

## Flexibility Cost and Its Application for Construction Projects

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**Abstract :** Flexibility is becoming a more widely accepted aspect of project management. Although contingency theory in project management states that the unknowns are controllable, complexity theory believes that the best way to handle the unknowns would be to have a flexible approach rather than rigidity. Designing a flexible system is a method of managing uncertainty. The present research work aims to evaluate flexibility in the initial design phase of projects taking examples of construction projects. Flexibility in the initial design phase is modeled in order to know the advantage in future. The comparison between the extra cost of flexibility in the initial design phase and the discount that can be achieved in future due to this premium will help the developers in making strategic decisions. This research uses a methodology for valuing flexibility by developing a mathematical formula for predicting future saving of cost. Two case studies were considered in this research to validate the mathematical formula. This research explains three case studies of an educational institution 28 years old for explaining the concept and giving benefits of flexible design for modification/renovation work of building.

**Keywords :** flexibility, future saving, flexibility cost, construction projects

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