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A STUDY ON FACTORS AFFECTING QUALITY OF CONSTRUCTION PROJECT

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Abstract

The project helps future projects to reduce construction errors, minimize repairs and improve safety. Customer satisfaction is known as a quality dimension in construction and as an important factor that represents the success of a project. Customer satisfaction can also be seen as a means to expand the building process and a tool for mutual learning. It is the job of the construction industry to offer customers facilities that meet their needs and expectations. One of the principles of logistics is a management philosophy that effectively determines the needs of customers. By ensuring operational quality at every stage of the construction process, care must be taken to ensure that the quality of the end product satisfies the end customer.

Keywords: construction errors, safety, customer satisfaction

1. INTRODUCTION

Construction industry plays a major role in development and achievement of the goals of society; it's considered as one of the largest industries. Generally, construction works are increasing rapidly to meet the growing needs of the population and to keep up with global development. To progress in terms of construction, project construction must be studied carefully and prepared well in order to get the best results, and to help in moving in the right direction to establish the future goals. Quality of projects can be defined as: "meet customer expectations" or "meet customer specifications". For a user, quality is a satisfaction with the appearance, performance and reliability of the project for a certain price range. In the area of project management, the scheme, costs and quality are also referred to as the iron triangle. This results in a half- hearted attempt to achieve quality at project locations. The quality problems in construction are different and varied. The build quality is based on the characteristics of the organization, the working method and the contractor follows the drawings and specifications under defined budgets, fitness for work, quality of materials and applied equipment. This industry is often visited with incidental delays and disruptions, resulting in time and cost overruns. These delays and disruptions are sources of potential risks that are being investigated in current studies in ways to manage, such as technical, social, economic, legal, financial, moderate, architectural and commercial.

The construction sector is known as a time-consuming and material-exhausting industry, due to the complexity and volatility caused by divergent needs, wishes and preferences. No investor would invest in a project that seems to last forever, with an indefinite cost or budget. So, there is a direct co-relationship between time and costs of the project. The importance of customer / customer satisfaction has been investigated by many researchers in the construction sector. Therefore, customer satisfaction is a fundamental problem for construction participants who must constantly try to improve their performance if they want to survive in the presence of the concept of globalization of construction services. Customer requirements are changing rapidly in response to changing organizational and market requirements. New procedures and solutions are needed to meet the growing demands and high standards. Researchers worldwide indicate that most projects do not realize their mission within the set time and costs United Kingdom (UK) in 2010; statistics found that 52% of projects had cost overruns of more than 10%, while 45% of projects had time overruns of more than 25%. The same study showed that similar studies in India have shown that 56% of projects had cost overruns of more than 20%, while 49% had overruns of more than 1 to 160 months. Projects were initiated by kings and other leaders to set up monumental projects to build a name for themselves and their future generations. Old structures had no time limit or cost reduction.

Moreover, the development of the construction sector in developing countries is far behind other industries in those countries compared to developed countries. The nature of the sector is considered very complex because it involves many stakeholders such as owners, contractors, consultants, supervisors and suppliers. Each construction project is unique and that is due to its nature based on size,

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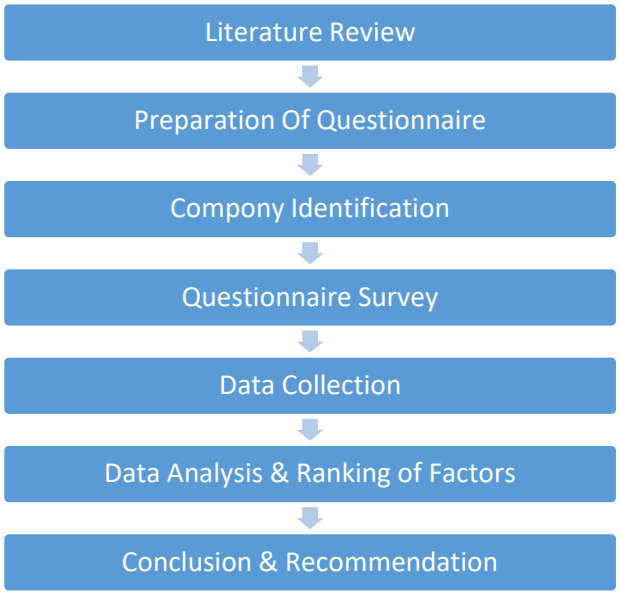
budget, material, location, weather conditions and manpower. The goal of all construction projects, however, is to build projects on time, within budget, with the indicated quality standards and within a healthy and safe environment. Research has shown that 20% of these construction projects do not reach their goal due to over-programming, delays or cost overruns that can endanger any construction project. The construction project became more difficult to achieve the project objectives; previous studies have shown and proved that the failure of a project is mainly related to the problems and the failure of the performance. There are many reasons and factors that characterize this problem and appear in different directions, many projects that have been finished with poor performance due to many evidence reasons such as: customer obstacles, non-availability of materials, road closure, design changes and drawing, extra work, waiting for the decision, handing over, order of changes, changes in quantity quantities and delay in receiving drawings. Setting up and achieving acceptable quality levels in construction projects has long been a problem, the failure of a construction project is mainly related to the problems and the failure of performance.

Moreover, there are many reasons and factors that attribute such a problem. In developed countries, quality problems occur in large construction projects for a variety of reasons, such as: incompetent designers / contractors, poor estimation and change management, social and technological problems, site-related problems and inappropriate techniques and tools. A control system is an important element to identify factors that influence the project effort. It is clear that there is a need for growth in the construction sector in India to match the developed economy. The amount of research that is already being conducted to investigate quality defects and their causes in construction projects. Previous studies have paid attention to factors that influence the performance of construction projects, but those studies have paid little attention to the quality of construction projects in the province, causing a lack of gaps in the existing literature. This study will tackle the above gap by tackling the quality of construction projects. This study therefore looked for the factors that influence the quality of projects in the province.

2. METHODOLOGY

A research design is a research plan, a road map and a blueprint strategy designed to obtain answers to research questions; it is the heart of every study. The methodology used in this study is the collection of data using the survey method. This work aims to identify the most important factors that have a significant effect on customer satisfaction and other causes needed to solve the problems. The study used face-to-face preliminary interviews with experts from the construction client, the interview was conducted to identify key factors that impact customer satisfaction and require immediate improvement, and other factors not mentioned in the literature. The preliminary interview is usually conducted by unstructured interviews to get ideas, to feel for what is happening and the reasons why it is going on. Different methods for collecting information from the industry were evaluated from different literature.

A whole literature review is conducted to identify the factors that affect quality.



3. CONCLUSION

A questionnaire survey is used to find out the attitude of site engineers, contractors and consultants towards factors affecting quality of construction project. 62 questionnaires were distributed and 33 are returned. The respondents are asked to know their opinion about the quality factors as High impact, Some impact and Low impact. The results show that the most important factor agreed by the contractors, consultants, site engineers, project managers etc. are: Material, Conformance to codes and standards, financial issues, Interaction among participants and Design. From the study, it is concluded that:

- Customer's satisfaction is the best definition of quality.
- Questionnaire survey or getting feedback from customers is a proper method of measuring customer's satisfaction.
- Material, conformance to codes & standards, financial issues, design & interaction among participants are the factors having positive contributions to achieve the desired quality level.
- Questionnaire survey shows the attitude of all project participants towards quality & its importance.

The necessity for achieving quality of the finished product in the building construction is so much important. Quality is an essential parameter for sustainability and customer satisfaction. In construction projects, quality performance is considered as vital for client satisfaction. Finding out of these factors will help to improve the quality. The data collected from the responses and analyzed by using SPSS software.

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