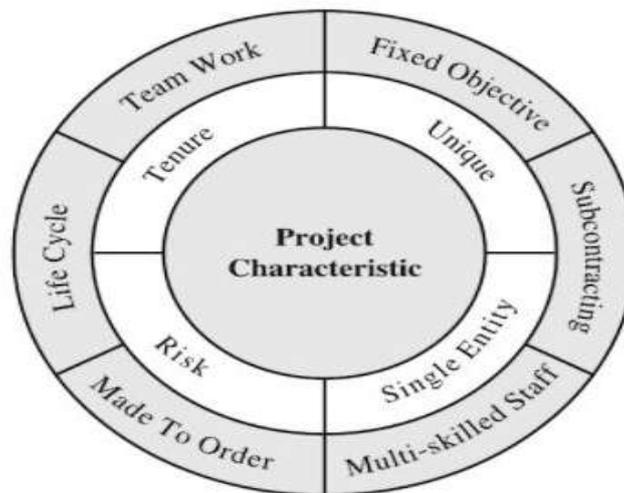


Figure.4.1: Project Characteristics

V. Establishing The Project

The processes involved in establishing a project are:

- Initiating
- Planning
- Organizing
- Executing
- Directing and controlling

Planning, organizing, executing, directing and controlling are applicable for all types of management activities irrespective of whether the management activity relates to project management or management of routine ongoing operations. The first and the last process, viz, initiating and closing are applicable only for project management. Since projects are one – time ventures, they have a beginning and an end.

Initiating

This is the starting phase. Initiating involves identification of project, generation and development of project ideas, formulating a project proposal, appraisal of the project proposal chosen and getting the organization's commitment and authorization to commence the project.

Planning

Planning is the process of deciding in advance about the future course of actions to be taken. In project environment, planning consists of defining all the works required to be carried out so that all the project participants will understand their role in the project team and carry out the work assigned to them.

Project planning involves the following:

Defining the scope of the project in terms of the product/services to be delivered by the project

Forecasting and estimating the resources (men, material, money, machines etc..) required for the project. Arriving at an appropriate organizational structure to implement the project. Planning for the tentative project completion time. This is done by preparing master programmer schedule that gives the critical dates of major events and control points. Scheduling the activities in such a way that the project is completed within the least possible time by carrying out CPM/PERT analysis.

Preparing detailed cost estimates for all the activities. Determining the required resources for all the activities. Considering the possibilities of adverse occurrences and keeping contingency plan ready that gibes the best cost/ benefit results for the given resources.

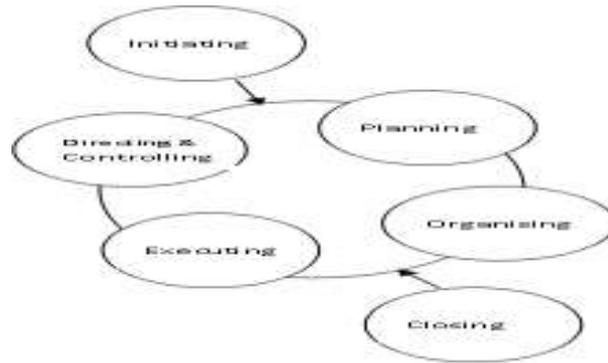


Figure.5.1: Project Plan

VI. Project Closure

Projects in India usually have a clearly defined last stage - a bridge opens for public use, a product launches, and new software rolls-out, or a defense weapon is procured. The steps needed to formalize the project's acceptance are sometimes called the project closure process. This process evaluates whether the project has delivered the required outcome, and that the stakeholder expectations have been met. Project closure has many different elements, and the best way to carry out a closure is to plan for it from the start. This way, there is an opportunity to decide which criteria will be used to show that the project is actually completed. The adoption level of some of the closure practices across various sectors in India is as shown in fig

	Analyzing target benefits	Best Practices Recorded Re-use	Review on project completion
Sector	% Yes	% Yes	% Yes
Automobile	50	50	100
Defence	80	100	100
Energy	60	95	70
Infrastructure	20	60	40
IT-ITES	40	100	100
Real Estate	70	70	80
Overall	55	78	73

About 78% of large organizations have some mechanism to record project best practices. However, re-use level remains unaccounted in most cases.

73% of large organizations conduct a post project review on completion

Only about 55% of large organizations and industry leaders analyze targeted benefits from the project. Small and mid-sized organizations lack capability to track project benefits

Listed here are some common project closure activities as being followed across sectors both in private and public organizations in India.

Administrative Closure: These activities relate to the overall management and oversight of the project. Activities here generally involve testing and review of project deliverables or outputs, analyzing unresolved issues, financial position of the project, gathering lessons learned, transferring knowledge, and archiving and communicating closure.

Contract Closure: These activities formalize the acceptance of the project outcome and deliverables. There may be an actual contract document especially when dealing with external customers. The activities here generally involve validation against pre-defined acceptance criteria, or contractual affirmation from approved and authorized stakeholders on status. During the project closure phase, the project team indicates meeting predefined criteria. If any changes have been made to the contract before project completion, the contract documents are updated. The business requirements analysis is a key input to the project closure process.

Transition or Handover of Project Results: When a project deliverable is being developed, the project team is in control. However, when the deliverable is ready to use or implement, then the end users need to know what to do. The activities here generally involve end-user education and decision on the procedure and period of handover. There is a widespread application of this closure process within the IT-ITES sector. For projects

leading into a phase of maintenance and operation this closure practice is widely practiced. Projects in infrastructure and energy sector emphasize on transitions and handovers as per requirement.

VII. Conclusion

The significant factors found by using regression analysis are support from top management support, Competent project team, abilities to solve problems, realistic cost and time estimates, Information/communication, competency of the project manager, schedule performance, technical Capability of the project manager, commitment of all project managers, good leadership, past experience of project management tools and technology and use of superior and appropriate technology. Using factor analysis, 25 factors were reduced to 9 factors. These are

1. Planning, estimation and monitoring,
2. Time and cost management
3. Client participation with definite objectives
4. Capability of project manager towards project
5. Team work
6. Communication towards reaching objectives
7. Management support and participants commitment
8. Updated Technology
9. Deliver directions with specification.

From ranking of the factors using mean, effective communication between stakeholders got highest ranking. Clarity of project goals, good leadership and client involvement has second priority. Project manager competence, project participants' commitments towards goals have third and fourth priority.

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