

APPLYING EARNED VALUE TECHNIQUE TO KOREAN CONSTRUCTION INDUSTRY

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ABSTRACT

Earned Value is a concept of project control technique which provides a quantitative measure of schedule and cost information and evaluates work progress in order to identify potential delay and overruns. In Korea, there has been not used this concept, however, the Korean Government legislated that EV should be used in those construction projects that would be over 40 billion dollars in 2000. The concept of EV is based on the integration between WBS used in schedule and CBS used in cost. However, the construction projects are controlled by cost breakdown in Korea, EV can hardly be applied. This paper mainly describes that the integration model of the cost information that is related to cost breakdown and schedule information is suitable for Korea. And the proposed model is developed to EV system. It is proven by comparing actual budget and simulated budget based on schedule through case study.

KEYWORDS

Earned Value, Schedule Control, Cost Control, Integrated Model, Cost Breakdown

1. INTRODUCTION

Korea Construction Industry, which is occupying about 10% against GDP, made dramatic changes in local economic lot with construction boom in the Middle East in the past 1970s – 1980s, and contributed to the current establishment of Korea finances. However, since 1990s and 2000s, the construction hasn't caught up with other industries rapid growth because of manpower-oriented industrial structure. With a view to solving this matter, CIC was introduced to Construction Industry in the early 1990s along with CM, but didn't achieve its effectiveness because of friction against current system. In addition, the construction information system completed already has operated independently and hasn't displayed its advantages in the integrated control, which makes the information impossible to process and reuse. Accordingly, the construction information system which is only for Korea Construction Industry and makes it possible to control all factors in various department in integration needs to be developed.

The most important elements in construction work are construction cost, schedule, and quality, and these three elements are to be controlled in integration because they are connected with each other, not separated individually.