

Decreasing Opportunistic Behaviour through Appropriate Contracting Strategies in Construction Industries

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Abstract

Despite a rich literature in the context of construction industry on the contracting strategies, which stemmed from the long history of the industry and the strategic value of procurement, the industry is still accused of using inefficient contracting strategies. The purpose of this paper is to show how theoretical works on the choice of appropriate contracting strategies with an emphasis on decreasing opportunistic behaviour is based on different bodies of enquiry; the paper will highlight a lack of interaction between these normative works. To do this, the paper will critically review two of the prominent theories of the field including Transaction Cost Economics (TCE) theory and Economic-sociological theories. Both of these theories try to assist the clients to form the most appropriate contractual relations. In particular, both of these theories explore the causal relationships between the exchange features and appropriateness of contracting strategies. However, TCE theory and economic-sociological theories originated from two different bodies of enquiries (i.e. economics and sociology, respectively). Consequently, they highlighted the prominent notions of their original fields of knowledge without any interaction with other subject areas.

Keywords: Contracting Strategies, Construction Economics, Economic Sociology, Transaction Cost Economics, Opportunistic Behaviour

1. Introduction

The construction sector is adversely affected by opportunistic behaviour, claims, and disputes; costly governance processes and policing mechanisms derail the scarce project resources from delivering success. The rich literature on construction project management emphasises the role of clients in bringing success to the construction projects through forming appropriate contracting strategies (e.g. Smyth 2006; Ross 2005). Therefore, any normative academic work which helps the clients to decrease adversarial attitudes through more appropriate contractual regimes can lead to better allocation of scarce resources in the construction sector. Normative literature is used here to mean works which discuss how things should be.

The purpose of this paper is to show how literature on the choice of appropriate contracting strategies with an emphasis on the problem of non-cooperative behaviour, is based on different bodies of enquiry; the paper will highlight a lack of interaction between these normative theoretical works. To do this, the paper will critically review two of the prominent theories in the field including Transaction Cost Economics (TCE) theory and economic-sociological theories. Both of these theories try to assist the clients to form the most appropriate contractual relations. In particular, both of these theories explore the causal relationships between the exchange features and appropriateness of contracting strategies. However, TCE theory and economic-sociological theories originate from two different bodies of enquiry (i.e. economics and sociology, respectively). Consequently, they highlight the prominent notions within their original fields of knowledge without any interaction with other subject areas.

2. Contracting Strategies in Construction Industries

Before critically reviewing the theoretical works in relation to the choice of appropriate contracting strategies, it is worth discussing the spectrum of contracts and the importance of forming appropriate contractual relations by the clients within the early stages of the construction projects.

In construction industries, the client is the only party with motives and opportunity to bring success to the project (Smyth, 2006). Project process is carried out by a coalition of firms which are connected to each other through a “nexus of treaties” (Winch 2001). Clients can influence the project process through the interfaces they have with the project coalition. The shape of this nexus of treaties in Winch’s sense and the interfaces the client has with the project coalition are all largely formed at the early stages of the project through the procurement strategies. In construction industries, procurement could be broadly defined as the whole activities undertaken by the client to obtain a new building (Rowlinson, et al. 2000), meaning that procurement management covers a broad range of issues such as contract formulation, contractor selection, etc. One of the important stages in procurement is selecting an appropriate contracting strategy; this is the stage at which the client shapes the interface he has with the contractor (Winch 2001). All forms of contracts are intended to guarantee the parties’ objectives as much as possible. In fact, to prevent and cope with problems that might occur in future, the transaction could be governed by contracts (Buskens et al. 2003a, 2003b). According to Bower (2003), three main function areas of the contracts are as follows: work transfer, risk transfer and motive transfer. The contract functions are carried out through the contractual relations consisting of those which are explicitly contractual and those which are normative in all economic transactions. Thompson et al. (1998) classify the contractual relations as follows:

- *.The relationship between parties
- *.The responsibilities of each party
- *.The risk allocated to each party
- *.The reimbursement structure

Based on these interconnected contractual relations, there are different forms of contracts. Researchers categorise the contracts differently in order to provide frameworks which are appropriate for exploring different concepts; contracts are categorised based on the methods of payment (e.g.

Turner and Simister, 2001), the level of formality (e.g. Cox and Thompson, 1998), etc. However, generally, all forms of contracts could be located within a spectrum in which transactional fully documented contracts are on one side and fully relational contracts are at the other extreme (Williamson 2002; Cox 1996; Parker and Hartley 1997; Thompson et al. 1998). In other words, answering the make-or-buy dilemma in favour of buying, the client faces a spectrum of contracting strategies from the transactional (market) approach to the relational (co-operative) approach (Williamson 2002; Cox 1996).

2.1. Transactional (Market) Approach

Transactional approach in contracting strategies intends to exploit the market forces through providing competition between the potential contractors as much as possible (Håkansson and Jahre 2004; Parker and Hartley 1997). To create a competition, which leads to trimmed margins, the client needs to form an airtight contract which covers all the contingencies. Market-approach oriented literature in procurement management body of knowledge attempts to explore the issues matter in the tendering process.

The transactional approach is associated with the arm's-length relationship within which there is no considerable willingness from the client's side for the co-development of the project. In this approach, the principle is that if something- which has been contracted to be performed- goes wrong, a course of action in the form of negative incentives will be followed (Williamson, 1991). Therefore, Thompson et al. (1998) discussed that the market approach is evident in the contract through:

- *. Provisions of liquidated damages for unsatisfactory performance
- *. The use of performance bonds and retention monies
- *. The use of rights to 'set-off'

Based on the transactional approach, risk sharing arrangements are not included in the contracting strategy and the whole risk is usually transferred to one party (usually the contractor). In terms of governance, within this context, contracts are interpreted very legalistically (Williamson, 1991). Therefore, in case of any disputes, more formal agreements supersede the less formal agreements, for example written agreements are chosen for dispute resolution even if the parties had verbally agreed upon some of the issues in another way. In extremely transactional approach oriented strategies, the issues between parties are entirely governed externally by national laws. While the extremely market-oriented approach may work well in markets within which client and supplier do not have any dependency to each other (Williamson, 1991), this approach may lead to some problems in the construction industry if it is implemented without careful consideration.

The problem attached to the transactional approach stems from contract incompleteness (Williamson, 1991). A contract is complete if it covers all the contingencies. In reality, contracts tend to be incomplete. In literature, bounded rationality and prohibitive costs of covering all foreseeable contingencies are known commonly as the reasons behind contract incompleteness (Hart and Moore, 1988). In addition, Spier (1992) showed that asymmetric information could lead to incomplete contracts as well. While bounded rationality inevitably makes all the contracts incomplete, prohibitive

costs of covering all known risks in a way that can be enforced and asymmetries in information may both lead the client to deliberately form an incomplete contract.

The problem of contract incompleteness with the market approach may lead to a vicious circle in which the client endlessly tries to form the contract which covers all the contingencies and to make sure that the contract is enforced (Winch 2000, 2001). On the other hand, in this situation, the contractor keeps looking for chances to remove the pressure on its margin through behaving opportunistically. Although eliminating opportunistic behaviour is one of the core aims of the clients in contract formation, the definition of opportunistic behaviour has remained implicit in the literature. However, it is usually associated with the situations in which the one party (here the contractor) behaves in a way that benefits him at the expense of the other party (here the client). For the contractor, the chances of opportunistic behaviour usually occur when there are project changes which are not covered by the contract. More intense competition and more controlling instruments could generate more motives for adversarial behaviour, which in turns lead to more detailed contracts- an endless cycle. Therefore, transactional approach could lead to projects with high costs of enforcement and costly process of contract formulation.

2.2. Relational Approach

While the transactional approach is on one extreme side of the contracting strategies spectrum, relational contracting (RC) is on the other side. RC is based on the understanding of mutual benefits and co-operative relationships (Rahman and Kumaraswamy, 2002). The concept of 'mutual benefits' means that contractors are motivated to meet clients' needs. It follows from this that it would be meaningless for a contractor to behave opportunistically. That is why RC is claimed to remove the vicious cycle which exists in the transactional approach (Winch, 2000). To create common objectives, sharing of gains and consequently losses are usually advised in the literature (e.g. Bennett and Jayes, 1998). This shows itself practically in incentive systems known as gainshare-painshare arrangements. Generally, positive incentives play an important role in RC (Williamson 1991; Thompson et al. 1998). Partnering, alliancing, joint venturing, and supply chain management are all various forms of relational contracting.

According to Williamson (1991), RC follows the 'elastic' forms of contract; in the extreme relational contracting the contract almost never accurately covers any contingencies, but it indicates the nature of the relationship between parties and the norms of dispute resolution if it materialises. This is in contrast with the transactional approach within which the contracts' conditions are endlessly refined. While in the transactional approach contract incompleteness is a problem, in RC, contracts are intended to be incomplete. The governance mode in RC is hybrid (Williamson, 1991) and could be bilateral or trilateral in which the third party is mobilised to arbitrate if disputes emerge, or a combination of both (Winch, 2006). The emphasis on the mode of governance arises from the idea of contract laws (plural) (Williamson, 2002). While traditional contracting literature implicitly assumes that there is a single law of contract which is enforced by courts, the literature on co-operative contracting highlights that each mode of governance is defined by a distinctive contract law regime (Williamson, 2002). In the context of RC, one of the important roles of the contract is to define the dispute resolution regime which is consistent with the co-operative spirit of the relationship.

While in the transactional approach context firms are connected to each other through contracts, in RC, it is more the relationship which connects parties firmly to each other (Pryke, 2001). That is why much work has been undertaken by researchers to investigate critical relationship features for relational contracts (e.g. Black et al. 2000). In most of these studies, trust is considered as the key relationship feature indicating a good basis for relational contracting (Black et al. 2000).

Although trust is usually known as a lubricant in governance of economic relations (Lui and Ngo, 2004; Williamson, 1991), there are challenging issues in considering trust itself as a governance mechanism (Adler, 2001). First of all, sometimes it is not as stable as other governance mechanisms. This is because of the empirical observations which show that trust is destroyed much easier than it can be conducted (Adler, 2001). In addition, if the trust as a governance mechanism does not work, the trustor will fail badly because trust governance makes betrayal more profitable for the trustee (Adler, 2001).

2.3. Any Cure-all Contracting Strategies? The Notions of Appropriateness in Contracting

After a tide of literature in support of relational contracting, concerns have been raised by some researchers about the danger of the out-of-context use of RC (Parker and Hartley, 1997; Cox 2004, 1996); it is expressed that the relational approach cannot be a ‘cure-all’ contracting arrangement. Researchers, who expressed doubts about the prescriptive outcomes of studies undertaken in the context of RC, criticise the research methods common in works done in the context of relational contracting (Cox, 1996; Parker and Hartley, 1997). Parker and Hartley (1997) highlighted a lack of supporting theoretical consideration in studies which recommend RC as competence in procurement. This is consistent with Cox (1996). In addition, Cox (1996) highlights the danger of anecdotal evidence in prescriptive literature in the field of contracting strategy.

Cox (2004) emphasises the notion of ‘appropriateness’ in contracting strategy and attracts the attention of buying organisations to the fact that their ultimate aim is to procure the projects with minimum total cost rather than using a particular contracting strategy. Williamson (2002) highlights the position of the ‘science of contracting’ which “entails efforts by the immediate parties to a transaction to align incentives and to craft governance structures that are better attuned to their exchange needs”. He places emphasis on the science of contracting in solving the problem of ‘order’ in the private sector.

The costs attached to any of the contracting strategies are different and variable based on the project’s features, market conditions, client’s organisational culture, client’s requirements, etc (Bower, 2003); this is because of different incentives and governance mechanism inherent in each contracting strategy (Williamson, 2002). The contracting strategy which leads to the minimum total costs would be the most appropriate way of contracting. While in the transactional approach the client needs to be prepared for costly dispute resolution processes and costs of writing fully documented contracts, in the context of RC the client needs to take some risks in the project, play an active role in generating trust, pay for negotiation costs, etc (Håkansson and Jahre 2004).

3. Transaction Cost Economics Theory

Transaction Cost Economics (TCE) theory assists the clients to form appropriate contractual relations. TCE theory originates from economics. Economics is focused on one's reasons and the application of these reasons to the problem of allocation of limited resources to unlimited needs (Simon, 1979). TCE theory considers the choice of appropriate contracting strategy from the perspective of allocating scarce resources in construction (i.e. construction economics). In construction projects, resources are used for the production costs and transaction costs (TC). TCE theory relies on the comparison of transaction costs in different forms of contractual relationships. Transaction Cost was first introduced by Williamson to show the costs attached to each transaction except for the production costs. While at first he was vague in defining the TC and described them as "equivalent to friction in a physical system" (Ross, 2005), in his later works (e.g. Williamson, 2002) Williamson defines transaction costs as "the costs of running the economic system". Hodgson (1993) categorises the costs of transacting into three groups including 'Search and information costs', 'Bargaining and decision costs', and 'Policing and enforcement costs'. Therefore, the minimum transaction cost for each project originates from the optimum combination of 'Search and Information Costs', 'Bargaining and Decision Costs', and 'Policing and Enforcement Costs'. TCE theory helps the clients to form contracting strategies which lead to the minimum transaction costs in the projects.

TCE theory explores the correlation between contingency factors and behavioural factors. Contingency factors are the key dimensions of transaction (project) that have important ramifications for governance. These factors include asset specificity, uncertainty, and frequency of the transaction. Behavioural factors are about the ways in which agents respond to contingency factors; bounded Rationality, learning and opportunistic behaviour are human reflections towards respectively uncertainty, frequency and asset specificity Williamson, 2002, 1996).

Before discussing this correlation, it may be worth reviewing the concepts of asset specificity and bounded rationality. Asset specificity relates to the investments done specifically for the transaction. These specialised investments may be in the form of physical assets, specialised human assets, site specificity, dedicated assets, or brand-name capital (Williamson 2002). In projects with high levels of asset specificity the continuity of the exchange relationship may have significant cost consequences (Williamson 2002, 1991).

Bounded rationality refers to limited rate and storage capacity of individuals for processing data without error (Williamson, 1973). Therefore, it is about the human feature by which the behaviour is intentionally rational but only partially so (Williamson 2002, 1991).

Fig.1 shows the relationship between the contingency factors and the behavioural factors.

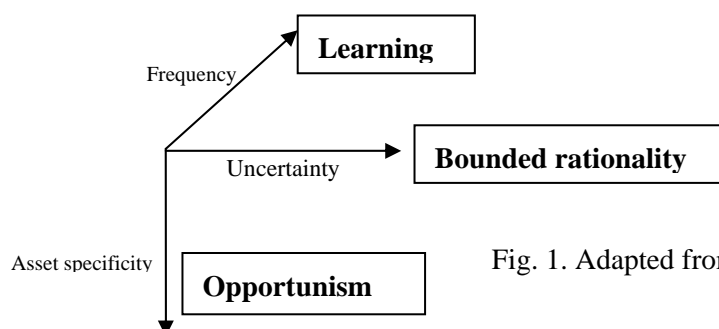


Fig. 1. Adapted from Winch, 2001

In construction projects, agents deal with high levels of uncertainty at early stages of the project. Human behaviour towards uncertainty is bounded rationality. As can be seen in Fig. 1, due to bounded rationality, which makes the contracts inevitably incomplete, in projects with high levels of uncertainties, unforeseeable contingencies may materialise. In these situations, re-negotiation is required. However, the contractor could behave opportunistically during the re-negotiation process if the new situation had not been contracted to be performed. The client is exposed to the opportunistic costs due to the asset specificity which the supplier holds. In construction, most of the asset specificity is post-contract. Asset specificity brings power for the party (usually the contractor) who holds it (Cox et al., 2002) and exposes the other party (usually the client) to the costs of adversarial behaviour up to the threshold of switching costs (Winch, 2001). Agents learn from frequent transactions. However, in the construction sector each project is to a large extent unique (Fig.1).

Under high levels of uncertainty and high levels of asset specificity, TCE theory suggests that to avoid opportunistic behaviour, clients need to choose contracting arrangements which are more co-operative (relational approach). In fact, when there are high levels of uncertainty and asset specificity, the transactional approach may lead to high cost consequences. Therefore, the TCE suggests placing emphasis on the effectiveness and flexibility rather than efficiency (Winch, 2006).

Based on the TCE framework, if the client can eliminate uncertainty or asset specificity, then there is no harm in transactional contracting and it is possible to only focus on efficiency; when there is no uncertainty, it is possible to write a contract which covers all the contingencies. So, the customer will not need any re-negotiation during the project process and consequently the buyer will not be exposed to any adversarial behaviour. This does not happen in the real world; in real the world actors are always dealing with some level of uncertainty. That is why the client always needs to make a balance between the costs associated with the contingency factors and the efficiency which could be gained from competition. In addition, considering that low levels of asset specificity means that the client can replace the contractor with incurring only negligible costs (Williamson, 1991), in cases that the post contract's specificity is not considerable, the client could be sure that the costs of contractor opportunistic behaviour is insignificant.

In the TCE framework, the most important contingency factors are related to the project itself; TCE does not emphasise the nature of the client-contractor relationship in its analysis. TCE places all the emphasis on the transaction features, as if the transaction occurs between anonymous clients and contractors in pure spot markets. This view of the buyer-supplier relation originates from economics (Williamson, 1991). The premise behind this view is that the behaviour of agents in any economic relationship is directed by their explicit goals, and the economic actors make decisions independently from their social connections (Weintraub, 1993).

4. Economic-Sociological Perspectives on governance of economic transactions

According to Batenburg et al. (2003) and Swedberg (1997), the subject area of new economic-sociology was consolidated by Gronovetter work in 1985 entitled "Economic Action and Social Structure: The Problem of Embeddedness". In his well-cited paper, Granovetter (1985) emphasised

the role of social relations in governance costs. He introduced the notion of embeddedness which is about the degree to which individuals or firms are involved in a social network (Granovetter, 1985). The economic sociological perspective points out that the contractual behaviour of firms depends not only on transaction characteristics but also on previous and expected future contacts between the supplier and the buyers (Batenburg et al. 2003). Therefore, to form the most appropriate contractual relation, the clients need to consider how embedded they are.

The notion of embeddedness is about the ties and contacts between the client and the contractor as well as their ties and relations with third parties (Batenburg et al. 2003). 'Dyadic embeddedness' is about the extent to which the same buyer and supplier are involved with each other over time (Buskens et al. 2003b). Dyadic embeddedness is either about the past experiences or the expected future experiences. Another kind of embeddedness is called 'network embeddedness' which is about the extent to which the two parties are embedded in the network of third parties (Buskens et al. 2003b).

Embeddedness influences the governance costs through two mechanisms of 'learning' and 'control'. Learning refers to the possibility for the actors to gain information through previous similar interactions. The client can gain information through previous experiences with the contractor (dyadic embeddedness) or the client may be able to gain some information about the trustworthiness of the contractor through those who have had similar interactions with the contractor (network embeddedness) (Buskens and Raub, 2002). Positive experiences or negative information achieved through past experiences could lead to the emergence of trust or distrust (Buskens and Raub, 2002; Buskens et al. 2003b).

The second mechanism through which embeddedness affects trust is 'control'. Control mechanism is about the sanction power of the client and its network. The fact that the contractor takes into account the sanction threat from the buyer as well as the buyer's network in each transaction leads to some sort of power for the client. This threat works as an incentive for honouring trust (Buskens and Raub, 2002). Therefore, the stronger the opportunities for the buyer to sanction the contractor through his network, the stronger incentives the contractor has to honour trust and the stronger reasons the client has to place the exchange relationship based on trust and relational contracting (Buskens et al. 2003b). Depending on the nature of the exchange relationship, learning, control mechanism or both of them may be crucial.

Both economists and sociologists acknowledge that the trustworthiness of a contractor is not easily observable prior to a transaction (Buskens et al. 2003b). However, the reaction of the scholars towards this ambiguity is different. In the context of Williamson's approach, in exchange relationships with low levels of frequency, it is too difficult for the buyer to make sure that the supplier is not intending to behave opportunistically. Consequently, through Williamson's perspectives, the governance structure is the contractual framework within which the transaction is located (Kamman et al. 2006). In fact, in the absence of trust, market co-ordination takes the form of spot markets (Adler, 2001). On the other hand, scholars who are influenced by the sociological theories claim that non-contractual relations play an important governance role in economic exchange relations. This difference in perspectives has partly arisen from fundamental contrasts in the conceptions of 'actor' between

sociologists and economists. Economists hold the view that economic actors make decisions independently from each other and from the social relations they have, but the sociologists assume that actors are socially constructed entities (Smelser and Swedberg, 1994). Considering the fundamental contrasts between the assumptions of subject areas from which the theories of appropriate contracting strategies originated, it is not surprising if these theories lead to different or conflicting guidelines. Therefore, the remaining question would be about the co-existence between these theories. Is it possible for the clients to take advantage of both of these theories? Is it possible to provide the clients with guidelines in which the achievements of both theories are counted? In the context of construction management, little research has been done to link normative theoretical works to each other in pursuit of more detailed signposts for clients wishing to decrease the opportunistic behaviour through more appropriate contractual relations.

5. Conclusion

Clients can do their own bit in bringing success to the construction projects by forming appropriate contracting strategies. Consequently, theoretical works which explore the causal relationships between project characteristics and the costs associated to each contracting strategy could play an important role in project success.

The paper reviewed two of the prominent works concerned with the choice of appropriate contractual relations, and a lack of interaction between these theories in relation with decreasing the non-cooperative behaviour has been highlighted. The paper proposes that these theories may co-exist. In other words, the paper proposes a pragmatic approach to the problem of non-cooperative behaviour between contractors and clients in construction industries. The pragmatic approach will help the researchers to consider the socially constructed notions as well as the positivist works. Consideration of different perspectives about the contractual relations could potentially lead to the emergence of more detailed normative works which will help the clients to reflect upon the projects' characteristics more efficiently.

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