CONSTRUCTION COST VARIABILITY: DOES IT REALLY MATTER? AN EXPLORATORY STUDY

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ABSTRACT

Purpose of this paper: This study is an exploratory one aimed at investigating the reasons behind construction cost variability and its adverse impact on project performance.

Design/methodology/approach: The literature review provides insight into waste associated with cost variability. The cost variations relative to two completed apartment complexes were extracted from the project files of a cost consultant and compared. In particular, the origins and causes of cost variations were examined with reference to their occurrence and magnitude.

Findings: 75 and 118 cost variations averaged in total 8% and 4% of contract sums of residential and shopping apartment complexes respectively. Both projects experienced delays of 33% and 9% over the original planned contract duration. The client and the consultant combined as the origin agent initiated cost variations amounting at 92% and 94% of the total cost variations on the respective projects. Design change related costs as the causes of cost variations ranked highest amounting to 85% and 58% respectively. Design changes were identified as the main reason behind construction cost variability subsequently leading to time overruns.

Research limitations/implications: Given the exploratory nature of the study, only a limited number of completed projects in Cape Town were examined. The contractor and the consultant team that were involved into the projects were not available for interview.

Practical implications: The findings compel the construction industry stakeholders to investigate the origins and impact of variability of construction costs on project performance in order take proactive measure for their reduction.

Originality/value: This study tracks the root causes of cost variability in concrete situations and provides insight into the problem.

Keywords: causes, cost variations, origin, variability, waste