



QUALITY CHALLENGES IN CONSTRUCTION SECTOR

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ABSTRACT:

Construction industry plays an important role in the development of any country. The development of construction industry depends on the quality of construction projects. Quality is one of the critical factors in the success of construction projects. Improvement in the quality of construction projects is linked with quality management in the project life cycle. Although quality management at every stage of project life cycle is important but the quality management at the execution (construction) stage contributes significantly on final quality outcome of construction projects. This study focuses on the challenges and factors that affect the quality in the execution (construction) phase. This study also includes visiting of some construction companies and sites in certain regions of India and conducted the questionnaire survey then analyze the difficulties (major issues, factors) due to quality defect in quality management and some proactive measures for the improvement of quality in the execution phase of construction projects are suggested.

INDEX TERMS- Quality, Customer Satisfaction, Continuous improvement, Co-ordination and control, questionnaire survey.

I. INTRODUCTION

The concept of quality management is to ensure efforts to achieve the required level of quality for the product which are well planned and organized. From the perspective of a construction company, quality management in construction projects should mean maintaining the quality of construction works at the required standard so as to obtain customer's satisfaction. Quality is nothing but satisfaction with the appearance, performance and reliability of the project for a given price range.

The critical success factors obtained are project manager's competence; top management's support; monitoring and feedback by project participants; interaction among project participants; and owner's competence. The factors that adversely affected the quality performances of projects are conflict among project participants; hostile socio-economic environment, harsh climatic condition, PM's ignorance & lack of knowledge, faulty project conceptualization, and aggressive competition during tendering.

II. SCOPE OF WORK:

1. Effectiveness and efficiency work is increased.
2. Increased comfort.
3. Increased security and protection for people, data and construction processes.
4. Lower operating expenses.

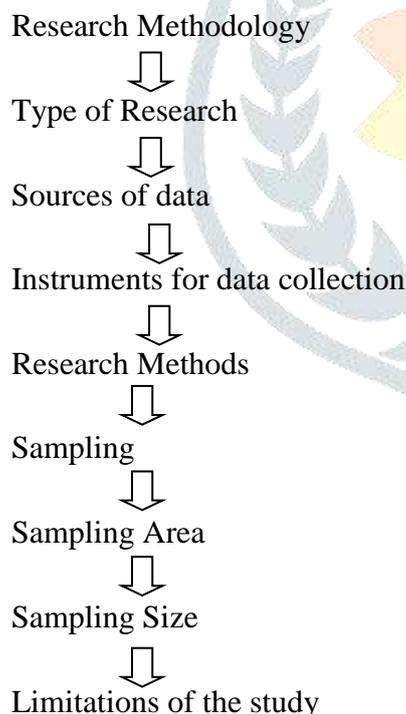
5. Increased reliability of technical infrastructure.
6. Increased life span construction
7. Increased protection of investment throughout the building's entire life span.

III. LITERATURE REVIEW:

The concept of quality management is to ensure efforts to achieve the required level of quality for the product which are well planned and organized. In order to address quality related issues, a number of studies have been conducted in different regions.

In the construction industry quality is the backbone of construction, to maintain the quality of work is a tough job. Implementation total quality is very important part of the construction industry. There is great potential for quality improvement in the construction industry by (Arditi and Gunaydin 1997). Quality is defined as 'fitness to purpose', i.e. in terms of construction it is providing a building which provides an appropriate quality for the purpose for which it is intended by (Anantha Subramaniam). The quality of construction projects, as well as project success, can be regarded as the fulfillment of expectations (i.e. the satisfaction of the project participants by (D.A.Kumar). Quality in its simplest form can be defined as "meeting the customer's expectations", or compliance with customer's specification by (K.N.Jha). Implementing TQM on construction sites will not succeed if the top or senior management commit and involve themselves in the TQM process with workers (Pheng and Teo). TQM is a way of planning, organizing and understanding each activity that depends on each individual at each level by (Malik).

IV. METHODOLOGY:



4.1 RESEARCH METHODOLOGY

Research Methodology process includes a number of activities to be performed. These are arranged in proper sequence of timing for conducting research. One activity after another is performed to complete the research work. Research Methodology includes the following steps:

4.2 TYPE OF RESEARCH

The nature of this study is theoretical and descriptive. The data is collected from different sites by using questionnaire.

4.3 SOURCES OF DATA

For the study purpose both primary and secondary data are used. Primary data collected from Engineer, J.E, AEE, Project Manager, Supervisor and other management staff. Secondary data collected from the study of literatures reviews. In this study secondary data provided the way to access the work for this study.

4.4 INSTRUMENTS FOR DATA COLLECTION

Design of Questionnaire:

Questionnaire is a set of questions which has been prepared to ask a number of questions and collected answers from different respondents like (Engineer, J.E, AEE, Project Manager, Supervisor and other management staff). A number of questions usually in printed form are to be answered by the individuals. Sets of such forms were distributed to groups and answers were collected relating to this study.

4.5 RESEARCH METHODS

For collection of primary data for this research work survey and observation methods have been used. Experimental method was not found suitable for this study because this study is theoretical and there was no need to have experiments.

4.6 SAMPLING

In this study various issues and problems are examined and investigated in quality during construction and find out the relevant information of solution. For this study the data is collected from respondents. It is not possible to collect data from each site but visited to 9 different sites and collected 45 responds.

V. LIMITATIONS OF THE STUDY:

In this study following limitations are faced:

1. Collection of data from different sites of the companies is difficult.
2. Engineer, Project Manager, Supervisor and other management staff are reluctant and hesitant to share data.
3. Management is not willing to share their views on the topic which become major difficulty in completion of this study.

VI. RESULTS AND DISCUSSION:

The responses and suggestions provided by the returns are studied and reviewed. This study indicates that there is 84.1% lack of knowledge and less management support in construction sites which badly affects the quality of construction. In addition, a large majority of respondents agreed that the construction industry lacks the management support such as project management can provide the structure needed and with the help of this structure the industry should be able to overcome the problems involved in increasing modernization and transparency and be better prepared for future challenges

VII. CONCLUSION:

This study creates the quality management awareness to all level construction companies especially small scale companies. From this study we get the major factors and issues which affects the construction quality and that create a chance for find out the remedial measure. This study is useful for minimize the lack of knowledge which will finally increase the customer satisfaction and company reputation. Construction Project Management is the overall planning, co-ordination, and control of a project from beginning to completion. CPM is aimed at meeting the client's requirements in order to produce a functionally and financially viable project. A construction Manager should have the ability to handle public safety, time management, cost management, quality management, decision making, working drawing, and human resources.

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