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A STUDY ON CHALLENGES IN IMPLEMNTING TOTAL QUALITY MANAGEMENT IN CONSTRUCTION FIRMS AT COIMBATORE

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ABSTRACT

The need for quality assurance in construction is now widely accepted. Implementing the quality standard elements in the field, practically there will be lots of hurdles and most of the employers are very much interested and indulging themselves in this process but they don't get a proper way or benchmark to fix the standards. This study aims at analyzing the significance and importance of construction firms regarding implementation of Total Quality Management at all the levels of the Projects. The problems and conclusions are weighed and assessed respectively.

Keywords: Total Quality Management, Struggles, Construction Sites, problems.

I. INTRODUCTION

Today, India is the second fastest growing economy in the world. The Indian construction industry is an integral part of the economy and a conduit for a substantial part of its development investment, is poised for growth on account of industrialization, urbanization, economic development and people's rising expectations for improved quality of living. To be competitive in today's market, it is essential for construction companies to provide more consistent quality and value to their owners/customers. Now it is the time to place behind the old adversarial approach to managing construction work. It is time to develop better and more direct relationships with our owners/customers, to initiate more teamwork at the jobsite, and to produce better quality work. Such goals demand that a continuous improvement process to be established within the company.

Recently construction companies have increasingly adopted TQM as an initiative to solve quality problems and to meet the needs of the final customer. Many construction companies in the US, Singapore, UK, and other European countries have been using TQM successfully for a number of years and reaping rich rewards in improved client, consultant, and supplier relations, reduced "cost of quality",[7] on time and within budget project completions, and a well informed and highly motivated team of staff.

1.1 DEFINITION OF QUALITY

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. The price to be paid for a building is a reflection of the expectations of quality - A cheaper building probably uses inferior materials and is likely to be less attractive and less durable [8].

1.2 IMPORTANT ELEMENTS OF QUALITY CONTROL

Important elements to be checked during a quality control are as follows,

•To produce a building which satisfies the client

•To produce a building where quality is related to the price.

•To produce a building in which sufficient time is allowed to obtain the desired quality.

1.3 PRINCIPLES TOTAL QUALITY MANAGEMENT

The principles of Total Quality Management (TQM) provide a means for achieving quality in the construction process. The improvement of quality requires that every member of the organization embrace the principles of continuous improvement. Total Quality Management is a customer-oriented approach that stresses the effective use of people [9]. Total Quality management also emphasizes the application of quantitative methods and process improvement techniques to continually improve products and services. Total Quality Management requires a cultural change in the organization. The leadership and management of the organization must demonstrate a sincere commitment to continuous improvement [1]. They must foster a working environment which capitalizes on the creativity and ingenuity of employees.

The TQM organization focuses on the needs and expectations of customers, both internal and external. Emphasis is placed on prevention of the causes of defects rather than the correction of defects. The organization must foster a long-term relationship with suppliers based on mutual trust and respect. Total Quality Management encourages innovation

and application of new technology and procedures to enhance quality improvement.

II. OBJECTIVES

This research is the preliminary study on overcoming the problems of implementation of total quality management in construction projects in Coimbatore (Tamilnadu) region. It is an exploratory study in nature aimed to ascertain perceptions and experiences of practitioners in the industry are as follows:

1. Practices of quality management in construction projects from the perspective of tools and techniques applied
2. Level of commitment of management towards the implementation of total quality management in construction projects
3. Problems in relation to the implementation of total quality management in construction projects.
4. To suggest a substitute method or remedial measures for constructions firms based on the study

2.1 SCOPE OF STUDY

This study is to find the challenges faced by the constructions companies in and around Coimbatore to implement total quality management. The study is done using interviews and questioner's survey in all type of large, medium and small size firms to analyze their knowledge and struggles faced by those firms. With help of analysis the challenges are found out for implementation of total quality management and remedies are shared with those firms.

III. METHODOLOGY

For the purpose of this study, both qualitative and quantitative approaches were adopted hence incorporating triangulation which is the method of combining qualitative and quantitative approaches. The study is done in companies around Coimbatore, based on the size of the companies the questioner survey is done and results are calculated using SPSS Statistics.

IV. RESULTS

All the questionnaire survey was done from project manager of the project or engineer at the site. The ranking in the results shows their involvement in TQM based on the survey conducted.

Fig 1. TQM Implementation Based on Size

S No	Size of Company	No's	Percentage	RANK
1	Small Size	1	5 %	3
2	Medium Size	8	40%	2
3	Large Size	11	55%	1

The table shows the results out of 20 companies at each type based on the size, how many uses TQM in their projects.

V. CONCLUSIONS

The survey has given a solution that the most of the small size companies not implementing TQM due to their lack of knowledge and support from the management. The medium and large size companies however implement TQM they didn't use them in full fetched manner fearing about reasons like

1. Lack of knowledge
2. Indirect costs
3. Management support
4. Need of Qualified Team
5. Time Dependency for Project
6. Project Overheads
7. Reduces Profit

The training is must for improving the knowledge about using of total quality management in construction projects, which will results in a profit of cost and time. This has to be understood and implemented in small scales project also.

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