Managing in Construction
Supply Chains and Markets

Reactive and Proactive Options for
Improving Performance and
Relationship Management

Andrew Cox, Paul Ireland and Mike Townsend
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Preface

This is the third book about relationship and performance optimisation in construction supply chains and markets in a series undertaken as part of a continuous collaboration between researchers at the Centre for Business Strategy and Procurement (CBSP) at Birmingham Business School and Newpoint Consulting Ltd. This collaboration commenced in 1994 when Mike Townsend, the CEO of Newpoint Consulting, began work with Andrew Cox at the CBSP to investigate the benefits of partnering approaches in the construction industry as part of a British Airports Authority (BAA)-funded project. That research led to the publication by Thomas Telford of *Strategic Procurement in Construction* (Cox and Townsend, 1998) and a companion piece, funded by a research grant from London Underground and Railtrack, entitled *Contracting for Business Success* (Cox and Thompson, 1998). In the intervening years work on construction, as well as other relationship and performance management issues, has continued both at the CBSP and in Newpoint Consulting.

Now, due to this extensive experience by Newpoint Consulting in the construction industry, and the generous funding over the last three years by the Chartered Institute of Purchasing and Supply of more detailed research into construction supply chains and markets, it has been possible to produce a third book. In this book, it has been possible to provide a much more detailed insight into the full range of relationship and performance management outcomes that are feasible in construction supply chains and markets, as well as a more detailed understanding of the appropriateness of different ways of working under specific supply chain and market conditions.

The primary focus of this book is on how buyers and suppliers in construction relationships can optimise their own performance. The optimisation of the performance of exchange partners is also considered. This is, however, a secondary concern because, while the performance of exchange partners is obviously an issue for both buyers and suppliers in all business relationships, their primary concern must always be with their own performance. In this sense, assisting the performance of an exchange partner may be important for the performance of the other, but, in the end, it may not be.

We recognise that this may not be the current dominant thinking in the industry, where the attachment to partnering principles in recent years has generated an enthusiasm for considering the optimisation of everyone’s performance in construction supply chains and markets. Our view is that while optimising the performance of exchange partners may be a legitimate concern for actors involved in supply chains and markets, it is not the best way to think about performance optimisation. This is because, while it can be a sensible approach if relationships need to be sustained over the long-term, it may be sub-optimal in the short-term when relationships do not need to be sustained.
This implies, as we shall see in what follows, that in construction – where long-term relationships based on high levels of bilateral dependency are not always necessary for either the buyer or the supplier to achieve their commercial goals – achieving outcomes that are equally beneficial to both parties may, but they may not, be essential. If this is the case then the management problem in construction supply chains and markets must be to decide whether it is essential to develop long-term and highly collaborative (partnering) relationship management approaches, or whether these should be replaced by relatively short-term and arm’s-length (opportunistic) buyer and supplier interactions.

This way of thinking clearly takes issue with those writers who argue that ‘best practice’ in construction relationship management is always to develop highly collaborative approaches based on high levels of trust and transparency in preference to opportunistic and adversarial approaches. These approaches – sometimes referred to as partnership sourcing, project partnering and relationship marketing – have been the dominant ways of thinking about construction ‘best practice’ since the publication of the Latham and Egan Reports (Latham, 1994; DETR, 1998) into the problems facing the industry. This book, while not rejecting these approaches, argues that they can only be appropriate ways of working for particular actors under specific construction supply chain and market circumstances. When these circumstances do not occur then alternative supply chain and market management approaches will be appropriate.

The central premise of this book is, therefore, that, while there may be opportunities for some buyers and suppliers to develop highly collaborative exchange relationships in construction, the majority of relationships will continue to be managed on a short-term and relatively opportunistic, arm’s-length basis. Furthermore, it is argued that there is nothing fundamentally flawed in the management of construction relationships using highly opportunistic and arm’s-length ways of working. In practice, the performance and relationship optimisation problem in construction supply chains and markets is about appropriateness. This means that buyers and suppliers both have to choose wisely from a range of relationship management approaches – some of which may be commercially adversarial or non-adversarial, and some of which may be operationally collaborative or arm’s-length.

It is also argued that, when making appropriateness choices, while the idea of developing win–win outcomes in which both parties fully achieve all that they ideally desire is an appealing idea, it has no basis in reality when an objective (economically rational) view is taken of commercial exchange between buyers and suppliers. This means that positive-sum (win–win) outcomes are not objectively feasible, and that only more restricted forms of mutuality (nonzero-sum or mutually beneficial) outcomes (based on win–partial win and partial win–partial win), or zero-sum outcomes (based on win–lose and partial win–lose) are achievable in buyer and supplier exchange (Cox, 2004a, b). As a result, the desire to achieve outcomes that optimise the performance of both parties in an exchange relationship may represent a serious misunderstanding of buyer and supplier exchange – both in construction specifically, and in business relationship management in general.

This is, however, to run ahead of the discussion presented here. In Part A, Chapter 1 provides an introduction to the performance and relationship optimisation problem in construction supply chains and markets. It is argued that, even though writers from the relational school of writing contend that developing trusting and transparent, non-adversarial and highly collaborative approaches to relationship management is the best way to optimise performance, construction
supply chains and markets have unique and distinct demand and supply characteristics that often militate against the development of longer-term and highly collaborative ways of working.

Given this, most construction supply chain and market relationships will remain essentially short-term and operationally arm’s-length, whatever proponents of more collaborative relationship management approaches may desire. This chapter shows that the optimisation problem for buyers and sellers in construction supply chains is, as a result, one in which there is an inherent tendency for most relationships to be managed by both parties in a commercially opportunistic manner. This does not mean that such an approach is always necessary, but that it is inherently likely because of the power structures that exist in a mainly project environment rather than process supply chain environment.

Following this discussion of the inherent problems facing managers in construction supply chains and markets, Chapter 2 outlines the power and leverage perspective on relationship and performance management. This school argues that while collaborative ways of working may be appropriate for some actors in some construction supply chains and markets they are not appropriate ways of optimising performance for all actors. On the contrary, it is argued that only a limited number of actors, who possess key power resources in construction supply chains and markets, will be able to undertake collaborative approaches effectively. Furthermore, this school contends that when undertaking collaborative relationships unconditional trust and absolute transparency of operational and commercial trade-offs may be naïve, and also that, in the absence of collaboration, opportunistic arm’s-length relationship management may be a highly desirable way of working for either the buyer or the seller.

This discussion is informed by an analysis of the range of relationship management and performance optimisation approaches that are available to buyers and suppliers. This provides a way of thinking about the relationship management and performance optimisation choices that may be more or less appropriate for managers to utilise when they act as buyers or as suppliers in construction supply chains and markets. It is argued that buyers and suppliers can interact using essentially reactive or proactive ways of working, and that there are essentially two reactive (supplier selection or supply chain sourcing) and two proactive (supplier development and supply chain management) approaches that are feasible in buyer and supplier exchange (Cox et al., 2003).

Unfortunately, as Chapter 3 shows, it is not always possible for both parties to an exchange to fully achieve their ideal commercial and/or operational goals when they operate within these four relationship management approaches. Sometimes the buyer will achieve much more than the supplier and vice versa, or the buyer or supplier will win and their exchange partner will lose operationally and commercially. This is essentially because exchange is contested and win–win outcomes are not feasible in relationships between buyers and suppliers (Cox, 2004a, b).

Given these conclusions, sixteen short empirical case studies (in Chapters 4 to 19 in Parts B1 and B2) provide an overview of the relationship management and performance optimisation outcomes that can occur in construction supply chains and markets. These case studies show that it is possible for buyers and suppliers to operate using highly proactive and collaborative, as well as highly reactive and arm’s-length ways of operational and collaborative working. Furthermore, as the cases show, when either proactive or reactive ways of working are selected, while it may be impossible for positive-sum (win–win) outcomes to occur, it is
possible for nonzero-sum (win–partial win and partial win–partial win) and zero-sum (win–lose and partial win–lose) outcomes to occur. This demonstrates that when managers make decisions about relationship management approaches there can be very different performance optimisation outcomes within them for the buyer and the supplier.

The sixteen cases demonstrate, therefore, that, when it comes to optimising individual performance, some relationship management choices may be operationally and commercially superior to others for both buyers and suppliers. This means that making choices about different ways of working for construction buyers and suppliers is not just a simple choice between proactive and collaborative or reactive and arms-length. On the contrary, although the Latham and Egan Reports have tended to coach the choice in these simplistic terms, it is clear from the analysis presented here that buyers and suppliers sometimes have reactive options that are superior to all of the proactive choices available to them, and vice versa. Furthermore, the analysis shows that when making decisions about proactive and reactive options there are also options available that provide buyers and suppliers with involvement only at the first tier (market-only) or throughout the whole supply chain. In making decisions about reactive or proactive relationship management, therefore, buyers and suppliers also have to consider their market and supply chain options.

This more comprehensive understanding of the complexity of available relationship management choices for buyers and suppliers in construction supply chains and markets provides the basis for a final discussion in Part C (Chapter 20) of the implication for relationship management and performance optimisation. The final chapter demonstrates that although there are sixteen broad relationship and performance optimisation outcomes that are feasible in buyer and supplier exchange, the majority of outcomes in construction, as in all other forms of business-to-business exchange, occur in the nonzero-sum (partial win–partial win) category. Despite this, even when nonzero-sum or mutuality outcomes occur it is not the case that both parties in an exchange relationship will be equally satisfied with the performance outcome.

In the final chapter the essentially contested nature of exchange in construction is explained by reference to the fact that, given the nature of the demand and supply characteristics of this industry and the power structures it creates, opportunism and reactive arm’s-length relationship management rather than proactive collaborative options are often preferable for most exchange partners. This means that in the project-based side of construction zero-sum outcomes are likely to be more frequent than is the case in many other industries. As a result, while there is scope for proactive relationship management approaches based on trust, transparency and collaboration, these may not be feasible for all actors in the industry.

The final chapter also provides some pointers for managers when they think about appropriateness in selecting relationship management options. It is hoped that this will assist managers in construction to understand when it is, and when it is not, appropriate to utilise reactive or proactive approaches, and how they should think about performance optimisation for themselves and their exchange partners. It is hoped that, by presenting this more detailed account of the types of relationship and performance approaches and outcomes that can occur in construction supply chains and markets, practitioners will be able to select more wisely from alternative ways of working. In doing so it is also hoped that they can achieve far more success in their relationship and performance management.
approaches than appears to be the case given the high level of sub-optimality that is currently endemic throughout the industry.

If this book provides an opportunity for practitioners to understand the full range of relationship choices available to them – whether these are reactive or proactive – to leverage improvements in performance then it will have served its purpose. We are grateful for the forbearance of Thomas Telford Publishing and its editors in granting many extensions to a gestation process that has been longer than we would have preferred. We would also like to thank Jackie Potter and Michelle Donovan for their invaluable support in putting this manuscript together. Any sins of omission or commission are, of course, ours alone.

References


Despite the low levels of expenditure on innovation there have been significant technological advances with actual construction products and services. This has opened up a wide range of different sourcing and relationship management possibilities. From the continuum of construction products and services (routine commodity components to highly specialised and critical services), the gamut of possible buyer and supplier relationships ranges from purely independent transactional, short-term price-based interactions, to highly interdependent relationships that may involve a considerable long-term investment by both parties.

Within the UK construction industry, therefore, a myriad of construction supply chains and markets need to be integrated by any construction firm when it delivers a solution to an end customer (client). Figure 1.1 suggests that the key generic supply chains required for a typical solution are rather simple and linear but the reality is quite different. The ultimate level of complexity involved with the management of a construction project will be determined by the extensive requirements of the end customer as defined in the design and specification. It is difficult to quantify the exact number of constituent material, equipment and labour supply chains that have to be integrated into a ‘typical’ project because such a project does not exist, due to the ubiquity of its unique project-specific requirements.

During the construction process, the end customer (the client) often requires professional services to ensure a level of professionalism and to guard against supplier opportunism that is rife within the industry. These professional services may include a wide range of capabilities: project management, design and architecture, civil engineering, structural engineering, services engineering, quantity surveying and independent cost consultancy. These services provide the detailed design, planning and project management expertise that is fundamental to a successful project and the avoidance of the problems widely experienced by clients.

Within the generic supply chain the first-tier construction firm plays the major ‘integrating’ role for all upstream supply chains. There is, however, a high degree of subcontracting within the industry, with main (first-tier) contractors, faced with irregular demands from clients, appointing second-tier companies to deliver ‘packages’ that can be easily integrated within the final solutions. These packages may include groundworks, steel fabrication or mechanical and electrical products and services. For each of these elements there will be a requirement to source from additional upstream labour, materials and equipment supply chains.

Throughout the project procurement process little control or management of the entire supply chain is normally taken up by the focal organisation – the client (London et al., 1998; London and Kenley, 1999). As a result, each organisation in a tier is able to manage its supply relationships in such a way that it can effectively act as a procurement gatekeeper. The first-tier organisation typically acts as a gatekeeper to the subcontractors’ tiers of suppliers and each trade subcontractor subsequently acts as a gatekeeper to the materials suppliers operating at the third-tier. Furthermore, the relatively unmanaged use of subcontracting within the industry increases the endemic problems associated with opportunism.

One of the primary reasons given for opportunism in the industry is related to the one-off nature of demand that characterises relationships between buyers and suppliers. It is often argued that the construction industry is unique in the way that it establishes projects to deliver one-off products (Burbridge and Fulster, 1993; Cutting-Decelle, 1997; Cox and Thompson, 1998; Cox and Townsend, 1998; Cox and Ireland, 2001, 2002a, b). It is the client who takes the initiative to start a construction project, and this leads to the frequent conceptualisation of
CONSTRUCTION SUPPLY CHAINS

END CUSTOMER

This stage includes all customers of construction projects. These clients typically source their construction requirements from highly competitive construction supply markets. The construction project provides the required functionality to support their business.

CONSTRUCTION OR CIVIL ENGINEERING FIRM

This stage includes all civil engineering and construction firms that deliver projects to the end customer. These firms play the ‘integrating’ role for all the constituent construction supply chains and typically operate within a highly competitive marketplace.

PROFESSIONAL SERVICES FIRMS

This stage includes all professional services firms that provide engineering, design, planning, etc. services. These firms typically operate within highly competitive marketplaces.

MATERIALS SUPPLY CHAINS

MATERIALS SUPPLIERS

There are a multitude of suppliers who provide the necessary components for construction projects.

RAW MATERIALS/COMPONENT SUPPLIERS

LABOUR SUPPLY CHAINS

SUBCONTRACT LABOUR

There are a number of different mechanisms through which individuals can be employed.

LABOUR MARKET

EQUIPMENT SUPPLY CHAINS

EQUIPMENT PROVIDERS

This may be through purchase, lease or rental.

EQUIPMENT MANUFACTURERS

Figure 1.1 The myriad of construction supply chains (Source: Cox and Ireland (2001), p. 221)
the construction supply chain as a process explicitly starting and ending with the end user.

A common representation of the construction process, as shown in Figure 1.2, starts with an initiative by the client to demand a constructed asset, for example a factory or office complex. After establishing a construction project organisation to provide the necessary competence and expertise to finalise the design and specification, the client will undertake a tendering process to select a main contractor. In most cases, the main contractor will take care of employment of subcontractors and the procurement of materials. When contracts are formalised, and a sufficient amount of information is available, the physical execution of the construction project can start. This includes production of materials, manufacturing, engineering and assembly of elements, and final construction on site. After the successful completion of the project, there will be the hand-over and use of the completed asset by the end user (Hughes, 1991; Luhtala et al., 1994; Potts, 1995; Vrijhoef, 1998; Alarcón et al., 1999; Kagioglou et al., 2000).

The final project-specific construction supply chain that arises is, however, a system of multiple supply chains delivering all raw materials, human resources and information required for the successful completion of a project to the place where the specific end product must arise. With limited prefabrication, construction is largely a site operation, confined to the specific location where the final assembly takes place (Nam and Tatum, 1988; Westling, 1991). Construction often takes place, therefore, at the place of consumption, as opposed to the wide and less-specific end market of manufacturing industry.

For this reason construction projects tend to be temporary (Cleland and King, 1983; Cleland and Kurznner, 1985; Turner, 1993a,b; Morris, 1997; Murray-Webster and Thiry, 2000; Turner and Keegan, 2001; Turner and Simister, 2001; Turner and Müller, 2003). In contrast to manufacturing, this implies a temporary organisation of production for each project characterised by a short-term coalition of participants with frequent changes of membership, often termed ‘temporary

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Figure 1.2 Typical representation of the construction process (Adapted from: Vrijhoef (1998) and Luhtala et al. (1994))
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