

CONSTRUCTION ENGINEERING MASTERS DISSERTATION ABSTRACT

Can we lose a one horse race? Selecting a principal contractor by negotiation to improve construction project performance

The procurement stage of a construction project dictates how a contract is fulfilled and it is therefore a widely supported belief that improvements in procurement practice can fundamentally address the underperformance of the construction sector (inconsistent performance, adversarial behaviours, irregular supply chain structures and wasteful bidding procedures). Contractors are predominantly chosen by competitive bidding; however direct negotiation between a client and a single contractor from the outset could, if completed capably, address a number of common construction problems. This thesis aims to inform this debate by comparing the performance of negotiated projects against those tendered using competitive pressure. In order to do this, three objectives have been developed: to correlate project performance with contractor selection strategy, to challenge whether competitive tendering can be false economy for a client and to recommend improvements for procurement leaders based on evidence gathered through a literature review, a quantitative study and formal discussions with construction industry leaders.

Current literature indicates that competitive methods of tendering are dominant throughout the industry, despite more collaborative methods being developed and practiced in recent decades. Both academic and industry sources highlighted significant shortfalls of competitive tendering that perpetuate the common problems seen throughout the industry today. Analysing historical data reveals that procuring under less competitive pressure coincides with a less volatile project programme and financial performance. This is established using historical data from 230 projects and plotting programme and cost outcomes according to a rationalised set of selection strategies (open competition, closed competition, two-stage and negotiated selection).

Whilst negotiated procurement and two-stage selection provided the most reliable project outcomes, research suggests that a client can still expect between 7-12% tender-price spreads using competitive procurement, a premium that negotiated procurement may not pay back despite being more reliable. When foregoing competition, a client should weigh up whether the potential lost "discount" is worth the reduced volatility in project performance indicated by results of this study; this may be the case for clients where programme reliability has a high impact on their overall business case.

As a result of this investigation, a new procurement strategy is suggested for further study. "Two-stage negotiate and design", combines the performance benefits of less competitive methods whilst providing scope for integrating supply chains, reducing bid costs, improving communication and involving contractors earlier in the process. It is recommended that this is considered by clients who want to see a step-change in performance throughout the industry, something that literature and industry leaders regularly see obstructed by our current competitive procurement methods. It may be suggested that Governments consider whether the prohibitive guidelines on negotiated procurement inhibit the industry from improving collaboration and project performance.

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October 2013