EXPLORING THE BARRIERS IN IMPLEMENTATION OF TOTAL QUALITY MANAGEMENT SYSTEM IN FLYOVER CONSTRUCTION PROJECTS IN SRI LANKA

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Degree of Master of Science in Project Management

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DECLARATION

I declare that this is my own work and this dissertation does not incorporate without acknowledgement any material previously submitted for a Degree or Diploma in any other University or institute of higher learning and to the best of my knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgement is made in the text.

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ABSTRACT

Exploring the barriers in implementation of Total Quality Management System in Flyover construction Projects in Sri Lanka

The aim of this research is explore the barriers in implementation of Total Quality Management System in flyover construction projects in Sri Lanka. The research model was developed with the help of previous studies to get a guide. Identification of different factors that affect for the implementation of TQM in the construction project were identified with the guide of previous studies and the general discussion had with the experts in the industry.

A comprehensive literature was conducted to acquire knowledge on quality, to understand the quality systems used in the construction sector and to identify different factors/barriers that affect for the quality management and implementation of TQM.

To understand barriers in implementation of TQM, data was collected from employees such as project managers, engineers, surveyors and quantity surveyors who have been participated in flyover projects in Sri Lanka. The data was collected using quantitative survey and using questionnaires that were distributed by hand or through e mail.
The collected data was analyzed by using SPSS for measure the internal consistency (reliability) of the data set collected from the questionnaire survey and it gave grater internal consistency. Descriptive statistics and mean score method have been used to identify critical barriers against the TQM implementation. Based on results, 5 numbers of barriers were identified as low impacted barriers (Green zone), 13 numbers of barriers were identified as moderate impacted barriers (Yellow zone) and 7 numbers of barriers were identified as extreme impacted barriers (Red zone). The framework was developed with control measures against the extreme barriers identified in the study. In the recommendation, Trainings, team work concept, effective communication, continuous improvement, employee empowerment and employee awareness on TQM benefits are identified as major control measures.

Keywords *flyover projects, Quality, Quality Management, Total Quality Management, Barriers in Total Quality Management implementation, framework for managing barriers in TQM.*

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LIST OF ABBREVIATIONS

ISO	-	International Organization for Standardization
TQM	-	Total Quality Management
ASQ	-	American Society for Quality
TQC	-	Total Quality Control
QMS	-	Quality Management System
PQP	-	Project Quality Plan
SPSS	-	Statistical Package for the Social Sciences
QA/QC	-	Quality Assurance /Quality Control