Approaching and managing delivery of a project using Project Management methodologies

Maheshwari Patel Niranjan

Department of Commerce, Govt. Hamidia Arts and Commerce College Bhopal

niranjanvivek@yahoo.com

ABSTRACT:

This paper aims to analyze the need of use of project management in an organizations. The paper in briefly discusses the role of project manager, Benefits of Project Management Methodologies to project and organization, benefits and limitations of project management methodologies and adopting project management methodologies. In recent time, numbers of methodologies have been developed providing guiding processes to organization for example Prince2, Agile, Waterfall, PER and many more. An organization adopts project management methodology depending on its size and nature, and the complexities of the projects. Adopting a more flexible project management methodology developed as per the specifications of nature of the projects increase possibilities for successful delivery of projects. Project Management is important for several reasons: Organizing Chaos, Managing Risk, Managing Quality, Managing Integration, Managing Change, Clearing Issues, Retailing and Using Knowledge and Learning from Failure.

Keywords: Project Management, Methodology, PMM, Project Manager, Prince 2, MPI, PMBOK

1. Introduction

PMI defines project as "a temporary group activity designed to produce a unique product, service or result" (Project Management Institute, 2013). Each organization, be it private or government runs project which varies in size and complexity. The project life cycle includes following: starting the project, organizing and preparing, carrying out the project work and closing the project (PMBOK, 2008). Project management is defined as application of "skills, knowledge, tool and techniques applied to project in order to meet project requirement" (PMBOK, 2008). The project management includes following function: defining work requirement, establishing the extent of work, allocation of resources, planning and execution and monitoring progress (Munns and Bjeirmi, 1999)

In a competitive environment organizations identifies and initiate projects to achieve benefits and this requires organizations to deliver a project successfully. Evidence suggests that organizations are not good in delivering of projects (Lecture Slides, 2013). The Standish group report identifies that over 31.1% of software projects are cancelled before completion. The Standish group report further identifies that over "52.7% of projects will cost 189% of their original estimates" (The Standish group report, 1995). There are several research studies which have investigated and indentified the reasons on why projects fails for example, Morris and Hough as cited in Atkinson (1999). Oracle (2011) identified six areas which not handled carefully can contribute to the failure of the project which are Project scope definition and Management, Performance measurement, Constituent Alignment, Proactive risk management,

Constituent Alignment and Communication. On the other hand, Atkinson (1999) in his paper pointed out the three traditional criteria namely cost, time and quality against which the projects are measured referred to as the "The Iron Triangle". However, he argued that apart from these three criteria there are other criteria against which project management progress can be measured and gave the notation of "The Square Root". Atkinson (1999) added technical strength of system, benefits to organization and benefits to stakeholders.
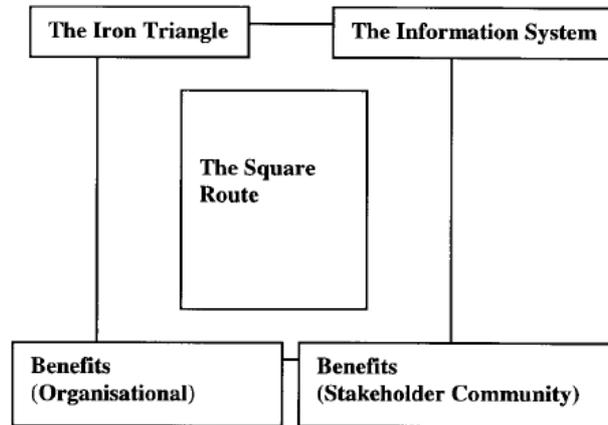

Figure 1: The Square Root: Atkinson (1999)

The purpose of this paper is to evaluate and understand how an organization can adopt and use project management methodologies to approach and manage the delivery of the projects in structured manners. In recent time, numbers of methodologies have been developed providing guiding processes to organization for example Prince2, Agile, Waterfall, PER and many more. An attempt has been made to identify key skills areas required by the project managers for delivering a project successfully. This paper will also cover the benefits and limitations of the project management methodologies.

1.1 Role of Project Manager

PMBOK (2008) defines project manager as person assigned by the company to realize project objectives of the organization. PMBOK (2008) identifies following characteristics that a project manager should possess for effective project management: Knowledge, Performance and Personal. Role of a project manager depends on the project and the organization and can vary from project to project (Maley, 2012).

Successful delivery of a project depends on project manager. Evidence suggests that people management plays a vital role in project management (Fisher, 2011). It is important for managers to understand every aspect of the project right from client's requirement to team needs. Based on his research Fisher (2011) identified following key skill areas for managers: managing emotions, building trust, effective communication, motivating others leading others and team development. Fisher (2011) research identifies that leading others is very important skill area. As per the survey conducted on the IT executive by Starkweather and Stevenson (2011) for their research, they identified that leadership competency (94.8%) was most valued by the IT executive.

Leadership is defined as a process which involves influencing others in order to attain organizational goals (Northouse, 2004, cited in Hayes, 2010 p.159). There are several researches on leadership and its effect on project management and delivery for example

(Pheng and Chuvessiriporn, 1997; Walker and Walker, 2011; Muller and Turner, 2006). Hyvari (2006) research points out that following leadership ability: communicator, good motivator and being decisive are top three factors for an effective project manager. The same research was also aimed to identify the key managerial practice of an effective project manager and points out that "planning/organizing, networking and informing are the most significant managerial practice of leadership behavior of project manager" (Hyvari 2006 p. 222)

Project manager's play critical role in delivery of projects and the success and the failure of the projects depends on project manager's various skill areas such as leadership, decision making, team building, communication and etc as examined earlier in this paper. Walker and Walker (2011) argued that in present time for successful delivery of the project the project managers should cover a more holistic view of project management rather than just embracing the iron triangle. Customer satisfaction is another domain which leads to successful delivery of projects. Ireland (1992) pointed out list of potential customers for a project which included buyers of product or services, senior management, project team members, functional organizations, contractors, suppliers, society and product or service users. Based on this list from the organizational context the customers can be divided into two categories the internal customer and the external customers. Ireland (1992) argued that managing requirements and expectations of the customers (internal or external) directly relates to success of the project.

1.2 Benefits of PMMs to project and organization

Wells (2012) cited in his paper that for an effective functioning of on organization successful delivery of a project is necessary. Organization employs project management methodologies depending on size and the complexities of the project in order to achieve project efficiency and effectiveness. Project management methodologies helps in developing standardized project activities and are being adopted for example the government and the public sector industries of United Kingdom promoting the use of Prince2 project management methodologies for delivery of complex IT/IS projects (Wells, 2012). Studies have been conducted to examine the benefits of the project management methodologies in delivery of the projects for example Wells (2012) examined a few of PMMs such as Prince2, In-House structured, In-House Gate-Phased, Gate-Phased and Agile and indentified following common benefits associated with each of these methodologies:

- Control and Monitoring
- Standardized and Unified Language
- Guidance and Support – Safety Scheme
- Guiding and directing managers helping with uncertainty and fear of unknown
- Transparency

There are studies which show that developing a good project management methodology within the organization which is flexible and supports all projects are likely to create series of successful projects (Kerzner, 2001, cited in McHugh and Hogan, 2011 p.638). However, developing in-house methodologies requires time and varies from organization to organization depending the size and scope of the projects. Companies which do not crave for developing their own methodologies can adopt recognized project management methodologies such a Project in Controlled Environment (Prince2), Packaged Enable Re-

engineering (PER), Project Management Body of Knowledge (PMBOK) and many more depending upon the organization and the nature of the project (McHugh and Hogan, 2011).

There are evidences which suggest that use of structured and formal methodology increases the chances of successful delivery of projects (Lecture Slides, 2013). A project management methodology provides a clear, detailed and structured plan for managing projects. It incorporates processes that helps in controlling and monitoring of the projects, provides a standardized approach helping members across the team to follow a unified direction, provide guidance and support and maintaining transparency across the life of a project.

McHugh and Hogan (2011) also argued that the benefits an organization can receive from employing effective project management methodology includes: proper controlling of budget and resources, increasing effectiveness of management and planning of projects, and also provides a uniform method of reporting making it easier for members to move across the projects.

However, from organizational point of view there are benefits and advantages associated with use project management methodologies as discussed earlier in the paper. There are also certain limitations and drawbacks attached to the use project management methodologies which have been discussed next.

3. Limitation of Project Management Methodologies

Although project management methodologies in recent time are being developed, adopted, implemented and tailored as per the organization and projects needs. There are studies which show certain limitations and weakness associated with project management methodologies for example complexity in tailoring and modification of projects, problems with leadership and organization strategy, reliance on more documentation, organizations becoming more rigid and facing problems in dealing with change and difference between the methodologies and the business interest of the organizations (Wells, 2102). McHugh and Hogan (2011) in their research also cited some negative effects of project management methodologies such as inflexibilities of policies and procedures, requirement of lengthy and tedious documentations which can be time consuming. Organization those implemented project methodologies need to continuously assess and improve the existing methodology which again is time consuming and put additional cost on the organization for using project management methodology (Dicks, 2000 cited in McHugh and Hogan, 2011).

Other drawbacks associated with project management methodologies includes issues such as lack of training or expertise, failing to predict problems, more emphasis on following the standards, methodologies not deployed fully and difficulty in modeling real world (White and fortune, 2002). Training is critical for success of project management. Loo (1996) in his list of areas for successful project management suggested "training" and stated that employees should get "formal training in project management, at least in the basics of project planning and control" (Loo, 1996).

Organization adapts and implements project management methodologies for standardizing of project activities and to improve efficiency and effectiveness of the organization. Organization brings in change in-order to align itself to the external environment. An important issue related to adopting of organization change is resistance of people from accepting change. Hayes (2010) identified following reason on why people are reluctant to

change: firstly people want to maintain status quo i.e. prefer to keep things the same way in future as they are in present scenario, secondly, the cost of change might outweigh the benefits. It is vital for organization adopting any new project management methodology to deal the resistance of the people which can be done through proper leadership as identified earlier in this paper.

3.1 Adopting a Project Management Methodology

Adopting and implementing project management methodology have both benefits and limitations associated with it. However, evidence does suggest that use of structured methodology do increases the chance of successful delivery of projects. An organization adopts project management methodology depending on its size and nature, and the complexities of the projects. Some organization develop their in-house structures (Eskerod and Riis, 2009), others adopts internationally recognized project management methodologies. Most of the project management methodologies are based on the principles of PMBOK for example Prince2. Study from Eskerod and Riis (2009) shows that the most of the organization developing their own structures are based on the guiding principles of PMBOK.

It is argued that implementing a more tailored version of project management methodology depending on the nature of the projects will provide more flexibility to the organization (Kerzner, 2006, cited in McHugh and Hogan, 2011 p.639) for example wells (2012) noted in his paper that methodologies such as Prince2 are most effective when they are tailored appropriately. Adopting a more flexible project management methodology developed as per the specifications of nature of the projects increase possibilities for successful delivery of projects. A common purpose of all project management methodologies is to deliver a project successfully. Pinto and Slevin (1987) defined that a successful project are one which comes on time, budget, achieves goals set by the organizations and is accepted and used by the clients for whom the project is designated. An organization should adopt or develop a project management methodology considering the success criteria defined by Pinto and Slevin (1988) which in later studies have been adopted by Atkinson (1999).

3.2 Using Prince 2

Project IN Controlled Environment (Prince 2) is a project management methodology which can be tailored for management of all types of project. Prince2 methodology offers number of structured features which can be scaled depending on the nature of the project (Wells, 2012). Prince2 comprises of seven set of principles (figure 2) which provides a structure of good practice for the people to follow who are involved in the project (Murray, 2009). One of the seven principles of Prince2 is tailoring of methodology to suit the size and the type of the project, project environment, complexity, importance of the project, capability and risk. This tailoring can be done by the project team in order to "adapt to the overall method to specific environment" (Lecture slide, 2013). Wells (2012) identified following main features of the Prince2 methodology: management structure, a set of control procedures and a system of plan. All these features are relevant to the organization. The organization did have a defined formal organization structure, but lacked in control and planning of the project. Research shows that the foremost support from Prince2 includes "helping managers to monitor the progress" (Wells, 2012). Adopting Prince2 framework in the organization, the themes would have been tailored to suit the project environment.

Principle	Definition
Continued business justification	A PRINCE2 project has continued business justification
Learn from experience	PRINCE2 project teams learn from previous experience (lessons are sought, recorded and acted upon throughout the life of the project)
Defined roles and responsibilities	A PRINCE2 project has defined and agreed roles and responsibilities with an organizational structure that engages the business, user and supplier stakeholder interests
Manage by stages	A PRINCE2 project is planned, monitored and controlled on a stage-by-stage basis
Manage by exception	A PRINCE2 project has defined tolerances for each project objective to establish limits of delegated authority
Focus on products	A PRINCE2 project focuses on the definition and delivery of products, in particular their quality requirements
Tailor to suit the project environment	PRINCE2 is tailored to suit the project's size, environment, complexity, importance, capability and risk

Figure 2: Principles of Prince 2

Prince2 structure involves processes, themes and principles (figure 3). The seven sets of themes provide guidance against which the performance for the project is measured.
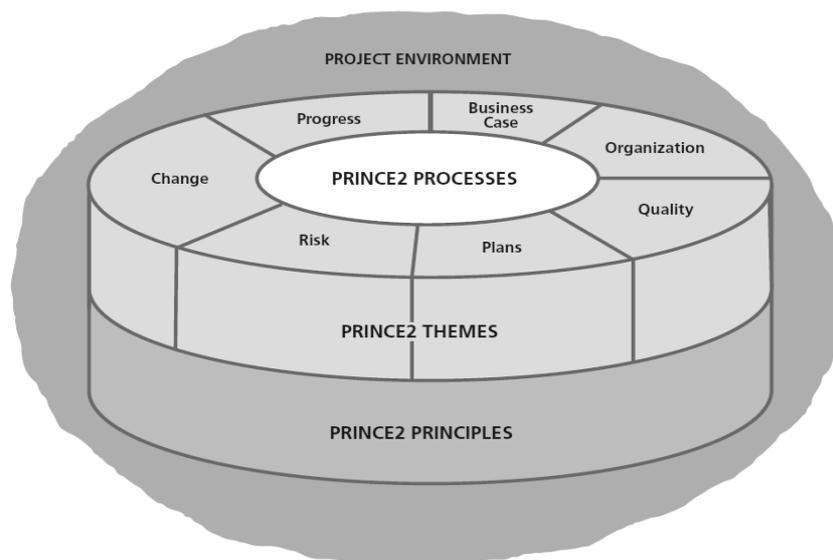

Figure 3: Structure of Prince 2

Prince 2 processes include (Figure 4)
1. Starting up a project
2. Directing a project
3. Initiating a project
4. Managing a stage boundary
5. Controlling a stage
6. Managing product delivery
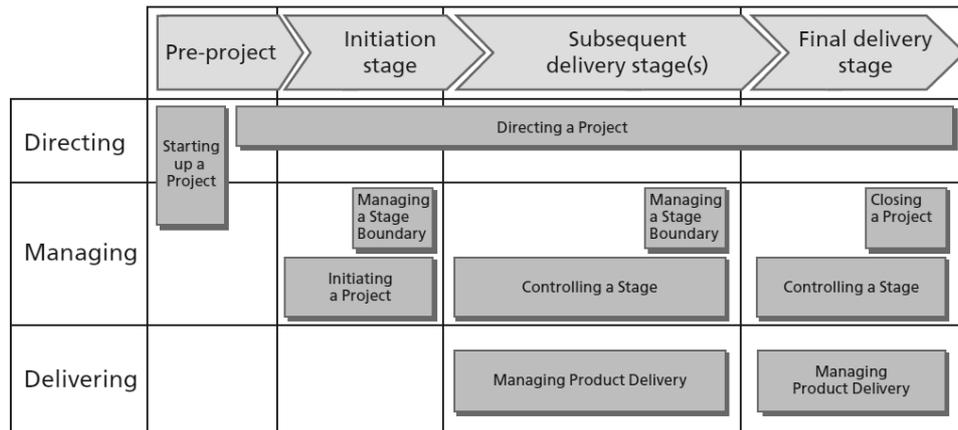7. Closing a project

Figure 4: Prince2 Process Model

4. Conclusion

An attempt has been made on how an organization approaches and manages delivery of project using project management methodology. The paper has briefly discussed the success criteria of the project against which the projects are measured and also how role of manager contributes to the success of a project has been highlighted. Benefits and limitations of the methodologies have been identified and discussed in brief.

5. References

1. Atkinson, R. (1999), Project management: cost, time and quality, two best guesses and a phenomenon, its time to accept other success criteria. International journal of project management, 17(6), pp 337-342.

2. Eskerod, P and Riis, E, (2009), Project Management Models as Value Creators. Project Management Journal. 40(1), pp 4-18.

3. Fisher, E, (2011), What practitioners consider to be the skills and behaviours of an effective people project manager. International journal of project management, 29(8), pp 994-1002.

4. Hayes, J. (2010), The Theory and Practice of Change Management-3/E.

5. Hyvari, I. (2006), Project management effectiveness in project-oriented business organizations. International Journal of Project Management. 24(3), pp 216-225.

6. Ireland, L.R. (1992), Customer satisfaction: the project's manager's role. International Journal of Project Management. 10(2), pp 123-127

7. Loo, R. (1996), Training in project management: a powerful tool for improving individual and team performance. Term Performance Management. 2(3). Pp. 6-14.

8. Maley, CH. (2012), Project Management Concepts, Methods, and Techiques [online]: CRC Press Taylor and Francis Group, available from: http://0-www.crcnetbase.com. wam. leeds.ac.uk/isbn/9781466502895, accessed on 26th May 2013.

9. Mchugh, O and Hogan, M. (2011), Investigating the rationale for adopting an internationally-recognised project management methodology in Ireland: The view of the project manager. International Journal of Project Management. 29(5). pp. 637-646.

10. Muller, R and Turner, R.J. (2006), Matching the project manager's leadership style to project type. International Journal of Project Management. 25(1), pp. 21-32.

11. Murray. (2011), Prince 2 in one thousand words, available at: http://www.best-management-practice.com/gempdf/prince2_in_one_thousand_words.pdf, accessed on 3rd June 2013.

12. Munns, A.K and Bjeirmim, B.F. (1996), the role of project management in achieving projects success. International Journal of Project Management. 14(2), pp 81-87

13. Norman, A. (2013), Project Management: Day 3, lecture notes distributed in LUBS5712M Master of Business Administration, University of Leeds. 24th April 2013

14. Oracle. (2011) Why Projects Fail: Avoiding the Classic Pitfalls, available form: http://www.oracle.com/us/solutions/018860.pdf, accessed on 25th May 2013.

15. Pheng, L.S. and Chuvessiriporn, C. (1997), Ancient Thai Battelfield strategic principles: lessons for leadership qualities in construction project management. International Journal of Project Management. 15(3), pp 133-140.

16. Pinto, J. K. and Slevin, D. P. (1988), Critical Success Factors in Effective Project Implementation. Project management handbook, 479.

17. PMI, A. (2008), Guide to the Project Management of Knowledge (PMBOK). PMI, USA.

18. PMI. (2013), available from http://www.pmi.org/About-Us/About-Us-What-is-Project-Management.aspx, accessed on 24th May 2013.

19. Starkweather, J. A. and Stevenson, D. H. (2011) PMP® certification as a core competency: Necessary but not sufficient. Project Management Journal, 42, pp 31-41.

20. The Standish group chaos report. (1995), available from: http://www.projectsmart.co uk/docs/chaos-report.pdf, accessed on 26th May 2013.

21. Walker, B.L. and Walker, D. (2011) Authentic Leadership for 21st century project delivery. International Journal of Project Management, 29(4), pp 383-395.

22. Wells H. (2012), How effective are project management methodologies. Project Management Institute. 43(6), pp 43-58

23. White, D and Fortune, J. (2002) Current practice in project management – An Empirical Study. International Journal of Project Management. 20(1), pp 1-11.