

An Appraisal Study on Cost Overrun in Construction Projects

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ABSTRACT

This review study focuses on variety of cost overrun encountered in small scale and large scale construction projects .

Investigations on causes of cost overrun are identified through various survey and the study clarifies the material-related factors, price fluctuations, owners, contractors consultants responsibilities. Recommendation of possible remedial cost control measures are analysed and mitigations of cost overrun effects are discussed.

1. INTRODUCTION

The prime goal of the construction industry is to complete the projects within the estimated cost and time as they are the governing factors to the success of a project .It is mandatory to optimise these two factors efficiently with proper managing tools and techniques for successful accomplishment of project.

Delay and cost overrun are common in construction projects. Mismanagement of costs leads to expenditure of amount of money over the original budget. Cost management through the project life cycle is the key to success but it uncommon to see a project being finished within the estimated cost as well as time .This paper is limited to the study of cost overrun and its remedial measures.

2. DEFINITION OF THE PROBLEM

Cost is an essential component in the construction industry. Cost overrun is also known as cost increase or budget overrun involving unexpected costs incurred in excess of budgeted amounts due to an underestimation of actual cost during the budgeting. Construction industry being dynamic in nature ,constantly faces uncertainties which causes cost overrun.

CRITICAL SUCCESS FACTORS: Determine the success of the achievement of the project objectives like budgeting, quality, and schedule.

Cost overrun does not exceeding 10% of the initial budget indicates good performance of the project .

Cost overrun exceeding 10% of the initial budget indicates the poor performance of the project.

3. FACTORS WHICH CAUSES COST OVERRUN

The cost overrun originates from many causes such as

- Unavailability of materials
- Excessive statements (or) amendments of design and drawings.

- Poor coordination among participants
- Ineffective monitoring and feedback
- Lack of project leadership skills.

Based on the survey there are 4 categories the parameters which causes cost overrun are classified

COST ESTIMATING FACTORS

- Cost of labour
- Cost of machinery
- Transportation cost
- Wrong estimation methods
- Cost of insurance
- Fluctuations of prices of materials
- Bureaucracy in tendering methods
- Long period between design and time of tendering

FACTORS RELATED TO CONSTRUCTION ITEMS

- Fraudulent practises and kickbacks
- Contract management
- Additional work
- Frequent changes in design
- Lack of adequate manpower

FACTORS RELATED TO PROJECT PARTICIPANTS

- Disputes on sites
- Lack of coordination between parties
- Poor financial control on sites
- Poor planning

ENVIRONMENTAL FACTORS

- Level of competitors
- Manipulation of suppliers
- Absence of construction cost data
- Economic instability
- Effects of weather
- Government policies
- Monopoly of suppliers

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- Inadequate production of rare materials

4. COST OVERRUN ANALYSIS

- ▶ The analysis of the Ministry of Statistics and Programme Implementation shows that cost overrun in projects even with respect to the original approved cost have come down from 62% in March, 1991 to 12% in March, 2008 and increased to 21% in September 2010. This has resulted into indirect savings of more than 2,50,000 crore over a period of 10 years. This has been possible due to the dedicated effort of the infrastructure and Project Monitoring Division of MOSPI and Other Ministries. The increasing trend of cost overruns in the recent years is mainly due to the impact of high increase in the cost of bulk materials such as cement and steel in 2006-07 and recent recession.

5. REMEDIAL MEASURES

LABOUR COST OVERRUN:

- Asking experienced colleagues for advice on your estimates
- sharing the estimated time or labour costs for each phase or deliverable (WBS) with a seller of the project before work begins Empower team leads or team to ensure responsibility or ownership of their deliverable by tracking, monitoring and being aware of cost savings on using or acquiring resources

MATERIAL COST OVERRUN:

- Try and order ahead for delivery by suppliers. This will ensure that your product or service will be in stock. Discourage pickup of material by your personnel. It bleeds profit and uses up labor hours.
- By allotting some time on a regular basis cross check supplier prices. Choose some frequently ordered materials and get prices to see where you should be buying from

6. OTHER SOLUTIONS

- Estimate should be based on actual site data /drawings
- Scope of work should be well defined & finalized in consultation with user Agencies
- 3.Presumptions should be minimized
- 4.Realistic time frame to be kept
- 5.Proper Market Survey for estimates
- 6.Proprietary / Imported items should be minimized.
- 7.Timely action for statutory clearances

7. MITIGATIONS OF COST OVERRUN

- Project should be carried out within the stipulated time
- During execution the changes in drawings and design should be avoided as much as possible
- The project should have skilled professionals involved in it
- The project should be reviewed or monitored regularly both technically and physically ; if any difference found then it has to be settled then and there.
- Building material should be available then and there
- No delay should be caused due to material unavailability
- For every week a material intend should be placed and monitored by project manager.

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