Chapter - II

Review of Literature
Much has been written about Project Management by various authors across the globe addressing both the theoretical and the practical aspects in the form of articles, research papers, white papers and case studies. The authors have provided their viewpoints on project management practices, principles, processes, Tools and Organization. Against this background an attempt is made here to browse and understand the research carried out in project management which is relevant to our research study. More particularly, we have tried to understand the research done in project management on some of the facets such as Project Organization, Project Tools and Techniques, Practices and Processes, analysis of success, failure and challenges faced by project practitioners. This literature survey would form the foundation on which our own research study would be based, aimed at discovering knowledge in the form of observations and inferences contributing to the knowledge body.

2.1 Review of Literature on key concepts of project management

Project Management is the discipline of organizing and managing resources in such a way that the objectives are completed within defined scope, quality, time and cost constraints. A project is a temporary and one-time endeavour undertaken to create a unique product or service, which brings about beneficial change or added value. This property of being a temporary and one-time undertaking contrasts with processes, or operations, which are permanent or semi-permanent on-going functional work to create the same product or service over and over again. (Sibu Sarawak, 2000). The Great Wall of China was built with ingenious natural materials and a team of millions over a span of a thousand years without project management that we conceive today. It is possible to say that the concept of project management has been around since the beginning of history. It has enabled leaders to plan bold and massive
projects and manage funding, materials and labour within a designated time frame. What leaders from the distant past managed to accomplish is amazing and without the project management tools available today. (Meyer Carol, 2010). Project Management as a discipline developed from different fields of application including construction, engineering, telecommunications, and defence. The 1950s marked the beginning of the modern project management era. Prior to the 1950s, projects were managed on an ad-hoc basis using mostly Gantt charts, or with informal techniques and tools. (Azzopardi Sandro, 2010)

Planning a project, in its very simplest terms, requires putting a series of tasks in the correct order and determining any dependencies between the tasks, in order to reach a desired outcome at the end of the project. (Symonds Michelle, 2011). Project plan provides a roadmap for detailing how a project will reach its desired goals. It should be written in the project planning phase, once the project has been initiated and received preliminary approval and funding to be scoped out further. It normally follows the business case, and should primarily focus on how the project will proceed (WJ Hutt James, 2011). It is not often possible to foresee the future activities in a project with consistent detail over the entire period of the project. Therefore, planning is often done in "waves" or stages, with the activities in the near term planned in detail and the activities in the longer distance of time left for future detail planning. Such a planning approach is commonly called rolling wave planning. (Good pasture John, 2009)

Process mapping is a technique used to outline the various steps involved in a process. Two tools that are used in process mapping are critical path analysis and PERT. Both were developed in the mid-20th century by the U.S. military and have come to be widely used in the business world since. Project Evaluation and Review
Technique (PERT) is the process of identifying and numbering the events in a process. It can be especially valuable to see how multiple tasks might intersect and impact each other. PERT is closely related to the Critical Path Method, which identifies the critical tasks involved in a process—those whose completion can either positively or negatively impact the time line for the project. (Richards Leigh, 2005). Gantt charts are a process management tool that can be used to analyse and plan even extremely complex processes. Gantt charts are typically used to provide a roadmap for those involved in the completion of a project and to help monitor whether the project is on schedule. (Richards Leigh, 2005). The Work Breakdown Structure is an essential tool to set the project scope. It forms the agreement between you and your client on what is included and what is not included in your end deliverable. (Mohammed K Barakat, 2012). Microsoft Project is well suited tool for allocating resources to project tasks and tracking deadlines and project milestones. MS Project does not use a graphical dashboard to help users see a snapshot of the project, nor does it allow team members to make annotations or comments that are visible to everyone. Given the standard Microsoft interface, many organizations start the planning process in Project and then export the file into a more visual project management system. (MacKechnie Chris, 2010)

Risk Management is an essential part of any programme or project and can vastly contribute to successful delivery. The management of risk is part and parcel of project management, but is not the be all and end all of it as it sometimes becomes more risk adverse in organisational cultures. (Paul Slater, 2010). The Project manager requires first and foremost a thorough understanding of the need of all stakeholders who will be impacted by the project. Stakeholder analysis is generally the first step in a project management plan, and a tool that is simple and straightforward to use. (Richards
Leigh, 2005). Project leadership calls for clear communication about goals, responsibility, performance, expectations and feedback. There is a great deal of value placed on openness and directness. The project leader is also the team's link to the larger organization. The leader must have the ability to effectively negotiate and use persuasion when necessary to ensure the success of the team and project. Through effective communication, project leaders support individual and team achievements by creating explicit guidelines for accomplishing results and for the career advancement of team members. (Timothy R Barry, 2012). The project leader must clearly articulate the project's goals he must facilitate the development of the project plan with clearly designated tasks, milestones and accountabilities, must proactively address roadblocks and ensure the team completes the tasks on time and within budget. (Lisa Anderson, 2012).

Consistent and well-understood relationships among all parties of a project help foster long-term commitment and mutual success. The three types of relationships that impact the project's success are organizational, personal, and value-driven. Defining, documenting, and communicating value-driven relationships can help mature businesses and project organizations. (McDowell Philip W, 2010). Quality management is an integral and key component of project management. A well-designed quality measurement system is characterized by an ability to detect critical defects throughout the project life cycle and beyond. (V. R. Muppavarapu Krishna, 2011). Change management is a multidisciplinary practice and structured approach, to move from the current state to a future state of the organisation together with its products, services and supporting processes. Change management involves the execution of business strategic plans, communication to stakeholders and partners,
integration of multidiscipline teams and manage people in the delivery of required change projects. (Crawford John, 2012)

Projects of Some organisations have been unduly criticised for being poorly planned, managed and having unrealistic cost and time projections assigned to them. Whatever the cause, sometimes it turns out that a project is going to cost too much, in terms of money, time, or staff. If the project starts moving in this direction, one should consider recommending spiking it (Roberts Trevor, 2011). One of the possible responses for project costing too much could be to try to have the project do less. (Woods Marian 2012). Return on Investment (ROI) is a monetary measurement that is used to evaluate the efficiency and effectiveness of an investment made by an organisation. Investments take many forms, financial, human capital, equipment, and training programmes. (Abudi Gina, 2010)

2.2 Indian Research Papers

Studies on different facets of project management in India are not huge in number. However some Indian studies that are prominent are considered here. Mohanty and Tungare have studied the status of Indian Project management. Their study makes the first attempt to outline the opinions, judgments, articulations and anticipations of a set of senior managers relating to multitude of issues involved in holistically managing the project in its life cycle. Through this exploratory study with various project leaders, a clear picture of the current state of affairs, significant success factors, and future impeding changes in various industry sectors has emerged. This study portrays a knowledge base and may be helpful in improving the managerial effectiveness of organizations in attaining project goals for strategic value creation. (R.P. Mohanty and P.C. Tungare, 2007)
Collaboration has not caught up in India. Fraught with lack of transparency at all level, both public and private projects languish in needless delays. Ashok Kumar explored how one of the biggest exceptions in Indian project management flourished with the adoption of a technology that linked 70 Organisations, 45 Outside India that worked on the Project. (Ashok Kumar, 2011)

Sujoy Singh writing on Project Management case study of the making of a film: One of Indian cinema's biggest successes, Lagaan was not only big in terms of revenue and worldwide acclaim, but also for its grand scale (including an international cast), remote location shooting, 10,000 extras and a first time producer. This article attempts to capture the aspects of Project Management in the making of this movie and reflects upon the Project's scope, Work Breakdown Structure, Risk Analysis and Governance methods. By combining these, a graphical presentation of the entire process of movie making can be viewed from the eyes of Project Management. (Sujoy Singh, 2009)

Pankaj Jalote provides an insight into the working of PM at Infosys Technologies, a highly regarded high-maturity organization, and details the processes it has in place to manage projects. Jalote provides an excellent case study to guide project managers everywhere. The specific Infosys practices described reflect sound management principles and practices. They are also grounded in common sense, and can be incorporated into any organizations software development operation easily. With an actual software project from Infosys used as a running example, the author explains the key aspects of successful project management—from process planning through project monitoring and closure. (Pankaj Jalote, 2010)

Gr. Capt. H Kaushal, method is one of the important tools for teaching management, which blends classroom training with actual practice. The text provides
conceptual inputs and offers several case studies covering the entire gamut of the study of Project Management/Supply Chain Management. There is an acute shortage of case studies in Project Management/Supply Chain Management with a focus on the Indian situation. This book, part of a series on case study solutions, attempts to plug this gap. (Gr Capt H Kaushal, 2011)

In early 2008, Ratan Tata once again shot back to fame with the launch of the lowest cost car 'Tata Nano' priced at one lakh rupees. The car was perceived as a mission unachievable by the leading domestic and global players' of the automobile industry. Despite such speculations and criticisms, Ratan Tata successfully launched Tata Nano on 10 January 2008, thereby revolutionising automobile manufacturing in India. In his early years as the chairman of the group, Ratan Tata had reformed the group steering its growth with the help of his well-executed strategies, and strengthened the long cherished Tata culture. But industrial experts doubted whether the long awaited Tata Nano would ultimately stand up to his expectations. (S Paul and S Bhattacharya, 2010)

Rathore Arvind highlighted the challenges faced by organisations having traditional PMOs and underlined the need for an Enterprise PMO. The paper further discusses the structure of EPMO in large and small organisations, EPMO responsibilities, benefits of EPMO and the factors critical for the success of EPMO in an organisation. (Rathore Arvind, 2008)

To Avoid Issues and Risks in Adverse Situations, an IT project for a financial company met expectations against the odds when critical resources left mid-project and missing the deadline was not an option. Preeti Jain Mishra describes the tools and techniques she used to keep the project from failing and against the odds deliver a success. (Preeti Jain Mishra, 2011)
2.3 Conclusions

From the literature survey it is very clear that Project management practice has grown in leaps and bounds particularly in the last 50 to 60 years across the world and in the last two decades in India. Both researchers and practitioners have contributed to the evolution and growth of the area. The key factors that seem to contribute to effective project management continue to be organization, planning, tools, monitoring, review mechanisms, risk and issue management, and communication and HR challenges. The literature survey also brought out the fact that no comprehensive study has so far been made on the project management practices followed in India particularly considering the ethos, constraints and beliefs of the Indian society. Hence, this study assumes significance.