

Time and Cost Overrun for Developers Project

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Abstract— Real Estate Industry is one of the important industries at Global level and national level. It provides a huge employment to people and plays very significant role in country economy. Delays are one of the most common problems in the construction industry. Time and Cost overruns are delays in project execution. Project overruns is a serious economic problem in the developing countries where the project implementation takes place in the face of many uncertainties. It wastes away our scarce financial resources, delays the development process and also makes construction costlier. With increasing globalization and technology driven economic growth all over the world, a scientific and systematic approach to project management becomes imperative to ensure the project objectives are attained within the time, capital and other resources. It is very common observation that in spite of the resources available, Indian construction industry is unable to optimize them in order to have control over the time and cost of the construction projects. The reasons for the poor time and cost management in Real Estate Developers' Projects are the lack of knowledge regarding the technology.

Key words: Real Estate Developers, Time and Cost Overrun

I. INTRODUCTION

In India construction industry, time overruns and cost overruns of the projects are main problem and it leads to slow destruction of financial outlays and delays in the country's real estate sector development and also makes construction costlier.

Construction projects involve crores of rupees and individual human skills. It becomes very important to complete a project in a budgeted cost and fixed budgeted time. But in most cases this doesn't happen.

There are so many factors governing a project and it requires very high degree of professionalism and friendly socio-economic conditions to complete a project as per planned targets.

Incidentally, the conditions are not so good in our country and professionalism is in its infant stage. No wonder, our projects are invariably delayed. Time & cost over runs are very common and so they are the wastage of financial resources, human resources and their time which are invaluable.

70% of projects across the globe are either over budget or behind the schedule.

52% of all the projects finish at 189% of their initial budget and some, after huge investments of time and money, and still they are simply never complete.

II. NEED OF STUDY

Time and cost overruns in implementation of projects have attracted considerable attention in recent years. All attempts are being made to improve the project implementation in

various ways including improving managerial efficiency. This is the story of almost every project in the country. Right from planning to commission of a project, it takes ages to get over. The reasons behind the delays are many. Delays in completion of work, over spending and quality defects are common problems besetting the project delivery process in the construction industry. Time is the essence of a construction contract.

Implementing construction projects on time, with quality and within the budget, is very important to make the development pace of country faster.

Time and cost overruns are a result of delays in project execution. Some of the reasons advanced for these delays and subsequent overruns in time are

- Weather,
- Shortage in labour and material supply,
- Subcontractors,
- Changes occur after contract execution has been commenced,
- Poor site management,
- Government policies,
- Approval procedures, recession, truckers strike etc.

III. OBJECTIVES

According to present scenario of Real Estate Industry and need for study, the study has been dealt with to meet the following objectives:

- To identify and analysis reasons, factors for time and cost overruns.
- To develop relationship between time and cost optimization.

IV. RESEARCH METHODOLOGY

Data Analysis on the basis of observation, questionnaire responses, self-studying and own judgment base.

- Expert Opinion Survey Data analysis, by interview
- Developers' Opinion Survey Data Analysis = 44
- Case Study Data Analysis. =3 (The First, Silver Cassa, Auram Heights)
- Government authority opinion. =3

V. DATA COLLECTION

- Factors to Avoid Time Overrun
- Factors to Avoid Cost Overrun
- Variables Causing Time and Cost Overrun on their Basis of their Frequency of Occurrence
- Variables Causing Time and Cost Overrun on their Basis of their Frequency of Occurrence
- Variables Causing Time and Cost Overrun on their Basis of their Frequency of Occurrence
- Techniques used for the control of time and cost

- Government Authorities' views on Real Estate Developers
- Tools and Techniques are used by developers for Time and cost control at project site.
- Use Of Project Management Software In Their Projects
- Implementation of Time – Cost optimization model in project.
- Reason of delay by contractor.
- Reasons of delay by consultants.
- Reasons of delay by to others.

A. Relative Importance Index Technique

It is used to determine the relative importance of the various causes and effects of delays. The same method is going to be adopted in this study within various groups (i.e. contractors, project engineers, owner and site supervisor). The respondents were asked to rate each variable on a five-point Likert rating scale: 1= not important, 2= little importance, 3= moderately important, 4= important, and 5= very important is adopted and transformed to relative importance indices (RII) for each factor.

$$RII = \frac{\sum W}{A * N}$$

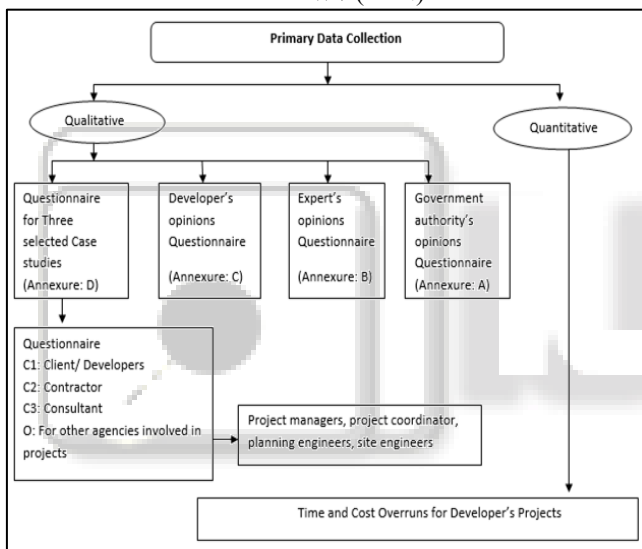


Fig. 1: Relative Importance Index Technique

VI. CONCLUSION

Most of the respondent developers reported that they are using their conventional methods for workout time and cost overruns. They are handling the projects with reference to their experience, experience of developers, their logical judgment and new trends in the real estate market. Working pattern at site is not according to the construction schedules on scientific basis. All most the traditional working system are followed.

Most of the developers have reported that they are not using the modern project management tools and techniques. Some developers have reported that they are aware of the Microsoft project software of the project management but they are not using the same as they are not implementing software in proper way. They have also not have the technical personnel to use/implement this software in their project works.

Conclusions derived from the analysis of data collected and literature study.

A. Ranking Developers Project Time overruns factors are listed below

- 1) Improper planning process.
- 2) Lack of clarity in project formulation/ goals.
- 3) Frequent design changes.
- 4) Change in scope of work.
- 5) Lack of fund/ irregular flow of fund.

B. Ranking, Developers Projects Cost overruns factors are listed below

- Price fluctuation.
- Change in scope of work.
- Delay in decision making.
- Inaccuracies in estimate.
- Lack of experience

C. Ranking, Factors Causing Time and Cost Overruns at Pre-Construction Phase

- Delay in decisions/approval by higher authorities.
- Slow mobilization of resources.
- Improper planning and scheduling.
- Lack of funds/ Irregular flow of funds.
- Delay in land acquisition, Obtaining N.O.C. from Govt. And Local authorities, improper preliminary investigations.

D. Ranking, Factors Causing Time and Cost Overruns at During-Construction Phase

- Price fluctuation, Irregular flow of finance (Developer Client/Contractor).
- Under estimation of original completion time.
- Delay in issue of drawings, Delay in approval of designs and drawings.
- Lack of coordination between different agencies.
- Delays in payments for work done. Labour shortage due to festivals.

E. Ranking, Factors Causing Time and Cost Overruns at Post-Construction Phase

- Delay in making final payment.
- Delay in taking over of site.
- Slow demobilization.
- Changes made after completion.

F. Ranking, Tools and Techniques are used by developers for Time and Cost Control at project site

- Work Breakdown Structure (W.B.S.).
- Cost Breakdown Structure (C.B.S.).
- Area Breakdown Structure (A.B.S.).
- Activity Breakdown Structure (A.B.S.).
- Daily Work Progress report.
- Weekly work progress report.
- Resource reports: Manpower, Materials, Equipments.

REFERENCES

- [1] Adeli, Hojjat (1997), "Scheduling/ Cost Optimization and Neutral Dynamics Model Of Construction" Journal of Construction Engineer Management, Vol 123, No4, Pp450-458.
- [2] Agarwal N.P. And Mishra B.K., Project Planning and Control, Indus Valley Publication, New Delhi.

- [3] Bhatt, Pratik (2007). Thesis, Time Controlling For Developers Project, S.B.S.T., CEPT University.
- [4] Bhatt, Vatsal (1997). Thesis, Time Saving In Construction of Multi-Story Building, S.B.S.T., CEPT University.
- [5] Bubshait A and Cunningham m. (1998).”Comparison of Delay Analysis Methodologies “Journal of construction Engineering and management, vol 18, no1-3, pp.315-322.

