PROCUREMENT TACTICS FOR SELECTING SUITABLE CONTRACTORS FOR COLLABORATION AND LONG-TERM RELATIONSHIPS

Calistus Ayegba¹ and David Root

School of Construction Economics and Management, University of Witwatersrand, Witwatersrand, Braamfontein, Johannesburg, 2000, South Africa

The construction industry has increasingly embraced collaboration and long-term relationships (CLR) practices in recent years. Nevertheless, most people have been trained and accustomed to the traditional approaches. There is limited understanding when it comes to how clients should go about procuring suitable contractors for CLR despite significant roles contractors play to the success of projects. Since it is not all contractors that are suitable for CLR, this study empirically investigates the procurement tactics that clients are employing to select suitable contractors for CLR in the construction industry focusing on framework contracts. Data was collected through semi-structured interviews with eight organizations employing framework contracts in South Africa. The findings show that the organizations are employing many tactics generally aimed at vetting contractor's background behaviour and past performance; in addition to getting closer in meeting and talking face to face with the potential contractors to observe and assess their suitability for CLR. Some of the tactics employed to achieve this include: conducting interviews with potential contractors, conducting training and workshops, asking for CV's of key participants, top management involvement consideration, and vetting of potential contractors via a contactable reference of past jobs. Other tactics include holding competitive negotiation/dialogue process and meetings with potential contractors. The result of the study provides insight on the procurement tactics to adopt in selecting suitable contractors for CLR in practice, especially among new adopters of CLR strategies.

Keywords: collaboration, framework contracts, long-term relationships, procurement

INTRODUCTION

In recent years there has been increasing interest in collaboration and long-term relationships (CLR) in the construction industry. The influence of the Latham 1994 "constructing the team" and Egan 1998 "rethinking construction" UK construction industry reports together with other construction industry reports from Hong Kong, New Zealand, and Singapore are attributed to have influenced the rising trend of CLR practices in the construction industry (Kamudyariwa *et al.*, 2018; Donohoe and Coggins 2016). Strategies that internalize CLR in construction are partnering, alliance contracting and framework contracts (Ayegba *et al.*, 2018). While partnering and alliance contracting can also be used for once-off project-based strategies, a framework contract is mainly intended for long-term relationships (Joint Contract Tribunal 2011). Therefore, framework contracts represent an excellent strategy to examine with regards CLR.

¹ buildercally@yahoo.com

The international standard organization (ISO 10845-1 2010) defines a framework agreement as an agreement between an employer and one or more contractors, the purpose of which is to establish the terms governing contracts to be awarded during a given period, in particular regarding price and, where appropriate, the quantity envisaged. Watermeyer (2013) in his article 'unpacking framework agreements for the delivery and maintenance of infrastructure' submits that construction clients can develop collaborative procurement relationships with their construction partners and supply chains for longterm gain through framework contracts. Therefore, framework contrasts create an environment in which clients and contractors can work collaboratively together for a long-term in delivering several projects, in contrast to the adversarial and short-term contracts in traditional approaches. From previous studies, CLR is indicated as a vehicle to maximize value, levels of quality, service delivery and operational efficiencies (Khalfan et al., 2014; Meng 2013; Frödell 2011). A central area of concern is the selection of suitable contractors for CLR. Particularly as it is not all contractors that are suitable for CLR owing to the level of commitment, teamwork, flexibility, mutual trust, integration of project team members, and information sharing essential to achieve greater success in CLR practices. This shows that there is a need for different procurement tactics for selecting contractors for CLR, as the use of traditional approaches is not likely to yield the expected outcomes. This is because the technical and functional evaluation of contractors which focuses on hard criteria such as time, quality and price only as emphasized in traditional approaches will be inappropriate to cover all the issues upon which to select a suitable contractor for CLR (Kadefors et al., 2007). Procurement tactics are in effect a tool for identifying a suitable contractor during the tender process and managing risks during the execution of a contract (National Treasury Department 2016). Such tactics are aimed on the selection of a contractor who is most likely to deliver the best value through the performance of the contract, life cycle costs of what is offered, the availability of spares, operation and maintenance requirements (ibid). Little research has been done to examine the procurement tactics employed by clients to select suitable contractors for CLR effectively. Therefore giving the importance of contractor selection to the success of every project (San Cristóbal 2012; Doloi 2009; Singh and Tiong 2005), this study aims to investigate the procurement tactics clients are employing to select suitable contractors for CLR in the construction industry.

RELATED LITERATURE

Contractor Selection for CLR

Coping with the increasing level of complexity has been a challenge to the construction industry, as evidenced by reports of construction projects failing to meet clients expected outcomes which proliferate across the globe. This is due to several factors such as macroeconomic factors, project-specific factors, as well as factors relating to the performance of other project team members (Nkado 2010). However, since the success of construction projects is argued to largely depends on the appropriate selection of contractors for projects (Palaneeswaran and Kumaraswamy, 2000; Singh and Tiong, 2005), appropriate selection of contractors is seen as a very important factor for achieving expected project outcomes. This is partly because of contractors responsibility to manage and utilize project resources (labour and materials) (Kog and Yaman 2014), and also as a result of the significant role they play in promoting good project management and creating enabling environment for achieving expected project outcomes (Skeggs, 2003).

The dominant criteria such as time, quality and cost; as well as the tactics employed in evaluating these criteria, particularly for a normal project-based, short-term contracts are

well covered in the literature (see for example: Nasab and Ghamsarian 2015; Ebrahimi *et al.*, 2015; San Cristóbal 2011; Favié *et al.*, 2007). However, with the increasing adoption of CLR practices in construction, more knowledge is needed on how the selection of contractors to accommodate for CLR can be achieved. Some studies suggested that contractor selection for CLR should consider not only hard criteria and technical competences but also more subjective attributes (Kadefors *et al.*, 2007; OGC, 2003). Concurring, Laryea and Watermeyer (2016) submit that the selection of experienced and skilled contractor with capacity and collaborative attitude is the first condition for success in such contracts.

While criteria such as altruism, cooperation, openness, flexibility, trustworthiness, and inter-organization relationship are indicated as being necessary for CLR (Ayegba *et al.*, 2018; Kadefors *et al.*, 2007; Skeggs, 2003). The procurement tactics and mechanism for identifying and evaluating such criteria need to be clearly understood through empirical studies. Mainly since most construction stakeholders have been trained and accustomed to traditional approaches.

RESEARCH METHOD

The qualitative research methodology is adopted in this study, as physical access for indepth probing questions, allowed in a qualitative study is required to elicit data from participant's narrative experience on the procurement tactics employed in selecting contractors that accommodates for CLR in framework contracts. Participants will be allowed to provide data in their own words and understanding and meanings will be informed from their point of view in line with the interpretivist philosophy (Saunders *et al.*, 2012). More so as there will be varied and multiple subjective meanings from the experiences of each participant. The abductive approach is considered appropriate and adopted in this study, as the findings from the study are not intended to test a theory or develop a new theory as will be required in a deductive and inductive approach respectively.

Data for the study was collected via semi-structured interviews with key informants of purposively selected organizations employing framework contracts in South Africa, and documentary analysis of procurement documents of the organizations. Key informant interviews involve interviewing people, who are selected for their first-hand knowledge about a topic of interest and are likely to provide needed information, ideas, and insights on the topic of interest (Kumar 1989). In addition to already known client organizations employing framework contract, the identification of other client organizations using framework contracts was also through several other sources that include enquiring from construction professionals and reviewing tender information on relevant databases on the internet such as National Treasury, Department of Public Works, and the cidb databases.

A total of eight organizations involving sixteen key informants with different background and positions comprising of directors, project managers, chairperson and executive managers participated in this study. The interviews were audio recorded to ensure that all information was captured during the interviews. In addition brief notes were taken during the interviews to capture both verbal and nonverbal signals from the key informants. The audio record was transcribed verbatim. The organizations also provided the procurement documents (such as the expressions of interest/the letter of invitation to tender, tenders, framework agreements and tender outcome notification) that were requested for in advance. The documentary analysis of the procurement documents provided evidence to ascertain and corroborate the findings from the interviews. The data collected from the key informant interviews and documentary analysis were analysed with the aid of the

Nvivo 11 pro qualitative data analysis software for windows and following thematic qualitative data analysis techniques outlined by Miles, Huberman and Saldana (2014).

FINDINGS AND DISCUSSIONS

In this study, the procurement tactics employed by organizations in selecting suitable contractors for CLR was empirically investigated. The expectation is that to reduce the risk of selecting an inappropriate contractor for CLR, several cognitive steps and processes are employed in screening potential contractors for CLR suitability. To get a sense of the emerging pattern and ideas on the procurement tactics employed in selecting suitable contractors for collaboration and long-term relationships across the data from the eight case organizations investigated, a word frequency query was carried out on the data using Nvivo 11 pro qualitative data analysis software. By using stem words grouping for the fifty most frequent display words with five minimum lengths, the result is presented in the word cloud shown in Figure 1.



Figure 1: Word Cloud Depicting Prominence Words on Procurement Tactics for Selecting Suitable Contractors for Collaboration and Long-Term Relationships.

The word cloud indicates the most frequent words used in the data, which are displayed larger and bolder in the word cloud as shown in Figure 1. From Figure 1, the most frequent words includes: 'experience', 'interview', 'previous', 'workshops', 'commitments', 'references', 'dialogue', and 'meetings'. These words reveal the trends and pattern of responses across the data on the procurement tactics employed in selecting contractors for CLR. The contexts of the highlighted words were also captured for indepth meaning and understanding of the individual words and are discussed below in themes.

Conducting Interviews with Potential Contractors

Virtually all the key informants from the case organizations indicated that conducting interviews with the potential contractors is one of the tactics they employ in selecting contractors for CLR. This shows why the word 'interview' was displayed as the most frequent word in Figure 1. In a study on conceptualization of CLR, open communication, trustworthy-ness, cooperation and social exchange behaviour are reported among the important requirements for CLR (Ayegba *et al.*, 2018). Due to the intangible nature of these requirements, it will be difficult to gain assurance that a contractor is suitable for CLR and will not act opportunistically or behaves such that will cut short the contract relationship. Therefore, interviews provide greater opportunities for parties to sit face to face to probe and sieve down the number of potential contractors further. It also provides opportunity for clarifications and to test reactions from the contractors. A common practice alluded to during interview by most of the case organization is to involve all

relevant parties and departments within the client organizations to take part in the interviewing. In addition, interviews provide an opportunity for the contractors to express themselves furthermore on why they are suitable for CLR. As A3 puts it:

That allows us to test that can they produce a program, activities and work with us, to me it is more like a job interview find the best candidate, price, preference, quality and matching your objectives of CLR -A3

A common concerns in interviewing potential contractors has to do with who is to be interviewed, number of contractors to interview and what type of questions are to be asked that will provide evidence that a contractor will be suitable for CLR. The response from A1 well illustrates how these concerns are addressed in an interview:

You interview the people that are going to be on site and not the directors and the marketing team. We tell them who we are and our value system, we ask if they can align with what we are doing? Can they perform what we are asking of them? That is where we tested the compatibility. You ask them for their approach paper and skill development plan, what is the quality of their staff? Are they innovative or are they just doing what they are told to do without coming up with ideas? Ask them for their value-engineering proposition. What could they do better? Can they adapt and are they providing the right people, do they have the right commitment? Because it takes a lot of effort, energy and cost to participate in that bidding process and it is ridiculous and unfair to take this huge pool forward. If you want people to participate meaningfully, give them a 1 in 4 or 1 in 3 shot because if you give them 1 in 10 shot, you will get 1 in 10 quality returns -A1.

Hence the procurement tactics of conducting interviews with is a good medium of communication that provides opportunities gathering and assessing information from the potential contractors.

Conducting Training and Workshops for Potential Contractors

Conducting training and workshops is another procurement tactics alluded to by 6 out of the eight organizational cases in the study in selecting suitable contractors for CLR. This justifies the display of the word 'workshop' as one of the most frequent words across the data in Figure 1. The response from A3 well illustrates the context of the practice:

Another thing we have found successful in running and building framework contracts is running workshops. We have also run Workshops on the NEC and how target contracts work because if you want contractors that have used NEC and target contract, you may not get any tender. I regard these workshops as bringing about a culture change, what we do is to have the contractor and the professionals and client team go through it. The head of the unit will always come around to watch the reactions and responses and not to hear us, and then he can figure out how to deal with the contractor and where their strength and weaknesses are - A3.

Since the concept and practice of CLR are not familiar to most contractors and professionals, mainly as people have been more used to the traditional approaches. Workshops and training provide the opportunity to build the contractors up for CLR. It also provides the opportunity for clients to observe as part of an evaluation process the active involvement and commitment characteristics of contractors, which are also critical for successful CLR.

Asking for CV's of Key Participants

The keyword 'experience' was also displayed as one of the most frequent words across the data in Figure 1. Apart from finding out directly during interviews if contractor team members have the right experience for the job and for CLR, another procurement tactic that was indicated to be used in evaluating the suitability of contractors for CLR was requesting for CVs of key participants from the contractor's. This tactic was indicated to

be employed by all the case organizations and was also corroborated by the evidence from the procurement documents. The following responses below illustrates further:

..we ask for CV's and indirectly we check through past experiences, looking at say for instance what type of projects you did in a 10 year period, who were your clients and what the success rate -A3

Asking for CVs of those individual teams enable us to be able to basically tell if they have the right experience -A7.

....we ask for CVs for key resources, Over and above the price, we need to know whom I'm working with, Not interested in the people that are going to rock up in fancy suits, do not send me the marketing people. Send me the construction professional. The foreman and the people below we will assume everything is okay, but the project managers, the cost controllers those are the people you are going to interact with, you need to work with, and you need to understand, that is part of the beauty contest -A1.

Therefore, requesting for CVs of key participants from the contractor side provides the organizations with information on the previous experience and quality of professional people in the contractor team. This will obviously have an impact on the quality of expected outcome and promotion of CLR.

Consideration of Top Management Involvement

Probing further, a test search query was carried out on the word 'commitment' which was also displayed as one of the most frequent words in Figure 1 with the aid of the Nvivo software. The context by the references from the probe shows that apart from A5 which uses the word in the context of enquiring about future commitments of contractors to get information about their availability for CLR, five of the organizations used the word 'commitment' to indicate consideration of top management commitments in the selection process as one of the tactics for assessing suitability of contractors for CLR. A3 puts it this way:

....commitment of top management, when it comes to a grade 7 or 8 contractors, the guy sitting in front of you is the guy intimately involved in the tender and the execution, the director has been actively involved all through the process, he is the decision maker. So the relationship with them is better, there are no limitations on where you are going to go -A3.

The involvement of contractor's top management in all the selection processes including interviews, workshops and competitive negotiations and meetings is considered as a good attribute for CLR. Such that it may create skewed results against the bigger contractors of higher grades that may not be having their top management representatives in the selection process. This is partly because such representatives will have limited decisions to make due to limited authority and their top management are disjointed from the execution team.

Vetting of Potential Contractors

Observations and interviews may not discover the warranting properties that a contractor may be suitable for CLR. One cannot see that a contractor will be honest and trustworthy and it's not uncommon to have contractors being deceptive during interviews. So asking contractors to provide contactable references of past clients for vetting purpose is also one of the tactics employed in selecting contractors for CLR by all the case organizations. Other vetting concerns as indicated by A8 has to do with checking if contractors have not been found guilty of corruption and other fraudulent practices, and cross-checking blacklisted list of tender defaulters with Government agencies. Most of the case organizations indicated that they usually request for at least three references of past jobs.

In some cases, the request is for past-related jobs references. A7 well illustrates the significance of asking for contactable references of past clients:

When we cross-reference based on the previous job that they did. Remember, all of them will tell you that they are fit for the job. Take one example, in one instance, somebody lied and said he developed A, B, C, D for BP but when we call BP, BP says "no, there is no such a thing, the person did not develop that". So automatically, we know that he is a liar. But during the interview they will tell you everything, we are transparent, we good communicators, everyone wants a job. That's why is important to dwell deep and contact the reference they provided from previous jobs- A7

Vetting of contractors by proper due diligence crosschecking of contactable references of past jobs provides knowledge on the contractor's background behaviour and suitability for CLR which is critical to the solution the contractors can offer. Previous behaviour is a good indicator of future behaviour following trait laws of "once a K, always a k" which are invoked when you deal directly with someone and you are reliably informed about the person (Gambetta and Hamill 2005). This is epitomized by sayings such as "you are as good as your last job".

Holding a Competitive Negotiation/Dialogue Process with Potential Contractors

The keyword 'dialogue' was also displayed as one of the most frequent words across the data in Figure 1. Probing further, six of the case organizations in this study reported having a competitive dialogue process with contractors as one of the procurement tactics employed in selecting contractors to accommodate for CLR. The competitive dialogue process is employed at the final stage when the potential contractors must have been sieved down to two or three as indicated by A6. This involves an open conversation process, which is used to test contractor's reactions and innovativeness. A1 suggested the practice is also employed to give feedbacks that will improve the competitiveness of contractors as illustrated below:

The contractor was asking some awkward questions to the architect. The architect had never been in a situation where the servant checked the master about his design and in the middle of all of this, the contractor stopped and said look, sir, I am not challenging your architectural ability, please understand, I need to understand your flexibility in order to price the job. Therefore, it is a two-way street, with contractor sizing up his risks in meeting the client, testing reaction. We test reactions. For example, when we did the mathematical jobs, the discussion went around the movement of joints to accommodate better prices in formwork- A3

An important advantage of having the competitive negotiation/dialogue process is the feedback contractors provides during the process. A1 well illustrates this:

At the west campus where we provided for concrete slab floor that was supposed to be followed by a screed and then a vinyl floor onto the screed. During the competitive dialogue process, the contractor stepped in and said hang on I can finish my concrete slab at the level at which you need the vinyl floor. By doing this, we were able to make a saving on the entire screed we would have needed. So it is this type of input from the contractor that saves you money, unlike the traditional approach where he will just make money off the screen without telling you -A1.

Therefore having a competitive negotiation/dialogue process with potential contractors gives the organizations greater opportunity to probe and sieve the potential contractors further and also to extract more information from the contractors in a face to face encounter.

Holding Meetings with Potential Contractors

Holding meetings which may be compulsory or non-compulsory is another tactic employed by most of the case organizations in selecting contractors to accommodate for CLR. This shows why the word 'meeting' is displayed among the most frequent words across the data. In some cases, such meetings are termed clarification meetings when it is to clear any ambiguities on information and to provide more information and understanding regarding the organizations and projects objectives. Meetings with contractors also provide the opportunity to get more information from the contractors and on their perceivable behaviours. It is also used to evaluate contractor's commitment and interest in the job, which are good ingredients for CLR.

Use of NEC3 Contract Documents

The form of contracts is amongst others is also a tool used for the effective procurement process. The standard forms of contracts used in practice in South Africa are the International Federation of Consulting Engineers (FIDIC), General Conditions of Contract for Construction Works (GCC), Joint Building Contracts Committee (JBCC) and the New Engineering Contracts (NEC3). Most of the case organizations reported the use of the New Engineering Contracts (NEC3) contract documents in procuring contractors for CLR. Although one of the organization A2 specializing only in building works and another A5 that only carries out roadworks reported using the JBCC and GCC contract documents irrespectively. The preference for JBCC and GCC was because JBCC and GCC deal specifically with their area of specialization, which is building works, and Engineering works respectively. In the words of A8 below:

We use NEC suite of contracts because it is one that people within our organization understand better than the FIDIC, GCC, and JBCC. It is what our people have been trained on and we, therefore, stick to NEC because at least the legal practitioners understand it better and we can easily depend on it. Our project managers as well have been trained with NEC- A8

Watermeyer (2015) describes the NEC embodying collaborative and cooperative practices as well it facilitates project team integration and early contractor involvement. It is developed in line with recent approaches to project management including CLR practices. These characteristics of NEC may be the motivation for its preference by most of the case organization.

Other procurement tactics indicated from the findings involve the use of open tendering by publishing an expression of interest as tender invitation practice; and employing bill of quantities or activity schedule depending on the size of the contract as pricing strategy.

CONCLUSIONS

In this study, the procurement tactics that influence the actual decision process in selecting contractors for CLR was empirically investigated. Focusing on framework contracts which is one of the strategies that is intended for CLR in the construction industry, eight purposively selected organisations employing framework contracts in South Africa participated in the study.

The study gives the detailed account of the procurement tactics the organizations use in selecting suitable contractors for CLR. Overall the tactics include: conducting interviews with potential contractors, conducting training and workshops, asking for CV's of key participants, top management involvement consideration, and vetting of potential contractors via a contactable reference of past jobs. Other tactics include holding competitive negotiation/dialogue process and meetings with potential contractors. Also,

the use of NEC3 Contract Documents, use of a bill of quantities and activity schedules as Pricing Strategies and employing open tendering by publishing an expression of interest in inviting contractors to tender are other tactics adopted in selecting suitable contractors for CLR.

This implies that the organizations employ many tactics aimed at getting them closer to meeting and talking face to face with potential contractors. This enables the organizations to observe, listen and read signs such as expressions, politeness and other behavioural properties displayed by contractors in assessing their suitability for CLR so as to minimize the risk of inappropriate selection for CLR. These procurement tactics are not intended to be exhaustive but represent a range of areas and issues clients should consider in selecting suitable contractors to accommodate for CLR. Often the final verdict on the selection of contractors for CLR is the result of taking a cluster of these procurement tactics into consideration.

REFERENCES

- Ayegba, C, Kamudyariwa, X. B and Root, D (2018) Conceptualization of collaboration and long-term relationships: Towards a better route to enhanced productivity, performance and transformation of construction, *In: 10th CIDB Postgraduate Research Conference.*Department of Built Environment, Central University of Technology, Free State, 334-353.
- Steve Donohoe and Jeremy Keith Coggins (2016) Framework Agreements in a Post-Recession Economy. *In*: Chan, P W and Neilson, C J (Eds.), *Proceedings 32nd Annual ARCOM Conference*, 5-7 September 2016, Manchester UK. Association of Researchers in Construction Management, 259-268.
- Ebrahimi, A, Alimohammadlou, M and Mohammadi, S (2016) Identification and prioritization of effective factors in assessment and ranking of contractors using fuzzy multi-criteria techniques. *Decision Science Letters*, 5(1), 95-108.
- Egan, J (1998) Rethinking Construction. London: The Construction Task Force.
- Favié, R, Abdalla, G and Maas, G (2007) The best criteria for the selection of contractors in the Dutch construction industry! *In: Proceedings of the CME25: Construction Management and Economics: Past, Present and Future*, July, Reading, UK
- (UK), July 2007.
- Frödell, M (2011) Criteria for achieving efficient contractor-supplier relations. *Engineering, Construction and Architectural Management*, 18(4), 381-393.
- Gambetta, D and Hamill, H (2005) *Streetwise: How Taxi Drivers Establish Customer's Trustworthiness*. New York: Russell Sage Foundation.
- Hosseini Nasab, H and Mirghani Ghamsarian, M (2015) A fuzzy multiple-criteria decision-making model for contractor prequalification. *Journal of Decision Systems*, 24(4), 433-448.
- ISO (International Organization for Standardization) (2010) ISO 10845-1:2010: Construction Procurement - Part 1: Processes, methods and procedures. Geneva, Switzerland: ISO.
- Joint Contracts Tribunal (JCT) (2011) *Framework Agreement*. Available from https://www.jctltd.co.uk/product/framework-agreement [Accessed 1st March 2018].
- Kadefors, A, Björlingson, E and Karlsson, A (2007) Procuring service innovations: Contractor selection for partnering projects. *International Journal of Project Management*, 25(4), 375-385.

- Kamudyariwa, X B, Ayegba, C and Root, D (2018) Implementing effective change in construction through a bottom-up approach: Towards a better route to enhanced productivity, performance and transformation of construction. *In: 10th CIDB Postgraduate Research Conference*, 25-27 February, Department of Built Environment Central University of Technology, Free State, 445-457.
- Khalfan, M M, Maqsood, T and Noor, M A (2014) Relationships among supply chain participants: The case of Australia and Malaysia. *International Journal of Procurement Management*, 7(4), 376-390.
- Kog, F and Yaman, H (2014) A meta classification and analysis of contractor selection and prequalification. *Procedia Engineering*, 85, 302-310.
- Kumar, K (1989) *Conducting Key Informant Interviews in Developing Countries*. Washington DC: Agency for International Development.
- Laryea, S and Watermeyer, R (2016) Early contractor involvement in framework contracts. *Proceedings of the Institution of Civil Engineers-Management, Procurement and Law*, 169(1), 4-16.
- Latham, M (1994) Constructing the Team. London, UK: HMSO.
- Marshall, M N (1996) The key informant technique. Family practice, 13(1), 92-97.
- Meng, X (2013) Change in UK construction: Moving toward supply chain collaboration. *Journal of Civil Engineering and Management*, 19(3), 422-432.
- Miles, M. B, Huberman, A. M and Saldaña, J (2014) *Qualitative Data Analysis: A Methods Sourcebook*. New York: SAGE Publications, Inc.
- National Treasury (2016) *Standard for Infrastructure Procurement and Delivery Management*. Republic of South Africa: National Treasury.
- Nkado, R N, Laryea, S, Leiringer, R and Hughes, W (2010) Cost escalation of major infrastructure projects: A case study of Soccer City Stadium in Johannesburg. *In: West Africa Built Environment Research (WABER) Conference*, 27-28 July, Accra, Ghana, 265.
- OGC (2003) Effective Partnering: An Overview for Customers and Suppliers. London: Office of Government Commerce.
- Palaneeswaran, E, Kumaraswamy, M M (2000) Contractor selection for design/build projects. *Journal of Construction Engineering and Management*, 126(5), 331-339.
- San Cristóbal, J R (2011) Contractor selection using multicriteria decision-making methods. *Journal of Construction Engineering and Management*, 138(6), 751-758.
- Saunders, M, Saunders, M, Lewis, P, Thornhill, A (2012) *Research Methods for Business Students*. India: Pearson Education.
- Skeggs, C (2003) Project partnering in the international construction industry. *International Construction Law Review*, 20, 456-482.
- Singh, D, Tiong, R L (2005) A fuzzy decision framework for contractor selection. *Journal of Construction Engineering and Management*, 131(1), 62-70.
- Watermeyer, R (2013) Unpacking framework agreements for the delivery and maintenance of infrastructure. *Civil Engineering Siviele Ingenieurswese*, 21(1), 21-26.