

Study of Efficient Real Estate Project by Using CPM and PERT Technique

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Abstract - Critical Path Method (CPM) is a methodology for planning, executing and managing projects. Present thesis research is oriented and focuses to analyze construction project management technique and methodology for under construction buildings taken as a live practical case for research as a problem location. The research is identified to show offers and effect of CPM technique to improve project performance and help decision for manager for improvement in existing method of construction and its planning. It is required to plan and design CPM, In thesis research work I work on Green city ext. Situated at the Prime Location of Bawadiya Kalan, A project with ample amount of natural source of light, cross ventilation of Air flow, Best In class Aesthetic planning & designing of the orientation of the building, having spacious sizes of the rooms in the flat thus it is truly a benchmarked covered residential campus.

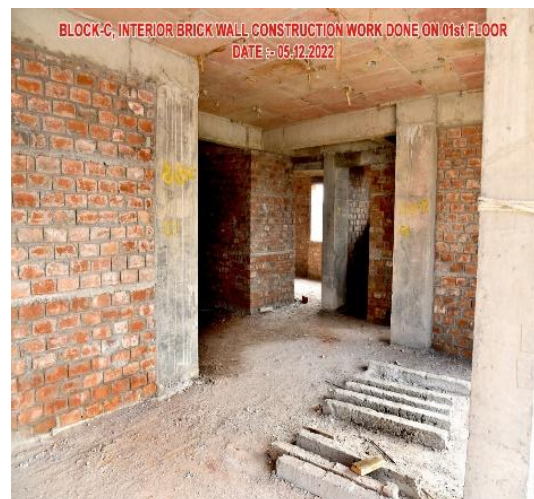
Keywords: CPM, Technological, service, Project management, construction, Planning.

I. INTRODUCTION

Project management is a broad term in construction field which relates to the use of schedules such as Bar Gantt charts to plan and accordingly report the progress of the project. Planning means a timely based planning of actions of various activities and resources to achieve specified objectives. It is also the process of developing any project development. The plan outlines about how a project needs to be directed to achieve the desired goals. It also specifies about predetermined and committed future plans of action, based on the discussions and decisions made on the current knowledge and estimation about the future trends. Planning, in its broader perspective, involves advance thinking as to what is to be done, what are the activities, how it is to be done, when it is to be done, where it is to be done what is needed to do it, who is to do it and how to ensure that it is done; all of this is channelized to generate and evaluate options for evolving an action plan aimed at achieving the specified goals.

Why should I choose Green City Extension?

Green city ext. Situated at the Prime Location of Bawadiya Kalan, A project with ample amount of natural source of light, cross ventilation of Air flow, Best In class Aesthetic planning & designing of the orientation of the building, having spacious sizes of the rooms in the flat thus it is truly a benchmarked covered residential campus.



II. LITERATURE SURVEY

Pinto (2016) explains that these two approaches, despite having the same goal - to create a sequential logic for activities, connect them, determine the total project duration, critical path, and slack activities, have both individual

advantages and disadvantages. He explains AON networks as much easier to understand and read due to fact that their structure is simplified since the activity is located only in the node. However, when it comes to more complex projects, understanding this network is much more difficult because of the large number of arrows and node connections.

III. OBJECTIVE

The objectives of this study are:

- To identify construction sequence for a township project.
- To work out the practical durations required to carry out the activities.
- To identify scheduling technique used by the organization developing plan and scheduling.

IV. CONCLUSION

This technique is therefore most suited to projects like research and development, investigation, design etc. Also, PERT because of the large number of calculations involved is essentially a computer-based system.

CPM technique is used in construction projects based on the knowledge and experience of the past projects for predicting accurately the time required for various activities during the execution of the project. Time required for each activity is known and defined for the project.

Operational research techniques are needed to manage the projects circles by optimizing the project duration so as to minimize the total project time and cost. The Project evaluation and review technique and the Critical path method are techniques used to plan the scheduling and optimal staffing of individual activities and control projects to completion within a given time. Large-scale project management necessitates managing several activities across the organization, and these tools are used to aid the step-by-step activities in a priority relationship, in order to minimize the total cost of the project by managing time and project efficiency. CPM is driven through network activities, optimizing the duration of the project, ensuring cost minimization and time of projects. Thus, they are useful tools for managing complex, small and medium-sized projects. Taking into consideration a project that has uncertain activities or an estimated start and end date for each specific activity, PERT provides management with a clear definition of time and cost, an operational network that relates all activities to a time dimension, resource requirements and a method for showing critical and non-critical activities. These tools (PERT and CPM) are now found to be useful in construction, transportation, education, and telecommunications projects. It is, however, important to note that traditional means of project

management or the use of the Gant chart limit the success of project management.

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