



MANAGEMENT ERRORS IN CONSTRUCTION PROJECT

¹Mr.S.Sakthivel, ²C.Bhuvaneshwaran, ²M.Dinesh, ²N.Gokul, ²B.Rajesh

¹Assistant Professor, Department of Civil Engineering, K.S.Rangasamy College of Technology

²UG Student, Department of Civil Engineering, K.S.Rangasamy College of Technology

ABSTRACT

In India the construction Industry is the second largest industry in the country. The Construction Industry comprise thousands of Construction Company across the country working in Commercial, Industrial, and Residential projects. Each construction company has its own management system to run the project. In this study, the error made during the project by the construction company or construction management in India is analysed. To identify the management errors in construction an exploratory research is employed. Both secondary and primary data was collected using mixed research methodology. Information such as challenges faced by Construction Company in India and mainly focusing on Errors that construction company do during the project. Also, the research focused on the effects on project due to management error. The survey questions was prepared and distributed to different construction companies across India and two project manager of different size firm was interviewed. Through investigation several information regarding the management error was portrayed. Both primary and secondary data was combined and analysed to find the common and repeated errors. Based on the data analysis and feedback from professionals some solutions was provided to avoid the errors. Though the error can't be avoided, but its effects on project can be minimised to tolerable extent.

Keywords: Individual error, Management error, qualitative survey, quantitative survey, mixed survey.

INTRODUCTION

Area of Research

The Management plays an important role in successful completion of Construction project. In India, Errors in construction project has become uncontrollable. Management of Construction Company in India are not systematic and commits various errors during the project. From the past, Number of construction industry have increased a lot due to increase in projects. From the history of construction projects in India, there is no evidence for a project completed without errors. Management flaw are most common errors throughout the country in construction Project. The Current Research attempts to gather common management errors and its effects on the project. The Research also tries delivering some remedies to repudiate flaws by the management in Construction Industry.

Previous Study

[1].Santhosh (2017) states that the Indian construction industry faces more challenges admits serious performance shortfall. Every management commits various errors in delivering the projects. These errors was divided based on

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action or violation (Peter E.D. Love)[2] basically, the error is described as deviation from goals, rules and standards (Reason, 1999). According to Peter (2016), the errors can affect Reputation of organisation, profitability in construction project and construction firm competitiveness. Also, makes note that in project stage it can lead to accident and rework which direct impact on the Productivity and Performance. On the other hand, Love et alsaid that negative result of mistake uncovered in Construction contributed positive results like learning and advancement. In the year of 1980s, the Building Research Foundation made different endeavours in analysing the reason for the flaws in construction. For Instance, 27 building was seen by Bentley (1981) and recognized the flaws into 13 classes as "Quality related occasions". The above categorisation was mix of error and inefficiency identified with Construction management. On most recent [3] Hon (2014) directed a critical research in development concentrating on human errors in Construction project. This drove numerous Construction firm to help Zero vision (i.e. deformities and damage). It was asserted that more exertion is required as "Zero" isn't accomplished.

Significance of Study

The construction industry is the second largest industry of the country after agriculture. It makes a significant contribution to the national economy and provides employment to large number of people. The use of various new technologies and deployment of project management strategies has made it possible to undertake projects of mega scale. The Indian government has concentrated on developing infrastructure for the most part on commercial structures. In the present situation, an investment of 1 trillion USD is anticipated in the infrastructure segment in 2014– 2020 (Make in India, 2014). This development of India's immense infrastructure presents huge openings, alongside challenges. India's populace has crossed 1.2 billion, and keeps on developing (Agarwal, 2013). About 590 million individuals will live in Indian urban areas by 2030. This will quicken development in residential, business, modern, and infrastructure areas (Make in India, 2014). Many construction companies in India has poor management system in running the construction project which leads to dropping of projects before the completion. There is no record in the Indian construction history for a project completed on time and without any flaws. Many Researches have been done on delay of projects, Quality Control of the Projects and Cost overrun of Projects. The Research on management Errors in construction Industry is very few. The Management Errors accounts for 70% failure of construction project in the industry.

Objectives

1. To identify the Construction Management flaws in the project.
2. To determine the Cause for the Management flaws.
3. To analyse the effects of Management errors on the Project.

Research Method

To identify the Management errors in construction project in India certain methodology has to be adopted in the research. The methodology guides in creating structure of the research and gathering information. The existence of methodology such as qualitative, quantitative and both mixed research being deployed in data collection.

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Exploratory design incorporates with the current Research, in which the data can be collected from the previous research. Mixed method is employed for this research, where both qualitative and quantitative method is used for collecting vast data from different aspects.

Quantitative technique recognizes the issues by numerical value. The strategy includes the utilization of computational, measurable, and numerical tools to infer results. It is utilized to evaluate behaviour, suppositions, practices, and other characterized factors and sum up results from a bigger example populace. It utilizes quantifiable information to produce certainties and revealed designs. The technique incorporates interview, survey through online and papers.

Qualitative technique concentrates around the convictions, interpretation and elucidations of members, tending to psychosocial questions. The structures for qualitative research questions aim for translating, understanding and clarifying a more extensive phenomenon.

In current research, mixed method is used for collection of information by using quantitative and qualitative method. The methodology involves interviewing the experts through questionnaire and survey questions. The experts from design field, architect and contractor will be interviewed, where opinion from different person in different field will provide more information for research.

In this chapter, the researcher reviews the points of other researcher and various observation on same topic. The literature review helps in generating new ideas and guidance from previous study for the current research. From the guidance of previous study and observation, an explicit study for the current research is done by researcher. In current section the researcher conducted a vast study in previous research paper on management errors in construction. The current section deals with errors done by construction organization during the project in India. An in-depth study has to be taken for this research since the errors by management vary on the nature of the project. A strong background for the current research topic can be developed on developing literature review.

The Management System in Construction Industry

There are more than hundreds of thousands of constructions companies in India employed in construction activities. The management system in each construction companies varies according to the size and nature of work they involved in construction filed. Management system is defined as an arrangement of interconnected and reliant parts shaping the coordinated entirety (Koutsogiannis 2017). In an expansive sense it incorporates approaches, methodology, rehearses, and forms, procedures, objectives, goals, measurements, and so on. It is the means by which things are done in that firm or at that worksite. It impacts how individuals communicate, how they approach doing their occupations, what they believe is essential or expected of them. This might be the consequence of subsystems not being completely coordinated, objectives crooked with capacities or assets, the innovation and infrastructure may make execution barriers, and so on. The rundown continues endlessly.

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Management Errors in Construction Project

The Management error in Construction Project are due to the flaws by the employee, Manager of the project or System of Management in the firm. In other words, the Management Errors can be defined as human errors such as errors through individual and team errors. Considering the history of Indian Construction project, it is found that none of the Construction firm has not completed a project without any errors. There are two types of errors one is the Individual errors, and another is management errors.

Individual Errors

A thought of the reasons for human Flaws ought to initiate at the level of the individual, all errors having as their premise an individual coming up short. This summons the Psychology of mistake, and current reasoning in this zone is outlined by Reason (1990). Reason draws on Rasmussen (1983) in partitioning human errors into three types: skill-based slips and passes, control-based flaws and information-based flaws. Ability based slips and passes originate from the instrument of the mind for managing routine processes and include such mistakes as overlooking goals (maybe claiming a postponement has interceded between the purpose and the execution of an activity).

Errors through Management

There are several errors where the management commits during the project. These errors are done by Management and not individually.

1. Employing a Project Manager
2. Poor Resource Matching
3. Poor Project Initiation
4. Assuming All Closeout Documents Are the Same
5. Underestimating Time and Budget Needed:
6. Poor Communication with Stakeholders and Project Team
7. A Flawed ordering processes
8. Failure to Manage Change Orders
9. Not Staying Current on Subcontractor Payment
10. Ignoring the Input of Your Team)
11. Micromanaging the Project Team
12. Adoption of New Technology
13. Improper Safety Training

METHODOLOGY

In this Chapter, the methodology adopted for current research by researcher is explained completely. AdiBhat (2017) describes research as examination or investigation aimed in finding new facts, revising of approved laws or theories. Silverman (2016) on other hand states research methodology as scientific method of collecting information for solving the research issue. In the upcoming sections the method used by researcher in the current are illustrated such as the method type, sample size, data collection and limitations.

Method of Research

Qualitative research is described by little example sizes. Over the span of qualitative research, serious observing and meeting of few individuals is conceived to get a definite full image of their states of mind, sentiments, inspiration and lifestyle [4] (Creswell 2017, pp. 41-89). This sort of research is most appropriate when it is important to gather

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data that would encourage the definition of the issue or the advancement of aResearch speculation (Driscoll 2011, pp.153-174).

Sample Size

Sample size in research is defined as number of participants in survey or interview (Bryman 2015, pp. 10-30). In this research 3 members is selected with experience above 5 years in the field. The participants for the research have knowledge in project management in construction field. The participants are selected on different levels such as project manager of top most leading companies in India, Project manager from company that are not too high and too low in position and a highly experienced design engineer. The survey Question was distributed to more than 30 construction companies across India, where 40 responses were received. The survey report will be used to analyse the data.

Data Collection

It is a method of collecting and determining information connected to the research topic. Orkin 2014 says there are two methods in data collection called primary data collection and secondary data collection. In primary data collection through survey questions and interviews the information's are directly obtained from direct or original source. In secondary data the information is obtained from indirect source such as through referring previous research paper, journals etc. The mixed method of research is used for data collection where both quantitative and qualitative method is used.

Ethical Consideration

In this research the researcher ought to take after all the ethical and confidentiality thought angles amid the researching information or take the survey. It has been guaranteed to all respondents in the start of the overview that their own data does not share to anybody and furthermore specified in the research too (Creswell 2017, pp. 41-89). It is additionally guaranteed by the researcher that the questions do exclude any research that does not identify with the research subject of this current research

Questionnaire

The Interviews (individual interview, eye to eye interviews) are free, however organized discussion between the questioner and one respondent. In Interview, the questioner looks to get however much data as could reasonably be expected about every respondent in the research, which is more than five individuals. The Interview may last for about more than 20 minutes. The cost of such meetings is normally negligible. The Interviews are most appropriate for broad, detailed investigation, conduct, intention and needs, and while discussing that are private to participant (which requires some time and builds up secret contact).

Limitation

The Research has certain limitation such as interview isn't coordinated, open, not institutionalized or unstructured. These are utilized as a part of exploratory phases of the examination, either to recognize the most pertinent measurements, to decide the eccentricities of a circumstance and to create introductory hypotheses. For no situation

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are the reaction choices settled ahead of time (Creswell 2017, pp. 41-89). This sort of interview leaves for all intents and purposes the aggregate activity to the interviewee, enabling him to portray his experience, his perspectives, and so on. Be that as it may, at times the questioner may intercede, however with a view, unequivocally, to the respondent precipitously communicating their conclusions.

Conclusion

In this chapter method used for collecting data on Management errors in Construction in India is discussed in detail. To find the errors in Project management both primary and secondary data collection method was employed such as conducting interviews and referring previous study etc. The strategies followed for preparing questionnaire and limitation for current research has been stated.

RESULTS AND DISCUSSIONS

The current research was carried out to find the “Management errors in Construction project in India”. Using research techniques such as interviews and surveys implied that a construction company commits various mistakes during project. As construction industry is second largest industry in India, the number of projects has also been increased due to increase in population. To find the errors done by construction companies the research was carried with three objectives. The first was to identify errors in which the errors were discussed through literature review and some were identified through interviews and surveys. The second was the cause for the errors, in which it was found that the management commits errors in all projects which was uncontrollable. The third was the effects on the project due to management’s errors, it’s found that error by management significantly affects the project in case of quality and time.

Through current research it is found that the construction companies commit many errors during the project work. As management varies from one project to other, the construction companies tend to make errors in every project. The most common errors that Indian Construction Company makes is Improper planning, avoiding safety measures, implementing new technology and unskilled labours at work place. Based on the advice from the experts, some remedies such as for proper work planning an experienced project manager must take in charge of it. Most of the companies do not follow safety measures, to avoid these errors health and safety department from government must periodically check the construction sites and fine the contractors if the safety measures are not followed. Implementing new technology in construction project is another issue, where the contractors fear to invest huge amount on technology.

CONCLUSION

In this chapter an overview of topic “Management Errors in Construction Project in India” will be discussed. Followed by the research methodologies used for research such as qualitative and quantitative method will be reintroduced. Then, the objectives of the research will be discussed whether it is achieved or not. At the final stage, some recommendation for construction companies in India will be provided depending on the interview and survey.

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