

# REVIEW OF PROJECT MANAGEMENT SOFTWARES-MS PROJECT AND PRIMAVERA

S.RAGAVI<sup>1</sup>,Dr.R.N.UMA<sup>2</sup>

<sup>1</sup>PG student,Department of civil engineering, Sri Ramakrishna institute of technology, Coimbatore, India.

<sup>2</sup>Head of department,Department of civil engineering, Sri Ramakrishna institute of technology,Coimbatore, India.

-----\*\*\*-----

**ABSTRACT:** Planning and scheduling is important role in construction projects because of the increasing complexities in this field. Construction Planning is the necessary warning to Scheduling and determining general sequence, defining labor tasks, construction methods and assigning responsibilities. inappropriate planning can lead to major delays in the project work. For the planning and scheduling work huge amount of paperwork, which makes the management very burdensome. These problems can be solved using a project management software which helps to give a planned approach to planning. In this study, a case of a apartment building has been taken to demonstrate how proper planning and scheduling is done using primavera and MS project.

**Key words:** CPM, PRIMAVERA P6, MS PROJECT, basics of CPM scheduling, EPS, Gantt chart.

## 1.INTRODUCTION

Project management software is a process which involves estimation, sequencing the activities, resources allocation and timing. The construction scheduling is to complete the project in time and equal the resources with the allocated time. There are many civil software available in market, MS project and Primavera are widely used for planning and scheduling. Planning of huge projects requires huge amount of paperwork, which can be reduced with the help of primavera and MS project software. The comparison are made to know the efficiency of each software. Microsoft Project and primavera is the modern tool of Project Management that aid to beat the obstacles faced remaining to conventional way of Planning and organization. It helps for the optimal and resourceful organization of activities which helps to give the dream to complete the project in planned duration and within the market.

## 2.LITERATURE REVIEW

**A.Castor (2008)** in his studies he compares softwares MSP, primavera and open workbench for resource levelling in two real time project as a case study. And the

result shows primavera gives most theoretically unlimited number of criteria as priority rules. And he suggest project management softwares to incorporate more efficient methods for resource constraints.

**Maruthi S(2015)** carried out studies in two phases at first phase the project schedule and resource allocated done using MSP software and at second phase, optimization has been carried out by modifying the man power requirement for various tasks to remove any sudden variations in demand of manpower. And concluded manpower resource has been optimized by modifying the particular activities duration and by modifying predecessors without affecting the project duration.

**Rhuta Joshi (2015)** analysed man power resource constrained project using Microsoft Project 2013 by resource levelling and compares the time cost in residential building. It helps to resolve resource conflicts and also useful in minimizing the project duration within limited availability of resources to make the project profitable. They concluded that without proper resource scheduling the project gets delayed and they can be levelled to reduce project duration and cost.

**B.S.K.Reddy(2015)** they done resource optimisation exercises on two on-going projects in Dubai, UAE.they individually levelled and then combined option with aggregated and then levelled clearly indicates reduction in demand of resources by 5.65% in later option, which could be best considered for economy . they concluded Resource levelling at project job site and forwarding demand leads a possible sharing of resources among projects.

**Ismail Abdul Rahman**identified commonly used techniques and software of time management together with their effectiveness level in large construction projects. Data was collected from the construction organization that deals with huge projects. Relative Importance Index calculation was employed to assess the level of effectiveness for time management techniques and software adopted in the construction project.

**Minh Shrestha**, hinted that the main function of a software is help, and develop the quality of output with less effort than manual ways. A project has disparate requirements and the aim of the adopted software is to fulfill those requirements effectively in terms of time and cost. In addition, the issues of scheduling, tracking and physical element must be considered while adopting the project management software.

**Abhishek Sharma(2015)** Many project suffers time and cost overruns due to improper planning, scheduling and completing works that results in numerous issues like delay in providing facilities, development, cutback in quality of construction and making the project more expensive. A little consideration shows that the time required to complete the project is inversely comparative to the supply of manpower. As the manpower is increased, the completion time of the project is decreased and on the other hand if the manpower is decreased, the completion time of the project is increased. A comparison between the baseline duration and cost to actual duration and cost of manpower of project is also determined using project management software tool Microsoft Project. The schedule report is examined and causes for delay are analysed. This delay is due to inadequate manpower, contractor not starting the multitasking activities at site, shortage of

shuttering material and the work executed by the activity in haphazard manner at site.

**P M Wale(2015)** skills and Techniques to project activities to meet project requirements. It is a planned ability to do something successfully for organizations, enabling them to patch the project results to Organizational goals and thus, superior battle in their markets. the process and activity of planning, organizingexciting and controlling resources, procedures and protocols to achieve complete goals in scientific or daily problems.that help to overcome the problems faced outstanding to traditional way of Planning and Management. It helps for the optimum and effective organization of activities which helps to give the vision to complete the project in planned duration and within the market.

**J. Jayalakshmi(2014)** ,This study compared time performance of the conventional method of construction for high- rise residential and Industrial Building System (IBS) method by overall construction period . The scheduling was developed using Primavera project planning software. The positive changes include creating a healthy working environment among those involved directly in the construction industry. The major players in the are architects, engineers, town planner, developer, contractor and the supplier or manufacturer have to play their roles in enhancing their working system, management and administration to enable the modernization in the industry.

**E. Suresh kumar(2015)**Scheduling using MSP Software is a development which involves estimation, sequencing the activities, resources allocation and timing. The construction scheduling is to complete the project in time and equal the resources with the allocated time. EV Analysis is a standard method of measuring a project's progress at any given point of time, forecasting its completion date, final cost and analysis difference in the schedule and budget of the project. Scheduling using MSP Software gives good controlling and

**Rhuta Joshi (2013)**to achieve the profit within little funds and time by using project management techniques for scheduling and coordinating the various resources by controlled method. Management techniques such as

Critical Path Method, Program Evaluation and Review Techniques (CPM/PERT) have been successfully implemented in various Civil Engineering projects. These techniques help management in capable and economic use of resources for completion of project objectives with infinite availability of resources, though it is observed that resources are limited in real project scenario. It has been practical that the project delays occur due to inadequate supply of resources. Project management software like MS Project and Primavera project planner are used in construction industry. The Project management techniques by scheduling various construction activities, allocation of resources and resource leveling using Microsoft Project for residential building.

**Raj saran(2015)** Planning and scheduling is very significant in construction projects because of the increasing complexities in this field. Construction Planning is the necessary predecessor to Scheduling and includes major work tasks, determining universal series, construction methods and conveying tasks. Improper planning can lead to most important delays in the project work. Projects nowadays huge amount of paperwork, which makes the management very bulky. These problems can be solved using a project planning software which helps to give a structured move toward to planning. In this study, a case of a two storey research lab has been taken to demonstrate how proper planning and scheduling is done using Primavera software.

**Sushant pradhan(2014)** Every construction industry expression a stiff struggle in every section of project, be it technique, equipment, methodology or management. The goals are been created and the level is getting higher. Construction Industries involve themselves in frequent projects and also aim for higher yield as financial benefit is the ground certainty. The task becomes tougher when one indulges to maintain customer satisfaction i.e. quality and duration at the same time. Rarely have the companies failed to attend the assure. Companies in the past have faced a lot of problems particularly when it comes to multiple projects. The data are stuffed, the cost has been overrun, the duration is extended and the resources have been over-allocated. Thus resulting in inappropriate project management.

**T.Subramani(2014)**This study compared time performance of the conventional method of construction for high- rise residential and Industrial Building System method by originate level measures of industry norms for overall construction period using scheduling simulation modeling. The positive changes include creating a healthy working environment among those involved directly in the construction industry.. Improved Customer Satisfaction Whenever you get a project done on time and under budget, the client walks away happy. And a happy client is one you'll see over. Smart project management provides the tools that enable this client/manager bond to continue. Services The same strategies that allowed you to successfully complete one project will serve you many times over and also reduced risk and cost of schedule swamped. It helps easily plan and manage project activities, It optimizes management of all resources, It gives clear visibility of what's going on in the project, It allows quick and easy forecasting of WBS's, activities or projects.

**Y.Umesh(2015)** Proper planning and scheduling is very essential in construction projects for sinking and scheming delays of the project. Extensive amounts of time, money, resources are wasted each year in a construction industry due to improper planning and scheduling. With globalization the construction projects have become infinite and complex. Planning of such projects requires huge amount of paperwork, which can be reduced with the help of project planning software. These study are to plan, schedule, and track a residential project with help of primavera software, study the results generated, it is possible to propose which method is suitable for the chosen residential project.

**Veena H.C(2015)**Resource management is one of the most vital aspects of construction project management in today's economy since the construction industry is resource exhaustive and the costs of construction resources have gradually, risen over the last several decades. These techniques help to reduce project duration use of unlimited availability of resources for completion of a project. Through it is observed that resources are limited in real project situation. It has been observed that the project delays occur due to inadequate supply of resources. In large scale projects, preparing a correct and

workable plan is very difficult. Project management software like MS Project and Primavera project planner are used in construction industry. The main aim of this study is to analyze the schedule control techniques by constraints and activity types is done using primavera software for an apartment building.

### 3.CONCLUSION

Planning and scheduling helps in future situation and implementation of the project. The Primavera Software provides user friendly options while performing any task. The cost of individual work break down can be known along with the duration. Thus decisions can be made sensibly for proper management. In multiple projects resource leveling is very important to maintain proper resource allocation. For multiple projects under a single company such analysis should be done to check out for over allocation. Scheduling real-time projects is also an important standard for managing multiple projects. A Resource constrained project schedule as per the site situation. For resource constrained analysis resource leveling is arranged. Scheduling using Microsoft project Software gives good controlling and clear schedule to a project. This project deals with scheduling using Microsoft project.

### REFERANCE

- [1] Rhuta Joshi, Prof. V. Z. Patil "Resource Scheduling of Construction Project": Case Study 4.438 Volume 4 Issue 5, May 2015.
- [2] Abhishek sharma, and K.K.pathak "Manpower Planning, Scheduling and Tracking of a Construction Project Using Microsoft Project Software"
- [3] E. Suresh kumar, S .Krishnamoorthi "Scheduling and Financial Analysis of a High Rise Building" ISSN: 2278-1684 Volume 12, Issue 6 Ver. I (Nov. - Dec. 2015).
- [4] P M Wale<sup>1</sup>, N D. Jain, N R Godhani<sup>2</sup>, S R Beniwal, "Planning and Scheduling of Project using Microsoft Project" Volume 12, Issue 3 Ver. III (May. - Jun. 2015),
- [5] Rhuta Joshi, Prof. V. Z. Patil "Resource Scheduling of Construction Project: Case Study": 2319-7064 Volume 4 Issue 5, May 2015
- [6] Raj saran, Neel fondekar, Yash matalia, " planning and scheduling of a two storey building Using primavera p6."
- [7] T.Subramani, K.Chinnadurai, "Construction Management And Scheduling Of Residential Building Using Primavera" ISSN 2319 - 4847 Volume 4, Issue 5, May 2015 .
- [8] Sushant Pradhan, Rajendra .S, Vijay.K " planning, scheduling and resource optimisation of multiple projects using oracle primavera p6" ISSN: 2321-7308, Volume: 05 Issue: 06 | Jun-2016
- [9] Rohit.R.Salgu, Umesh.Y.Polekar, Planning, Scheduling and Tracking of a residential Project using Primavera Software ISSN: 2321-7782
- [10] Veena H C, Vijay K "Schedule Control of an Apartment Building using Primavera Techniques" ISSN: 2278-0181, Vol. 5 Issue 06, June-2016
- [11] T. Subramani, A. Sarkunam<sup>2</sup> J. Jayalakshmi "Planning and Scheduling of High Rise Building Using Primavera ISSN : 2248-9622 Vol. 4, Issue 6.