

CONSTRUCTION ENGINEERING MASTERS DISSERTATION ABSTRACT

Quality in the construction industry: Do frontline delivery staff enhance the possibility of project success

The cost of poor quality in the construction industry is estimated to be 12% of a projects value, which offers great opportunity to reduce costs if improvements are made. With targets set in the government and industry report 'Construction 2025' for a 50% reduction in project durations its it important to understand the potential impacts this has on quality performance of the Construction Industry. The literature highlights there is an inconsistent approach to how quality is defined and thus measured. Irrespective of how quality is measured there is little empirical data highlighting the quality performance of the construction industry. Previous research has focused on small samples to scrutinize quality performance often focussing on case study analysis of individual projects and quality performance relationships with the wider industry has had little examination.

The basis of this research sets out to test the hypothesis that, as a project build rates increase there is a significant correlation in the projects quality performance during the construction phase. A secondary objective was to analysis the relationship between numbers of frontline delivery staff and the projects quality performance, where the hypothesis is, as the number of frontline delivery staff employed on a project increase, the projects quality performance also increases. The research involved a quantitative, explanatory research methodology, with a positivist approach, to test these hypotheses from data provided by a single organisation who operate as a multi-disciplined, tier one construction contractor in Europe. The normative findings do not provide enough evidence to prove the hypothesis that there is a significant correlation between the project build speed and the project quality performance. Although the potential for under reporting is present in the data which asks questions about the reliability of the relationship. However, there is enough data demonstrating a statistically significant correlation between the number of frontline delivery staff employed on a project and the quality performance. The project quality performance improves with the number of frontline staff on a construction project thus allowing the research to reject the null hypothesis. This research explains the relationship between independent variables of projects speed and the numbers of frontline staff numbers and the quality performance of an organisation in the UK construction sector which should be taken further to explore the causes for the relationships in future research.

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June 2020