RE-DEFINING SUB-CONTRACTING: REDUCING TRANSACTION COSTS?

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It is maintained that partnering can arguably reduce *ex post* transaction costs within the construction process. These costs primarily arise due to a lack of harmonization between contracting parties. Historically, this relationship has been transactional in nature, with both parties seeking to secure value added at minimal cost. Despite this fact, evidence suggests that mutual co-operation that can supersede a traditional cost led approach offers new hope for prosperity in the construction industry. This paper offers preliminary research highlighting that the competent implementation of strategic partnerships based upon trust can only reduce transaction costs if the small sub-contracting firm is fully integrated into the process. The paper concludes that traditional approaches and new practices will, if they continue to facilitate contractor opportunism, encourage small sub-contracting firms to seek alternative markets instead of enabling mutual co-operation to reduce the transaction costs of all stakeholders involved in the construction process.

Keywords: harmonization, partnering, small firms, sub-contracting, transaction costs.

THE NEED FOR HARMONY BETWEEN LARGE CONTRACTORS AND SMALL SUB-CONTRACTING FIRMS

The construction industry has been heavily criticized for its adversarial nature, the take up of new technologies and issues relating to the management process (Construction Task Force 1998; Latham Report 1994). Historically, large construction firms have been able to negate the effects of economic recession and declining profits by initiating strategies of retrenchment and disinvestment. This in turn has arguably led to the proliferation of Specialist Trade Contractors (STCs) and small sub-contracting firms.

The co-existence of small sub-contracting firms and retrenchment strategies suggest that large and small construction firms are interdependent. In other words it is argued that both parties secure project success and customer satisfaction through the process of mutual co-operation and harmonization. The fact that large and small firms are fundamentally different however, implies that harmonization between the contractor and sub-contractor cannot be construed as being automatic. Instead, it is contended that the differences that exist are detrimental to the effective management of a construction project and the process of value added (Cox and Townsend 1998).

Small sub-contracting firms differ from large construction firms in terms of size, management style, structure and organizational governance. In fact, it is submitted that the differences between large and small firms are so pronounced that it is

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insufficient to view these distinct forms as one homogeneous grouping for the purposes of comparative analysis (Penrose 1959). Furthermore, Wynarczyk *et al.* (1993) maintains that the concepts of uncertainty, innovation and evolution effectively distinguish the small firm from its larger counterpart. Uncertainty provides that small construction firms can generally be viewed as being price takers (O'Farrell and Hitchens 1988). In this sense, it is purported that small construction firm can rarely offer products or services above the prevailing market price and as a result are more susceptible to socio-economic fluctuations. Conversely, it is argued that the entrepreneurial nature of the small firm enables it to respond quickly to change and adopt innovative techniques whereas, large traditional firms are consistently being cited as cumbersome, inflexible and diffident to change (Lefebvre, Mason and Lefebvre 1997). Nevertheless, it is interesting to note that whilst large firms are beginning to embrace Intrapreneurship as a vehicle for creativity and flexibility, small firms are often unable or unwilling to operationalize new concepts and practices due to the preferences of the owner manager or the lack of relevant resources (O' Farrell and Hitchens 1988). Finally, small and large firms are different in terms of evolution and change. Large firms have comprehensive administrative structures, asset bases and formalized management practices that afford them relative stability whilst the volatility of the small firm sector provides that smaller ventures often experience transformational change but discontinuous evolution. Thus, as firms grow, many changes occur which influence the structure of the organization and the style and role of management (O'Farrell and Hitchens 1988).

It is surprising that despite the fact that there is a need for greater harmony between the interdependent parties of the construction process, most studies fail to account for, or even attempt to comprehend the key differences that exist between the contractor and the sub-contractor. For example, research by Saad and Jones (1998) has recognized that STCs should have a larger part to play in the process of construction as they account for 80% of contract expenditure. The failure to acknowledge the existence of fundamental differences between contractors and small sub-contracting firms constrain any efforts to improve strategic fit. It could also be argued that the small construction firm derives little benefit from traditional sub-contracting arrangements. Instead, it is suggested that the transactional nature of the construction industry enables larger contractors to take advantage of superior networks and strategic knowledge to reduce operational costs at the expense of the small firm.

A plethora of literature exists highlighting the need for the construction industry, as a whole, to adopt new value adding practices. The universal adoption of innovative practices however, is deemed to be problematic (Hall 1995). In fact, it is contended that many small sub-contracting firms cannot visualize how such practices are of additional benefit to existing methods of construction. Moreover, it is argued that the considerable distance that exists between the client and the sub-contractor ensures that the small sub-contracting firm is unlikely to derive benefit from the provision of quality work. It has already been submitted that numerous problems faced by the construction arena can be minimized through mutual co-operation (Saad and Jones 1998). Harmonization however, essentially depends upon the extent to which both large contractors and small specialist firms can enjoy favourable benefits. Furthermore, it is contended that harmony cannot exist in an industry that is considered hostile and one of little trust. Consequently, for harmony to exist it is imperative for large contracting firms and small sub-contractors to mutually assist in the development of universally accepted practices that not only generate sustainable profit margins but also add value throughout the construction process.

THE CONSTRUCTION PROCESS

Conflict within the construction process is as prevalent today as it was at the time of the Simon Report (1944). The procurement systems and the contractual and legal framework adopted by most participants are often criticized as being confrontational and adversarial. Competitive tendering which aims to reduce costs can also result in this situation being further compounded. The result of such actions can lead to dispute and conflict, usually revolving around financial self-interest, between the various stakeholders within the process (Cox and Townsend 1998).

Contractors remain in business through the continuation of contractual arrangements with a variety of clients and projects. In this sense, it is submitted that the contractor possesses the necessary expertise and knowledge to bring together a wide range of specialists to meet the needs of the client. Furthermore, it is argued that the contractor enters into separate contracts with both the client and specialist sub-contractors in order to fulfil the client's remit. Thus, it is contended that the margin between the price quoted to the client and the actual cost of sub-contracting represents the contractor's reward for the effective organization and co-ordination of the construction process (Casson 1987).

Small and Medium Construction Enterprises (SMCEs) have a variety of sub-contracting arrangements that they can enter into with larger contractors but despite contractual flexibility all these approaches can bring problems as well as opportunities. Currently the United Kingdom construction industry places very little emphasis on the development of the SMCE sector. This neglect seems to support the supposition that SMCEs are merely a product of the fragmentation of the industry caused by significant shifts in demand (Morton and Jaggar 1995). Consequently, it can be argued that SMCEs struggle to retain any notion of individuality. In other words, the small sub-contracting firm is construed as a component part of the construction process rather than an independent decision-making firm. The idiosyncratic nature of the construction industry demands that parties that possess a wide range of different skills and expertise carry out work (Gann 1996). Contractors will normally aim to maintain contact with a variety of different specialists and offer intermittent employment, matching the skills of the specialist to those required for the successful completion of a construction project (Winch 1998). Thus it is maintained that interdependency helps to lower the costs of all parties involved within the construction process (Bröchner 1990). Despite the opportunities for the creation of small specialist firms, it is contended that many SMCEs are failing to experience the benefits of entrepreneurship due to the adversarial nature of the construction industry.

The construction process: a transactional perspective

In terms of manufacturing a product, a firm can either organize from within or alternatively through contractual arrangements with other parties. The producer utilizes price as a means to strategically decide upon what activities should be outsourced and what operations should be organized internally (Lingard *et al.* 1998). Hence, transaction cost theory purports that costs arise from the process of economic organization regardless of whether the costs are associated with external or internal co-ordination. Moreover, it is argued that if internalization costs exceed prevailing market prices then rational firms will choose to outsource certain activities in order to minimize these costs.

Most construction work undertaken can be categorized as being outsourced. In other words, contractual relationships can commonly be observed between the principal stakeholders within the construction process. These stakeholders essentially aim to satisfy their overall objectives whilst minimizing cost. In a contractual arrangement cost manifests itself as either being associated with organizing the terms of the contract or as a result of enforcing the contract's terms and conditions. Within transactional cost economics these costs are described as being either ex ante or ex post respectively (Coase 1937, Williamson 1975, Lingard *et al.* 1998). In other words, within the construction process, ex ante and ex post costs relate to the differences between what projects should cost and their actual cost to all contracting parties.

Notwithstanding the fact that the construction industry faces continued uncertainty, outsourcing continues to be the favoured form of procurement (Lingard *et al.* 1998). The historical development of the construction industry has meant that the majority of contractors have chosen to concentrate on core activities instead of integrating peripheral tasks associated with project completion. Hence, the nature of the construction process provides that a number of divisions in labour increase the complexity and management of a construction project. Furthermore, it is maintained that sub-contracting allows contractors a degree of freedom and releases them from employment driven contractual liabilities. Consequently, whilst the contractor possesses the power to organize and direct the activities of the sub-contractor, the transactional nature of the arrangement enables the contractor to effectively apportion risk. In this sense it can be argued that small sub-contracting firms are employees in all but name and associated benefits. Moreover it is submitted that the contractor and sub-contractor should, to all intents and purposes be construed as a quasi firm. Thus, it is contended that whilst the contractor adopts the management role, small sub-contracting firms are perceived as subordinates in the decision-making process. As a result the small sub-contracting firm not only struggles to retain identity but also becomes increasingly divorced from management decisions.

The nature of the construction industry provides that the majority of costs arise after a contract has been awarded (Lingard *et al.* 1998). In fact, it is purported that a distinct lack of information in traditional contractual relationships dramatically increases ex post transactional costs. In this sense, it is maintained that whilst direct costs associated with co-ordination, scheduling, supervision and enforcing contractual terms can be budgeted into total project cost, it is more difficult to estimate indirect costs that arise due to motivational issues, opportunism and conflict. These costs occur principally as a result of the failure to acknowledge that small sub-contracting firms are individual decision-making entities. Consequently, whilst contractual terms ensure project completion, the contract can rarely provide sufficient motivation to enhance performance. Thus, sub-contractors can feel alienated and conflict often arises due to a lack of trust, understanding, communication and respect between the principal contracting parties. Moreover, ex post costs can be further increased as a result of self-interest. It is therefore reasonable to conclude that all parties should be construed as being vital to the construction process and that successful co-operation can only be achieved by establishing closer relationships between all contracted firms. Furthermore, it is argued that harmonization is primarily dependent upon a clear understanding of how information and mutual co-operation are inextricably linked to reducing transactional costs.

The construction process: a strategic perspective

Partnerships, strategic alliances and networks have contributed to economic revitalization and growth. Many firms, industries and regions throughout the world have formed a variety of different relationships that have produced economic advantage for all concerned. The benefits that accrue include shared resources, staff and expertise, problem solving and the diffusion of innovation. Such relationships can offer tangible benefits to all involved. The relationships can offer reward in terms of economic performance and the increased innovative capacity of firms.

Strategic alliances, as the term suggests, involve two or more firms acting as allies within a relationship (Das and Teng 1998). The elements of uncertainty or “relational risk” (Das and Teng 1996) are arguably key, to a partnering form of relationship within the construction industry. It is the co-operation between the partners that is paramount to success. In this sense, opportunistic behaviour is minimized and success derived from all parties pursuing mutually beneficial interests. Partner co-operation however, is dependent upon all parties being able to manage an essentially paradoxical situation in which firms are expected to pursue their own business interests whilst simultaneously ensuring that these self interests do not prevent the alliance from functioning effectively (Das and Teng 1998). Consequently, the key to successful alliances is the necessity to strike a balance between competition and co-operation. A key driver of such initiatives is that of ‘trust’. Trust can manifest itself in many forms within the construction process. Social capital can also be visible within relationships resulting in a resource for the interdependent parties. To this end it is argued that this issue should not be ignored (Lau 1999). In fact it is argued that the cost of transactions can be reduced by social capital (Loury 1977), reliable information (Casson 1987) and trust (Wood and McDermott 1999).

Despite a great body of academic work and practice within the construction industry, advocating that partnering can reduce defects and transactional costs, it is contended that current relationships are not advantageous to all parties within the construction process. Furthermore, it is submitted that regular clients of the industry do not always live up to their own rhetoric but utilize unequal power relationships to ensure that the essence of partnering does not constrain the pursuit of self interest (Green 1999). It could be suggested that opportunism and environmental uncertainty negate the benefits of partnering (Klein 1999). It is however conceivable that some operatives within the construction process may continue to opt for transactional relationships in order to satisfy self-interest. It could also be argued that if the principles of partnering and strategic alliances ultimately fail, then ex post costs could remain uncertain due to imperfect information and distrust. Therefore, it is necessary to ensure that the benefits of partnering are diffused throughout the supply chain so that all parties can enjoy reduced transaction costs. For partnering to work it is imperative that all partners make a profit and that all stakeholders are included in the decision-making process (Klein 1999).

Preliminary evidence: a contractual versus strategic relationship

A preliminary case study approach was selected and undertaken to ascertain how the costs of transactions could be reduced throughout the supply chain. The research was also interested in examining the perceived benefits that could be accrued to small sub-contracting firms. Opinions were sought from three firms (2 contractors and 1 sub-contractor) in terms of how the parties currently approached the construction process and how relationships can impact upon performance. The research also aimed to investigate how industry best practice impacts upon the costs incurred and profit margins of the small sub-contracting firm. The pilot study utilized semi-structured interviews to collect qualitative data in regard to the perceptions of contracting parties. Particular interest was given to the views of the small sub-contracting firm on transactional and strategic relations.

Contractor (A) operates from a transactional perspective. The firm tenders and bases the decision to employ small sub-contracting firms solely upon price. In some instances, previous experience in working with the sub-contractor prompts the decision to enter into contractual relations but is still considered secondary to the tender price. Contractor (A) despite its transactional approach, still expected the small sub-contracting firm to provide quality work but felt no need to involve the firm in the decision-making process. In terms of delivering a satisfactory service, the small sub-contracting firm was viewed by the contractor, as a "problem". The contractor did not view the small firm as an integral part of the construction process. In this sense the contractor did not seem to respect or trust in the capability of the small sub-contracting firm. The contractor then went on to say:

> *Due to time pressure we will often sweep up the dross. We know the animal we get involved in and I will make contingency plans. You know often what people say they will do, and what actually happens, are often diverse.*

Throughout the interviewing process, it was evident that contractor (A) often faced escalating ex post costs caused by a milieu of contractual problems between contractor and sub-contractor.

Contractor (B) subscribes to the partnering approach to the management of the process. The contractor felt that partnering was a significant development in managing and integrating sub-contracting firms into the construction process. Contractor (B) believed that the partnering philosophy could dramatically reduce unnecessary transaction costs that derived from conflict and a lack of communication. Consequently, contractor (B) was committed to preferred lists to ensure quality and service. It was surprising that despite the existence of a preferred list, price continued to be the major selection criterion. Moreover, it was apparent that the small sub-contracting firm was still divorced from decision-making although every effort was made to keep sub-contracting teams informed of management decisions. Both of these approaches are essentially cost led. Whilst the selection criterion is supposedly based upon the reputation of the sub-contracting firm wherever possible it is evident that cost still drives the selection process under both relationships.

The interesting point in regard to existing theory is that neither approach integrates the small sub-contracting firm into the decision-making process. The sub-contractor interviewed had worked with each of the contractors on more than one occasion. The commercial manager of the sub-contracting firm was happy to discuss both contractors with the researcher. The comments made in regard to contractor (A) were far from complimentary. The sub-contractor was adamant that neither his firm nor any other firm that he was in touch with would work for contractor (A) again. In this sense, the commercial manager expressed that the sub-contracting element of the construction industry was no longer willing to embrace the "subby bashing" philosophy in order to increase the profitability of the contractor and client. Conversely, contractor (B) was viewed as a very fair and honourable firm to work with. The sub-contractor agreed with the philosophy of contractor (B), in that competition in terms of selecting the lowest bid was a fair and reasonable strategy to adopt as long as trust and respect were in place. The sub-contractor added that often when a “good job came up” he would hope that contractor (B) would win the project. The sub-contractor expanded upon the previous comment stating that out of ten contractors in the area it was only willing to work with two, including contractor (B). The sub-contracting firm was very happy to compete with four or five alternative sub-contractors (through preferred list) because they were certain that the tender and contractual process operated by contractor (B) was dealt with reasonably and fairly. It is perhaps pertinent to note that these compliments related primarily to the willingness of contractor (B) to financially remunerate the sub-contractor within an acceptable time frame. In answer to a question involving the firms’ future as a sub-contractor, the commercial manager was less optimistic. The firm had suffered from serious financial problems a few years back mainly due to contractual problems with contractors such as contractor (A). The firm was actively seeking new markets and opportunities to reduce the spread of risk away from sub-contracting. The firm was also acting as a contractor with a major client to refit an entire retail chain throughout the United Kingdom.

The commercial manager of the sub-contracting firm made an interesting point during the interview. He was very happy working for the managing director of contractor (B) but wished that the strategic vision of firm could be diffused throughout the organization. The firm was involved in a contractual conflict with a Quantity Surveyor and found that negotiations were becoming hostile. It was evident that this particular situation would not be settled harmoniously. The sub-contractor was concerned that the firm would have to settle for a significant reduction in profitability for the works provided. This was of great concern due to the fact that contracting firm (B) is viewed as a reputable firm. It is argued therefore that little consideration is given to sub-contractors’ objectives or constraints. Instead, it can be submitted that they continue to be treated as simply a tool of the process, ensuring that the contractors short-term objectives are maintained. In other words, the preferred list may assist in the provision of work for the sub-contracting firm but arguably acts as a good bargaining tool to ensure that cost and quality is met. It is contended that the reputation of the sub-contracting firm is geared to the reduction of costs of the contractor and client through quality assurance rather than expertise and mutual co-operation. Preliminary research indicates that neither the traditional nor partnering approach to construction adds value for the small sub-contracting firm. Furthermore, it is suggested that if a general lack of respect continues then this may prompt a mass exodus of sub-contractors from the industry. Research has already established that small sub-contracting firms are seeking alternative markets and opportunities and this offers a further example of how continued disharmony may dramatically increase ex post transaction costs.

CONCLUSION: REDUCING THE COST OF TRANSACTIONS

It is argued that success within the construction process is determined by the extent to which the interfaces between inter-dependent sub-contractors can be managed (Shirazi *et al.* 1996). The fact that the construction industry is cost led provides that profit margins are diminutive. Furthermore, it is recognized that the main objective of all parties involved in the process is to maximize value added and minimize cost. Currently, the industry continues to be cost led. This approach can only be construed as being destructive in the long term as the need to minimize transactional costs effectively reduce quality and client satisfaction. It is also maintained that if 'Dutch Auctions' continue to dominate specialist selection then it is unlikely that the requirements of the small sub-contracting firm will be satisfied. This point is supported by initial evidence from the construction arena. It could therefore be contended that this behaviour is not conducive to harmonization.

It is submitted that the degree of harmonization between the contractor and small sub-contracting firms is inextricably linked to client satisfaction. Furthermore, whilst this link is not explicitly acknowledged by the construction industry it is argued that the acquisition of future business by both contractor and sub-contractor is dependent upon securing and building an established reputation within the market place. It is evident that the partnering philosophy is not currently embodied within the industry despite continued attempts by existing literature to encourage construction firms to subscribe to the partnering concept (Green 1999). In other words, perhaps partnering should not be construed as an all-encompassing solution to the problems of ex post transactional costs. It could be contended that the interests of all parties, especially small sub-contracting firms need to be addressed and that the opportunistic behaviour by clients and contractors needs to be minimized. In fact it is argued that continued alienation may force sub-contractors to enter alternative markets. Furthermore, it is submitted that diverse and niche operators could even act as contractors, offering specialism directly to clients. A mass exodus of sub-contracting SMEs out of the construction sector can only be viewed as a major concern for the industry especially if good quality sub-contracting firms are forced to look at alternatives to meet business needs. Consequently, it is imperative for the industry to understand the aspirations and motivations of the SMCE sector. Specialists currently account for approximately 80% of the work carried out by the industry (Saad and Jones 1998), yet the industry fails to attach significant importance to its development. It is therefore maintained that whilst the small firm can assist in significantly reducing the cost of the transaction, it is evident from exploratory study that neither the contractual or strategic approach to the construction process provides tangible benefits to the small sub-contracting firm.

While it is evident that the extent of contractor and sub-contractor harmonization affects client/consultant satisfaction it is perhaps pertinent to note that the needs and objectives of the sub-contractor are often overlooked. It is therefore argued that future research should attempt to ascertain the extent to which all contractual parties can benefit from mutual co-operation within the construction process. It is contended that despite the apparent interdependence of the principal stakeholders, the transactional nature of the industry ensures that the process of construction remains cost led, adversarial and one of little trust. Consequently, it is submitted that the lack of harmony that currently exists is detrimental to all stakeholders in terms of quality, performance, value added and reputation. Thus, the continuing success of the industry, as a whole, is becoming increasingly dependent upon the effective management, co-ordination and innovation of the construction process. Furthermore, it is maintained that research must focus upon the extent to which strategic relationships impact upon the reputation and performance of the contractor and small sub-contracting firms and more importantly study whether how approaches can address the needs of the small sub-contracting firm. Moreover, it is necessary to promote the significant role of the small sub-contracting firm within the construction process in terms of reducing transaction costs, improving information flows and the maintenance of quality and client satisfaction. Future research will address these issues utilizing a grounded approach to explore the impact of good practice upon SMCEs. This research will not only offer a valuable insight into the activities and motivation of an important and often neglected element of the construction process but also provide evidence of how transactional costs can be further reduced.

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