



**UNIVERSITY OF  
CAMBRIDGE**

Department of Engineering

## **CONSTRUCTION ENGINEERING MASTERS DISSERTATION ABSTRACT**

### **Shattering behavioural barriers to enable more successful outcomes for all within major infrastructure delivery**

The construction industry is large, complex and fragmented, as are the major infrastructure projects that it delivers. Coupled with this, the industry is required to produce bespoke product, with its associated high risk and uncertainty, within margins that are lower than other design and manufacturing industries.

Major infrastructure projects typically involve many Tier 1 design and construction suppliers, which in turn are supported by an extensive labyrinthine supply chain, each with hugely differing business models. In order to achieve a successful project outcome all parties need to work seamlessly towards a common goal. Very often though, this does not prove to be the case, with overall goals for a project either ill-defined, or at best poorly communicated. This lack of direction, can allow a culture of self-interest to develop, leading to conflict, increased costs and delays, particularly when unexpected problems occur and/or things change. Given these challenges it has historically proven very difficult for the construction industry to create an environment where all parties collaborate effectively towards achievement of a common goal, and where everyone can be successful.

Focussing on the behavioural aspects of collaborative working, the questions this research aims to answer are:

1. What are the barriers that prevent organisations and individuals from collaborating more effectively?
2. What should clients, consultants and contractors do to shatter these barriers?

The objective of this research is to establish the root cause of barriers and to identify tangible actions can be taken by clients, consultants and contractors to create an environment where everyone can be successful.

The research methodology adopted involved undertaking a series of structured interviews with leading industry experts representing client bodies, contractors and consultants to test and validate the theoretical framework.

The results show that there are benefits for all to be gained from working towards a common objective and having more trusting and collaborative relationships. Several organisational and individual barriers to collaborative working were identified and tangible actions to mitigate these include effective leadership and motivation of individuals.

The practical implications of this research can be taken into industry as a tool kit for leaders to help shatter the barriers to collaboration.

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