ABSTRACT

An Investigation into the Impact of Total Quality Management (TQM) On Workmanship in the Trinidad and Tobago Construction Industry

Rakesh Sookoo

The challenge of earthquake and building collapse around the world has necessitated the need for high quality building projects in Trinidad and Tobago. This is because of increased defective construction activities throughout the country. Many studies have been conducted on the problem of poor workmanship with attention to the systemic aspect of workmanship. There is need to investigate the structural defective aspect as one of the major causes of poor workmanship in construction projects. This study intended to determine how Total Quality Management (TQM) improves poor workmanship on construction projects. This is explored through the identification of some more common areas of structural defective workmanship comparing two similar construction projects from two (2) larger similar sized private construction firms in Trinidad and Tobago. Subsequently, an investigation was conducted to validate findings from the above study by investigating empirical relationships between TQM implementation and workmanship performance improvement. The data was sourced from two (2) projects undertaken by the same two (2) construction organizations used for this study within Trinidad and Tobago. One is a TQM certified organization while the other is a non-TQM certified organization. The methods of Defect Checklist were used to collect relevant data on the areas of defective workmanship while Questionnaire Survey was used to collect information on TQM practices and workmanship performance. Findings indicated that the TQM certified organization showed better workmanship performance when compared to the non-TQM certified organization on the compared construction projects. The study also revealed lesser defects in the construction project from the TQM certified organization as compared to that similar project from the non-TQM organization. The relationship between TQM and workmanship performance was found to be strong, positive and statistically significant. The empirical study provided an indication that TQM implementation can significantly improve instances of poor structural workmanship on construction projects.

Keywords: Rakesh Sookoo; workmanship; performance; project; management; organization and construction.