

# PLANNING AND SCHEDULING TECHNIQUE IN PROJECT MANAGEMENT: A STUDY ON CRITICAL PATH METHOD (CPM) TO IMPROVE PROJECT COMPLETION TIME

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## ABSTRACT

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Project delay is the worldwide common phenomena in construction industry. Therefore, it is particularly important that project planning and scheduling need to be implemented carefully and satisfactory with the purpose of completing the project successfully within the required timeframe. CPM has been proven to be the most useful technique for planning and scheduling the construction project. There are basically 3 studies have been carried to indicate the usage of CPM by Engineering News Record's (ENR) Top 400 Contractor. Based on the latest studies by Kelleher in 2004, the percentages of ENR Top 400 Contractor using CPM has grown up to 98% compared to the survey took place in 1990 and 1974, which is at 93% and 90% respectively. (Kelleher, 2004) Based on the research, the percentage of CPM usage has been increasing in the past few years. The ascending percentage does not occur without reason. The ordinary usage for CPM is for scheduling purpose, however, the areas of CPM application has been expanding over the years. This study show particular concern to determine the effectiveness of Critical Path Method (CPM) in scheduling a construction project. The study is focuses on the contractor's perception on CPM usage and to indicate the benefits of CPM applications that encountered by them. Based on the results, most of the respondents who implemented CPM agreed that this method beneficial their construction project. Although respondents did experience some problems during the application of CPM, it does not affect them from keep utilizing it.