

A STUDY ON COST AND TIME OVERRUNS IN CONSTRUCTION PROJECTS

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ABSTRACT

The construction industry is a significant contributor to economic development, yet it frequently encounters challenges that lead to delays and cost overruns. The successful execution of a construction project largely depends on managing these two aspects effectively. This study investigates cost and time overruns through a structured questionnaire survey distributed to project engineers, contractors, site engineers, and clients. A total of 42 questions were included in the survey to determine the occurrence and impact of key factors. Statistical analysis was performed to identify the most critical causes of delays and financial overruns. The findings reveal that various factors contribute to these issues, with consensus observed among industry professionals. This research aims to highlight the primary causes of time and cost overruns and provide practical solutions to mitigate these challenges.

Keywords: Cost over runs, Time overruns, Causes, Effects, Remedies.

1. INTRODUCTION

Delays and cost overruns are prevalent in construction projects globally. In India, these issues occur in both simple and complex projects, leading to increased costs and extended timelines. A delay is defined as an extension beyond the scheduled project completion date, resulting in financial implications and inefficiencies. Various construction activities, such as site

preparation, foundation work, and superstructure completion, are sequentially aligned, but disruptions in these activities can contribute to project setbacks.

Several challenges, including land acquisition issues, material cost fluctuations, labor shortages, and improper planning, further exacerbate the problem. The government and private sector must collaborate to address these concerns by implementing effective project management strategies. Infrastructure development is crucial for economic growth, and timely project completion plays a pivotal role in achieving this objective. This study evaluates key factors influencing cost and time overruns in ongoing projects, utilizing survey data analyzed through statistical software.

2. LITERATURE REVIEW

Multiple studies have examined cost and time overruns in construction. Researchers such as Morris and Hough (1987) and Ganuza (2007) attribute cost overruns to technical constraints and estimation inaccuracies. Other studies highlight land acquisition delays, environmental clearances, and contractual disputes as primary contributors. Poor site management,

unforeseen conditions, and inefficient supervision have also been cited as causes of project delays. Effective planning, disciplined project management, and proper estimation techniques are essential to mitigating these issues.

3. METHODOLOGY

This study employs a quantitative research approach, collecting data through structured surveys distributed to key stakeholders, including clients, contractors, and engineers. A total of 42 questionnaires were distributed, yielding a response rate of 56%. The gathered data was analyzed using statistical tools to rank the critical causes of time and cost overruns. The results were validated through discussions with industry professionals.

4. RESULTS AND DISCUSSION

The analysis identified six major factors contributing to cost and time overruns:

1. Inaccurate cost estimation
2. Poor site management
3. Ineffective planning and scheduling
4. Substandard construction methods
5. Delays in subcontractor work
6. Shortage of construction materials

To mitigate these issues, the following recommendations are proposed:

- Contractors should enhance financial planning and site management practices.

- Clients must allocate realistic project timelines and ensure timely payments.
- Consultants should minimize design errors and maintain effective communication.
- Government policies should support stable pricing and workforce development in the construction sector.

5. CONCLUSION

The construction sector plays a crucial role in economic development but frequently faces cost and time overruns. This study identifies critical factors contributing to these challenges and suggests remedial measures to enhance efficiency. Proper planning, resource allocation, and communication between stakeholders can significantly improve project outcomes. Addressing these concerns will lead to more sustainable and economically viable construction projects.

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