CAN WE *get along* BETTER?

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Over the past 15 years, collaborative contracting has emerged as an innovative project delivery framework that is particularly suited to the delivery of complex infrastructure projects. Models of collaborative contracting have continually evolved over this time, as practitioners have progressively built expertise and sought to refine the efficacy with which the principles of collaboration are achieved. Supporting innovation in efficient, effective collaborative project delivery has become particularly important given the recent decline in public and private sector investment in infrastructure, at a time when demand continues to grow.

Queensland University of Technology, together with the Royal Melbourne Institute of Technology, the Alliancing Association of Australia, and the Australian Research Council, have recently commenced a 3 year research project which aims to explore the ways in which value for money can be optimised using collaborative contracting during delivery of Australian infrastructure projects.

"Collaborative contracting has great *potential* as a means of achieving *value* for money in *complex* project delivery..."

Collaborative contracting was first introduced to the oil and gas industry in Australia in 1996, and progressively became a popular approach that has been adopted on about 400 projects in the country across a range of construction sectors, including buildings, energy, water and transport. Conventional contract agreements have been found to be inadequate to manage infrastructure projects characterised by a high degree of durability, complexity and uncertainty (Lahdenpera 2009, Eriksson 2008). Collaborative contracting emerged as a means to more adequately facilitate the strong interdependence required between project partners under these more complex project conditions.

Collaborative contract agreements embody cooperative social behaviour, and provide a more complex governance structure to provide a framework to sustain cooperation between partners, and to manage the high cost of coordination between partners (Rahman & Kumaraswamy 2004, Williamson 1991). Collaborative governance comprises formal and informal mechanisms. Formal governance mechanisms are contained in contractual documents and informal governance mechanisms sit outside the contract. Formal governance deals with obligation, while informal governance seeks to enhance trust, communication, cooperation and knowledge sharing (Gulati & Singh 1998, Love et al 2010). Informal mechanisms support innovative design and construction, and superior project performance (Manley 2002).

The impact of collaborative contracting methods on project performance can be indicated by the extent to which value for money is achieved during project delivery, where value for money measures the client's benefits with respect to quality, social and environmental outcomes, and is balanced against the cost (price and risk exposure) of achieving those benefits (Dept of Infrastructure and Transport 2011).

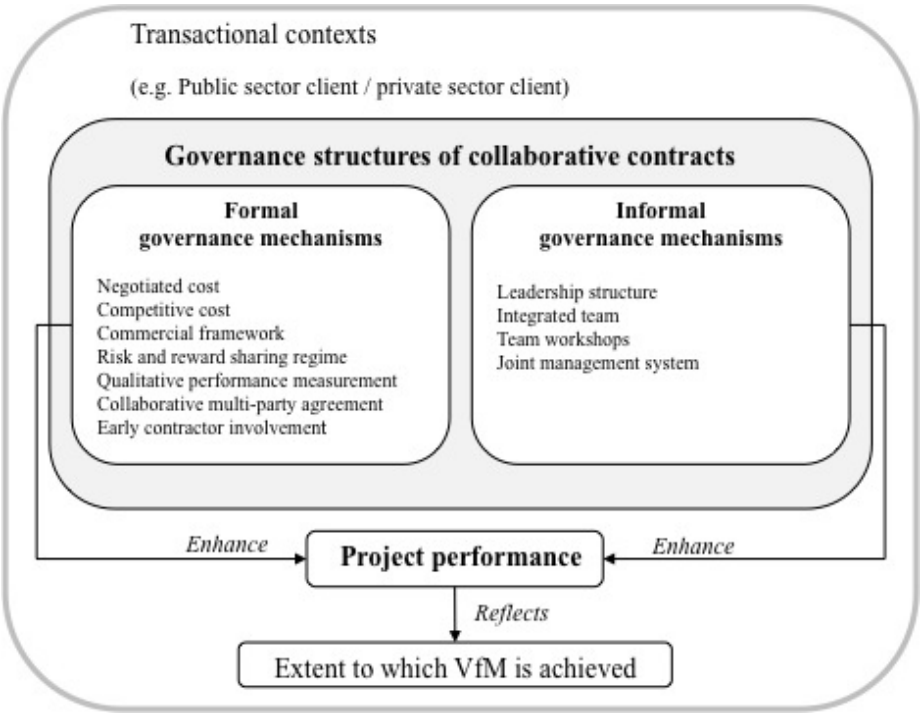

Figure 1: Governance structures of collaborative projects

The literature recognises that the extent to which value for money is achieved in collaborative contracting is influenced by a range of formal and informal governance mechanisms (Chan et al 2010), and by the development and application of organisational learning capabilities within client and service provider organisations (Hartmann et al 2010, Carrillo et al 2006). The authors conducted a detailed literature review regarding governance mechanisms in collaborative contracting, resulting in the identification of 7 categories of formal governance mechanisms and 4 categories of informal governance mechanisms, as shown in Figure 1. These categories are found to be clearly distinguishable, mutually exclusive, and are considered to have a significant influence on value for money.

Previous research shows that the mechanisms within each category shown in Figure 1 are applied in distinct combinations within different project delivery contexts (Chan et al 2010). However, there is limited understanding of which mechanisms have the most impact (positive or negative) on value for money, or what the most optimal combination of formal and informal mechanisms is for achieving value for money (Dept of Treasury and Finance 2009). The new research project will apply quantitative methods of data collection and analysis to establish statistically significant evidence demonstrating the implications of governance and learning mechanisms on project performance. Figure 1 shows the theoretical framework that has been derived by the authors, which will form the basis of the new study. The study will involve a questionnaire that will be distributed to all Australian construction professionals with significant experience in collaborative contracting, including representation from public and private sectors, and client and service provider participants across a variety of collaborative contract types.

Collaborative contracting has great potential as a means of achieving value for money in complex project delivery in the Australian infrastructure sector. As a relatively new and continually evolving model of project delivery, it is important to support the development of methods of collaborative contracting that are effective and cost efficient, particularly given the recent conservative economic conditions that are constraining investment in infrastructure development.

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Alliance Research Project

Alliancing Association of Australasia

C3 Centre for Collaborative Contracting

QUT

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"The new research aims to promote *innovation* in collaborative contracting. The findings will provide significant *evidence* with regard to the optimal balance of formal and informal *governance mechanisms* and learning capabilities during infrastructure transactions. The study will improve *value for money* achieved during collaborative contracting.

Dr Karen Manley is a global thought leader in the area of innovation on infrastructure projects. She is currently Associate Professor, School of Civil Engineering and Built Environment, Queensland University of Technology (QUT). She has many years experience as an academic and private consultant, specialising in the application of post-neoclassical approaches to the analysis of innovation and industry growth. She investigates knowledge-flows, networking and innovation systems, to shed light on the performance of a number of industries, including the construction industry. She has published extensively in international journals, and her work has informed the development of government policy across Australia in the area of innovation capacity.

Joanne Lewis is a Research Officer with the School of Civil Engineering and Built Environment, Queensland University of Technology (QUT), Australia. She holds a Bachelor of Forest Science (Hons) and a BSc (Environmental) from the University of Melbourne, and a Diploma of Management from the Royal Melbourne Institute of Technology. Joanne is currently supporting the delivery of an Australian Research Council project which explores the challenges associated with efficient implementation of collaborative contracting in the Australian infrastructure sector. She manages functional areas of the project such as administration, ethics, website, finance, scheduling, editing, publication, client liaison, and industry engagement. Joanne has previous technical and project management experience in the fields of environmental consulting and forest management.

Le Chen is a research fellow at the School of Civil Engineering and Built Environment, Queensland University of Technology (QUT), Australia. She received her Ph.D. from Griffith University and an M.B.A from the University of Sydney, Australia. Her current research focuses on the emergence and evolution of organizational knowledge-based capabilities within a dynamic competitive environment and its impact on organizational outcomes, for example sustained competitive advantage. Her publications include refereed journal articles and conference papers related to knowledge management, strategic learning and engineering education. Her previous professional experiences include positions as department manager and project coordinator for knowledge management planning and implementation.