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REVIEW ON STUDY OF QUALITY PRACTICES IN CONSTRUCTION

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Abstract- *The twenty-first century can be termed as century of quality. Quality is a key driver to market share and quality will have to be integrated into all aspects of a successful organization. Quality is an ideal which changes with time. It is a perception; a moving target. Quality is an attribute a property. Attributes are ascribed by a subject whereas properties are possessed. Quality is a relative term and it is generally used with reference to the "end use of project". in other words, quality can also be defined as "Perfection, fast delivery of product, eliminating waste in product, consistency in performance and total customer service and satisfaction". This study is intended to provide clients, project managers, designers, and contractors with necessary information needed to better manage the quality of a construction projects by identifying the standards and quality practices in construction projects and to assign them by degree of importance.*

Key words: **Quality, Quality Practices, eliminating waste.**

1. INTRODUCTION

Quality is one of the critical factor for the success of construction projects. Quality of a construction projects, as well as project success, can be regarded as the fulfillment of expectations of the project participants. The construction industry of India has been struggling with quality issues for many years. A significant amount of budget is spent each year on infrastructure development projects. Since the quality outcomes of the projects are not according to required standards, faulty construction takes place. So consequently additional investments are required for removal of defects and maintenance work.

Quality management has increasingly been adopted by construction companies as an initiative to solve quality problems and to meet the needs of final customer, if ever an industry needed to take up the concept of QMS (Quality management system) in the construction industry. However, implementing QMS principles in construction industry is particularly difficult because of many parties involved.

The product in any industry should be manufactured to a required standard, one that provides customer satisfaction and value for money. The need for achieving quality of the finished product in the building construction is very important.

1.1 General

1) Quality Practices in Construction: Quality practices serves as passport to success by assisting the company to achieve high quality processes, procedures, systems, and people, with eventual high quality products and services and enhancement of the following:

a. Customer satisfaction,

b. Customer loyalty,

c. Eliminating waste,

d. Motivation of employees,

e. Training

f. Quality Manual

2) Scope of Project:

In a modern construction market, quality is a major construction organization. This project helps the future projects to reduce the construction defects, minimizing rework and enhancing safety. The maintenance of quality management creates a high-performance team atmosphere and a culture of continuous improvement, making it possible to work toward a zero rework environment.

3) To improve their products quality

4) To minimize the rework

5) Helps to meet the customer requirements

6) Helps to raise the company's image

1.2 Importance of quality management in Construction Industry

The importance of properly established and managed quality control and quality assurance systems and other quality documents for the achievement of company business objectives cannot be ignored. Identifying potential critical factors that affect the quality performance of small scale contractors before the commencement of projects will ensure client satisfaction at the completion of project. The aim of quality management is to do things at first time,

eliminating waste and rework. To achieve this, it is necessary focus on "processes". A process is a task or a series of tasks. A process might be the vibration of fresh concrete, the preparation of drawing, or the way in which the quality manager acts with a client and with other members of construction projects.

1.2 Discussion

This paper aims to present literature relevant to assessment of project quality-related factors with special reference to Construction projects. Major projects success has significant impact not only on the operation of the participants, but also it will affect the local community and the State as well. The positive or negative results of large infrastructure projects are shared by the entire society.

Therefore, the study of project quality-related factors in Major Construction projects is of crucial importance. During the construction phase the contractors must focus on factors such as design, technological requirements, project information, contract requirement, project duration and market requirement. Therefore, the project director, project manager need to be aware of project quality from the beginning of the project in order to develop. Appropriate strategies and assign competent team members to control the quality.

2. Factors Affecting Quality of Construction

There are many important factors which have impact quality of construction project. One needs to study all these factors and it is necessary to evaluate the impact of these factors. Some of factors are given as below:

Table 2.1: Factors Affecting Quality of project

Sr. No.	Factors
1	Material and Equipment
2	Communication
3	Construction Methodology
4	Finance
5	Labour and Wage
6	Limitation of Rules and Regulation
7	Time Limitation
8	Weather
9	Limitation of Building Plan and Construction Details
10	Interaction among Participants
11	Work Execution
12	On-Site Supervision

Communication:

Construction site sometimes located in rural areas or far away from the community. It may be a cause which affected transportation causing difficulty and delay, therefore it is a limitation that contractor has to consider.

Construction Methodology:

Construction works in some areas cannot be performed by regular method because there are buildings around construction site, so the contractor has to find new methods that are suitable to construct and sometimes use specialist engineer when some construction works are in step of construction.

Rule or Regulation:

This problem also greatly affects construction such as problem from traffic which has an effect on transportation, problem of labour hearing, Problem of building construction regulation, etc.

Time Limit:

Some construction works has to be completed within a time limit such as in cases of urgent works. They caned limitation of work planning and they also cause other management problems. Therefore contractor has to carefully consider this issue.

Whether:

Whether is one of the several important limitations because it sometimes cannot be prevented such as flooding, storm, etc.

Building Plan and Construction details:

Problems of building plan and construction details are found such as drawing not clear, drawing mistakes, so they also becomes big problems in construction work. So this has to deal with qualitatively. Accuracy should be there in the drawing to achieve quality

Equipment:

Some construction works may use special machines or equipment which contractor has to study carefully regarding performances, suitability for work and prepare enough equipment for each work.

Labour and Wage:

In many different local areas of construction project, the problem related to labour such as lack of skilled labour, complex work, not being able to find labour may be occur, which may be causes of work difficulty, delay and low quality.

Finance:

This is the main factor of construction and in every type of work where contractor has to plan for financial payment to eliminate the risk because it might affect the project.

3. Conclusion

There are various important factors which affect the quality and these are required to improve the quality of product, work, and service. They will raise the overall level of quality management. To know the impact of each factor, the study of these factors should be given due consideration for forecasting the performance level of a Major Construction project before it commences in order to gain desired quality levels and achieve project success.

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