

Business development and bid management's role in winning a public–private partnership infrastructure project

Andrew J. D. Edkins and Hedley J. Smyth

Bartlett School of Construction & Project Management, UCL, London, United Kingdom of Great Britain and Northern Ireland

ABSTRACT

This paper focuses on a single real project delivered successfully using principles of public–private partnership (PPP). The case uses detailed accounts from both the winning and losing bidder of an infrastructure project delivered in the UK. The research enquiry focuses specifically on the bidding phase of the project and gains a unique perspective of this phase through primary data that are considered very rare to acquire. Using an inductive approach involving both multiple interviewing and an in-depth reflective workshop, and through drawing upon the marketing literature, the insight gathered from both the winner and loser reveals different marketing strategies used by major commercial contracting organizations as well as contributing to the relatively unexplored area of bid management. The case reveals how both the emerging principles and practices of entrepreneurial marketing can lead to the formation of successful win-strategies for complex PPP projects.

ARTICLE HISTORY

Received 31 January 2016
Accepted 31 January 2016

KEYWORDS

Public–private partnership;
bid management;
entrepreneurial marketing;
infrastructure project; project
marketing strategies

Introduction

Delivering projects using various forms of public–private partnerships (PPPs) is now commonly practised globally. Various arguments for their use are made, ranging from constraints on public sector funds to the desire to harness private sector innovations and management expertise. This paper takes the unique perspective of focus on the marketing and bidding strategies of both the winning and losing players from the private sector. It is set in the case of a single and atypical infrastructure project that was procured under the principles of PPP in the UK, a country familiar with both infrastructure projects and the use of PPPs. The first area of research questioning is how do such private sector players approach such PPP opportunities?

As a PPP project is instigated by agencies of the State, a PPP project is typically initiated through an open-market transaction. The unique nature of projects is that each project opportunity effectively then goes on to create its own micro monopsonic/monopolistic market at the level of the exchange. This happens once the project client (Public) initially advertises, then courts, and finally selects a contractor (Private) to deliver for it (through the Partnership) whatever it is that the client specifies. Thus, the PPP markets are cleared when potential buyers of the rights to deliver projects are matched with sellers of project opportunities. Whilst economists from Adam Smith (1776) onwards have recognized the importance of

markets, it was the work of Coase (1937) that initially identified the reality of the costs of operating these markets and the academic investigation of this has blossomed since the development of Transaction Cost Economics (TCE) (Williamson, 1975; Williamson and Masten, 1995). This body of work has been embraced by those seeing to the understanding of the market for projects as it has shed much light on key stages of the project life cycle and how projects pass the critical boundary of being contracted to a party to deliver the project (Ive and Gruneberg, 2000). One of the issues arising from this work is the transactional friction caused when seeking to buy unique and similarly complex products, where the requirement is to procure not the product, but the productive capacity of the suppliers. This 'buy the prospect' is something that happens often in the built environment, where construction and civil engineering projects are proposed, tendered for, then designed and delivered. This then raises the second research question, which is on what criteria do public sector clients use in the critically important decision on which party to appointment as the winning bidder?

Despite this opening gambit's foray into TCE, this paper is unequivocally intended for an audience interested in project management and rather than be steered by the economics literature it will, rather, be influenced more by that of the marketing. Yet, for this audience of presumed non-economists, it recognizes the relevance

and importance of understanding the principles of TCE as they have significant bearing on the way that complex PPP projects are bid. Of the many TCE-related terms, asymmetry of information between the client and the bidder(s) provides a useful bridge between the TCE view and that of project managers, especially the bidding firms from the private sector whose managers are responsible for the bid phase. Within the paper's interest in the area of PPP bidding, the paper maintains a clear focus on the relevance of marketing and selling or, as colloquially referred to in the project business lexicon, 'business development management' (BDM).

To reveal this world of marketing and starting from the initial TCE perspective, two forms of marketing pre-empt: the marketing mix (McCarthy, 1960), which is transactional and conforms to the neoclassical market form of TCE, and relationship marketing (Gronroos, 2000), which has certain links to relational contracting in terms of TCE. Marketing has conceptual input into the development of win-strategies during BDM and the bid processes, as developed and executed by the bid management (BM) team. One function of marketing in this PPP context is to reduce information asymmetry in the private sector bidders by soliciting information and working with the public sector client to ascertain the requirements and context by understanding the strategic and tactical client drivers from the business case to operations in use.

At the strategic management level, this paper explores the issues arising when a technically complex and atypical infrastructure PPP project is bid by the private sector, and critically, when one of the bidding parties is seeking the project as a market entry opportunity.

Methodologically, it draws on rich and privileged data provided by both the winning private sector bidder and, most critically, the principal other bidding party – the unsuccessful other final bidder. Indeed, the researchers were able to get intensive and unrestricted access to the director of the winning bidder and for the losing party, almost equally high access was achieved. Through such senior principal access points, it was possible to gather and collate a range of highly sensitive data, crucially revealing the detailed marketing and bidding strategies as verbally articulated over a series of interviews with these leading representatives and then in a full-day workshop.

As stated, this paper adopts a management-based perspective and specifically explores two areas within management: conceptual forms of marketing and the management of complex bids. The focus on marketing is critical for in this case the project bid was effectively an opportunity to market an established and successful organization into a new sector and the unusual nature

of the project helps identify marketing characteristics that are explained from a broader perspective than the current and dominant 'palette of paradigms'. The paper places a clear focus upon win-strategies in this context of an interesting PPP project. In the more traditional arena of the construction sector, such strategizing is well researched (Fu *et al.*, 2002; Oo *et al.*, 2010), but here an inductively inspired marketing analysis seeks to make an original contribution to knowledge. In seeking to understand how the marketing strategy and approach was devised and deployed by the winning and losing bidder, the challenges of bidding such complex projects are also revealed.

For reasons associated with the unique access opportunity presented, the paper is necessarily written with an inductive research methodology and has involved establishing very high levels of engagement and trust with the industry actors and this informs the methods applied. The paper is structured as follows. The next section provides a brief literature review to scope the main topics germane to the paper's focus as context for the subsequent inductive approach. A section outlining the research methodology and methods follows. The main findings are then presented and, finally, the paper concludes with the primary contributions, recommendations, and potential implications.

Review of relevant literature

The relevant areas of literature to this paper include: (1) The development of PPPs; (2) The consideration of the extended project life cycle as argued by the school of thinking known as 'the management of projects'; (3) A review of relevant theory and models relating to marketing; (4) A consideration of the small direct and larger indirect literature relating to bidding.

The development of public-private partnerships

PPPs or P3 is a loose term used to describe a procurement methodology that involves both players from the public and private sectors in the arrangement, delivery, and payment for a service or stream of services often derived from a significant fixed/capital intensive asset or set of assets. Although becoming popular over the last 20 years, the track record of PPPs or P3s is very long – with examples tracing back to the Roman Empire through medieval toll bridges, the provisions supplied by the forerunner to the modern merchant navy, and key parts of the USA's road infrastructure (PPIAF, 2009; Bovaird, 2010; Arizona Department of Transportation, 2013).

Today, such a procurement endeavour will often involve a commitment to the delivery of the service for some time following its initial commencement, from as few as 3–4 years to as many as 30–50 years. There are many organizations and authors with definitions of what PPPs are or entail such as the following:

Public-private partnerships are ongoing agreements between government and private sector organizations in which the private organization participates in the decision-making and production of a public good or service that has traditionally been provided by the public sector and in which the private sector shares the risk of that production. (Forrer *et al.*, 2010, p. 476)

There are a variety of reasons for considering the use of a PPP and they will vary according to the form of PPP being considered and the context in which it is being used. The UK has substantial experience of the Private Finance Initiative (PFI) and the use of PPPs (Spackman, 2002; Sawyer, 2005). Whilst both Spackman and Sawyer were considering the UK experience, the spread of PFI and PPPs has become worldwide (Grimsey and Lewis, 2007). This global use of PFI has resulted in some big consultancy companies becoming active in this area around the world. Whilst there are many academic authors who have argued the merits and demerits of PPPs (Hodge *et al.*, 2010), it is useful to consider what it is that one of the global management consultancies (PricewaterhouseCoopers, 2005) notes as the substantive arguments for public sector in using a PPP:

- (1) PPPs make projects affordable.
- (2) PPPs maximize the use of private sector skills.
- (3) Under PPPs, the private sector takes life-cycle cost risk.
- (4) With PPPs, risks are allocated to the party best able to manage or absorb each particular risk.
- (5) PPPs deliver budgetary certainty.
- (6) PPPs deliver value for money.
- (7) The public sector only pays when services are delivered.
- (8) PPPs force the public sector to focus on outputs and benefits from the start.
- (9) With PPPs, the quality of service has to be maintained for the life of the PPP.
- (10) Development of specialist skills.
- (11) PPPs encourage the injection of private sector capital.
- (12) PPP transactions can be off balance sheet.

Whilst not all of the above points are agreed upon (Gaffney *et al.*, 1999) or available to each and every PPP project, the appeal of some of them either in

isolation or in combination has been sufficient to trigger both global interest and development of a specialist world of advisors and financiers, and a lexicon of specific terms (Grimsey and Lewis, 2007).

The global financial crisis triggered in 2008–2009 has had a dramatic impact on the world of PPPs and in particular the access to private sector funding (relevant points from the list above are 1, 4, 5, 11, 12) and the number of ‘classic’ PPPs such as those originally created under the UK’s PFI, which deploy private sector supplied funds through project financing arrangements and long concessions (circa 25 years) has dramatically decreased as there are substantially reduced volumes of bank lending and the cost of this lending has substantially increased (EPEC, 2012).

Reflecting on the above, it is interesting to note that much of the apparent early appeal of PPPs was the ‘off-balance-sheet’ argument where the use of private funds on projects for the public sector meant that governments could afford to commission expensive projects that they had neither the immediate capital funding for, nor the willingness to extend exchequer borrowing to cover. International reviews of accounting regulations have subsequently questioned this and over time this argument has waned to be replaced by arguments associated with more intelligent client consideration (item 8 above) and critically to look at risk allocation (item 4) and whole life cost issues (item 9). The fundamental review of the use of complex procurement methods such as PFI that was undertaken in the UK led to the (re)-launch of this form of procurement under the title of ‘Private Finance 2 – PF2’. In one of the documents associated with this updated approach, it is noted:

There are also a number of Public Private Partnership (PPP) models, characterized by joint working and risk sharing between the public and private sectors. These can include relatively simple outsourcing-type partnerships – where services are provided on short or medium-term contracts – or longer-run private finance partnerships such as the Private Finance Initiative (PFI). Well-formed partnerships with the private sector have delivered clear benefits: in driving forward efficiencies; getting projects built to time and to budget; and in creating the correct disciplines and incentives on the private sector to manage risk effectively. (HM Treasury, 2012, p. 5)

The extended project life cycle

It is the latter points that are of interest to those in the world of project management as they are clearly project-related points of consideration. The discussion on what is required to be within the scope of project management is ongoing. Project management as a discipline

is some 50–60 years old, commencing in and around the conclusion to the Second World War and gaining great momentum in the Cold War era of the 1950s and 1960s (Morris and Hough, 1987). Since then there has been an evolution of the discipline, starting from a focus on the technical delivery of the project, to more recently an embracing of both the emergence of projects and their legacy. The broadening of both consideration and approach has been pioneered by Morris (e.g. 1994, 2013), who, along with others have generated a body of work that has drawn on directly gathered evidence (Morris and Hough, 1987) as well as that of other writers on projects and their management (Miller and Lessard, 2001). This work is having impact on the way that project management is formally understood, as reflected in the bodies of knowledge put forth by the two largest project management membership organizations – the US-based Project Management Institute and the UK-based Association for Project Management. These organizations both provide formal training and qualifications and as these are evolved and developed, so there is evidence of consideration for both more ‘front-end’ issues like full considerations of both value maximization and risk optimization (Edkins *et al.*, 2013), as well as post-project completion issues, such as through life operational performance (Edkins *et al.*, 2010) and project retirement plans.

Thus, a PPP is an excellent vehicle for forcing this full end-to-end thinking that is driven by or related to the project. With this more holistic and strategic thinking and consideration comes increased cost, not just of money expended, but of the effort of thought given to the project. This increased cost and effort are expended by both the public and private sectors. The public sector has to go through increasingly stringent approval processes to get proposed projects authorized – see, for example, the UK’s requirements for central government approvals (HM Treasury, 2011), and those in the private sector seeking to win such work have to do a great deal to position and present themselves as being the preferable partner. This leads to the next area to be explored, that is, marketing within this PPP-type environment. The front-end emphasis has arguably been more focused upon the client side than the supply side and the role of marketing at the ‘front of the front-end’ on the supply side has received little attention (Smyth, 2015).

A review of relevant theory and models relating to marketing

There are three main marketing paradigms: the *marketing mix*, *relationship marketing*, and the *service-dominant logic*, plus an additional emergent theorization in

literature around *entrepreneurial marketing* (Smyth, 2015). Whilst, the marketing mix has primarily focused on exchange, at the other extreme the service-dominant logic primarily focuses on value. As noted in the introduction, the marketing mix is transactional and relationship marketing has links to TCE through relational contracts. Construction has multiple roots in the transaction approach in general and for marketing, including reactively building alliance or collaborative relationships in response to client procurement and contract drivers. Relationship marketing has gained increased traction, proactively and systematically developing relationships to secure work and delivery value. Entrepreneurial marketing inductively and innovatively makes a project opportunity, radically shapes the project or shapes the management approach towards projects. It is contextually pertinent to this context and hence will provide a key focus alongside relationship marketing.

Economics provided a primary springboard for marketing, although subsequently the discipline has moved away from economics and indeed somewhat struggles to engage with economics and financial management (e.g. Srinivasan and Hanssens, 2009; Smyth and Leconte, 2015; cf. Jensen and Meckling, 1976). It has, however, developed its management content, particularly in terms of conceptual understanding and in the breadth or span of the topic (e.g. Kotler *et al.*, 2013).

The transactional approach is known as the *marketing mix* paradigm. Paradoxically, the characteristics are least suited to project markets where transactions are discontinuous (Hadjikhani, 1996), for asset specificity where a sale is secured through bidding ahead of production (Smyth, 2000) and shaped to fit need (Cova *et al.*, 2002; Cova and Salle, 2011). In marketing generally, transactional approaches yielded to *relationship marketing*, which is more proactive for leveraging and delivering value in business-to-business markets for intangible services and specific assets (e.g. Gronroos, 2000; Biemans *et al.*, 2010). Out-of-relationship marketing has grown a specific variant called project marketing, which particularly addresses issues such as the milieu of project shaping and the sleeping relationship between projects in contexts of discontinuity, uncertainty and complexity (e.g. Hadjikhani, 1996; Mandják and Veres, 1998; Skaates and Tikkanen, 2003; Cova and Salle, 2006). Project marketing covers a wide range of issues, yet depth of examination is variable and the claims made for it extend beyond epistemological justification (Smyth and Morris, 2007) and theoretical rigour (cf. Lowe *et al.*, 2012). Indeed, the main paradigms have been found to be limited with the emergence of conceptualization around the service-dominant logic (e.g. Vargo and Lusch, 2004) and a growing body of work on entrepreneurial marketing

(e.g. Morris *et al.*, 2002; Sarasvathy and Dew, 2005; Ioniță, 2012). Entrepreneurial marketing involves making the market at the exchange level, conceptually leaving behind TCE although within large construction and engineering enterprises is more likely to be conducted by teams and small groups (Smyth, 2015). Through technical innovation and innovative management approaches, commitments are iteratively built up to create market opportunities (Sarasvathy, 2001). These emergent conceptualizations and attendant constructs open the door for inductive analysis from an in-depth case, especially within the project management domain where scant work has been conducted. Marketing is manifested on the ground through the BDM and BM functions.

Bidding

In the context of mainstream PPPs, public sector clients prepare and then promote projects and private sector suppliers decide whether to bid an opportunity or not. Resource availability is one consideration, as is the importance of either winning the project or being seen to bid for it. Where the resources and need/desire are present in the levels needed, the bidder will initially have outline plans for winning the work, which within the bid stage focus on value propositions that we shall refer to as win-strategies supported by the marketing approach, and these are necessary to proceed effectively (Tweedley, 1995; Lowe and Skitmore, 2006). A cohesive bid plan addresses client factors, internal and supply chain factors, and competitor assessment. The factors under the control of the supply are internal resources such as available cash, access to internal people, and relationships with other collaborators/suppliers that will be involved in each bid (Smith, 1995). Bayer and Gann (2006) argued that making use of staff not currently engaged in project work is more effective and may indirectly contribute to win-strategy development. Resources in the form of marketing capabilities, project capabilities, and the ability to integrate supply chains (e.g. Möller, 2006; Davies *et al.*, 2007) directly contribute to win-strategy development. The final submitted bid price is often stated to be a key determinant for bidding because public sector clients place high importance on price as a selection criterion. Whilst it can be difficult to analyse prevailing prices, reinforced by sealed bidding (Raftery, 1991; Hausmann *et al.*, 2012) and lack of certainty about prevailing market prices (Hillebrandt, 2000), it is ultimately 'a matter of judgment' and 'knowledge of the market' (Raftery, 1991, p. 33; cf. Gruneberg and Ive, 2000). This clearly is important for clients with transactional strategies, yet is less so where risk is

high and relational strategies are preferred (Skitmore and Smyth, 2007).

Methodology

Whilst the project forming the single case of this paper provided an asset that is in public use, gaining access to the way the project contract was awarded has required the need for significant reduction of specific references and details, ensuring full anonymity of both the project and the players. The restrictions on the details of the project and accompanying embargo are not of fundamental concern as the generic issues and theoretical implications inductively generated transfer to other project contexts. To gain access to the project, significant trust had to be established between the research team and the private sector players involved, as the key objective was to learn both from the organization that eventually won the bid and went on to deliver the project and, most importantly, the organization that led the only other full bid and which lost by being placed second. Critically and pivotally, access was obtained to the key and most senior staff member who oversaw, directed and was instrumental in the winning organization's bid. Securing this access was unquestionably pivotal, as it allowed for multiple in-depth interviews and access to key documentation from the winning bidder. However, access to only this one successful account would have left the case study at serious risk of partiality and bias. To enable the case study to be considered as balanced, it was necessary to seek the engagement with the unsuccessful bidders.

Approaches made resulted in the second-placed bidder agreeing to participate in the data gathering. There were various conditions formally placed on the research team as a result, but this permitted access to an extremely rare set of data and related events. First, both the senior members of staff from the winning and losing bidder agreed to be interviewed in depth, first in a series separate interviews and then together. Remarkably, they then were then willing to prepare a joint day-long workshop where they would present the project background (objective data), then set out their two organizations' bidding strategy and then set in play the timeline of developments. The material presented was collated by the two senior representatives from a wide range of other parties, critically, including the public sector client. Although it cannot be verified, it is estimated that the combined data presented were drawn from a combined group (winning consortium, losing consortium, public sector client plus their advisors) of in excess of 30 people and the summary information provided encapsulated that of a considerable amount and variety of bid-related documentation.

The workshop was conducted under strict conditions of ensuring the commercial confidentiality of the parties involved. The first part of the workshop received a very extensive background briefing and context setting, comprising both the client's situation, the genesis of the project and both bidding organizations' commercial positions prior to the bidding opportunity. With this all established and clear, the two bid-leads explained what they did to prepare their (concurrent) bids. It was at this point that the audience, comprising post-experienced postgraduate students of project management and the authors of this paper, were invited to discuss the situation as at the point of bid submission. Having established the conditions of trust, what followed was a friendly interrogation and this resulted in the two organization's representatives giving candid answers about their organizations' bidding *ex ante* strategies and bidding processes. Following this discussion, in what could be considered almost a dramatic revelation, the results of the bidding process were provided in detail, and a subsequent reflective discussion was held. This second discussion, open and candid as it was, was critical, for it allowed the winner and the loser to reflect on their bid strategy and marketing approach not just with each other, but also with a trusted and informed audience.

The combination of preparation of the presentation, drawing on a wide range of material, together with the frankness of the discussion led to the rich and privileged data that were the basis of this paper. It is emphasized that it is extremely rare to create a situation where very senior players from both the winning and losing organization for a major project bid would agree to share their experiences and views in a forum with the research team. Indeed, it is rare that winners and losers would ever discuss how they won and lost with each other in any situation, let alone in front of an inquisitive third party. The complete data used in this paper were therefore taken from the preparatory set of interviews and the running of this highly interactional workshop setting, involving phases of presentation and discussion together with many individual meetings and telephone conferences and email exchanges with the key players. The authors are clear that this novel process allowed the solicitation of data that is very highly likely to have remained unstated or understated if a more traditional and conventional serial set of semi-structured interviews were to be used. Although some detailed legal and financial documentation was deemed too confidential and/or commercially sensitive and unavailable, it is confidently stated that through the long period of engagement, more was made available to the authors than would probably have been done following interviews because

of the confidence and trust built up during engagement with the key players. This made a rich contribution to the inductive approach.

In describing the environment and context of the project, some important areas of project management are inductively revealed. The configuration from the PPP contractor viewpoint of how the project came to the market, the way in which the BDM function was conducted amongst competing bidders, and the development of win-strategies as part of the BM process provide the raw material for inductive analysis and explanation. Explanation is invoked through drawing upon existing theoretical lenses rather than attempting to build theory.

The case project

The project can be described as an example of interesting and potentially even iconic infrastructure and the arguments for it lies in the areas of functional need, image enhancement for the parties promoting it, and political appeal. The project was not unusual in terms of the amount it cost nor did the project go beyond any current levels of technology, where it was rather a case of transfer of technology and technical knowledge from other sectors. An interesting aspect of the project was that it relied upon a core technology, for which there are only three accepted alternative sources of supply. The public sector's retention of the financing of the project (it effectively being a Design-Build-Operate – DBO) was in part driven by the need for timely delivery and in part due to the iconic nature of the project, where the aesthetic impact of the project was a concern and thus an element of risk (aesthetic design integrity) was retained by the public sector client. This meant that there was a significant 'reference design' prepared by the public sector for the principal elements of the project, which was used as a benchmark for private sector alternative propositions.

As noted, it was not a full PFI type of PPP, as the project did not involve full- and long-term risk transfer linked to service payment nor did it use project finance, but it had an output specification for the service to be provided, and an operational payment regime based on the availability of service provided. Whilst the public sector client retained the majority of the financing risk, the private sector contractor had to accept substantial design and construction risks within a capped capital cost bid and then take operational performance risks for a period post opening of the asset. This placed both the public and private sides at risk, which is an important facet of this project. Thus, due to the design and technical nature of the project and its timing, there was a constrained

market of potential bidders and this had an impact on the way the bidding competition developed.

The essential facts relating to the project that can be disclosed are:

- It is located in one of the UK's major cities.
- It cost less than £100m.
- It was delivered on time with no quality issues.
- It is still in operation.

In terms of the bidding stage of this project, the public sector client can be considered as complex and generally expert in procurement, but not for a project such as this. Once announced as a project seeking bidders, three serious expressions of interest were received. For reasons of commercial sensitivity, we refer to the firms as ProCo, which after initial involvement in the bidding process subsequently chose not to proceed to the full bid submission stage; BranCo as the unsuccessful bidder; and StronCo as the eventual successful bidder. Data access on the detail of the bidding stage were provided by BranCo and StronCo, with both bidders providing information provided by the public sector client. All quotes were provided by either of the director level leads for BranCo or StronCo during the all-day workshop.

Findings

Projects are different, but the degree of difference can be significant, with some projects being routine and similar to predecessors whilst others stand out for their unique characteristics. For this case project, it was the early recognition of this project's distinctiveness that was a fundamental influence on the way the project was conceived, developed, and bid.

The origin of the project was instigated through a speculative and novel proposal inside the public sector client organization which, although initially seen as radical, started to 'take hold' of the imagination of key decision-makers at strategic board level within the public sector client. Initial incredulity gave way to subsequent discussion of its merits and viability and, over a relatively short period (a few weeks), the idea of the project became fixed and was then developed within the public sector client body to be submitted for the sanction covering formal technical and commercial viability. Although it started as an 'outlandish idea', through careful consideration and thought, the project proposal duly received sanction and became fully supported. Many such programmes, especially public sector infrastructure projects, proceed through such prescribed protocols and this informal to formal process leads to project information filtering informally into the marketplace.

Intelligence on clients and their prospective projects is the raw material sought via marketing-based resources by construction and civil engineering businesses. This allows them to identify competitive advantage through issues such as supply chain member formation and by building relationships with other key stakeholders such as neighbours, relevant statutory bodies, and, where required, with debt and equity providers. This activity typically takes place prior to broader and official public open-market declarations, such as the formal placing of tender opportunities notices in repositories such as the *Official Journal of the European Union* or AusTender in Australia. This information gathering and awareness creation can therefore provide valuable opportunities for project shaping to enhance value for clients and induce competitive advantage for the eventual bid winner (Cova *et al.*, 2002; Cova and Salle, 2011).

This infrastructure project was fast tracked through these early stage protocols once it was accepted internally by the public sector client as being viable. There was recognition of the opportunity to deliver the project to coincide with other events (some political) that would further enhance the project's value. The pressure of these externalities limited the time for the project scoping phase thereby influencing and affecting technical and technological content. However, these limitations then opened up scope for the private sector bidders as to how to build win-strategies and develop management approaches to the execution of both the bid and, if successful, the subsequent delivery of the project.

As noted, three companies, each leading a consortium of other companies, expressed interest in the project: ProCo, BranCo, and StronCo. Each of the consortium's lead companies is a multi-divisional international player and in all cases the consortia involved companies from more than one country. Of the three consortia leads, it is worth noting that the civil engineering division of BranCo had previously secured a considerable amount of repeat business from this client. It had established a five-year track record of implementing relationship marketing principles (Smyth and Fitch, 2009), linked to the concept of the management of projects (Morris, 1994), part of which was manifested as considerable attention being given to win-strategies. These incorporated understanding of the client from a procurement perspective and during execution, coordinated through a BDM function. However, despite being a major company with rigorous internal processes, the BranCo expression of interest did not arise through the usual 'traffic light' system for internally qualifying and sanctioning declarations of interest in projects. It actually arose from the private network of an Operational Director of BranCo who, through familiarity with the client and with links

to an external organization with familiarity of one of the core technologies needed, became determined to champion the bid to secure this project. This was to prove quite telling in the outcome because this project was not a strategic high priority in the portfolio of work BranCo was undertaking and targeting from this client.

In contrast, StronCo was not an active player in the sector and area in which this project was technically and organizationally located. Its track record was of delivery of innovative projects across the world, where the word 'innovative' is used in the sense that the projects had few if any in their reference class, and has established a strong market reputation for taking on challenging projects in terms of organizational and technical innovation (cf. Davies and Brady, 2000; Davies *et al.*, 2007). This was also to prove a decisive factor in the final outcome. The expression of interest and bid was led from the Main Board of StronCo and followed a strategic decision to diversify StronCo's client base.

It could be argued that ProCo sat somewhere between BranCo and StronCo on the spectrum of approach to this project. ProCo had done work for the client before, has a reputation for taking on challenging projects, and is noted for its non-traditional ways of working. This project was therefore considered to be an interesting, but not *critical* project to pursue. From the public sector client's perspective having interest from these three bidders would have provided it with confidence that the project was seen as technically viable and commercially attractive.

The following subsections briefly consider critical elements of the project as primary relating to the two main protagonists on this project: StronCo and BranCo.

The alliances constructed for the bid

Key to the PPP-type project was to have an operator for the infrastructure because of its systems complexity and which was inextricably linked to the manufacture of some of the system sub-assemblies. As noted earlier, there are only three credible manufacturers and operators (M&O's) in the world and so this immediately limited the scope of competition. ProCo ultimately teamed up with the M&O with the smallest global market share of the three, but one that had a high technical reputation. BranCo quickly moved to form an alliance with the M&O that StronCo had previously worked with a decade earlier on another innovative project. This M&O company was involved in the operation of a loosely comparable project and indeed BranCo also had a facility management relationship with them on this other project. StronCo, recognizing that BranCo had already teamed up with the M&O it knew, chose

the remaining M&O. This choice had a significant positive attribute of the M&O having already had an advisory input to the engineering consultants appointed by the public sector client to develop the initial feasibility of the project.

Despite the apparent and obvious significance of the M&O to the project, StronCo perceived the steelwork component to be project-critical and elected to secure and nominate arguably the foremost steelwork subcontractor without first going to the market, despite steelwork constituting 40% of the project costs. This steelwork contractor had a design team of international repute with a structural engineering ability renowned for innovative work. BranCo identified a steelwork partner and an internationally well-known design team too. Their partner was insistent on payment in Euros, and given that the project was in the UK and therefore the currency was sterling, the potential movement in the £/€ exchange rate ultimately caused significant pricing uncertainty and problems.

How were the relationships developed?

BranCo had strong established relationships with all the key players. They went about mapping the relationships specific for the project, in particular the decision-making unit (DMU) on the capital expenditure side for the client. They mobilized existing networks supplemented with the project-specific network and sought to strengthen their position and get responses to specific questions from the public sector client. They also used these questions to test some initial ideas about how they might proceed to build a project win-strategy.

StronCo, in contrast, were seeking to enter the market and had to build relationships with the public sector client, including the DMU, from scratch. Recognizing that they were at the dual disadvantage of not knowing the client and having competition that did, they put a great deal of effort into doing so. Analysing what StronCo did during the bidding reveals that it was a traditional approach, even old-fashioned in some ways. They rapidly built a project team led by a Director, mirrored the client DMU in numbers and fielded large numbers of people at interviews and meetings so they looked and acted like a team to which the client could relate. As this was a unique consortium they went to considerable lengths to appear joined up in terms of their thinking, approach, and knowledge of each other. It was essential that they wished to show they 'had one identity'. Unlike StronCo who led with a main board director, BranCo had a project bid team led by a 'grey beard' project manager who was extremely experienced and well known to the public sector client. Their stratagem was

that this person represented solidity and safety, but with hindsight this 'safe pair of hands' did not match the profile of this unique and innovative project type.

How the project was shaped?

There was an eagerness of the public sector client to open this project by a certain date to gain both media attention and political capital. This meant that regulatory approval for the project (known in the UK as obtaining planning permission) had been secured for the project by the client based on their own design team's proposal. The ambitious time frame and the securing of the consents based on the public sector's outline design meant that this initial design and content could not be fundamentally reshaped and thus the technical content was essentially fixed. The emphasis on the bidders was to demonstrate that they could produce a solution that met the technical, functional, operational, and aesthetic specifications within the stated time frame and within the client's cost envelope. As there was no novation of either designers or nominated subcontractors, the bidders could configure both the management approach to the project and the choice of alliance partners. The combination of considerable constraints and the unique nature of the project by type and design created opportunity to be innovative in working practices to meet the challenge. This suited one bidder in particular: as the StronCo bid director stated 'it was a [StronCo]-type of project'. It was as the relationships were developing and the project was shaping that ProCo decided that this was not a project that they were willing to continue to invest in, and so they withdrew. The departure of ProCo was sufficiently early in the procurement process for there to be little evidence of ProCo's influence on the technical or procedural outcomes to that point, as all parties were still in early stages of solution generation.

One area of innovative shaping concerned health and safety in operation, in particular dealing with specific forms of life-threatening emergency including evacuation, which was a critical operational factor. Here, the M&O subcontractors were able to advise on recommended method statements and resource needs but, through dialogue with the DMU of the public sector client, it was made clear that the different context and set of cultural norms on this project meant that there would need to be an alternative solution. This led StronCo to revise its strategy for evacuation radically. Whether the final solution is as robust as necessary is open to interpretation, but independent advice concluded it was indeed adequate. This was to form an important component of the win-strategy.

Assessment of the project bid

At the point of submission of the project documentation, both BranCo and SronCo were clear and confident that they would complete the project on time and the client was reassured on this critical point.

Price is always a critical factor, despite difficulty controlling outturn costs against bid costs (Skitmore and Smyth, 2007). The project cost envelope ceiling was stated as £40m, but the published final cost after opening is circa £45m. The full outturn cost is believed by some close to the project to exceed that figure. It is worth stressing that there was no project finance involved, with the client paying all capital costs as agreed with the successful bidder at the point of contract signature. Thereafter, it will be a matter for the contract to decide if capital cost escalation is the responsibility of the client or the contractor. In this case, the contract was written specifically for this project and made it clear that there was very significant risk transfer for the cost of the capital works to the contractor, with few areas open for post-contract cost claims and with significant financial penalties for late completion of the capital works. The element of risk transfer qualifying this as a 'lite' form of PPP is that the contractor is only paid if, post capital works completion, the service provided by the facility/structure is technically capable of working. This places the project in an interesting 'grey' area where it would be considered as a complex traditional DBO or a very simple form of PPP. As a PPP-type project, it was the full life cost, comprising both capital expense (capex) and operational expense (opex), that was being considered. As there were unique circumstances that alleviated the normal major concerns about affordability of the capex sum, the attention was focused on the opex by the public sector client.

Thus, although there was much initial focus on the capex works, opex took on greater significance over the bid period, which StronCo proved to be more adept at reading the situation. The client had two distinct business units for infrastructure provision and operations. The original project drivers and selection criteria that were communicated to the bidders were not those applied in the final choice (Table 1 – 'Criteria weighting'). Whilst in some European countries, this type of change in project appraisal weightings can and is legally challenged by the bidders, in this case, it was not and this was due to the unique nature of the project, coupled with the players involved and the pressured time-frame to complete the whole project procurement and delivery process. Such legal challenges can be seen as pyrrhic victories when dealing with major clients, which have significant pipelines of future work and where such conduct will be noted.

Table 1. Official selection criteria after post-tender clarifications.

Client criteria	Criteria weighting (%)	StronCo	BranCo
1. Capital price	22.5	22.50 (W)	20.04 (L)
2. Operations and Maintenance price	10	10.00 (W)	8.10 (L)
3. Schedule	17.5	11.94 (W)	11.23 (L)
4. Design	8	5.23 (L)	5.33 (W)
5. Project Management plans	20	18.73 (L)	19.03 (W)
6. Operations plan	12	8.10 (=)	8.10 (=)
7. Contractual compliance	10	10.00 (W)	5.95 (L)
Total post-tender clarifications	100	81.27 (W)	72.45 (L)

When dealing with a sophisticated and experienced public sector client, there are some vitally important steps in the closing part of the bidding process. Whilst ensuring that the bid submission itself is complete, impressive, and delivered on or ahead of the submission deadline, it is by no means the only key event. As the main submission would be a long and complex series of interrelated documents, the post-submission stage of questions and clarifications was an important part of the post-tender consideration. Despite not working for this particular public sector client before, StronCo were aware of this from their previous extensive experience and so took this stage particularly seriously. Being responsive is important, but StronCo also took the opportunity to use their responses and submissions as a promotional initiative to help the client selection team imagine how the project might be presented to the public. This constantly reinforced the client's confidence in the success that the project would bring them if they were to rely on StronCo's strong team, and this clear approach appears to have made an important impact on the client's DMU team.

At this stage, StronCo had established itself and the rapport that the bidding staff had built up through project-specific relations was stronger than the long-term yet broader set of relationships BranCo had. As the post-submission meetings to deal with points of clarification and questions were handled entirely separately by the public sector client, with the two bidders never meeting and with the public sector client being scrupulous in presenting no bias towards one bidder over the other, it was not apparent to the BranCo team that the project was 'drifting' away from them, partly because the BDM were somewhat detached at this stage, due to the way the project did not enter BranCo through the usual BDM relationship marketing route.

The contract was duly awarded to StronCo. In considering the award to StronCo, the successful bidder addressed three main areas. First, there was the clear and dedicated leadership driven by the most senior director of the bidder. Second, was a win-strategy derived

from entrepreneurial marketing principles, including third, an alliance selection comprising a set of credible companies that gelled to become a unified and balanced team. This homogenized team encompassed all the expertise required to provide the client with confidence and comfort from an untried supplier that could deliver this novel project.

Discussion

How were alliances constructed for the bid?

StronCo missed out on selecting what was *ex ante* the obvious M&O for one of the project's key elements, even though they had worked with the company a decade or so previously. This was due to BranCo having already secured this alliance. However, in discussion with both bidders it was agreed that in retrospect StronCo had selected the better M&O alliance partner. In terms of the design team, BranCo had selected consultants characterized by strong service, whereas StronCo had selected a balanced team of strong service and strong idea, particularly for engineering (cf. Coxe *et al.*, 1987). StronCo had taken a similar approach to the selection of the steelwork subcontractor, which, they felt was as critical to the project's success as the M&O contractor, an example of entrepreneurial alliance building to shape the win-strategy.

How were the relationships developed?

The intra bid team relationships, together with the inter bid team/client relationship, were important in the bid and the relationship marketing principle of relationship building to understand the expectations and latent requirements lying behind the documented requirements. The additional insight gained from these relationships enabled the parties to endeavour to deliver added value and were of importance in positioning the bidders, but they were not decisive (cf. Gronroos, 2000; Gummesson, 2008). In the case of BranCo, discontinuity of relationships between projects was irrelevant. Through applying systematic relationship marketing, they did not need to manage the sleeping relationship because workflow was continuous (Smyth, 2015, cf. Hadjikhani, 1996). At one level BranCo had a surfeit of work and bidding resources were stretched which rendered them less 'hungry' for this project than their competitor StronCo. Therefore, a founding principle of the project marketing concept is removed in the context of this project. BranCo, who started the bid process from a position of distinct advantage in this respect, found that the normal criteria for pursuing a project did not apply to this case in

the way it had for previous projects, due to its novelty. Indeed, the relationship strength had been marginally diluted for this project because the bid had been led by an operations director, who was less engaged with the relationship marketing strategy of BranCo, but who was convinced that BranCo's track record together with the one key relationship he and BranCo had with an M&O would prove the decisive advantage.

How was the project shaped?

Contractors like opportunity to shape projects (cf. Miller and Olleros, 2000; Söderlund, 2011) and this is sometimes necessary (Pinto and Rouhiainen, 2002). However, for strategic and political reasons the scope and content of this project were largely pre-given. Timescales and the rigours of a regulatory planning system rendered the opportunity to shape technical content largely irrelevant. One of the main principles of the project marketing concept is project shaping (e.g. Cova *et al.*, 2002; Cova and Salle, 2011). In this case, this only applies in so much as the contractors configured their management organization for the project and 'injected' this into the bid. These aspects are to do with managing innovation and thus the choice and configuration of alliance partners. This accords more closely with the principles of entrepreneurial marketing than project marketing.

StronCo, as the successful bidder, exhibited generally and specifically in the bid an above average level of entrepreneurship, which is argued to induce higher success levels (e.g. Covin and Slevin, 1994; Morris and Sexton, 1996; Zahra and Garvis, 2000). Morris *et al.* define entrepreneurial marketing as *the proactive identification and exploitation of opportunities for acquiring and retaining profitable customers through innovative approaches to risk management, resource leveraging and value creation* (2002, p. 5). In this case, it was the bottom-up effectuation in entrepreneurial marketing as defined by Sarasvathy and Dew (2005). Sarasvathy and Dew's statement about entrepreneurs also applies to project business development, where firms: *learn the value that each customer derives from an evolving value proposition and how this value is derived* (2005, p. 7). Sarasvathy (2001) proposed seven dimensions for such an entrepreneurial approach, namely managing (i) uncertainty, ambiguity and isotropy, (ii) unpredictability, (iii) bounded cognition, (iv) satisficing behaviour and affordable loss, (v) locality and context, (vi) iterative commitments, and (vii) alliance partners. All of these criteria apply in this context and StronCo was the most effective in managing the uncertainty and ambiguity, especially around the evolving selection criteria. StronCo managed unpredictability and their bounded cognition by proceeding on an

affordable loss basis, as did ProCo, which decided to withdraw largely on a risk and affordable loss basis. StronCo and BranCo therefore decided to continue to make iterative project commitments. The most decisive factor being the alliance formation in StronCo's favour, due to the theme of innovation that ran through their partners capabilities, StronCo's market reputation, and its capabilities in project management (Gann and Salter, 2000). The innovation dimension is in line with the entrepreneurial marketing skill set.

In essence, this project exhibited the prime features of entrepreneurial marketing, reinforced by a secondary aspect of the relationship marketing paradigm. The transactional approach was largely absent in BDM and BM. The only element that overtly and directly touched on the service-dominant logic of value in context and use was the emergent opex consideration, which relationship marketing cannot explain. Mainstream relationship marketing was more in evidence than the project marketing variant. Even shaping was more related to management approaches than the project content per se. The overall emphasis was articulated on the entrepreneurial-relationship marketing axis.

How does this case progress our understanding of the topic of bid management and the areas associated with it?

Whilst there is a literature that considers the generics of *bidding and BM* (Lewis, 2003; Whitley, 2006; Nickson, 2008; Philbin, 2008), there are fewer writers that have considered the more complex world of bidding in a PPP context and this emerging work has addressed important issues such as quality assurance (Hausmann *et al.*, 2012). As empirical data on BM from has been under-explored, the field has been dominated by theoretical models and experimental concepts taken from areas such as industrial psychology, game theory, and industrial and managerial economics (Stader, 1997; Ray *et al.*, 2003; Tian-Hui *et al.*, 2007). Any investigations into the many complexities associated with win-strategy, relationship formation and management, and internal and external communication plans have not yet been published. Thus, our first observation from this case is that it contributes to our appreciation of the need for both hard strategy and the role of softer behavioural issues in the area of complex project bidding. In this case, the bid succeeded in positioning StronCo on the threshold of entering a new market: 'In one shot we would get our name known', commented a StronCo board director. In many respects, this case challenges many of the game theoretic premises and TCE assumptions around decision-making and trade-offs.

Second, in general terms the findings do not accord with *project marketing* (e.g. Hadjikhani, 1996; Cova *et al.*, 2002; Skaates and Tikkanen, 2003). In particular, the management in BDM and BM was shaped more than the project itself. The case reveals two divergent sets of strategic factors in marketing theory that explained how the bidders shaped their responses to form strategies they respectively anticipated would win. One contractor focused on an explicit relationship marketing strategy, leveraging relationships, and their management to qualify and to show in the bid stage how it would mobilize relationships as a resource means for execution rather than for shape content (e.g., Storbacka *et al.*, 1994; Gummesson, 2008). The other bidder focused its effort on mobilizing resources and shaping the project in line with entrepreneurial marketing in general (Morris *et al.*, 2002), and through alliances and making commitments on an affordable loss basis in line with effectual marketing concepts (Sarasvathy and Dew, 2005).

Third, there is a clear TCE set of arguments beyond the specific bid in the market of PPPs. It is well known that bidding such projects is resource intensive (Bing *et al.*, 2005), but if one looks through the lens of TCE, one sees immediately the classic issue of what could almost be considered *ultra* asset specificity (Williamson and Masten, 1995), as well as there being more than usual levels and areas of risks that need investment in order to resolve. These risks arise primarily through the long duration – so information asymmetry may well require extensive research by bidders; adverse selection – since the party selected will be a long-term *partner*, the public sector will be extremely cautious and conduct extensive rounds of testing (cf. Balakrishnan and Koza, 1993).

Last, the case study resolutely endorses Morris's arguments for a holistic and strategic view of the *management of projects* that commences substantially in advance of the execution phase (Morris and Hough, 1987; Morris and Pinto, 2004).

Summative contribution

The first area of research questioning posed was how do such private sector players approach such PPP opportunities? In answering this first area, this research makes four contributions by way of providing some answers and making some observations to scholarly research of projects and their management.

First, the findings reveal dedicated leadership as the drive and determination to break into new market sectors. Highly novel projects can therefore provide a 'level-playing field' for established players and those trying to break into these markets.

Second, strategizing for bidding is an important aspect of the management of projects. Project bidding has been under-researched, and having a rich source of data, this paper contributes to BM research, specifically concerning the 'what and how' of win-strategies. Here, an appreciation of the concepts that lie behind TCE offer both valuable insight and useful help to those who both practise and research the management of projects.

Third, the research makes a conceptual contribution to marketing:

- (i) The transactional marketing mix and the current focus on the service-dominant logic did not resonate with the evidence.
- (ii) Mainstream relationship marketing was more in evidence than the project marketing variant.
- (iii) Relationship marketing provided detailed insights towards developing win-strategies for one bidder.
- (iv) Entrepreneurial marketing provided greater insights towards developing win-strategies for the other bidder and proved decisive in winning.

This leads to the fourth original contribution – that entrepreneurial marketing has not previously been researched in project markets.

The second research question was what criteria do public sector clients make the critically important decision on which to make the appointment of the winning bidder? The answer to this research question is to be found in looking at Table 1, where one finds that the public sector, in this case at least, take a comprehensive weighted basket of factors into account. Capital price may be the single biggest factor (at 22.5%), but in second place was 'project management plans' at 20%. It is worth pausing and reflecting on the importance of what the total picture of a client's expectations are represented by the criteria identified in Table 1 and similar when it is cast in the context as a case such as this. The client is looking for certainty and confidence when the project is clearly pushing at various boundaries of novelty. Bidders have to back their claims with not only initial money, but also with long-term money and reputation that will be very difficult to recover from if it proves badly wrong. Hence, these prove to be far from trivial or trifling affairs and one can only hope that all such project endeavours are founded on sensible premises.

Conclusions and recommendations

Gaining access to those involved in leading complex bids such as described here involves a great deal of time to win the trust of the parties involved. The reward is the opportunity to gain an insight into a world that is dynamic,

complicated, and tense, with a great deal at play in terms of potential rewards and losses. The ability to compare and contrast between the two final bidders involved in a substantial bidding exercise on a 'landmark' PPP-type project is rare and has been valuable for the reasons noted in the previous section. To progress this type of research, it is beholden on the research community to not only gain the trust of the practitioners involved, but also to offer them something valuable in return. Whilst pure real-time action research would not be sensible when bidding is taking place, the experience of reflecting to a neutral, scholarly closed audience is one that generates insights for both parties. This leads to a more fundamental issue, which is the relative lack of connectedness between the world of the project management practitioner community and the scholars studying it. This work serves to demonstrate that both scholars and practitioners can benefit from richer and deeper interaction without compromising commercial sensitivities or breaching confidences.

Turning to the case itself, the process of bidding, prescribed as it is in a PPP context, still demanded each bidder to formulate a win-strategy. The win-strategy of StronCo was based upon a marketing approach based around innovation and risk-taking. In marketing terms, this is inductively identified as entrepreneurial marketing. It is coupled with relationship marketing identified in the main competitor, BranCo. As noted, the marketing dimension makes an original contribution because entrepreneurial marketing has not previously been investigated as an approach in project markets. It adds to our understanding and arguably overcomes some of the limitations of the conceptual principles found in the marketing mix, project marketing, and the service-dominant logic.

The detailed case-based focus on the BM aspect is a further contribution to our knowledge and understanding of this area as there is scant prior empirical and case-specific research published. Bayer and Gann (2006) have provided one of the most noteworthy of this very limited field with a focus being on internal resource management, whereas the focus here has been on win-strategies as an original contribution. More work on this area is encouraged across the many differing and fascinating project-based sectors.

Disclosure statement

No potential conflict of interest was reported by the authors.

References

- Arizona Department of Transportation (2013) *Public Private Partnerships (P3)* [Online], available at http://www.azdot.gov/Highways/Projects/Public_private_partnerships/FAQ.asp. (accessed January 2016)
- Balakrishnan, S. and Koza, M.P. (1993) Information asymmetry, adverse selection and joint-ventures: theory and evidence. *Journal of Economic Behavior & Organization*, **20** (1), 99–117.
- Bayer, S. and Gann, D. (2006) Balancing work: bidding strategies and workload dynamics in a project-based professional service organisation. *System Dynamics Review*, **22** (3), 185–211.
- Biemans, W.G., Brenčić, M.M. and Malshe, A. (2010) Marketing-sales interface configurations in B2B firms. *Industrial Marketing Management*, **39**(2), 183–94.
- Bing, L., Akintoye, A., Edwards, P.J. and Hardcastle, C. (2005) The allocation of risk in PPP/PFI construction projects in the UK. *International Journal of Project Management*, **23**(1), 25–35.
- Bovaird, T. (2010) A brief intellectual history of the public private partnership movement, in Hodge, G., Greve, C. and Boardman, A. (eds.) *International Handbook on Public-Private Partnerships*, Edwards Elgar Publishing Ltd, Cheltenham, UK, pp. 43–67.
- Coase, R.H. (1937) The nature of the firm. *Economica*, **4**(16), 386–405.
- Cova, B. and Salle, R. (2006) Communications and stakeholders, in Pryke, S.D. and Smyth, H.J. (eds.) *Management of Complex Projects: A Relationship Approach*, Blackwell, Oxford, pp. 131–46.
- Cova, B. and Salle, R. (2011) Shaping projects, building networks, in Morris, P.W.G., Pinto, J.K. and Söderlund, J. (eds.) *The Oxford Handbook of Project Management*, Oxford University Press, Oxford, pp. 391–409.
- Cova, B., Ghauri, P. and Salle, R. (2002) *Project Marketing: Beyond Competitive Bidding*, John Wiley & Sons, Chichester.
- Covin, J.G. and Slevin, D.P. (1994) Corporate entrepreneurship in high and low technology industries: a comparison of strategic variables, strategy patterns and performance in global markets. *Journal of Euromarketing*, **3**(3–4), 99–127.
- Coxe, W., Hartung, N.F., Hochberg, H., Lewis, B.J., Maister, D. H., Mattox, R.F. and Piven, P.A. (1987) *Success Strategies for Design Professionals*, Wiley, New York.
- Davies, A. and Brady, T. (2000) Organisational capabilities and learning in complex product systems: towards repeatable solutions. *Research Policy*, **29**(7), 931–53.
- Davies, A., Brady, T. and Hobday, M. (2007) Organizing for solutions: systems seller vs. systems integrator. *Industrial Marketing Management*, **36**(2), 183–93.
- Edkins, A., Ive, G. and Rintala (2010) *Operating Healthcare Infrastructure: Analysing the Evidence*, KPMG International, London [Online], available at <https://www.kpmg.com/TW/zh/IssuesAndInsights/Documents/IGH/Global-infrastructure-spotlight-Benchmarking-healthcare.pdf> (accessed January 2016).
- Edkins, A., Geraldi, G., Morris, P. and Smith, A. (2013) Exploring the front-end of project management. *Engineering Project Organization Journal*, **3**(2), pp. 71–85.
- EPEC (2012) *Market Update – Review of the European PPP Market in 2012*, European Investment Bank, Luxembourg.
- Forrer, J., Kee, J.E., Newcomer, K.E. and Boyer, E. (2010) Public-private partnerships and the public accountability question. *Public Administration Review*, **70**(3), 475–84.

Arizona Department of Transportation (2013) *Public Private Partnerships (P3)* [Online], available at http://www.azdot.gov/Highways/Projects/Public_private_partnerships/FAQ.asp. (accessed January 2016)

- Fu, W.K., Drew, D.S. and Lo, H.P. (2002) The effect of experience on contractors' competitiveness in recurrent bidding. *Construction Management and Economics*, **20**(8), 655–66.
- Gaffney, D., Pollock, A.M., Price, D. and Shaoul, J. (1999) The private finance initiative: PFI in the NHS – is there an economic case? *BMJ*, **319**(7202), 116–9.
- Gann, D.M. and Salter, A.J. (2000) Innovation in project-based, service-enhanced firms: the construction of complex products and systems. *Research Policy*, **29**(7–8), 955–72.
- Grimsey, D. and Lewis, M. (2007) *Public Private Partnerships: The Worldwide Revolution in Infrastructure Provision and Project Finance*, Edward Elgar Publishing, Cheltenham, UK.
- Gronroos, C. (2000) *Service Management and Marketing: Managing Customer Relationships for Service and Manufacturing firms*, Wiley, Chichester, UK.
- Gruneberg, S.L. and Ive, G.J. (2000) *The Economics of the Modern Construction Firm*, Palgrave Macmillan, London.
- Gummesson, E. (2008) *Total Relationship Marketing*, 3rd edn, Butterworth-Heinemann, Oxford.
- Hadjikhani, A. (1996) Project marketing and the management of discontinuity. *International Business Review*, **5**(3), 319–36.
- Hausmann, F., Hofmann, A., Weissenboeck, S. and Eichler, J. (2012) Form follows function – successful quality management in the bidding process of complex procurement procedures, such as PPP-projects. *Bauingenieur*, **87**, 203–9.
- Hillebrandt, P.M. (2000) *Economic Theory and the Construction Industry*, Macmillan, London.
- HM Treasury (2011) *Green Book – Appraisal and Evaluation in Central Government*, The Stationery Office, London.
- HM Treasury (2012) *A New Approach to Public Private Partnerships*, The Stationary Office, London.
- Hodge, G.A., Greve, C. and Boardman, A. (eds.) (2010) *International Handbook on Public-Private Partnerships*, Edward Elgar, Cheltenham, UK.
- Ioniță, D. (2012) Entrepreneurial marketing: a new approach for challenging times. *Management & Marketing Challenges for the Knowledge Society*, **7**(1), 131–50.
- Ive, G. and Gruneberg, S.L. (2000) *The Economics of the Modern Construction Sector*, Macmillan, Basingstoke, UK.
- Jensen, M.C. and Meckling, W.H. (1976) Theory of the firm: managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, **3**(4), 305–60.
- Kotler, P., Ketele, F. and Kotler, F. (2013) *Principles of Marketing*, Pearson, Harlow, UK.
- Lewis, H. (2003) *Bids, Tenders & Proposals: Winning Business Through Best Practice*, Kogan Page, London.
- Lowe, D. and Skitmore, M. (2006) Bidding, in Lowe, D. and Leiringer, R. (eds.) *Commercial Management of Projects: Defining the Discipline*, Blackwell, Oxford, pp. 356–89.
- Lowe, S., Ellis, N., Purchase, S., Rod, M. and Hwang, K. (2012) Mapping alternatives: a commentary on Cova, B. et al. (2010). 'Navigating between dyads and networks'. *Industrial Marketing Management*, **41**(2), 357–64.
- Mandják, T. and Veres, Z. (1998) The DUC model and the stages of the project marketing process, in *14th IMP Annual Conference Proceedings*, Turku School of Economics and Business Administration, Turku, Finland, pp. 471–90.
- McCarthy, E.J. (1960) *Basic Marketing: A Managerial Approach*, Richard D. Irwin, Inc, Homewood, IL.
- Miller, R. and Lessard, D.R. (eds.) (2001) *The Strategic Management of Large Engineering Projects: Shaping Institutions, Risks, and Governance*, MIT Press, Cambridge.
- Miller, R. and Olleros, X. (2000) Project shaping as a competitive advantage, in Miller, R. and Lessard, D. (eds.) *The Strategic Management of Large Engineering Projects: Shaping Institutions, Risks, and Governance*, The MIT Press, Cambridge, Mass.
- Möller, K. (2006) Role of competences in creating customer value: a value-creation logic approach. *Industrial Marketing Management*, **35**(8), 913–24.
- Morris, P.W.G. (1994) *The Management of Projects*, Thomas Telford, London.
- Morris, P.W.G. (2013) *Reconstructing Project Management*, John Wiley & Sons, Chichester, UK.
- Morris, P.W.G. and Hough, G.H. (1987) *The Anatomy of Major Projects: A Study of the Reality of Project Management*, Wiley, Chichester, UK.
- Morris, P.W.G. and Pinto, J.K. (2004) *The Wiley Guide to Managing Projects*, Wiley, Hoboken, NJ.
- Morris, M.H. and Sexton, D.L. (1996) The concept of entrepreneurial intensity: implications for company performance. *Journal of Business Research*, **36**(1), 5–13.
- Morris, M.H., Schindehutte, M. and Laforge, R.W. (2002) Entrepreneurial marketing: a construct for integrating emerging entrepreneurship and marketing perspectives. *Journal of Marketing Theory and Practice*, **10**(4), 1–19.
- Nickson, D. (2008) *The Bid Manager's Handbook*, Gower Publishing Ltd, Aldershot, UK.
- Oo, B.L., Drew, D.S. and Runeson, G. (2010) Competitor analysis in construction bidding. *Construction Management and Economics*, **28**(12), 1321–9.
- Philbin, S.P. (2008) Bid management: a systems engineering approach. *The Journal of High Technology Management Research*, **19**(2), 114–27.
- Pinto, J.K. and Rouhiainen, P. (2002) *Building Customer-Based Project Organizations*, John Wiley & Sons, New York.
- PPIAF (2009) *Overview of PPP Experience*, World Bank.
- PricewaterhouseCoopers (2005) *Delivering the PPP Promise – A Review of PPP Issues and Activity*, London.
- Raftery, J. (1991) *Principles of Building Economics: An Introduction*, BSP Professional Books, Oxford.
- Ray, P.S., Aggarwal, A., Moynihan, G.P. and Bishop, P.B. (2003) A decision-support system for bid evaluation in project management, in Kluth, H. and Bubb, H. (eds.) *Quality of Work and Products in Enterprises of the Future*, Ergonomia Verlag, Stuttgart, pp. 663–6.
- Sarasvathy, S.D. (2001) Causation and effectuation: toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of Management Review*, **26**(2), 243–63.
- Sarasvathy, S.D. and Dew, N. (2005) New market creation through transformation. *Journal of Evolutionary Economics*, **15**(5), 533–65.
- Sawyer, M. (2005) The private finance initiative: the UK experience. *Research in Transportation Economics*, **15**(0), 231–45.
- Skaates, M.A. and Tikkanen, H. (2003) International project marketing: an introduction to the INPM approach. *International Journal of Project Management*, **21**(7), 503–10.

- Skitmore, M. and Smyth, H. (2007) Pricing construction work: a marketing viewpoint. *Construction Management and Economics*, **25**(6), 619–30.
- Smith, A. (1776) *An Inquiry into the Nature and Causes of the Wealth of Nations*. The Glasgow Edition of the Works and Correspondence of Adam Smith, J.M. Dent and Sons Ltd, London, UK.
- Smith, A.J. (1995) *Estimating, Tendering and Bidding for Construction: Theory and Practice*, Macmillan, London.
- Smyth, H. (2000) *Marketing and Selling Construction Services*, Blackwell, Oxford.
- Smyth, H.J. (2015) *Market Management and Project Business Development*, Routledge, Abingdon, UK.
- Smyth, H. and Fitch, T. (2009) Application of relationship marketing and management: a large contractor case study. *Construction Management and Economics*, **27**(4), 399–410.
- Smyth, H.J. and Lecoeuvre, L. (2015) Differences in decision-making criteria towards the return on marketing investment: a project business perspective. *International Journal of Project Management*, **33**(1), 29–40.
- Smyth, H.J. and Morris, P.W. (2007) An epistemological evaluation of research into projects and their management: methodological issues. *International Journal of Project Management*, **25**(4), 423–36.
- Söderlund, J. (2011) Theoretical foundations of project management: suggestions for a pluralistic understanding, in Morris, P.W.G., Pinto, J.K. and Söderlund, J. (eds.) *The Oxford Handbook of Project Management*, Oxford University Press, Oxford, pp. 37–64.
- Spackman, M. (2002) Public-private partnerships: lessons from the British approach. *Economic Systems*, **26**(3), 283–301.
- Srinivasan, S. and Hanssens, D.M. (2009) Marketing and firm value: metrics, methods, findings, and future directions. *Journal of Marketing Research*, **46**(3), 293–312.
- Stader, J. (1997) An intelligent system for bid management. *International Journal of Project & Business Risk Management*, **1**(3), 299–314.
- Storbacka, K., Strandvik, T. and Grönroos, C. (1994) Managing customer relationships for profit: the dynamics of relationship quality. *International Journal of Service Industry Management*, **5**(5), 21–38.
- Tian-Hui, Y., Ying-Yu, Q. and Zhu-Chao, Y. (2007) A framework of CBR-based bidding knowledge management system for building construction enterprise, in *Wireless Communications, Networking and Mobile Computing*, Shanghai, People's Republic of China, 21–25 September, IEEE, pp. 4351–54.
- Tweedley, N. (1995) *Winning the Bid: A Manager's Guide to Competitive Bidding*, FT Prentice Hall, London.
- Vargo, S.L. and Lusch, R.F. (2004) Evolving to a new dominant logic for marketing. *Journal of Marketing*, **68**(1), 1–17.
- Whitley, M. (2006) To bid, or not to bid [bid management]. *Engineering Management*, **16**(5), 40–3.
- Williamson, O.E. (1975) *Markets and Hierarchies: Analysis and Antitrust Implications: A Study in the Economics of Internal Organizations*, Free Press, New York; Collier Macmillan, London.
- Williamson, O.E. and Masten, S.E. (1995) *Transaction Cost Economics*, Edward Elgar, Cheltenham, UK.
- Zahra, S.A. and Garvis, D.M. (2000) International corporate entrepreneurship and firm performance: the moderating effect of international environmental hostility. *Journal of Business Venturing*, **15**, 469–92.