



Review of Project Management Softwares – MS PROJECT And Primavera In Construction Industry

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ABSTRACT :

Over the decades, the use of software and information Technology has experienced growth across every field. Softwares were only limited to designing in construction industry. So now there are numbers of softwares in construction which evolved to integrate different aspects of business, prompting industries to explore additional softwares. This led to development of new softwares solution for sector like Construction Management, Estimation, 5D visualization, Bill of Quantities, Data analysis, etc. The paper examines a range of softwares tools utilized globally in Construction management, mostly focused on planning of project for different types of Construction project. The paper is focused on the use of softwares like MSP and Primavera P6.

Keywords: Construction Project, MSP, Primavera P6, Softwares.

1. Introduction :

Project management software is crucial for estimating, sequencing activities, allocating resources, and managing timing. In construction, scheduling ensures projects are completed on time and resources are efficiently utilized. There are various civil engineering software options available, with MS Project and Primavera being popular for planning and scheduling. These tools streamline processes, reducing paperwork, and enabling efficient planning for large projects. Comparing these software options helps determine their efficiency, with both Microsoft Project and Primavera offering modern solutions that surpass traditional planning methods. They facilitate optimal organization of activities, making it possible to fulfill project goals within planned timelines and Market expectations.

2. LITERATURE REVIEW

2.1 A castor - In his research, Castor (2008) conducted a comparative analysis of software applications, namely MSP Primavera and Open Workbench, focusing on resource leveling in two real-time projects as case studies. The findings indicated that Primavera offers a wide range of priority rules theoretically, outperforming Open Workbench in this aspect. Castor recommended that project management software developers integrate more effective methods for managing resource constraints based on these results.

2.2 Sureshkumar- Using MSP Software for Scheduling involves tasks such as estimation, sequencing activities, resource allocation, and timing construction scheduling to ensure project completion within set timelines while effectively managing resources. Additionally, project analysis serves as a standard approach to monitor progress, predict completion dates, evaluate final costs, and analyze any disparities between the scheduled and budgeted aspects of the project. MSP Software offers robust control and scheduling capabilities in this regard.

2.3. Joshi – In Joshi's work from 2013, the focus was on achieving profitability with limited funds and time through the application of project management techniques. These methods aimed to coordinate resources efficiently through controlled processes. Techniques such as The Critical Path Method and Program Evaluation and Review Techniques (CPM/PERT) have proven effective in numerous Civil Engineering projects, aiding in resource utilization and cost-effectiveness. Despite the theoretical concept of infinite resource availability, real-world scenarios often face limitations, leading to project delays due to resource shortages. The construction industry commonly relies on project management software like MS Project and Primavera for scheduling activities, resource allocation, and resource leveling. Joshi specifically explored the application of these techniques in residential building projects.

2.4. Sharma- Improper planning, scheduling, and execution often lead to time and cost overruns in many projects, resulting in delays in facility provision, development Setbacks, compromised construction quality, and increased project expenses. It's evident that project completion time is inversely proportional to the availability of manpower: increasing manpower decreases completion time, while decreasing it prolongs the project. Using

Microsoft Project, a comparison between the planned duration and cost versus the actual figures is conducted to identify deviations. Causes for delays, such as inadequate manpower, contractors' failure to initiate multitasking activities on-site, shortages of shuttering materials, and haphazard work execution, are analyzed through schedule reports.

2.5 .Jayalakshmi – The construction method for high-rise residential and Industrial Building System (IBS) is determined based on the overall construction period. Scheduling is established using Primavera Project planning software. Positive outcomes include fostering a conducive work environment for all stakeholders in the construction industry. Key participants, including architects, engineers, town planners, developers, contractors, and suppliers or manufacturers, must optimize their systems, management, and administration to facilitate industry modernization.

2.6.Pm wale -The research paper titled “Planning and Scheduling of Projects using Microsoft Project: A Case Study of a Building in India” compares Microsoft Project (MSP) with traditional planning techniques, highlighting their ability to accelerate construction and enhance cost-effectiveness through proper planning. The case study focuses on a single wing of a Project executed in Pune, Maharashtra, India. Various methodologies were employed to analyze different aspects of efficient planning and execution, as well as to identify remedial measures. Extensive research was conducted, drawing from a range of scholarly papers. The methodology involved defining the problem statement, deriving objectives from both primary and secondary data collection, analyzing the data, and drawing conclusions.

2.7.T. Subramani et al – In their study titled “Analysis of Cost Control in Construction Industries by Earned Value Method Using Primavera,” the authors explore the application of Earned Value Management (EVM), an industrial engineering technique, in project Management. They delve into the key parameters essential for calculating Earned Value Analysis (EVA) in cost management for civil construction projects. Additionally, they suggest that the software is applicable across various projects for calculating Earned Value Analysis.

Conclusion –

The review of different research papers that using Microsoft project (MSP) and Primavera, can be sensibly for proper management. Planning & Scheduling helps in future risks and give an overview of upcoming situation and also helps to avoid it. By using the softwares we get to know the required duration and cost of individual work. The software provides Work Breakdown Structure (WBS) of individual activity. By use of software we can manage multiple sites/ Projects and also analyze the progress and avoid over allocation of resources. MSP gives good Controlling and Clear Schedule to a project. The project deals with scheduling using Microsoft project.

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