

Nattawut Phisutsinthop 2009: Performance Evaluation System for Construction Projects. Master of Engineering (Civil Engineering), Major Field: Civil Engineering, Department of Civil Engineering. Thesis Advisor: Assistant Professor Suneerat Kusalasai, Ph.D. 98 pages.

Construction delay is a problem that usually occurs in most mega projects because these projects have complicate process and relatively long duration. Factors affecting project duration and cost include fluctuation in the price of construction materials, shortage of resources, and other unexpected changes. Therefore, it is essential that project managers must evaluate the performance of construction projects in a timely basis.

Project evaluation systems currently used contain some limitations. For example, they all assume that each activity has a uniform production rate over its duration, and cannot have any breaks and disruption. In addition, the current system cannot identify causes of project variances.

The objective of this research is to develop a better program for evaluating the performance of construction projects. This program can evaluate overall project's performance where a user can specify the percentage of work quantity in each period. Also the program can estimate schedule and cost variances of each activity as well as a whole project according to their causes of deviations as follows; variance due to differences in actual start, variance due to changes in work quantity, variance due to differences in production rates, and variance due to changes in production cost per unit.

Student's signature

Thesis Advisor's signature

____ / ____ / ____