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Case Study on Quality Management of Construction Material

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ABSTRACT: In this study 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 customers' satisfaction that would bring long term competitiveness and business survival for the companies. Quality management of material efficiently at the site. In India lack of knowledge of management . this reports helps give the knowledge of quality management. The study are to identify factors that contribute to the effectiveness of quality planning in construction project.

KEYWORDS:. Quality management, Material management

I. INTRODUCTION

A quality system is a framework for quality management. It embraces the organizational structure, procedure, and processes needed to implement quality management. The quality system should address everything in the organization related to quality of product, services, processes, and operations. The adequacy of the quality system and the quality of products, services, processes, operations, and customer satisfaction are judged by their compliance to specified/relevant standards. Standards have important economic and social repercussions. They are useful to industrial and business organizations of all types, to government and other regulatory bodies, to conformity assessment professionals, suppliers and customers of products and services in both the public and private sectors, and to people in general in their role as customers and users. Standards provide governments with a technical base for health, safety, and environmental legislation.

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 customers' satisfaction that would bring long term competitiveness and business survival for the companies . Quality management is critically required for a construction company to sustain in current construction market which is highly challenging and competitive. Quality management has to provide the environment within which related tools, techniques and procedures can be deployed effectively leading to operational success for a company. The role of quality management for a construction company is not an isolated activity, but intertwined with all the operational and managerial processes of the company.

II. HISTORY

Quality issues have been of great concern throughout the recorded history of humans. During the New Stone Age, several civilizations emerged, and some 4000–5000 years ago, considerable skills in construction were acquired. The pyramids in Egypt were built approximately 2589–2566 BCE. Hammurabi, the king of Babylonia (1792–1750 BCE), codified the law, according to which, during the Mesopotamian era, builders were responsible for maintaining the quality of buildings and were given the death penalty if any of their construction collapsed and their occupants were killed. The extension of Greek settlements around the Mediterranean after 200 BCE left records showing that temples and theaters were built using marble. India had strict standards for working with gold in the fourth century BCE.



According to A History of Managing for Quality (J. M. Juran, editor-in-chief), China's recorded quality history can be traced back to earlier than 200 BCE.

III. OBJECTIVES

- [1] To study the quality of construction materials management
- [2] How to manage the material efficiently at site.
- [3] To maintain the quality of material during construction.
- [4] Results and recommendation on the above work

IV. SCOPE OF THE PROJECT

To identify factors that contribute to the effectiveness of quality planning in construction project. Investigate problems that are encountered in quality planning for construction project and determine the improvements that can be implemented for quality planning in construction project.

V. STUDY OF QUALITY MANAGEMENT

This chapter consists the study of quality management. Quality management ensures that an organization, product or services is consistent. It has four main components: quality planning, quality assurance, quality control, quality improvement. Quality management is focus not only on product and service quality, but also on the means to achieve it. Quality management, therefore, uses quality assurance and control of processes as well as products to achieve more consistent quality. What a customer wants and is willing to pay for it determines quality. It is a written commitment to a known or unknown consumer in the market. Thus, quality can be defined as fitness for intended use or, in other words, how well the product performs its intended function.

VI. CONCEPT OF QUALITY MANAGEMENT

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 customers' satisfaction that would bring long term competitiveness and business survival for the companies. Quality management is critically required for a construction company to sustain in current construction market which is highly challenging and competitive.

Principles :

The International standard for Quality management (ISO 9001 : 2015) adopts a number of management principles, that can be used by top management to guide their organizations towards improved performance.

Customer Focus : The primary focus of quality management is to meet customer requirements and to strive to exceed customer expectations.

Rationale : Sustained success is achieved when an organization attracts and retains the confidence of customers and other interested parties on whom it depends. Every aspect of customer interaction provides an opportunity to create more value for the customer. Understanding current and future needs of customers and other interested parties contributes to sustained success of an organization.

Leadership : Leaders at all levels establish unity of purpose and direction and create conditions in which people are engaged in achieving the organizations quality objectives. Leadership has to take up the necessary changes required for quality improvement and encourage sense of quality throughout organisation.

Rationale : Creation of unity of purpose and direction and engagement of people enable an organization to align its strategies, policies, processes and resources to achieve its objectives.

Engagement of people : competent, empowered and engaged people at all levels throughout the organization are essential to enhance its capability to create and deliver value.



Rationale : To manage an organization effectively and efficiently , it is important to involve all people at all levels and to respect them as individuals. Recognition , empowerment and enhancement of competence facilitate the engagement of people in achieving the organizations quality objectives .

Process approach : Consistent and predictable results are achieved more effectively and efficiently when activities are understood and managed as interrelated processes that function as a coherent system.

Rationale : The quality management system consist of interrelated processes . Understanding how results are produced by this system enables an organization to optimize the system and its performance.

Improvement : Sussessful organizations have an ongoing focus on improvement.

Rationale : Improvement is essential for an organization to maintain current levels of performance , to react to changes in its internal and external conditions and to create new opportunities.

Evidence based decision making : Decisions based on the analysis and evaluation of data and information are more likely to produce desired results.

Rationale : Decision making can be a complex process, and it always involves some uncertainty. It often involves multiple types and sources of inputs, ass well as their interpretation , which can be subjective. It is important to understand cause and effect relationships and potential unintended consequences. Facts, evidence and data analysis lead to greater objectivity and confidence in decision making .

Relationship management : For sustained success, an organization manages its relationships with interested parties, such as suppliers, retailers.

Rationale : Interested parties influence the performance of an organizations and industry. Sustained success is more likely to be achieved when the organization manages relationships with all of its interested parties to optimize their impact on its supplier and partner networks is of particular importance

VI. LITERATURE REVIEW

VII.

Quality management of a materials is a vast topic having and huge research going on several aspects of this topic. Various authors have different contribution in their own respective method or technique. It becomes intense need to learn and understand the views of various authors from various parts to give our own contribution on this topic. Purpose of this chapter in this report is to highlight the work done on materials management which will be useful further in this report.

D.Ashokkumar et al (2014) :

focused the factors that affect the quality management in the construction. They resolute the results with the help of quality inspection reports and interviews. Field people very well know about the factors affecting the quality majorly.This paper helps, to expose the main factors which affect the construction quality and also useful for minimizing the material wastage, workmanship wastage, time wastage, and indirect.

Teena Joy et al. (2014) :

Discussed the role of construction industry was the most important role economically and most important to achieving quality in the construction. Quality is a required for sustainability and satisfaction of customer. Quality is defined as,meeting the customer prospect, This study is to provide clients project managers, designers, and contractors with necessary information needed to better manage the quality of a construction building projects by identifying the factors that affect process quality of construction projects and to rank them by the degree of importance. Factors were found by relative index and suggestions were given to increase their quality for companies.

Vinod Kumar and Vineet Singla

The role of construction quality and continuous improvement is vital in the development of construction industry of growing nations. Construction quality and regular improvement is linked with the adoption of quality management systems in construction companies. This paper shows thimportance of TQM and presents the benefits of TQM gained by construction organizations in worldwide construction sector.It examines and contrasts the level of acceptance and execution of TQM in construction and manufacturing sector of India. The paper also identifies the



barrier in adoption of TQM and advantages of implementing TQM in construction sector of India. In the end, the paper presents some suggestions and steps for the implementation of TQM in construction companies of India. The findings and recommendations of the study are not only beneficial for the construction sector of India but also these will be helpful to other developing countries having similar scenarios.

VIII. CONCLUSION

This study will show the quality management as well as material management at construction sites. This study will help out to consider better and effective method of construction material quality management as well as the necessity to determine the impact of material quality management. It helps to achieve the quality of work.

REFERENCES

1. D.ashokkumar study of quality management in construction industry” international journal of innovative research in science, engineering and technology, issn: 2319-8753, volume 3, issue 1, pp: 36-43
2. Teena Joy A Study on factors Influencing Quality of Construction Projects”International Journal of Innovative Research & Development, ISSN 2278 – 0211 Vol. 3, Issue 5, PP: 384-387
3. Vinod Kumar and Vineet Singla International journal of advanced mechanical engineering. ISSN 2250-3234 Volume 4, Number 7 (2014).3.
4. Ujjavala Patel, Anand Patel journal of Emerging Technologies and Innovative Research May 2017, Volume 4, Issue 05
5. Cuigang song, yang liu, changqing zhou, long wen, yunfei problems and counter measures in construction quality management of house building engineering, vol 2
6. ABUKAR WARSAME Framework for Quality Improvement of Infrastructure Projects”Journal of Civil Engineering and architecture, ISSN 1934-7359, Volume 7, Issue 12, PP: 1529-1539



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