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STANDARDIZATION OF PROCUREMENT: NATIONAL OR INTERNATIONAL?

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The ISO has issued a Draft International Standard on construction procurement and the British Standards Institute is drafting a standard based upon this for use in the UK. Three questions arise from these observations. First, what kind of consultation processes would be adequate to ensure that such a standard meets the requirements of an industry as diverse as construction? Second, why would an international standard be inappropriate for use in a country like UK? Third, what sort of issues should such a standard seek to cover? There are strong precedents for process standards, such as quality assurance, design management and workmanship on building sites. So the idea of a standard on procurement is not unusual. Moreover, there are many differences in tendering and procurement practice that are wasteful and even collusive or illegal. These issues are explored with a view to offering insights and suggestions for guidance based on the experiences in UK. The research method is first-hand observation of the drafting committee who are dealing with the British Standard. As an example to test and inform the standardization concept, six different standard guidance documents on tendering procedures are compared. This reveals a significant degree of diversity, and based on this, nine stages for implementing a tendering procedure are derived.

KEYWORDS: procurement, procurement standard, tendering procedures, UK.

INTRODUCTION

The International Organization for Standardization (ISO) has circulated a draft International Standard on construction procurement (Draft ISO 10845-1 Construction Procurement) to its member countries for consultation. This development has led to the setting up of a Procurement Committee by the British Standards Institute (BSI) to draft a national standard for construction procurement for use in the UK. On the face of it, the idea of applying a generic standard to construction procurement may seem plausible. However, the construction sector is diverse in nature and projects are procured and managed within distinctively different national contexts. Specifically, there are major differences in the legislative environments, economic environments and business processes in different countries. This raises the question of why such a generic standard will be suitable for a country like the UK. The purpose of this study is to explore four broad aspects of the ongoing work of the ISO and BSI in developing a standardized approach for procurement in construction. First, the concept of 'standardizing' the process of procuring construction work is examined. Second, the draft ISO standard on construction procurement is described; here, the rationale for the standardization move is also examined to ascertain why such a generic standard would be suitable for use in the UK, and potential challenges to such a move. Third, the ongoing work of the BSI in developing a British standard for construction procurement is described based on direct participant

observation; the nature and adequacy of the consultation process required for a comprehensive document is explored. Fourth, as an example to test and inform the standardization concept, six different standard guidance documents on tendering procedures in the UK are compared: NJCC (National Joint Consultative Committee 1996); RIBA (Royal Institute of British Architects 2007); Aqua Group (Hackett, *et al.* 2007); a typical UK local authority (LA) procedure, providing an example of a procedure compliant with EU public procurement legislation (Law and Administration Department 2003); CIB (Construction Industry Board 1997); and JCT (Joint Contracts Tribunal 2006). This showed a significant degree of diversity in the prescriptions, and based on this, stages for implementing a tendering procedure are derived.

STANDARDIZING APPROACHES TO THE PROCUREMENT PROCESS IN CONSTRUCTION

Procurement can simply be understood as a method of buying goods and services (as articulated in a research textbook on construction procurement by Hughes *et al*., 2006). It is generally an important issue both at national and international levels. Procurement is a core element of the operations of government and private institutions in different countries. International institutions like the World Bank, International Monetary Fund (IMF), World Trade Organization (WTO) and Transparency International all have procurement and financial transparency policies. Thus, one primary driver for standardization of procurement processes is to avoid corruption and increase transparency and accountability. The World Bank[1] for example, has policies covering four specific areas of procurement: (1) information for borrowers; (2) bidding/consulting opportunities; (3) public procurement; and (4) policies and procedures. Indeed, public procurement reform of the kind envisaged by Hawkins *et al.* (2006) is promulgated by the World Bank through its "Country Procurement Assessment Reports". The World Bank follows the UNCITRAL (1994) processes. Procurement is also an important subject in international trade (see WTO[2] which cites the government procurement market at 10-15% of GDP). So clearly procurement is important and probably merits an ISO standard for guiding its activities.

Standardization is the process of developing and agreeing upon technical standards and a standard is a document that establishes uniform engineering or technical specifications, criteria, methods, processes, or practices (www.iso.org). Therefore, it would appear that the idea of an international standard for construction procurement is to prescribe a set of procedures for approaching the procurement of construction work across different countries so that there is consistency of practice. However, procurement is complex. The research by Hughes *et al*. (2006) showed that, in theory, there could more than 15,000 different permutations of procurement variables. Thus, a standardized approach to a wide range of procurement practices would seem difficult. However, although there has never been a British Standard around procurement issues, there are strong precedents for process standards, such as quality assurance (ISO 9000), project management (ISO 21500, BS 6079-1:2002), design management (ISO 9001) and workmanship on building sites (BS 8000: 1-10). What is particularly new in the proposed standards are the options to select bidders on some basis other than price, such as quality. So the idea of a standard on procurement is novel in many ways but not completely new ground, and there are probably areas that should indeed be standardized in order to enhance efficiency and eliminate waste in the procurement process.

[1] http://web.worldbank.org/wbsite/external/projects/procurement.html
[2] http://www.wto.org/english/tratop_e/gproc_e/gproc_e.htm

For example, the study by Hughes *et al*. (2006: 101) called for a systematic and standardized approach to pre-qualification practices in tendering, because of the complexity and costs involved and diversity of pre-qualification procedures.

The danger of standardization of processes is that it may discourage participants from discussing key strategic project issues (Hughes and Greenwood, 1996). However, the problem of complexity is perhaps more dangerous because it may negate any attempts to communicate meaningfully in an organization (Galbraith, 1967). Previous research by Hughes et al. (2006) concluded that there was a need to standardize the processes of tendering, especially pre-qualification, in order to remove waste from the process.

The importance of standardization is that it institutionalizes the way the market operates. All markets are governed through "rules of exchange" that are usually informal, and govern the continuity and dissolution of relationships between businesses (Baker, Faulkner and Fisher 1998). Markets become institutionalized as these rules of exchange are formalized, and the standardization of tendering processes would be a major step in institutionalizing the construction market. The frequent problems of exploitation and pressure to reduce prices in the supply chain are an inherent part of the recent preoccupation with the collaboration agenda (e.g. Office of Government Commerce 2006, Constructing Excellence, etc).

But this is important not just because of the need to focus on value rather than price, but also because historic practices represent an unfair wielding of power where the rights of some parties in the supply chain are not properly recognized. Casson (1994) argues that standardization brings about the recognition of the rights of everyone involved in the process. This is the reason why it is so important to attempt to codify best practice in terms of recent developments to the organization of market relationships in construction.

There are precedents for standards in construction procurement. Standards South Africa has published four national standards for procurement in recent years: (1) SANS 1914 (2002), Targeted construction procurement (Parts 1-6); (2) SANS 10396 (2003), Implementing preferential procurement policies using targeted construction procurement procedures; (3) SANS 10403 (2003), Formatting and compilation of construction procurement documents; and (4) SANS 294: 2004, Construction procurement processes, procedures and methods. The Construction Industry Development Board in South Africa argued that the standardization of construction procurement will enable those engaged in procurement activities to perform their duties in a uniform and generic manner; procurement documents to be readily compiled; and curricula to be developed to capacitate those engaged in a range of procurement activities. It further stated that the standardization of procurement documents will lead to cost savings, improvements in quality, improved efficiencies and tenderers being able to more easily determine the scope and extent of risk. Standardization furthermore, allows governments to readily develop an internal procurement skills base, which is not lost when staff moves between different departments or levels of government (www.cidb.org.za). However, the arguments of the CIDB are yet to be proven empirically.

INTERNATIONAL STANDARD FOR CONSTRUCTION PROCUREMENT

ISO, accepted a proposal from the South African Bureau of Standards, supported by the Institution of Civil Engineers, the Institution of Structural Engineers, the South African Institution of Civil Engineering, the African Engineers Forum and the Construction Industry

Development Board (CIDB) to develop a series of international standards for construction procurement based on the South African National Standards and the Standard for Uniformity in Construction Procurement. CIDB argued that the objective of the procurement standards was to provide a generic and standard set of processes, procedures and methods for a procurement system that is fair, equitable, transparent, competitive and cost effective and which may be used to promote objectives additional to those associated with the immediate objective of the procurement itself (www.cidb.org.za).

CIDB also stated that an international standard on construction procurement could be especially relevant for developing countries that lack experience and instruments in this field and may be used to improve international trade. For example, one of the main responsibilities of the World Bank's procurement sector is to help borrower countries improve their procurement systems as it is believed that sound public procurement policies and practices are essential to good governance (www.worldbank.org). This is one area where the ISO standard could probably help since its purpose is to provide a framework around which public, private and international organizations may develop their procurement systems to achieve fair competition, to reduce the possibilities for abuse and to improve predictability in procurement outcomes. ISO 10845 is prepared by ISO Technical Committee 59, Building construction, and consists of 8 parts, under the general title of Construction procurement:

- Part 1 (Processes, methods and procedures)
- Part 2 (Formatting and compilation of procurement documentation)
- Part 3 (Standard conditions of tender)
- Part 4 (Standard conditions for the calling for expressions of interest)
- Part 5 (Participation of targeted enterprises)
- Part 6 (Participation of targeted partners in joint ventures in contracts)
- Part7 (Participation of targeted enterprises and targeted labour: local resources in contracts)
- Part 8 (Participation of targeted labour in contracts)

At the time of writing, only Part 1 is at the DIS stage and is currently in circulation to member countries for consultation. Generally, international standards may be used either by direct application or by a process of modifying an international standard to suit local conditions (www.iso.org). The adoption of international standards often results in the creation of equivalent, national standards that are substantially the same as international standards in technical content, but may have (i) editorial differences as to appearance, use of symbols and measurement units, substitution of a point for a comma as the decimal marker, and (ii) differences resulting from conflicts in governmental regulations or industry-specific requirements caused by fundamental climatic, geographical, technological, or infrastructural factors, or the stringency of safety requirements that a given standard authority considers appropriate (www.iso.org). It is not yet clear whether the UK would seek a national version or adopt the draft international standard on construction procurement. However, looking at the arguments advanced by the CIDB in proposing the idea of an international standard, there is a strong argument for Britain to develop its own standard for use in the UK, although the emphasis in the British Standard would be at a different level, more connected with best practice than with the procedural issues covered by the DIS.

BRITISH STANDARDS INSTITUTE (BSI) NATIONAL STANDARD FOR CONSTRUCTION PROCUREMENT

The British Standards Institute (BSI) is drafting a national standard for construction procurement in the UK based on ISO 10845. The account in this section draws from and builds upon the ongoing work of the BSI Procurement Standard Committee. The BSI standard on construction procurement being developed will cover public and private sectors; experienced and inexperienced clients; and a wide scope of works (construction, civils, and process). It is expected to be a client driven document. The BSI Committee are considering the spate of "best practice" guidance on procurement that has emerged in recent years. Is this something that can or should be codified? Indeed is it targeted at the same issues as the ISO on procurement? This indicates that perhaps there are two different things going on. First, the ISO and similar guidance provides systematic steps to be followed in all instances. Second, much of the rhetoric of best practice is more about behaviours and attitudes. This is equally important but different.

The development of a procurement standard for the UK needs to be carefully considered. In a sector as diverse as the UK construction sector, one question that arises is the kind of consultations necessary to ensure that such a standard covers sufficient ground to make it operational and effective in implementation. Given the aim of covering public and private sectors, and considering the diversity of professional and technical roles in the myriad processes of distinct construction sub-sectors, a comprehensive consultation process would be a daunting task. It is also important to consider the question of whether such a standard is indeed appropriate for a country like the UK (in the context of the initial arguments given by the CIDB in proposing the idea of an international standard on procurement). Given peculiarities exclusive to the UK construction sector, one more question is the sort of issues that such a standard should cover. Fundamentally, it is important to understand that the ISO DIS is based on a proposal from the South African Bureau of Standards[3]. Therefore, it is important to assess the SA argument for developing a National Standards for Construction Procurement (based on the Standard for Uniformity in Construction Procurement[4]) to ascertain how this supports the development of a similar document for use in the UK. The South African Standard for Uniformity in Construction Procurement is a document that establishes minimum requirements for: promoting cost efficiencies through the adoption of a uniform structure for procurement documents, standard component documents and generic solicitation procedures; providing transparent, fair and equitable procurement methods and procedures in critical areas in the solicitation process; ensuring that the forms of contract that are used are fair and equitable for all the parties to a contract; and enabling risk, responsibilities and obligations to be clearly identified. The Standard establishes a uniform framework for procurement and minimum requirements for four main areas of procurement.

The BSI Committee should to take into account one of the considerations made in drafting the South African Standard: construction procurement involves not only engineering and construction works contracts, but also supply contracts that involve the purchase of construction materials and equipment, services relating to any aspect of construction including professional services, disposals of surplus materials and equipment and disposals in the form

[3] http://www.cidb.org.za/procurement/procurement_toolbox/overview/int_sta_proc/default.aspx
[4] http://www.cidb.org.za/procurement/procurement_toolbox/standard_uniformity/default.aspx

of demolitions. The SA standards as such cover the full range of commonly encountered procurements in both the public and private sectors in most industrial sectors.

At the time of writing, the BSI Committee is focusing on five outputs: (1) Necessary British amendments to ISO/TC59. The focus here will be on identifying client priorities and approaches to tendering. This is expected to cover a wide scope including best value and scope of works. It will be customized to British context; (2) Identification of and cross-reference to generic regulations such as the Construction Act, Health and Safety legislation and EU procurement regulations; (3) Identification of relevant clients and sectors and cross-references to specific regulations. This will cover regulations applying only to particular clients or particular industries such as local government, education, utilities; (4) Standardization of key British standard. Here, the idea is to convert best practice (e.g. OGC) into British Standard. One idea in being discussed is to bring in aspects that are missing in ISO/TC59 for British context e.g. life cycle work, collaborative working, and integrated supply chains; and (5) Bibliography – the idea here is to signpost the standard being developed to other standards/guidance in order to avoid unnecessary duplication.

STANDARDIZING PROCUREMENT: AN EXAMPLE FROM TENDERING PROCEDURES

In examining the concept of standardizing procurement, we chose to examine the difficulty (or ease) of standardizing a single subset of procurement such as tendering procedures. This would give an indication of the diversity in approaches and practices within the UK context. Six different standard guidance documents on tendering procedures in the UK are compared: NJCC (1996), RIBA (2007), Aqua Group (2007), LA (2003), CIB (1997) and JCT (2006). This showed a significant degree of diversity. From the analysis in Table 1, a series of stages for implementing a tendering procedure is derived. The horizontal lines represent distinct stages of the tendering procedure that appear to take place in all of the documents. The first thing that is revealed by this table is the very small commonality across six descriptions of something as routine as invitations and evaluating tenders. This is not just the use of different vocabulary but may be a question of different levels of detail. The interesting features between of Table 1, that raise important questions for those who are drafting standards, are:

- Only one (1) mentions the preparation of a tender timetable;
- Detailed design (2);
- Initial cost estimate (1)
- Basis of contractor selection (3)
- Preliminary enquiry (3);
- Statutory approvals (2)
- Establishing each tenderer's financial standing and record (1);
- Establishing each tenderer's recent experience and general skill (1);
- Establishing fluctuations mechanism (1);
- Establishing each tenderer's technical and management structure (1);
- Establishing each tenderer's approach to quality assurance systems (1); etc.

Clearly several questions arise to show how even with a small subset of procurement, significant differences exist in approaches and prescriptions. There are only four main areas of strong agreement on activities that should happen in a tendering procedure (see horizontal lines). It would be important for the BSI committee to recognize the diversity of practices that

may exist in the industry. The research by Hughes et al. (2006) showed that there could be more than 15,000 different permutations of procurement variables. It would be important to consider how best to synchronize diverse practices into a single standard; clearly this poses a significant challenge. And how well this is done will go a long way to determining the practical usefulness of the standard being developed.

Table 1: Summary of tendering guidance documents compared

NJCC 1996 Code of procedure	RIBA 2007 Plan of work	AQUA GROUP 2007 Guide to tendering	LA 2003 Public Procurement Guidance	CIB 1997 Code of practice for the selection of main contractors	JCT 2006 Note 6 Main contract tendering
-	-	-	Prepare a timetable	-	-
-	PRODUCTION INFORMATION	PRE-CONTRACT	-	-	-
-	-	Develop the brief	-	-	-
-	-	Feasibility report	-	-	-
-	-	Sketch scheme	-	-	-
-	-	Initial cost estimate	-	-	-
-	-	-	-	-	Initial list of contractors
-	-	-	-	-	Preliminary enquiry
Identify basis of selection	-	Method of choosing contractor	-	-	Basis of assessment
Preliminary design	-	-	-	-	-
-	-	-	-	-	Tender list / final shortlist
-	Detailed information	Detailed design	-	-	-
-	Statutory approvals	Statutory and other approvals	-	-	-
-	Prepare further information	Final design proposals	-	-	-
-	-	Re-examine timetable	-	-	-
-	Review information from specialists	-	-	-	-
-	-	Drawings / large-scale details	-	-	-
Preliminary specification	-	Specifications	-	-	-
Prepare pricing documents	Prepare tender documentation in sufficient detail	Produce bill of quantities	Prepare tender documents	Tender enquiry documents	Tender documents
-	-	-	Design a specification	-	-
Establish fluctuations mechanism, obligations, programme for 2nd stage, price, scope of contractor involvement.	-	-	-	-	-
-	-	Approach specialist subcontractors and suppliers	-	Preliminary enquiry	-
-	-	-	Draft price and payment clauses	-	-
-	-	Quality assurance and mgt. system	-	-	-
-	-	-	Advertise notice of the tender	-	-
List of tenderers	Identify and evaluate potential contractors	Tender list (less than six plus two reserves)	Select tenderers	Qualification / tender list	-
Establish each tenderer's financial standing,	-	-	-	-	-

Table 1: Summary of tendering guidance documents compared

NJCC 1996 Code of procedure	RIBA 2007 Plan of work	AQUA GROUP 2007 Guide to tendering	LA 2003 Public Procurement Guidance	CIB 1997 Code of practice for the selection of main contractors	JCT 2006 Note 6 Main contract tendering
experience, skill, reputation, mgmt structure, competence, resources re H&S, QA, capacity.					
Preliminary enquiry	-	Preliminary enquiry	-	-	-
Preliminary invitation to tender	-	-	-	-	-
Final shortlist of tenderers	-	Finalize tender list	-	-	-
Tender documents	-	-	-	-	-
Invitation to tender	-	Invite selected contractors	Invitation to tender	Invitation to tender	Invitation to tender
-	Obtain / receive tenders	Receive acknowledgement from contractors	-	-	Tender submission and acknowledgement
-	-	Ensure tender compliance	-	-	Tender compliance
-	-	Open all tenders	-	-	-
-	-	-	-	-	Withdrawal and lapse of tenders
-	Appraise tenders	Examine the priced documents	Evaluate tenders	Select preferred tenderer (and next preferred ones)	Tender assessment
-	Submit recommendations to client	-	-	-	-
-	-	-	-	Accept successful tenderer	-
-	-	Negotiate reduction of tender price	-	-	-
-	-	Notification of results	-	-	Notification to tenderers
-	-	-	-	-	Examine priced docs and errors
-	-	-	Award contract	-	-
-	-	-	-	Notify unsuccessful tenderers	-
-	-	-	-	Prepare formal record	-
-	-	-	Implement the contract	-	-

Based on the comparison of six different standard guidance documents on tendering procedures in the UK, nine stages for implementing a tendering procedure were derived: (1) prepare a timetable and identify basis of contractor selection; (2) prepare tender documents; (3) preliminary enquiry to potential tenderers; (4) design a specification and draft price and payment clauses; (5) develop list of tenderers; (6) invite selected contractors; (7) obtain and evaluate tenders; (8) award the contract; and (9) execute the contract – agree terms and sign them. Comparing six various standard guidance documents on tendering procedures in the UK, the main finding is that there is no general agreement among the different stakeholders in the industry (RIBA, CIB, JCT, Aqua Group, LA and NJCC) on how tendering processes should be approached. This raises important questions.

The most recent research on tendering produced a series of recommendations about how to organize the procurement process (see Hughes *et al*. 2006: 98-101). The study called on practitioners to:

- Pursue early involvement of contractors;
- Reimburse costs of cancelled projects;

- Select on value rather than price;
- Desist from striking off contractors who cannot bid;
- Tender only 2-3 for collaborative projects;
- Standardize prequalification processes;
- Tell bidders who they are competing with; and
- Produce timely informative documents.

Table 1 shows that most of these recommendations are not dealt with in the guidance documents. These issues should be addressed if the problem of wasteful practices in procurement is to be avoided.

CONCLUSIONS

Nine stages for implementing a tendering procedure have been derived. But importantly, no general agreement was found between the tendering process guidance prescriptions published by six major stakeholders in the UK construction sector. This might not be a strange situation in itself considering that tendering processes are different and the fact that different people draft prescriptions from their own point of view and interest. But what it does indicate is the significant diversity in approaches and prescriptions which makes the idea of a standardized approach to the procurement of construction work difficult and even elusive. It also renders comprehensive consultation difficult. The analysis of guidance documents and previous research reveals that the nine steps outlined in the previous section should be a minimum process for any construction tendering episode.

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