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The effects of project characteristics on adopting relational transaction strategies

Yan Ning [a,*], Florence Yean Yng Ling [b]

[a] Department of Construction and Real Estate, Southeast University, 210096, China
[b] Department of Building, National University of Singapore, 4 Architecture Drive, Singapore 117566, Singapore

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Abstract

The objective of this study is to investigate whether project complicatedness and the chances of recurring exchanges influence the adoption of relational transactions in public construction projects. A structured questionnaire was administrated in Singapore. The Partial Least Square-Structural Equation Modelling was used to analyze the data. The statistical results show that: (1) the level of project complicatedness has a positive correlation with the preservation of relationships, cooperation between contracting parties and procedural flexibility; and (2) the chances of recurring exchanges are positively correlated with harmonization between contracting parties, cooperation between contracting parties and procedural flexibility. The quantitative results were complemented by qualitative evidence from eight in-depth interviews, which validated that both the level of project complicatedness and the chances of recurring exchanges have influence on the adoption of relational transaction practices. This study contributes to knowledge by presenting empirically that project characteristics influence the adoption of relational transactions.

Keywords: Shadow of future; Project complicatedness; Relational transactions; Public projects

1. Introduction

Although relational contracting norms (Macneil, 1978) and network strategies (Granovetter, 1985; Uzzi, 1997) could bring about good outcomes (Ling and Tran, 2012; Ning and Ling, 2014a), not all contracting parties are willing to adopt relational transaction practices (Ning and Ling, 2013a). To promote relational transactions in the construction industry, prior studies recommended the following: removing the barriers to relational transactions (Ning and Ling, 2014b); highlighting the potential benefits which may motivate contracting parties to adopt relational transactions (Ning and Ling, 2013b; Ning and Ling, 2014b); casting more light on the critical relational transaction practices that could lead to better performance (Ling and Li, 2012; Ling and Tran, 2012; Ning and Ling, 2014a); and mobilizing relational factors in the selection of partners (Ling and Tan, 2001; Rahman and Kumaraswamy, 2005). These studies generally assume that relational transactions can be embraced by construction projects of different characteristics.

However, this assumption does not always hold true. Project characteristics may also influence the adoption of relational behaviours (Turner and Simister, 2001; Eriksson and Westerberg, 2011). Eriksson and Westerberg (2011) hypothesized that project characteristics may moderate the relationship between cooperative procurements and project performance. These studies, however, failed to empirically test how the project characteristics would influence the adoption of relational transactions. The objective of this study is to investigate how project characteristics affect the adoption of relational transaction practices in public construction projects. This study is important as the findings will further inform project managers that instead of adherence to a set of general best

* Corresponding author.
E-mail addresses: cqningyan@gmail.com (Y. Ning), bdglyy@nus.edu.sg (F.Y.Y. Ling).

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practices, relational transaction strategies should be tailored in accordance to the project characteristics.

The scope of this study is confined to public construction projects. This is because that there is little information about relational transactions in public construction projects (Dewulf and Kadefors, 2012; Dewulf et al., 2012; Ling and Tran, 2012). Another reason is that the adoption of relational transactions in public projects may differ from that in private projects. Public clients usually procure services and products through competitive tendering which may indicate a non-continuity of relationships. The public sector cannot be seen to have close relationships with private parties as this may imply cronyism (Ling and Tran, 2012). Therefore, it is worthwhile to extend the current framework of relational transactions to the public sector.

The structure of this paper is as follows. Following the introduction, the theories of Relational Contracts (Macneil, 1978) and Network Embeddedness (Granovetter, 1985; Uzzi, 1997) are reviewed. This is followed by the hypothesis development and the elaboration of research methods. The next section covers the results and discussion. Finally, conclusion and recommendations are provided.

2. Literature review

2.1. Relational contracts theory and network embeddedness theory

Relational contracts refer to informal agreements and unwritten codes of conduct sustained by the value of future relationships (Macneil, 1978). In Macneil's (2000) relational contract theory, five common contractual norms are adopted. These are role integrity, contractual solidarity, flexibility, proprietary of means and harmonization within the matrix (Macneil, 1983; Blois, 2002).

From a network embeddedness perspective, transactions are interpreted by combining networks and economic behaviours (Granovetter, 1985; Uzzi, 1997; Sydow and Windeler, 1998). Parties within embedded networks are inclined to build long-term cooperative relationships (Uzzi, 1996). Three network strategies proposed by Uzzi (1997), namely information sharing, joint problem solving and trust, are adopted in this study.

The literature review of relational contracts norms (Macneil, 1978) and network strategies (Uzzi, 1997) is presented in Table 1. A summary of the constructs and respective measurement items are also shown in Table 1. Details are shown in Ning and Ling (2014a).

2.2. Project characteristics and adoption of relational transaction practices

The effect of project characteristics on relational transactions may be explained by the theory of Transaction Cost Economics (TCE) (Williamson, 1979), which stated that the critical characteristics of the transaction would affect the choice of governance mechanism. The main tenet of TCE is to "align transactions, which differ in their attributes, with governance structures, which differ in their costs and competencies, in a discriminating way" (Williamson, 1991: 279). According to Williamson (2000), due to bounded rationality, contracts are usually incomplete. Contractual incompleteness would pose added problems when it is paired with the presence of opportunism (Williamson, 2000). Verbeke and Greidanus (2009) added an assumption of bounded reliability, reflecting that "expressed commitments to achieve a particular outcome do not always result in the promised outcomes owing to a variety of factors" (p. 1482). This implies that ex post preferences and priorities can change due to uncertainties (Schepker et al., 2014). Thus, various situations may increase transaction costs (Zhou and Poppo, 2010). Contracts could constitute a form of governance mechanism used to minimize transaction costs (Schepker et al., 2014).

Williamson (1979) proposed three dimensions to characterize transactions: (1) uncertainty; (2) the frequency with which transactions recur; and (3) the degree to which durable transaction-specific investments are incurred. From the contracting perspective, there are three types of governance structures: classical, neo-classical and relational contracting (RC) (Williamson, 1979; Macneil, 1978). The hypotheses that the three dimensions influence the effectiveness of different governance structures have been supported by both theoretical arguments and empirical evidences (e.g. Williamson, 1979; Macher and Richman, 2008). Notably, more integrated governance structures are associated with more complex transactions, greater uncertainty or more frequent exchange (Macher and Richman, 2008).

Increased asset specificity and uncertainty indicate a stronger demand for cooperative adaptation (Williamson, 2003). The adoption of classical and neo-classical approaches in maintaining a long-term relationship thus entails great costs to structure and monitor the relationship (Williamson, 1985). As the environment becomes more complex, potential outcome falls under problems relating to "incompleteness of contract" (Schepker et al., 2014:196). If both the attributes of asset specificity and uncertainty exist in recurring exchanges, relational contracts would be a suitable choice as a governance mechanism (Williamson, 1979). RC signifies a commitment to cooperate in depth than a mere bargain for the allocation of risk (Bird, 2005). In the RC discipline, continuity can benefit from a spirit of cooperation (Williamson, 2005) and contracting parties have an incentive to sustain the relationship rather than permitting it to unravel (Williamson, 1979).

2.3. Relational transactions in Singapore's public projects

Ning (2013) investigated the relational transaction practices in Singapore's public construction project. Firstly, it is found that relational transactions do give rise to better project outcomes and relationship quality among contracting parties. Thus, it is suggested that parties should not strictly adopt only formal controls but also consider relational transactions to boost project outcomes (Ning and Ling, 2014a).

Secondly, this research found that the contracting parties regarded public sector accountability, bureaucracy and