

November 2010

Supplier selection regulations and practices In Ugandan public procurement

Bachelor thesis

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Management summary

A proper public procurement system may contribute to several development objectives and is therefore highly important to a developing country like Uganda. However, such a system is far from established, partly because public procurement regulations have changed a number of times since 1997, leaving public entities with little experience with the current procedures. On the other hand, corruption is still a major problem that undermines sound practices as well.

A lot of improvements still have to be made in order to move towards the desired public procurement system. A vital step in this process is to establish an appropriate supplier selection system. This system is highly sensitive for corruption and its results have a big influence on purchasing costs. Therefore it's no surprise that almost half of the regulations issued by the Ugandan Public Procurement and Disposal of Public Assets Authority (PPDA) concern supplier selection. Compliance with these regulations is considered to be the key to success and is therefore closely monitored. However, compliance merely implies that regulations are followed; improvements will only result if the regulations prescribe sound procurement practices. Therefore, this research provides an objective analysis of supplier selection regulations in Ugandan public procurement.

The methodology employed first identified the desired objectives of the public procurement system. Next, a literature review was used to find out how these objectives can be enforced. Then, the Ugandan supplier selection regulations were analyzed to see which of the possible enforcements are supported and which are not. In addition, data was collected at a procuring and disposing entity (PDE) in order to find out which opportunities provided by the regulations are actually used in practice.

The five objectives that were identified for the public procurement system are fairness, transparency, accountability, competition and value for money. The extent to which these objectives are realized has been analyzed by comparing scientific literature to supplier selection regulations and practices in Uganda. The results show that the Ugandan public procurement system is accountable and fairly competitive, but neither transparent nor delivering value for money. Besides, the system is fair in some aspects, but unfair in other aspects.

The comparisons further show that most characteristics that are embedded in the regulations are also observed at the 'Office of the President'. However, in some cases there are differences between the presence of a characteristic in the regulations and its presence in practice. Both regulations that induce proper procurement practices and regulations that may potentially harm the objectives remain unused. Therefore, this research provides both recommendations regarding the regulations (aimed at the PPDA) and recommendations regarding supplier selection in practice (aimed at procuring and disposing entities).

Finally, it's important to realize that, while it's possible to improve using only one of the recommendations, a disproportionately larger improvement may be expected when multiple recommendations are followed simultaneously; an effect of synergy. For example, little will be gained by prescribing proper methodologies if they remain unused or by choosing wisely from a set of inappropriate methodologies. On the other hand, when the regulations prescribe a high-quality set of methodologies *and* the PDE's make a justified choice from this set for every procurement project, major improvements will follow. If the PPDA and (the majority of) the Ugandan PDE's jointly strive for such improvements, Uganda will slowly move towards the desired public procurement system.

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Introduction

Public procurement in Uganda is regulated by the Public Procurement and Disposal of Public Assets Act which was brought into effect in 2003. The act set up the Public Procurement and Disposal of Public Assets Authority (PPDA) as the regulatory body for public procurement. The PPDA issues for instance regulations, guidelines, forms and standard bidding documents which serve to help public entities follow the correct procedures. The objectives of the PPDA are, amongst others, to ensure fair and transparent public procurement standards and practices, build procurement capacity in Uganda and to monitor compliance with the act by all relevant parties (PPDA, 2003a).

The PPDA is faced with a very difficult task; compliance with the regulations has proven difficult for public entities as the regulatory framework has undergone several major reforms since 1997 (PPDA, 2010). On the other hand, Uganda is faced with a large number of incidences of corruption. So both mistakes and fraudulent practices undermine proper public procurement. This would be a problem in any country, but it is especially a big concern in a developing country that, like Uganda, depends on aid funding. Uganda is one of only 30 countries in the world that has received aid from the Heavily Indebted Poor Countries Initiative that was set up to relief debt burdens of the most indebted poor countries in the world (IMF, 2010).

However, good public procurement may help development in several ways. First of all, efficiently using government funds will leave more money for development initiatives or debt relief. Second, reducing corruption means funds are more likely to reach the persons/organizations they are intended for. Moreover, less corruption will improve the reputation of the government, which means that Uganda qualifies for more aid funds from international donors (PPDA, 2007). These are just three effects of proper public procurement that are clearly very advantageous for Uganda. Besides these, public procurement may contribute to many more (development) objectives.

Establishing a proper, well-functioning public procurement system is therefore highly important for Uganda. In order to achieve this, an appropriate supplier selection system is vital as it's well-known that supplier selection is the step in the purchasing process that provides the most opportunities for corruption. Furthermore, supplier selection, being one of the first steps in the purchasing process, has a big influence on costs. Therefore it's no surprise that almost half of the regulations issued by the PPDA concern supplier selection. Compliance with these regulations is considered to be the key to success and is therefore closely monitored. Every two years, the PPDA publishes elaborate reports on the performance of all procuring and disposing entities in Uganda. However, these efforts have not yet resulted in the desired public procurement system. The latest corporate plan of the PPDA admits that , while some progress has been made with regard to achieving value for money and reducing corruption, 'there is much work that remains to be done' (PPDA, 2007).

This remaining work, according to the PPDA, concerns only activities aimed at increasing compliance. But is the assumption that increasing compliance automatically means increasing performance valid? Are the regulations formulated in such a way that proper public procurement practices are promoted? Or is it possible to purchase at well above-market prices, or even to indulge in corruption, while adhering to the regulations? Answers to this kind of questions are highly important for the Ugandan government and PPDA, because any attempt to improve public procurement will be in vain if the regulations regarding procurement are inappropriate. Complying with regulations that don't serve their purpose is like consistently making the same mistakes! To gain insight in these issues, this research provides an objective analysis of supplier selection regulations in Ugandan public procurement.

Research goal

Uganda strives for a proper public procurement system that may contribute to numerous development objectives. Essential in such a system is a well-functioning supplier selection process. The PPDA, who obviously aims for proper supplier selection practices at all public procuring entities, has issued regulations to facilitate the selection process. The goal of this research is to analyze if the regulations do indeed induce the desired supplier selection practices. The result will be an extensive overview indicating which regulations are appropriate, which are not and which important aspects are not yet captured by the current regulations. In addition, this research uses data from a procuring entity in Kampala, to illustrate how a supplier selection process, subject to the regulations, performs in practice.

Research questions

So far, we have established that Uganda should have a 'proper' public procurement system that performs 'good'. Supplier selection regulations should aim to contribute to that goal. The extent to which this happens is the topic of this research. However, the classifications 'proper' and 'good' are too vague to be subject of evaluation. Therefore, for this research, we'll consider public procurement regulations 'good' when they help achieve the objectives set for them. Consequently, the measure used to evaluate the regulations will be the extent to which they help achieve these objectives. We thus need to know the objectives formulated for the public procurement regulations in Uganda (research question 1).

The next step is to identify how supplier selection can support the objectives. What kind of supplier selection practices help achieve value for money for instance? More general, what characteristics of a supplier selection methodology help achieve the objectives? (research question 2).

Logically, having defined what the system *should* look like, we continue by analyzing the actual system. What regulations on supplier selection exist in Uganda? And what supplier selection practices are actually used by procuring entities? (research question 3). Then, off course, we're interested in the differences between the desired situation and the actual situation. The supplier selection regulations and practices will be compared to the identified characteristics (research question 4). Finally, we'll suggest ways to improve weaknesses and omissions in the regulations.

Overview of the research questions:

1. What objectives are formulated for supplier selection in Uganda?
2. What characteristics of a supplier selection methodology help achieve the objectives?
3. What supplier selection regulations and practices are used in Uganda?
4. Which of the identified characteristics are apparent in Ugandan supplier selection?

Research methodology

This research will consist of four main chapters, relating to the four research questions. In order to answer the research questions, both data collection and scientific literature review will be methods used. Data collected will consist of observations at the procurement unit of the Office of the President and PPDA files. PPDA files include the act, regulations, guidelines, reports and other official PPDA documents. An overview of the research methodology is presented in table 1.

	Research question	Methodology	Data sources
1	What objectives?	Data collection	PPDA files
2	What characteristics?	Literature review	Scientific literature
3	Ugandan supplier selection?	Data collection	PPDA files
4	Performance?	Data analysis	N.A.

Table 1: Overview of the research methodology

Research interest

The results of this research will be interesting for several organizations and persons. First of all, of course, the PPDA will be interested in the performance of its own Act and regulations. All PPDA attempts to assess performance on public procurement so far have been based on compliance. This is important and should be done regularly, but this is insufficient to draw proper conclusions on performance. An objective and independently conducted evaluation of the appropriateness of the regulations as provided in this research can help the PPDA refine its regulations. In this way, this research could contribute to establishing a proper procurement system in Uganda.

Also the Ugandan government will be interested in the results of this research, since it's the government that has put the PPDA in charge. It is the responsibility of the government to ensure a good procurement system that spends both Ugandan tax money and aid funds in a transparent and efficient manner. Suggestions that help develop such a system, through regulations reform, can help the government fulfil its responsibility.

Indirectly, this research might be interesting for persons either trying to measure the appropriateness of another set of supplier selection regulations or designing new regulations. The second chapter of this research provides an elaborate tool that can be used to analyse such regulations.

1. Supplier selection objectives

In this research, the extent to which the regulations help achieve their objectives is used to measure their appropriateness. Unfortunately, there are no objectives formulated for the PPDA regulations specifically. For the PPDA itself however, there are objectives and key outcomes. The objectives, as formulated in the PPDA Act, are to:

1. Ensure the application of fair, competitive, transparent, non-discriminatory and value for money public procurement and disposal standards and practices.
2. Harmonize the procurement and disposal policies, systems and practices of the Central Government, Local Governments and statutory bodies.
3. Set standards for the public procurement and disposal systems in Uganda.
4. Monitor compliance of procuring and disposing entities.
5. Build procurement and disposal capacity in Uganda.

The first objective 'describes the principal purpose of the PPDA's regulatory role' (PPDA, 2007). In fact, when reviewing the objectives again carefully, only the first objective can be considered a desirable goal in itself. The other four are only listed as objectives because they are means to ensure a part of the first objective. For instance, monitoring compliance is a means to ensure fair procurement.

The key outcomes are defined in the corporate three-year plan for the period 1 July 2006 - 30 June 2009 (this is the second three-year plan ever made by the Authority). The key outcomes are formulated as:

- The establishment of a fair, transparent and accountable public procurement system
- Raising the government's reputation for integrity by reducing the incidences of corruption in public procurement and thereby establishing Uganda as a good place for ethical companies to invest and do business.
- Making better use of government's budget by obtaining better value for money in public procurement (better contract prices for more suitable products and services).

When comparing the objectives and the outcomes, indeed it seems that all key outcomes are related to the first objective only (when considering raising the government's reputation a side-effect of fair procurement). Both the first objective and the key outcomes are therefore a good basis for the performance measurements we seek. Summarizing them, the desired procurement system is fair, competitive, transparent, non-discriminatory, accountable, non-corrupt and it delivers value for money. The measurements that follow from these objectives should be mutually exclusive (as much as possible). Therefore, 'fair' will be a category containing non-discriminatory and non-corrupt. (Corrupt or discriminatory procurement can't possibly be called fair, hence they are not mutually exclusive). 'Competitive' and 'delivering value for money' seem to overlap as well, but they are defined differently for this research; competitive public procurement means that the bidding process is open to all potential suppliers, whereas value for money refers to the balance between the costs and the quality of the purchased products. This leaves five objectives; the public procurement system should be:

- Fair
- Transparent
- Accountable
- Competitive
- Delivering value for money

Throughout the remainder of this report, these five characteristics will be viewed as the objectives of the PPDA regulations. The extent to which the PPDA regulations help to achieve these objectives will be used as the measure of their appropriateness. Within PPDA regulations, this research will focus on the part concerning supplier selection.

2. Supplier selection methodology characteristics

In the previous chapter we have established the objectives of the PPDA regulations in terms of their effect on the public procurement system. We defined the extent to which the regulations help achieve these objectives as a measure for the appropriateness of the regulations. This measure is still rather vague however. For instance, what extent is satisfying and what extent is not? And when do we classify a method as helpful for achieving the objectives? Therefore, this chapter will identify what characteristics of a supplier selection methodology may support the objectives and what characteristics may not. For instance, what characteristics of a methodology influence value for money?

Note: This part of the research focuses on developing a way to measure the performance of the PPDA regulations. Obviously, the PPDA itself is interested in the effects of its work on the public procurement system as well. In August 2008 the Procurement Performance Measurement System (PPMS) was introduced in order to 'guide and adjust the continued public procurement reform efforts led by the PPDA' (PPDA PPMS user's guide, 2008). This research does not use any performance measures developed by this system, because the PPMS assumes that compliance with the regulations will ensure a good purchasing performance. The correctness of assumptions like this is just what this research aims to verify! Instead, we'll use scientific literature to identify some characteristics of a supplier selection methodology that may influence the objectives.

Literature review methodology

The amount of literature available on public procurement is enormous. Surely, we'll be able to identify characteristics of supplier selection methodologies. However, unfortunately there are also a lot of papers of low quality, papers that do not guarantee validity and papers that are not peer reviewed. Using papers like this could provide false arguments to include certain characteristics in this research. On the other hand, not including important studies could mean that characteristics that are justified will be omitted. To avoid both these situations, the literature review should be rigorous, systematic and exhaustive.

The review methodology that is used for this research consists of five steps. The approach is based on a methodology designed by Moody (2009), but is adjusted for the limitations of this research. The original method provides great results in terms of the completeness of the review, but is very time-consuming. As this is a bachelor research (which uses existing knowledge, rather than developing new knowledge) the importance of a truly exhaustive review does not justify the effort of such an approach. Table 2 shows both the steps of the original approach and the adjusted steps used for this research.

As an extension to the original methodology, a forward and backward citation analysis on papers that pass the abstract-based review might be performed. This may identify papers not covered by the key words, but related to the topic of interest. However, this will also find a lot of papers that use similar concepts in different fields and are therefore not useful. Again for reasons of time limitation, this extension will not be part of the research methodology. However, if the research yields three articles or less, this extension will be used to find more relevant articles.

The adjusted review method will be used to find literature on all five objectives. It's not necessary to conduct five totally separate reviews, since all objectives are related to supplier selection. For instance, this implies that the same journal rankings can be used. Step 3 to 5, however, will be conducted for all objectives individually.

	Step	Original	Adjusted
1	Clearly defined and justified choice of search engines.	Determine top-25 relevant journals based on rankings and ensure 100 % coverage. Hand search journals not covered by the search engine used.	Top-25 journals should be covered satisfactorily. Journals not covered will not be hand searched.
2	Clearly defined choice of key words.	Search on a topic using all terms used for that topic and all different ways of spelling them.	Same approach.
3	Clearly defined selection criteria.	Review paper-abstracts to include or exclude papers based on inclusion and exclusion criteria.	Strictly formulated criteria to avoid including too many papers.
4	Clearly defined prioritization criteria.	Prioritize papers based on criteria. For instance, based on journal rankings or number of citations.	No more than 5 papers on each objective will be included. Number of citations will be used as criterion.
5	Critical evaluation and synthesis of papers.	Clearly describe which studies make the same claims and which contradict. Evaluate the strength of the arguments used.	Same approach.

Table 2: Literature research methodology

Literature synthesized

The journal ranking used is compiled in 2008 and assesses journals relevant to the field of purchasing and supply management (Mol et al., 2008). The ranking is based on the number of relevant articles that were published in the journals between 1999 and 2003. The search engine Scopus covers 24 of the journals that are in the top 25 (see Appendix 1). As this coverage is satisfactorily for this research, Scopus will be used as search engine.

Since studies on supplier selection in private procurement might be useful as well - for instance to find how methodologies may increase value for money - the review will not be restricted to public procurement. As a first shift, the key words 'Procurement OR Purchasing' are used. Next, within the articles found, studies are selected that also include the term 'Supplier selection OR tendering OR evaluation'. This leaves 1446 articles. These articles will be used to find information on all five objectives individually. Table 3 shows the results of the general part of the literature review.

		Articles identified
Source	Scopus	N.A
Key words first shift	Procurement OR Purchasing	58.450
Key words second shift	Supplier selection OR tendering OR evaluation	1446

Table 3: Summary of the general part of the literature review

Fair public procurement

Fair public procurement in this research is defined as non-corrupt and non-discriminatory. The keywords used to find literature on this topic should thus relate to any of these two characteristics. Also, as the research methodology prescribes, all terms used for the characteristics and all ways of spelling them must be included. Therefore, we used the following search words while searching within the articles identified in the general part of this literature research: “corruption OR corrupt OR fair OR non-discriminatory OR discriminatory OR discrimination”. This search resulted in 45 articles that were subsequently reviewed based on their abstracts. Included were articles that describe how supplier selection can ensure fair procurement. Excluded were articles that aren’t specifically about supplier selection and articles that are supplier-orientated instead of buyer-orientated. Since this abstract review left only three articles, a forward and backward citation analysis was performed to find more relevant articles. This yielded two more articles, increasing the total result of this literature search to five articles. Prioritization is not necessary since sufficient time is available to read all articles.

Synthesis

All reviewed articles mention the potential of training (some authors call it education) to reduce corruption. The persons responsible for preparing the bid documents, those responsible for evaluating the bid and the bidders themselves should receive the training. Training may indeed be vital, but the focus of this research is on limiting corruption by changing rules and regulations. Lennerfors (2007) mentions this distinction explicitly as he argues that ‘soft’ measures (as promoting values like honesty and trust) alone do not restrain the risk of corruption. A second potential measure is procurement reform. That is, reforming the procurement regulations in such a way that the risks of corruption are reduced. He then remarks that it is unclear if the main goal of reducing corruption in procurement is to have an error-free purchasing process or to always choose the economically most beneficial tender. He does not describe how any of these two goals can be achieved. Zhai (2010) defines corruption as ‘abuse of power for personal gains’, which corresponds to the goal of ensuring an error-free purchasing process. He does have a suggestion how to facilitate this, even though it lacks detail. He argues that it’s essential to decompose the functions of purchasing ‘in accordance with the principles of mutual supervision, mutual restriction and mutual separation’. An example he gives that relates to supplier selection is the drafting of bidding documents; the purchasing department should write the documents, while the user department is responsible for the technical requirements. Afterwards, representatives of various related departments should review, modify and approve the documents (Zhai, 2010).

Csáki et al. (2005) argue that rigorous decision support methodologies can reduce opportunities to indulge in corruption. Their views are based on ‘the assumption that both the issuer and the bidders should have a clear and precise idea of the content of the contract specifications and the means by which offers will be evaluated’. In this situation, especially ‘the level of professionalism and the quality of content during the procurement activity’ are effective means to limit the possibilities for corruption.

Lorentziades (2010) argues that the lowest price criterion - which is based on using price as the only evaluation factor for all bids that comply to some minimum requirements – results in an incomplete comparison. Important factors such as ‘technical merits, quality, experience, extent and length of guarantees, maintenance cost, after sale service and life-cycle cost’ should also be incorporated. However, when multiple factors are considered, weights have to be introduced. And it is because these weights are chosen subjectively, Lorentziades claims, that opportunities for corruption arise. To preserve the integrity of the supplier selection process, all subjective choices should be publicly announced in advance and uniformly applied to all bidders. Lorentziades introduces a decision methodology based on ‘post-objective weight determination’. He provides convincing arguments that the integrity of the process is not compromised using this method, but it’s unclear how advantageous his proposal is. Moreover, the method requires highly skilled purchasing professionals to be involved in the process for both the buyer and the bidder.

Csáki et al. (2005) agree with Lorentziades on the point of publicly announcing all (possible subjective) choices before the bidding starts. Their research investigates the subject of reducing corruption by reforming regulations in the greatest amount of detail of all articles reviewed, resulting in three important conclusions. First, simplification of the regulations merely 'for the sake of having easy to follow regulations' should be avoided. Second, the regulations should not prescribe just one method, but instead 'allow for a scale of techniques that can be fit to the type and complexity of individual procurement projects'. And third, they note that 'even the simplest methodology has to adhere to some expressed basic rules to avoid the possibility of corruption'. These basic rules should at least assure that the following two conditions are met: every different expert area should be represented both while preparing documents and while evaluating bids and criteria and weights should be defined in advance and they should reflect the preferences of the buyer.

However, while Csáki et al. (2005) stress the importance of professional, high-quality, complex decision technologies, Nwabuzor (2005) warns for the threat of overregulating. The absence of economic freedom, he argues, encourages organizations to avoid or circumvent regulations, maybe even crossing the line to corruption. 'There is no doubt', he even claims, 'that making their economies freer is one of the ways that nations like Venezuela and Nigeria can reduce the scourge of corruption in their economies'. Obviously, this is a statement and not a proof, but Nwabuzor isn't the only author fearing overregulation. Lennerfors (2007) describes the issue as well, even though he thinks the disadvantage of overregulating is that organizations strive to meet the regulations rather than to award contracts to the most beneficial supplier. For instance, the concept of transparency, which he thinks of as a means to an end, 'has become an end in itself'.

In short, Csáki et al. (2005) stress the importance of a set of high quality decision support methodologies. Lorentziades (2008) thinks that such a set may indeed improve the completeness of the comparisons, but that opportunities for corruption are only reduced by announcing all subjective decisions in advance and applying them uniformly. Zhai (2010) focuses more on the division of tasks and responsibilities, to avoid that just one person can influence the outcome of the supplier selection. Finally, both Lennerfors (2010) and Nwabuzor (2005) emphasize the disadvantages of overregulating like enforcing corruption and turning away attention from finding the most beneficial tender.

Transparent public procurement

In order to find relevant information on transparency in supplier selection, we start again with the articles identified in the general part of this literature review. After searching within these articles using the search words 'transparent OR transparency', 39 articles are left for an abstract based review. Included in this review are articles that describe in some level of detail how transparency can be enhanced in the supplier selection process. Excluded are articles that do not specifically focus on supplier selection (but on purchasing as a whole, or even on supply chain management). Because this left only three articles, a forward and backward citation analysis was performed, resulting in one more relevant article.

Synthesis

According to Mateus et al. (2005), effective transparency in supplier selection means that the regulations 'do not confer an unrestricted freedom of choice' on procuring entities. Simply put, a supplier selection process is 100% transparent if the *supplier* is able, based on the tender documents, to calculate the final score of his own proposal. Two conditions need to be met to make this possible: 1) the evaluation criteria, their weights and the scoring rules used for the criteria are published in the tender documents and 2) the scores do not depend on features submitted in other tenders (no relative scoring). The transparency achieved in this manner will make evaluating the bids more straightforward and it will allow suppliers to better tail their tenders to the buyer's needs.

Carayannis et al. (2005) view transparency from the perspective of the general public, rather than from a supplier's perspective like Mateus et al. He defines a procurement process to be transparent when the selection of bidders, the tendering procedures and the award of contracts are open to public examination and review. He proposes the use of e-procurement to promote transparency. E-procurement means that (some parts of) the procurement process is (are) supported by information technology. A very simple form of e-procurement might be to announce public procurements on an internet site. More advanced systems allow for electronic bid submission, full electronic processing and even post-bid contract management. Obviously, both the gains in terms of transparency and the costs of e-procurement depend on which procurement activities are included in the e-procurement system.

Liao et al. (2002) studied electronic tendering in Taiwan and draw the same conclusion as Carayannis et al.: e-procurement establishes an open, transparent and therefore fair environment for public procurement. Moreover, their study acknowledges the possibility of merely using information technology for some (instead of all) activities in the supplier selection process as well. In addition to Carayannis et al. they mention another benefit of a transparent procurement process: the various steps in the process can be (re)viewed digitally, decreasing the possibility of bid collusions. Interesting is that, while the greater part of the article promotes open information to the public, this argument looks at transparency, like Mateus et al., from a supplier's perspective. Though not explicitly, Liao et al. thus also recognize two stakeholders in enhancing transparency: the general public (tax-payers) and potential suppliers.

Pasupathinathan et al. (2008) mention the advantages of electronic procurement as well. Within public procurement, they argue, there is a need for a secure and fair system for the awarding of contracts and 'e-tendering has the potential to deliver such a system in a convenient and transparent manner'. However, they do not agree with Liao et al. that e-procurement alone decreases the opportunities for bid collusion. Instead, the wide availability of information may result in a supplier receiving information about the content of competing tenders. This information may persuade suppliers to alter their tenders or to collude in order to enhance their chances of winning the contract. Therefore, Pasupathinathan et al. , even though they are in favour of e-procurement given its advantages in transparency and efficiency, propose that all e-procurement systems meet two conditions: 1) buyers should treat all submitted bids in exactly the same way and 2) both the buyer and competing suppliers are not allowed, before the submission deadline, to view the contents of a bid.

Summarizing, Mateus et al. (2005) is the only article that suggests practices to enhance transparency other than e-procurement. They stress the importance of announcing the evaluation criteria, their weights and the scoring rules in the tender documents. Also, they warn not to use relative scores. Carayannis et al. (2005), Liao et al. (2002) and Pasupathinathan et al. (2008) all promote e-procurement in order to increase transparency. They all recognize several phases in e-procurement, related to the number of procurement activities involved. Pasupathinathan et al. (2008) add that precautions need to be taken to ensure that sensitive information is not available to stakeholders before the submission deadline.

Accountable public procurement

Searching within the articles identified in the general part of this research with the keywords 'accountable OR accountability' yielded 25 articles. As the research methodology prescribes, these articles were reviewed based on their abstracts. Included were articles that actually prescribe how accountability can be achieved by means of regulations. Excluded were articles that only mention accountability, but make no suggestions on how to achieve it. This review left no articles. Apparently, even though 'accountability' is a term often used in public procurement, no studies have been performed (in journals covered by Scopus) to identify how accountability can be achieved in supplier selection. Therefore, leaving the systematic approach, the PhD-thesis of Peter Obanda called 'Fighting corruption in tactical procurement in local governments in Uganda' is

used as an alternative way to identify relevant articles. This thesis cites an OECD publishing called 'Fighting Corruption and Promoting Integrity in Public Procurement'. This document summarizes the articles prepared for a global forum that was held in 2004 on this topic. All articles that are synthesized below are drawn from this document.

Synthesis

A public procurement system that operates with integrity, according to Wittig (2005), must have two systems in place: a system that independently controls and audits procurement operations and a system for suppliers to challenge decisions taken by procuring entities. The control mechanisms should be both internal and external and should aim at evaluating the process used. Trepte (2005) mentions exactly the same two systems, but specifies in some more detail *how* procurement operations should be controlled. He argues that this should be done using the 'twin pillars of transparency and accountability'. Ensuring transparency, by means of regulatory reform, is necessary, but insufficient; also systems should be in place that allow its users to verify the actions taken by purchasers. Recording and reporting mechanisms are most important in this aspect, followed by internal and external audit systems. Trepte doesn't specify how these recording and reporting mechanisms should look like. Regarding the ability of suppliers to complain about (award) decisions, he adds that this is important even when very little time is available for the supplier selection process.

Nagy (2005) also mentions the same controlling systems as Trepte: he argues that an external auditing body as well as internal regulations should be in place. The internal regulations 'must contain at least the distribution of responsibilities, the documenting of the whole procedure and the internal audit mechanisms'. In addition to Trepte he stresses the importance of tailoring the procedures to the specific situation of a procuring entity.

More details on how to achieve control are provided by Beth (2005). Like Trepte and Nagy, she argues that external audits should complement internal control. The most important being internal control, which should be based on separation of functions. One person (or team) has the necessary expertise in the field involved and is therefore responsible for the technical specifications. Another person is responsible for the procurement process itself and yet another person is responsible for controlling the budget. External audits have the additional objective of ensuring compliance with laws and government objectives.

However, auditing is useless unless sanctions can be imposed when irregularities are detected, argue both Wittig (2005) and Beth (2005). Wittig states that the external auditing body that also handles suppliers' complaints should 'have the legal power to impose corrective measures and remedies against contracting entities in breach of the legal and regulatory framework'. Beth proposes to have the consequences for officials who break the public procurement rules defined in regulations. The consequences could range 'from disciplinary measures to withdrawal from the participation in award decisions'. Nagy (2005) studied public procurement in Hungary, where an external auditing body exists – called the arbitration committee – that fulfills the function described by Wittig and Beth. Both contracting authorities and suppliers who feel their rights have been violated may apply to the committee. Depending on the kind of violation, the committee may decide to call upon those involved to act according to the rules, to revoke decisions made by a contracting authority, to prohibit a supplier from participating in any contract award procedure or to impose a fine on any organization.

Finally, the same warnings are found as in the literature regarding transparency: when regulatory reform is used to enhance accountability, overregulating might prove to be counter-productive. Very strict regulations only add 'a further layer of bureaucracy and/or control which unnecessarily hinders the efficiency of the procurement function' (Trepte, 2005). Beth (2005) agrees with this view, arguing that regulations may provide a framework for fostering transparency and accountability, but that they cannot eliminate

corruption. Attempts to tighten regulations on accountability will 'not necessarily prevent corruption and instead could even hinder the efficiency of the procurement function'.

Summarizing, accountability may be enhanced by regulations if at least two systems are accounted for: a system that independently controls procurement operations and a system for participants in a contract award procedure to challenge decisions or actions taken by other participants. The controlling system should consist of an internal and an external controlling unit. Internal control should be based on separation of functions, while external control should focus on compliance with laws and government objectives. In order to facilitate such controls, a recording mechanism should be in place to document the whole process. Challenging decisions should always be possible, even when little time is available for the selection process. Also, the entity that handles the complaints should have the power to impose sanctions. Both buyers and suppliers may submit complaints and both can be subject to sanctions.

Competitive public procurement

To find relevant articles regarding competitive supplier selection, a search has been performed within the articles found by the general part of this review, using the keywords 'competitive OR competition'. This yielded 698 articles; far too many for an abstract-based review. By glancing over the articles' names, it appeared the large amount of articles was due to the frequent application of the terms 'competitive environment' and 'competitive advantage'. To reduce the number of articles, the scope of the search was narrowed down to public procurement by adding 'public procurement' to the search terms. This left 124 articles for the abstract based review. Five articles were found relevant, which implied a forward and backward citation search was not necessary.

Synthesis

Cabras (2010) studied the use of e-procurement systems in public procurement. He argues that the greatest benefit of e-procurement is enhanced efficiency, but also identifies three ways in which e-procurement may enforce competition. First, e-procurement helps suppliers by 'erasing spatial and distance constraints', meaning that proximity to the buyer is no longer a prerequisite for participating in the bidding process. Second, administration costs (for suppliers) are reduced significantly by e-procurement, removing costs as a barrier for small suppliers to place a bid. Finally, Cabras found that reverse e-auctions in particular create an environment that encourages competition.

The second argument of Cabras is also the main lesson to be learned from Mathisen et al. (2008): removing barriers for smaller suppliers is essential to keep the tendering process competitive. He provides two examples: too high-valued contracts will leave small suppliers with not enough capacity to compete for the tender and too complex procedures disadvantage suppliers that can't 'build and keep the administrative competence' that is necessary to compete in tendering procedures.

Mardas (1999) stresses the effect that different types of procurement methods have on competition. He distinguishes three methods; open, restricted and negotiated procedures. Open procedures are those procedures 'by which all interested suppliers or contractors may submit an offer', providing 'the greatest opportunity for competition'. Both restricted and negotiated procedures use invitations to determine which suppliers may submit a tender and are therefore less competitive. However, Mardas warns that primarily using an open procedure may result in loss of contract awards for domestic suppliers, thereby decreasing domestic production and employment. Also Cabras (2010) argues that increasing competition (in his study caused by the introduction of e-procurement) may 'represent a potential matter of concern for local suppliers in peripheral and remote areas'. But he provides a counter-argument as well: increased competition with large non-local suppliers may provide incentive for local suppliers to innovate and stay ahead of the less flexible larger companies.

Several authors mention another important disadvantage from enhancing competition; it's an objective that, in some situations, contradicts the objective of achieving value for money. Lian et al. (2004) argue that purchasers should be encouraged to 'adopt the most appropriate procurement mechanism for the particular goods or services being purchased'. Doing so, they must realize 'that the most efficient purchasing mechanism may not necessarily be open competitive tendering', especially when procuring complex services. Mardas (1999) adds that an open procedure is usually more expensive than a restricted procedure. These additional costs should be compared to the expected advantages of using an open procedure.

Li et al. (2006) claim one of the biggest threats to competition is 'supplier-switching' inertia. This inertia is defined as the 'buyer organization's persistence with an existing relationship with incumbent suppliers', even though challenging suppliers have equally good or even better offers. This problem may be of more importance in private procurement, but public procurement regulations should still address this issue and promote switching suppliers when a challenging supplier submitted a slightly better offer.

Concluding, the degree to which a tendering procedure is competitive is heavily influenced by the choice between an open or a restricted procedure. Open procedures provide more opportunities for competition, but may not always be the most efficient choice. Another disadvantage of open procedures is that they can result in less contracts being awarded to small local suppliers.

When an open procedure is chosen, the most important way to enhance competition is to remove barriers for small and/or non-local suppliers. This can be done by means of e-procurement, by keeping contracts at a reasonably low value, by reducing the costs of placing a bid and by not making procedures redundantly complex. Finally, a persistence to stay with an existing supplier even when challenging suppliers have superior offers should be avoided.

Public procurement that delivers value for money

In order to find articles that relate to achieving value for money through supplier selection processes, again the articles identified in the general part of this review were used. The search term 'value for money' was added, leaving 51 articles. An abstract based review was performed that included articles that actually provide suggestions on how to achieve value for money and excluded articles that just mention value for money as a goal. This review identified three articles to be relevant for this research. A forward and backward citation analysis was performed on the selected articles, resulting in two more studies.

Synthesis

'Value for money' is a term that is often used, but yet has no uniformly accepted definition. 'Acquiring more for less' is suggested by some authors, but this definition is not of much use in practice. In most articles reviewed, though this isn't mentioned explicitly, making an optimal supplier selection decision based on multiple conflicting criteria is assumed to result in value for money. In order to make such a decision many authors have suggested (advanced) decision support tools and methods. They include, but are not limited to, weighted linear models, analytic hierarchy processes, total cost of ownership methods and outranking methods (Wu et al., 2007). Though each author advocates his own approach, there seems to be consensus on two important observations: the quality of a decision model has a large influence on the optimality of the decisions it produces (Mateus et al., 2005) and there doesn't exist one model that fits all purchasing situations (De Boer et al. 1998; Csáki et al. 2005; Wu et al. 2007).

It's therefore essential for buyers to have a scale of high-quality techniques to choose from when engaging in a new supplier selection process. However, two issues need to be taken in consideration. First, complex tendering procedures produce relatively much overhead and administration costs. For small purchases, these costs may not offset the benefits of the better decisions complex models generate (Parikh et al., 2005). Second, De Boer et al. (2003) argue that 'the overall cost of implementing and maintaining a set of

decision models' will rise 'as the number of different decision models used in the firm increases'. A balance needs to be found between having a specially tailored decision model for every different purchasing situation and implementing and maintaining those decision models at a reasonable cost.

Another important remark found in several articles is that the decision model used should be flexible enough to allow the buyer to use his own experience when selecting a supplier. For instance, de Boer et al. (1998) state that a model should provide structure and guide the decision making process, but that 'experience, feel and subjective estimates should determine the model instead of the model forcing a rigid format upon the decision maker'. Even though it may be argued that this degree of flexibility provides opportunities for corruption, this research already showed that too strict regulations no longer reduce corruption, but do in fact hinder the efficiency of the procurement function (Beth 2005; Trepte 2005).

An even larger contribution to achieving value for money can be made, according to De Boer et al. (2003), when decision models are used throughout the whole supplier selection process, instead of only for the final choice between suppliers. For instance, problem definition, formulation of criteria and (pre)qualification of suitable suppliers are phases that may benefit from formal decision techniques. Again they stress that not one tool is suited for all situations, arguing that 'in each phase a different set of models is appropriate'.

Mateus et al. (2005) claim that value for money can be enforced by providing complete information to the tenderers. The specifications of the products that are to be purchased, as well as the exact procedures that will be used in the tender evaluation should be clearly described in the bidding documents. Their argument is simple; with a better understanding of where a buyer wishes to go, more tenderers can make better tenders to help the buyer get there.

Finally, warnings of conflicting interests are found in the articles that specifically address public procurement (as opposed to private procurement). Value for money, in fact, seems to contradict almost all supplier selection objectives that are typical to public procurement. Most importantly, striving for value for money may have a negative effect on supporting innovation, small businesses and local development (Loader, 2007).

In short, value for money can be increased by using high-quality decision methods in some, but preferably all phases of the supplier selection process. In each different purchasing situation a different model may be necessary to achieve the best results. However, a buyer can't employ ever more models as this will increase the costs of implementing and maintaining them. Therefore, a balance needs to be found.

The decision models need to be flexible enough to allow their user to make use of his purchasing experience and knowledge. Also, too complex models may not be used for small purchases as the additional costs of using such a model are disproportionate to the value of the resulting contract.

Another way of achieving value for money is to get better offers, rather than to make a better decision between existing offers. This can be achieved by providing complete information to the tenderers regarding both specifications and evaluation procedures.

Chapter summary

This chapter tried to identify characteristics of supplier selection methodologies that contribute to one of the five objectives (fairness, transparency, accountability, competition and value for money). A systematic literature research approach was used, based on Moody (2009), to find relevant articles on this subject. For each objective, four or more articles were selected and subsequently critically evaluated and synthesized. Both recommendations and warnings regarding the effects different characteristics may have on the objectives were identified. Not surprisingly, some characteristics overlap each other. For instance, clearly describing the criteria and their weights in the tender documents increases both transparency and value for money. This chapter summary serves as an overview of all characteristics that were identified.

Opportunities for corruption can be reduced by employing high quality decision support methodologies, by announcing all subjective decisions (like the weights of criteria) publicly before the bidding starts, by applying all procedures uniformly to all bidders and by dividing tasks and responsibilities among several independent actors. Too simple regulations should be avoided, but also overregulating has serious disadvantages like enforcing corruption and turning away attention from selecting the most beneficial tender.

Transparency in supplier selection can be enhanced by announcing the evaluation criteria, their weights and the scoring rules in the tender documents, by avoiding relative scores and by the use of e-procurement. As more activities in the purchasing process are supported by e-procurement, transparency is even further increased. Precautions need to be taken, though, to ensure that sensitive information is not available to stake-holders before the submission deadline.

Two systems need to be in place to increase accountability in supplier selection: a system that controls procurement operations and a system for participants to challenge decisions or actions taken by other participants. The controlling system should both comprise internal control, based on the separation of functions and external control, focused on compliance with laws and government objectives. A recording mechanism should be in place to document the whole selection process. The entity that handles complaints should also have the power to impose sanctions on both buyers and suppliers.

The competitiveness of a supplier selection process can be increased by using open procedures, by avoiding a persistence to stay with an existing supplier and by removing barriers for small and/or non-local suppliers. These barriers can be reduced by using e-procurement, by keeping tenders at a reasonably low value and by avoiding redundantly complex procedures.

Value for money can be achieved in two ways; by receiving better offers or by making a better choice between the offers. Better offers are to be expected when complete information regarding both specifications and evaluation procedures is provided to the bidders and when decision support models are used in early phases of the supplier selection process.

Making better choices can be facilitated by using higher quality decision methods and by employing a range of different methods to choose from based on specific purchasing situations. However, both suggestions increase costs, so trade-offs need to be made. Finally, the methods used have to provide the buyer with enough flexibility to make use of his purchasing experience and knowledge.

3. Supplier Selection in Uganda

This chapter provides an overview of supplier selection regulations and practices in Uganda. The first part considers regulations and is in fact a summary of the PPDA act, regulations and guidelines, only concerning the part relating to supplier selection. However, it also provides critical remarks on omissions and inconsistencies in the regulations. The second part is an overview of the supplier selection practices at the 'Office of the President'. This part is added to indicate which of the legally allowed methods and techniques are most used in practice and which remain unused. The overview that will result from this entire chapter will enable us to analyse – in chapter 4 – whether or not the characteristics identified in chapter 2 are apparent in Ugandan supplier selection.

Ugandan supplier selection regulations

First of all, there is a difference between the PPDA act, the PPDA regulations and the PPDA guidelines. Reviewing the act showed that it's composed of 'principles' and standard rules. A principle being for instance: 'all procurement and disposal shall be conducted in a manner which promotes transparency, accountability and fairness.' These kinds of principles indicate the desired outcome of procurements, but do not provide information on how to achieve this. The standard rules are mainly about the procuring entity's responsibility to adhere to the act and regulations, to use the right forms and to inform the public of the results of the various steps of the process. The most detailed information found in the act are rules regarding the seven procurements methods that are to be used and rules regarding the organizational structure of procuring and disposing entities.

The PPDA regulations on the other hand, provide more detailed information on what procedures to follow. It provides (primarily) regulations on the behaviour of the authority itself and of the procuring entities, regulations on the public procurement rules and processes, regulations on contracts and regulations on disposal activities. Especially the part on rules and processes prescribes in detail how the various steps in the procurement process should be arranged.

The PPDA guidelines usually don't provide additional rules; they are meant to further explain a part of the regulations that has proven to cause difficulties. Local government guidelines aside, the Authority has so far issued 15 guidelines, all no larger than 3 pages. The most interesting guideline is concerned with the thresholds used in determining the appropriate procurement method.

Procuring and Disposing Entities

An entity that is obliged to follow the public procurement regulations is called a procuring and disposing entity (PDE). Regulations regarding the organizational structure of PDE's are described in section 37 to 84 of the regulations and 24 to 42 of the act. All procuring and disposing entities should at least have an accounting officer, a contracts committee, a procurement and disposal unit, an evaluation committee and one or more user departments. There may also be a governing body/board of directors, but this is not mandatory.

The accounting officer has the overall responsibility for the successful execution of the procurement, disposal and contract management processes. Among his tasks are at least: 1) to certify that there are funds available prior to any procurement, 2) to submit applications to the Authority to deviate from the procedures and 3) to appoint and fire members of the contracts committee. The accounting officer is not allowed to be a member of the contracts committee.

The contracts committee consists of 3 to 5 members that are appointed based on their knowledge and expertise for a period of maximum 6 years. The most important tasks of the contracts committee are to 1) approve submissions (for instance the solicitation documents or evaluation reports) and 2) to appoint the members of the evaluation committee. The contract committee consists of members that are not allowed to be member of the procurement and disposal unit. No more than two members may originate from the same department. A decision can be made with a simple minority of the members present at meetings, if this number is at least three. A member that has a personal interest in a decision to be made by the committee is obliged to indicate this and shall not participate in the decision-making process.

The evaluation committee consists of at least three members ‘with an appropriate level of seniority and expertise’, which are not member of the contracts committee. They are, however, allowed to be member of the procurement and disposal unit. The task of the evaluation committee is to evaluate the bids according to the method and criteria specified in the solicitation documents. The committee reports to the procurement and disposal unit.

The procurement and disposal unit (PDU) is responsible for the execution of most procurement activities. This includes preparing and submitting documents and advertising bid opportunities. The PDU also monitors contract management, as executed by the user departments.

The user departments are the departments that actually require the products that are to be purchased. Their tasks are to 1) prepare a work plan based on their budget and submit it to the PDU and 2) to manage contracts.

Figure 1 shows the different actors in a PDE. The layers indicate that any person can be in only one layer at the same time. For instance, somebody can’t be accounting officer and member of the contracts committee.

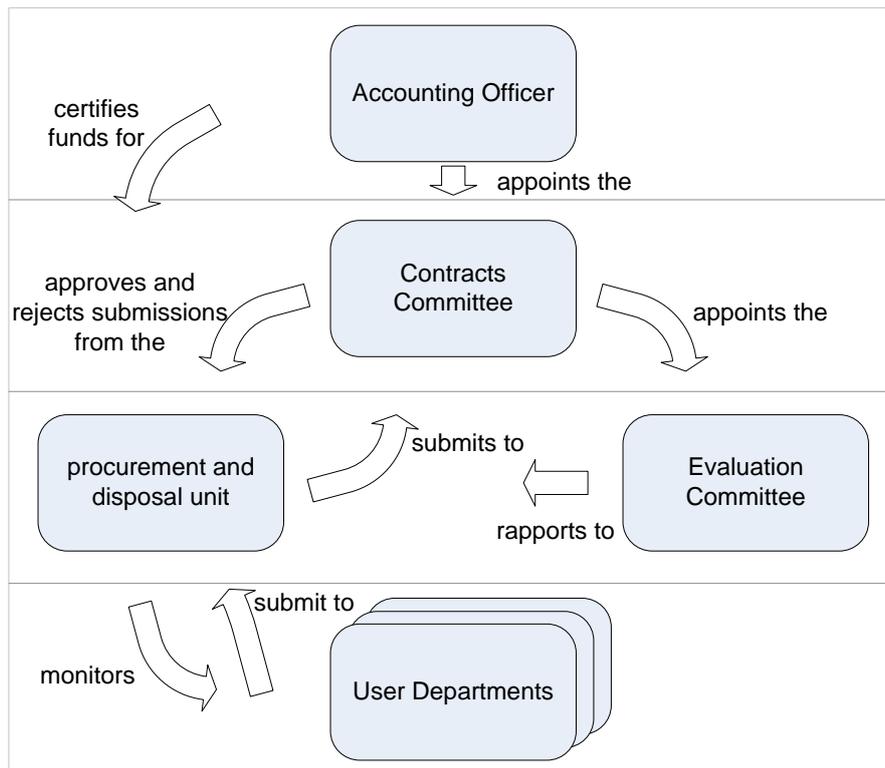


Figure 1: Organizational structure of procuring and disposing entities

Procurement rules and processes

The aspects of the procurement process that are relevant for the selection of the right supplier are described in section 89 to 291 of the regulations, section 55 to 88 of the act and the fourth schedule to the act. The relevant thresholds are described in guideline No 1 of 2003. The process consists of 11 steps.

1. User departments submit their work plan indicating their requirements to the PDU.
2. The PDU combines all work plans to one overall procurement plan. The PDU may decide to aggregate requirements in order to achieve lower unit costs or choose to divide a requirement in separate lots, when it is anticipated that this will result in the best overall value. The PDU may also try to jointly purchase items that are required by another PDE as well. Splitting up a requirement in order to avoid a particular procurement method is not allowed. The regulations do not specify, however, who controls the overall plan. Moreover, when dividing into lots, the choice of procurement method is determined by the value of an individual lot.
3. A procurement requisition form is prepared by the PDU, which includes a description of the works, services or supplies required and the estimated value. The accounting officer signs this form to confirm funds are available, a representative of the user department signs it to confirm the products are needed and a PDU officer signs it to certify that approval is granted to continue with the procurement.
4. The PDU chooses the procurement method based on the value of the requirement and the circumstances. The seven procurement methods are:
 - Open domestic bidding
 - Open international bidding
 - Restricted domestic bidding
 - Restricted international bidding
 - Quotations and proposals
 - Direct procurement
 - Micro procurement

The preferred choice is always open domestic bidding. This is 'open to participation on equal terms by all bidders'. This is also true for open international bidding, though this method 'specifically seeks to attract foreign providers'. This method is allowed when national providers may not be able to ensure maximum competition and value for money. The restricted versions of both domestic and international bidding are not open to all bidders, but obtain bids by direct invitation. This is allowed when the circumstances do not justify open bidding. These circumstances are specified in the regulations as either emergency situations (which have to be urgent and unforeseeable) or situations with a limited number of bidders.

Quotations and proposals are simplified methods that compare prices of bidders on a shortlist. Quotations are used for works and supplies, proposals are used for services. This method is used in case of an emergency or when the value of the requirement is below the threshold. Direct procurement is a method that only concerns one supplier and is permitted when circumstances don't allow for competition. These circumstances may again be an emergency or a limited number of bidders, or the need for compatibility with existing products. Direct procurement may also be used to extend an existing contract if this doesn't cost more than 15% of the original contract price. Micro procurement is a simple method that is used when the value of the requirements doesn't justify a competitive procedure. Micro procurements may be made without a bidding process, provided that the PDU submits a monthly overview of its micro procurements to the contracts committee. The thresholds that apply to these methods are shown in table 4. At the time of writing, 2880 Ugandan Shilling (Ug. Sh.) is equivalent to € 1.

	Works	Services	Supplies
Open bidding	> Ug. Sh 100.000.000	> Ug. Sh 50.000.000	> Ug. Sh 70.000.000
Restricted bidding	< Ug. Sh 100.000.000	< Ug. Sh 50.000.000	< Ug. Sh 70.000.000
Quotations procurement	< Ug. Sh 80.000.000	< Ug. Sh 30.000.000	< Ug. Sh 30.000.000
Micro procurement	< Ug. Sh 2.000.000	< Ug. Sh 2.000.000	< Ug. Sh 2.000.000

Table 4: Thresholds for the selection of the procurement method

These thresholds are used to determine the appropriate method. However, all circumstances mentioned in the regulations may influence the choice of procurement method, regardless of the value of the procurement. The contracts committee has to approve the procurement method chosen. When The PDU wants to use another method than open bidding due to circumstances that are not provided for in the regulations, it needs approval from the Authority instead of the contracts committee. Also, a PDE may submit a request to the Authority to use another method than the seven methods specified.

- The suppliers that are invited to submit a bid are determined. The method used for this selection depends on the choice of procurement method. Table 5 shows the existing methods and the situations in which they are used.

Method to invite bidders	Situation
Publication of a bid notice	- Open domestic bidding - Open international bidding
Pre-Qualification	- Open domestic bidding, special circumstances - Open international bidding, special circumstances
Development of a shortlist	- Restricted international bidding - Restricted domestic bidding - Quotations and proposals
Selection of a sole or single provider	- Micro procurement - Direct procurement

Table 5: Different methods to select suppliers that are invited to bid

Publication of a bid notice means that a bid notice is published in at least one newspaper of wide circulation, displayed at the Authority's website and shown on the PDE's notice board. All suppliers, both domestic and international, are allowed to submit bids.

Pre-Qualification is allowed when 1) the required products are highly complex or specialized, 2) the cost of preparing a detailed bid would discourage competition or 3) the evaluation of a large number of bids would require excessive resources from the PDE. The PDU decides if these circumstances apply and the regulations don't require approval for this choice. Pre-qualification can also be used when a group of similar contracts will be awarded over a period of time, in order to increase efficiency. Bidders can submit a pre-qualification bid after a pre-qualification notice or document is issued (pre-qualification documents do need to be approved by the contract committee). The PDU can choose to send solicitation documents to all bidders that meet the pre-qualification criteria, or to a number of the qualified bidders that is considered to be appropriate. The selected bidders in this situation are the bidders ranked highest in the pre-qualification. There is no control on determining the 'appropriate' number of bidders.

The development of a shortlist is also done by the PDU, using the lists of providers from the authority, other PDE's and the entity itself and knowledge of the market. The resulting shortlist needs to be approved by the contracts committee.

The selection of a single provider is based on choosing one provider from a shortlist that is developed in the same manner just described. A sole provider means that only one supplier exists. The PDU can

- choose any eligible, qualified bidder on the list, while trying to rotate bidders for successive requirements. The proposed single or sole source needs to be approved by the contracts committee.
6. The solicitation documents are prepared by the PDU. The documents include at least a detailed statement of requirements, a draft contract including all terms and conditions, the evaluation method that will be used and the evaluation criteria. They may include a preference or a reservation scheme. A preference scheme favours local businesses by adding a certain preference percentage to the bid prices of non-local bidders. A reservation scheme only allows bids from providers that are part of a (underdeveloped) target group or community. The contracts committee has to approve the solicitation documents.
 7. The bidding period starts when the advertising period ends in cases when a public notice is used, or when the solicitation documents are issued otherwise. For each procurement method, the act prescribes a minimum bidding period. The PDE shall reject bids that are received from a supplier that did not buy the solicitation documents and bids from suppliers that are not on the shortlist, in case such a list is used. Also, bids that arrive after the deadline for submission are not considered for evaluation.
 8. The act specifies that bids are opened during a formal bid opening. The regulations state that open and restricted bidding processes shall include a public bid opening. At a public bid opening, all bids are opened and their content is read out in front of representatives from all bidders. There are no regulations on non-public openings.
 9. The evaluation of the bids is conducted by the evaluation committee using the methodology and criteria that were specified in the solicitation documents. All evaluations consist of three stages; a preliminary examination, a detailed evaluation and a financial comparison.

The preliminary examination is equal for all evaluations and aims to determine if the bidder is eligible and the bid administrative compliant. Eligibility means that the bidder is licensed to trade, registered as bidder, not bankrupt or suspected of illegal activities and that the bidder has no conflict of interest in the procurement. This is verified using the eligibility documents provided by the bidder. Administrative compliant means that the bid conforms to the basic instructions and requirements in the solicitation documents, such as the delivery and warranty period. Only bids that pass the preliminary examination are considered during the remainder of the evaluation process.

The execution of the next two stages depends on the evaluation methodology that is used. In all cases, the second stage results in a 'technical score' and the third stage in a 'financial score'. The differences between the evaluation methods are both in the manner in which the scores are determined and in the manner in which the scores are used to come to a best evaluated bidder. The five evaluation methods are:

- Quality and Cost Based Selection (QCBS)
- Quality Based Selection (QBS)
- Fixed Budget Selection (FBS)
- Least Cost Selection (LCS)
- Technical Compliance Selection (TCS)

Obviously, the evaluation method used is one of the most important decisions in the supplier selection process. The appropriateness of these five methods is therefore of great importance to this research. To gain insight in the differences, the methods are analyzed using a 5-step framework. The five steps are respectively: establishing criteria, combining criteria, weighing criteria, scoring criteria and determining the winner. Table 6 shows the results of the analysis using this framework.

Four methods use the 'merit-point' system. This system is designed to determine the technical score of a bid using a number of main criteria. The main criteria may be composed of sub-criteria. The

solicitation documents should state the main criteria and the maximum number of points that can be scored on each criterion. There are two different methods allowed for combining the criteria, but both are variants of adding the weighted scores. Five criteria and their importance are suggested, though the PDU is allowed to make adjustments. It's also possible to use interviews with the bidders to assess their performance on one or more criteria. Remarkably, the sub-criteria and their importance are not stated in the solicitation documents.

The financial analysis is based on the 'evaluated price'. This may include the bid price, discounts offered, corrections for omissions, operating costs, preference margins and whole life-cycle costs. It's also allowed, however, to simply use the bid price as the evaluated price.

	Which criteria?	How to combine?	Relative importance?	How to score criteria?	Winner?
QCBS	Financial score and technical score. Criteria for technical score can be chosen.	Weighted factor score. Also, too low technical score means rejection.	Weights are determined by solicitation documents. Financial weight is between 10% and 30%.	Technical: Merit point system. Financial: lowest evaluated price 100, others 'inversely proportional'.	Highest total score. Price he gets is subject to negotiations.
QBS	Technical score only, criteria can be chosen.	N.A.	N.A.	Technical: Merit point system.	Best technical bid. His financial bid shall be negotiated.
FBS	Financial score and technical score. Criteria for technical score can be chosen.	Non-compensatory. Too low technical score or financial score means rejection.	Only technical score determines rank.	Technical: Merit point system. Financial: Evaluated price.	Highest technical score. Price he gets is subject to negotiations.
LCS	Financial score and technical score. Criteria for technical score can be chosen.	Non-compensatory. Too low technical score means rejection.	Only financial score determines rank.	Technical: Merit point system. Financial: Evaluated price.	Highest financial score. Price he gets is subject to negotiations.
TCS	Financial score only. Bids have to be technically responsive, but don't get a technical score.	N.A.	N.A.	Financial: Evaluated price.	Highest financial score. Price he gets is subject to negotiations.

Table 6: Characteristics of the evaluation methods

The regulations prescribe in which situations each methodology should be used. Technical compliance selection is used for procuring supplies, works and non-consultancy services. Approval from the Authority is needed to use another method. For consultancy related services quality and cost based selection is preferred, though all other methodologies are allowed. For works that require

a complex evaluation, quality and cost based selection may be used. Direct procurement always uses technical compliance selection.

Using any of the five methods, the evaluation committee will prepare an evaluation report. The report will state the findings and recommendations of the majority of the committee, in case a decision is not unanimous. Also the views of the members that don't agree with the majority are reported. The report further states at least recommendations on the best evaluated bidder, accepted deviations between the winning bid and the requirement, recommendations on negotiations and post-qualification and the reasons for the rejection of bidders. The report is first submitted to the PDU, after which the PDU submits it to the contracts committee for approval.

10. Post-qualification and/or negotiations might be undertaken as the final step before the supplier is determined. A post-qualification is used to determine whether the best evaluated bidder has the capabilities and resources needed for the contract. When a bidder doesn't meet the post-qualification criteria his bid will be rejected and the next best evaluated bidder will be considered for post-qualification. The rejection of the best bidder has to be approved by the contracts committee. Negotiations may be held regardless of the procurement method used, but after a negotiating team and a negotiating plan are approved by the contracts committee. The team reports to the contracts committee for approval of the negotiation outcomes.
11. The PDU submits a recommendation for award to the contracts committee, based on the evaluation process and on the post-qualification and negotiation processes, if any. If the contracts committee approves the recommendation, this is considered an award of contract decision.

When the contract has been awarded, many more formal procedures are described in the act in order to inform the winner and the other bidders of the decision. This is however no longer part of the *selection* of the right supplier. Therefore, the 11 steps just described will be considered the Ugandan supplier selection regulations in the remainder of this research.

To allow the Authority to verify the decisions made by the PDU throughout the 11 steps, the PDU must maintain a procurement record for all its procurements (except micro procurements). The records should contain the procurement requisition form, the bid opening form, a copy of all bids, all correspondences between the PDE and potential bidders, all submissions made to the contracts committee, the evaluation report and a copy of all decisions of the contracts committee. Depending on the procurement method used, the record can also contain pre-qualification documents, post-qualification documents, shortlists, published advertisements and minutes of negotiations.

Ugandan supplier selection practices

In addition to the regulations, this subchapter will describe supplier selection practices in Uganda. For this purpose, information is gathered during an internship at the 'Office of the President', a procuring and disposing entity in Kampala. During this internship, which started at 21-07-2010 and ended at 10-09-2010, the procurements conducted in the financial year 2009/2010 and the first three months of the year 2010/2011 are analysed. Both observations and reviews of procurement records are used to come to an overview of procurement practices. Observations include the preparation of requisition forms, solicitation documents and evaluation reports by the PDU, a bid opening and a contracts committee meeting. The procurement records, 105 in total, are those records that were found complete. In the period reviewed, 40 more procurements were undertaken, but the records lacked some of the required documents. Also, it's possible that some more procurements are made of which the records are kept at another location than the archive accessible for this research. There is no reason however, in this specific situation, to assume that the procurement method used influences the completeness or location of the record. Therefore, the 105

records can be considered a large and unbiased sample of the procurements undertaken between 01-06-2009 and 01-09-2010. Micro-procurements are not included in this review, because no records have to be kept for this method.

The original data set is not included in this report for reasons of confidentiality, but the most important findings are summarized below:

- The only evaluation methodology used is Technical Compliance Selection. The PDU did not submit a request to use another method for any of the procurements.
- Post-qualification is used for 1 of the 105 procurements reviewed.
- Pre-qualification is used to determine the selected bidders in 1 of the 7 open biddings reviewed.
- Reasons that are mentioned for the use of the direct method are numerous. Emergencies, limited number of suppliers and compatibility occur most often, but also security and the sensitivity of document are reported reasons.
- Reasons for the use of restricted methods, while the estimated value is above the threshold for open bidding, are not always mentioned. A reason that is mentioned - the availability of a list of providers - seems inappropriate.
- Requests for approval of the procurement method are seldom declined by the contracts committee. In some cases the request is initially declined because insufficient information is available, but accepted in a second attempt.
- The contracts committee on some occasions approved a procurement method, provided that the Authority approved as well. The involvement of the Authority is only legally obliged when the circumstances that influence the procurement method chosen are not mentioned in the regulations.
- A preference or reservation scheme has never been used.
- All financial evaluations are based exclusively on the bid price. None of the reviewed procurements included operation costs or whole life-cycle costs.
- Micro-procurement is used for approximately 90% of the procurements, but less than 10% of the money spend is used to pay for these micro-procurements. (As mentioned before, no files are kept for these procurements. Estimates are based on monthly reports that provide an overview of all micro-procurements).
- Micro-procurement aside, the most used procurement method is Quotations and Proposals. The reason for the use of this method is without exceptions that the estimated value is below the threshold.
- The procurement method used for the largest part of the expenditure is open domestic bidding.
- Figure 2 en 3 show the usage of the various methods, based on number of procurements and value respectively. In both figures micro-procurement is excluded.

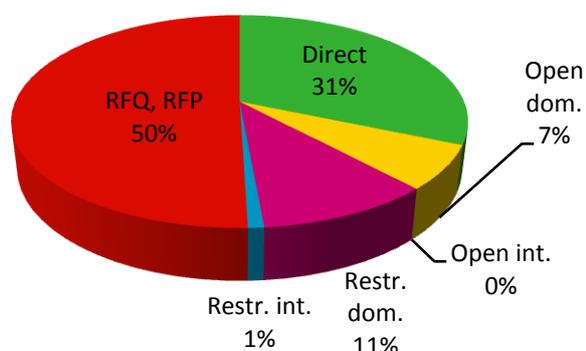


Figure 2: Procurement method usage by number

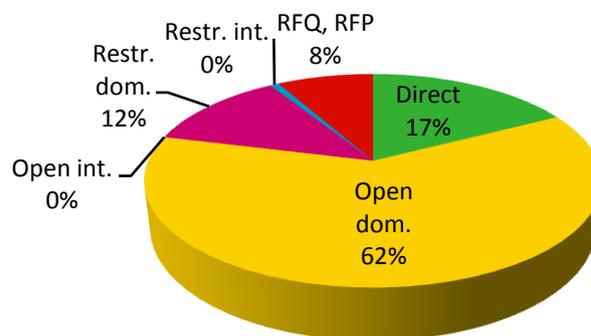


Figure 3: Procurement method usage by value

4. Comparing theory with reality in Uganda

In chapter 1 of this research we derived five objectives for public procurement in Uganda: fairness, transparency, accountability, competition and value for money. In the following chapter we used scientific literature to identify some characteristics of supplier selection methodologies that affect these objectives. The third chapter provided an overview of supplier selection regulations and practices in Uganda. Finally, this chapter will compare the results of the second and third chapter. More specifically, this chapter will identify which of the characteristics are apparent in Ugandan supplier selection and which are not. The results of this comparison will enable us to make statements about the appropriateness of the regulations and to make suggestions for improvements.

Table 7 compares all identified characteristics to Ugandan supplier selection regulations and practices for all five objectives.

Objective: fair (non-discriminatory and non-corrupt)		
Characteristic	Regulations	Office of the President
Use high-quality rigorous decision support methodologies.	The methodologies prescribed all use two or even less criteria. No methods other than weighted sum are used to combine criteria.	Only technical compliance selection (TCS) is used. This is equivalent to the lowest price criterion; the simplest method known.
Divide tasks and responsibilities among different actors.	Tasks are divided between the contracts committee, the PDU, the user departments and the accounting officer. The contracts committee has a disproportionate part of the responsibilities, but the committee itself consists of members that originate from different departments and are appointed for no more than six years.	No significant differences were found between the practices at the Office of the President and the arrangements prescribed by the regulations. The user departments could be more involved in setting the specifications.
Determine criteria and weights before the bidding process starts. Publically announce all (subjective) choices.	The regulations prescribe to publish the main criteria and their weights in the tender documents. The sub criteria and weights, however, are not known during the bidding period.	The only method used (TCS) uses just one criterion (and therefore no weights). Bidders do have sufficient information during the bidding process.
Use a scale of decision support techniques that can be fit to individual procurement projects.	Five different decision support techniques are available to make the final choice between bidders. This seems sufficient, but the regulations prescribe to use one of them (TSC) in almost all purchasing situations.	Just one method is used (TCS), regardless of the purchasing situation of an individual procurement project.
Do not overregulate the supplier selection process.	A lot of regulations exist with regard to making submissions and receiving approvals. However, more important for this aspect, the regulations do provide flexibility when determining criteria or scoring procedures (in the merit point system).	Given the simplicity of the only method used, the threat of overregulating isn't relevant in practice.

Objective: transparent		
Characteristic	Regulations	Office of the President
Publish evaluation criteria, weights and scoring rules in bidding documents.	Only main criteria and their weights are published, sub criteria and their weights are not. Scoring rules are never published.	The only method used (TCS) uses just one criterion (actual price). Bidders have sufficient information during the bidding process.
Make procedures and choices open to public review.	A PDE is obliged to keep a procurement record containing all relevant documents. However, only the Authority has the right to inspect the records.	Procurement records are often found incomplete: more than half of the records reviewed lacked one or more documents.
Do not use relative scores.	One of the five evaluation methods, Quality and Cost Based Selection (QCBS), uses relative scores.	In practice QCBS is never used.
Use e-procurement to support one or more activities in the supplier selection process.	Only one activity is supported: bid notices in open procedures should be displayed at the website of the Authority.	Indeed, the website of the Authority features bid notices.

Objective: competition		
Characteristic	Regulations	Office of the President
Use open procedures. Balance the additional costs of such procedures against expected gains.	Open procedures are prescribed as the preferred choice. Threshold values are used to balance costs against gains.	Open procedures are used for 62% of the money spend.
Remove spatial and distance constraints for suppliers. For instance by means of e-procurement.	E-procurement is not mentioned in the regulations. However, regulations for displaying bid notices ensure nationwide circulation.	The tendering process is in practice not supported by e-procurement. Bid notices are published online and in national newspapers.
Reduce the costs of placing a bid. For instance by means of e-procurement.	The regulations allow a PDE to have potential supplier pay for the bidding documents. But, pre-qualification may be used when the cost of preparing a detailed bid would discourage competition.	No procurement record reviewed at the Office of the President used pre-qualification in order not to discourage competition. Also, no records suggested suppliers were actually discouraged.
Do not combine too many products in one tender in order to keep the value low.	A PDU is allowed to divide a procurement in separate lots (the regulations specify this should be done when better offers are expected, not for reasons of competition).	At the Office of the President, procurements are frequently divided in lots. No procurements were found that seemed unnecessary high-valued.
Do not make procedures redundantly complex.	The regulations require a vast amount of documents to be submitted (for instance to establish the eligibility of the supplier). (Still, 'redundantly' remains hard to judge).	Several procurement records are found indicating that suppliers are not considered in the evaluation because insufficient documents were submitted before the deadline.

Objective: accountable		
Characteristic	Regulations	Office of the President
Establish internal control. This system should at least include the separation of functions and the documenting of the whole process.	Both separation of functions and the documenting of the whole procedure are obliged by the regulations. The contracts committee controls all documents and decisions taken by the PDU.	As mentioned before with regard to this point, no significant differences were found between the practices at the Office of the President and the arrangements prescribed by the regulations.
Establish external control. This system should focus on compliance with the law and government objectives.	One of the objectives of the Authority is to monitor compliance of procuring and disposing entities with the law.	The Authority publishes elaborate audit reports on all PDE's every two year. However, there is no sanction on not improving between two consecutive audits.
Establish a system that handles complaints from both buyers and suppliers.	Complaints can be addressed to the Authority. Suppliers, accounting officers, contracts committees, PDU's and even user departments can file complaints.	Some complaints and the responses given by the Authority are found in the procurement records of the Office of the President.
Have an external body that has the legal power to impose sanction on both buyers and suppliers.	The Authority can impose some (mild) sanctions or recommend to the minister to impose sanctions. The most severe sanction is the obligation to have all purchasing activities handled by a third party.	No information is available for this research on sanctions imposed by either the Authority or the minister.
Do not overregulate the supplier selection process.	As mentioned before, the regulations provide flexibility when determining criteria or scoring procedures (in the merit point system).	Given the simplicity of the only method used, the threat of overregulating isn't relevant in practice.
Document the entire supplier selection process.	Records have to be kept containing all relevant documents.	Procurement records are kept, but are often incomplete.

Objective: value for money		
Characteristic	Regulations	Office of the President
Use high quality decision support techniques.	As mentioned before, all methodologies prescribed use two or even less criteria. No methods other than weighted sum are used to combine criteria.	Only technical compliance selection (TCS) is used. This is equivalent to the lowest price criterion; the simplest method known.
Do not use complex (and therefore expensive) procedures for small purchases.	Threshold values are used to balance costs against gains. Very small purchases do not require a tendering process at all.	No records are reviewed that use a more complex procedure than the procedure indicated by the threshold value.
Use decision support techniques in all phases of the supplier selection process (problem definition, criteria formulation, pre-qualification, final choice).	Only techniques are prescribed for the last phase: the final choice between bidders. Experience and lists provided by the Authority, instead of support techniques, are to be used to formulate criteria and to develop a shortlist.	Indeed only the final choice is supported by a decision support system. Both criteria and shortlists show very few variations between the procurement records reviewed (which is very unlikely to result in value for money).

Objective: value for money		
Characteristic	Regulations	Office of the President
Use a scale of decision support techniques that can be fit to individual procurement projects. However, balance the cost of implementing them against expected gains.	Five different decision support techniques are available to make the final choice between bidders. This seems sufficient, but the regulations prescribe to use one of them (TSC) in almost all purchasing situations.	Just one method is used (TCS), regardless of the purchasing situation of an individual procurement project. The additional costs of implementing more systems are likely to be offset by the gains of such systems.
Use flexible methods that allow buyers to use their purchasing experience and knowledge.	As mentioned before, the regulations provide flexibility when determining criteria or scoring procedures (in the merit point system).	The only evaluation method used (TCS) doesn't provide its user with flexibility at all.
Provide complete information to tenderers regarding specifications and evaluation procedures.	Only main criteria and their weights are published, sub criteria and their weights are not. Scoring rules are never published.	The only method used (TCS) uses just one criterion (actual price). Bidders have sufficient information during the bidding process.

Table 7: Comparing the characteristics to supplier selection regulations and practices for all objectives

The information in table 7 allows us to finally assess the appropriateness of the supplier selection process in Uganda. We'll first interpret the results of the comparisons between the characteristics and the regulations, as this is the primary purpose of this research. Next, we'll discuss those characteristics again where the practices at the Office of the President are not in line with the regulations.

Synthesis on regulations

With regard to fairness, two of the identified characteristics are embedded in the regulations. Most importantly, the regulations ensure that tasks and responsibilities are divided among different actors. This ensures that one individual actor can't influence the purchasing process in such a way that his preferred supplier is awarded a contract. Secondly, the regulations provide enough flexibility (or economic freedom) to buyers, which means they are less tempted to circumvent the regulations. However, three aspects of the regulations do not induce fairness. First, the regulations prescribe low-quality decision support methodologies that leave space for corrupt practices. Moreover, the regulations do not oblige to publish subcriteria and their weights in the bidding documents, which means they can be determined subjectively after the opening of the bids. Finally, the regulations prescribe to use TCS in almost all purchasing situations. This jeopardizes fairness, because for a lot of procurement projects this implies that an inappropriate evaluation method is used.

The regulations perform poorly with regard to transparency. Because buyers are allowed to withhold subcriteria and scoring rules, they have too much freedom of choice when evaluating bids. Besides, the evaluation of a bid using QCBS depends on features submitted in other bids. Third, while e-procurement provides many opportunities to enhance transparency, the only e-activity mentioned in the regulations involves placing bid-notices on the Authority's website. One characteristic, on the other hand, is supported by the regulations; PDE's are obliged to document the entire selection process using procurement records. However, this measure is not used to its full potential, as only the Authority is allowed to inspect the files.

Competition is to a considerable extent supported by the regulations. First and foremost, the regulations stress that open procedures are always the preferred choice. The additional costs of such procedures are only accepted for procurements above certain threshold values. Barriers for suppliers to place a bid are reduced by circulating bid-notices nationwide and by using pre-qualification. Also, procurements may be split up in separate lots to attract suppliers that are unable to compete for the entire tender. The only barrier not reduced by the regulations is the complexity of the bidding procedures; the large amount of documents that have to be submitted may discourage small suppliers.

All characteristics identified for improving accountability are present in the regulations. This positive result can be mainly attributed to the tasks and responsibilities assigned to the Authority. The regulations state that the Authority monitors compliance with the law, handles complaints from multiple actors in the procurement process and has the legal power to impose sanctions on those actors. Besides this, accountability is further supported by the separation of functions within PDE's and by keeping extensive procurement records.

Finally, the regulations are not very appropriate for enhancing value for money. This is primarily due to the low quality of the decision support techniques. The techniques do not capture all relevant aspects of a procurement and do not use advanced ways to score and combine criteria. Second, TCS is prescribed for almost all procurements, while value for money is to be expected when the evaluation method used fits the purchasing situation. Furthermore, bidders can't tailor their offers precisely to the buyer's needs, because they are unaware of the importance of the subcriteria to the buyer. Two characteristics are supported by the regulations; threshold values are used to balance the costs and gains of different procedures and evaluation methods are flexible enough to allow a buyer to use his purchasing experience and knowledge.

In short, a supplier selection system based on the Ugandan regulations may be considered accountable, fairly competitive and neither really fair nor unfair. However, the system is not transparent and it will not deliver value for money.

Synthesis on practices

At the Office of the President, both fairness and value for money are even more jeopardized than expected based on the regulations. For both objectives this is largely due to the fact that only TCS is used as evaluation method. This method is the least advanced of the five methods prescribed and it does not fit with all purchasing situations it is used for. However, because of the simplicity of the method, bidders do have sufficient information on how their bids will be evaluated.

Transparency is slightly better in practice than expected, again due to the simplicity of the procedures followed. Besides, no methods are actually used that involve relative scores. On the other hand, the obligatory procurement records that should enhance transparency are often found incomplete.

With regard to the characteristics influencing competition, no differences were found between the practices at the Office of the President and the regulations. No procurement records showed that the complex bidding procedures had discouraged bidders, but they did show that incorrect or incomplete bids were submitted that were subsequently not considered for evaluation.

Also accountability is not significantly less supported in practice than by the regulations. Two observations, though, slightly reduce accountability at the Office of the president; procurement records are often incomplete and external control may be less effective than intended, because no sanctions exist on not improving between two consecutive audit reports.

Conclusions and Recommendations

The goal of this research was to analyze if the Ugandan supplier selection regulations induce the desired public procurement system. The previous chapters have identified what the desired objectives are, how they can be enforced and which of those possibilities are supported by the regulations. In addition, data was collected at the 'Office of the President', to see which opportunities provided by the regulations are actually used in practice.

The five objectives that were defined for the public procurement system are fairness, transparency, accountability, competition and value for money. Each of these objectives has been analyzed using a comparison between characteristics identified in scientific literature and supplier selection regulations and practices in Uganda. The results show that the Ugandan public procurement system is accountable and rather competitive, but neither transparent nor delivering value for money. Besides, the system is fair in some aspects, but unfair in other aspects.

The comparisons further show that most characteristics that are embedded in the regulations are also observed at the 'Office of the President'. However, in some cases there are differences between the presence of a characteristic in the regulations and its presence in practice. Therefore, the recommendations generated by this research are split up in recommendations regarding the regulations (aimed at the PPDA) and recommendations regarding supplier selection in practice (aimed at procuring and disposing entities).

Recommendations on regulations

- 1. Prescribe high-quality rigorous decision support methodologies.*

High quality methodologies will enforce both fairness and value for money. Regarding fairness, especially 'the level of professionalism and the quality of content during the procurement activity' are effective means to limit the possibilities for corruption (Csáki et al., 2005). Value for money can be achieved by making better choices between bidders, as more relevant aspects are considered. A 'high-quality' decision support methodology should at least support defining criteria, weighing criteria, scoring criteria and combining criteria.
- 2. Oblige to publish sub criteria, sub criteria weights and scoring rules in tender documents as well.*

Publishing complete information in the tender documents regarding the evaluation procedures enhances fairness, transparency and value for money. 'Complete information' in this regard includes criteria, weights and scoring rules. Main criteria and their weights are already published in tender documents, sub criteria, their weights and scoring rules should be added. This information is sufficient to allow a bidder to determine the score of his own proposal, which will result in a fair, transparent procurement system. Better value for money can be achieved because bidders can make better offers if they better understand the preferences of the buyer.
- 3. Do not prescribe to use Technical Compliance Selection for (almost) all purchasing situations.*

Better choices between bidders can be made when the evaluation methodology used is appropriate for the purchasing situation. The choice for a methodology depends at least on the nature, the value and the complexity of the purchase. The regulations should prescribe a set of methods, where skilled buyers can choose from for every individual procurement project. The set should include simple methods for low-value purchases and rigorous methods for complex purchases. However, the set should be limited in size, because the benefit of employing ever more models will be offset by the costs of implementing and maintaining them.

4. *Make procurement records open to public examination.*

PDE's have to keep procurement records that contain all documents that are relevant for a procurement project. This enhances accountability, because the PPDA is allowed to inspect the records. However, transparency can only be achieved when also buyers and all other interested citizens can examine the records. If this examination provides full insight in the selection of bidders, the tendering procedures and the award of contracts the procurement system may be considered transparent (Carayannis et al., 2005). Hence, the regulations should oblige PDE's to open up their records completely.

5. *Do not prescribe methods that use relative scores, such as Quality and Cost Based Selection.*

The final scores that are assigned to bids should not depend on features submitted in other tenders. If they do, both transparency and fairness are jeopardized. Instead, prescribe independent scoring rules that always assign the same score to a bid, regardless of the contents of other bids.

6. *Promote e-procurement.*

E-procurement can help to remove barriers for small and/or non-local suppliers and it can make the entire procurement process more transparent. The former can be achieved by reducing the costs of placing a bid and by facilitating the bid-submission process for suppliers that are not located close to the buyer. Transparency can be enhanced when the decisions and actions taken in procurement activities that are supported by e-procurement can be digitally reviewed. The supplier selection regulations should promote (if not oblige) the use of e-procurement in as much activities as reasonably possible.

7. *Do not make the bidding process redundantly complex.*

Even though the public procurement system in Uganda is already rather competitive, further improvements can be made by reducing the administrative burden of some bidding processes. Too complex procedures can discourage small suppliers to place a bid or can even result in suppliers that don't have the administrative competence to compete in the tendering procedure (Mathisen et al., 2008). Therefore, the regulations should prescribe simpler and less time-consuming bidding procedures for low-value or non-complex purchases.

Recommendations on practices

1. *Choose the evaluation methodology that best suits the purchasing situation.*

As mentioned before, the choice for a methodology depends at least on the nature, the value and the complexity of the purchase. Extensive methodologies better capture all relevant aspects and result in better choices. However, they are also more time-consuming (and thus expensive), so trade-offs need to be made. In each situation the method should be chosen that is most appropriate, not the method that requires the least effort. The obligation to ask for permission from the contracts committee or the PPDA should not influence the choice.

2. *Publish all available information regarding evaluation procedures in tender documents.*

Value for money can be achieved by publishing complete information in the tender documents regarding the evaluation procedures. This is because bidders can submit better offers if they have a better understanding of the buyers preferences. Therefore, criteria, their weights and scoring rules should always be published, regardless which of these aspects are obliged by the regulations and which are not.

3. *Make use of e-procurement.*

As mentioned before, e-procurement can be used to reduce the costs of placing a bid and to allow non-local suppliers to compete. In this way competition can be enforced. The use of e-procurement is not obliged by the regulations, so it's up to a PDE to decide which procurement activities it supports with e-procurement practices. If the decisions and actions taken in such procurement activities can be digitally reviewed, also transparency is enhanced.

4. *Avoid redundantly complex tendering procedures.*

Too complex procedures may discourage buyers or yield incomplete bids. Both obviously reduce competition. Therefore, PDE's shouldn't choose complex procedures for low-value or non-complex purchases. Also, the tender documents should very clearly state the documents that have to be included, the persons that have to sign them, the deadline for submission and the address where the bid should be delivered.

5. *Make sure procurement records are complete.*

Records containing all relevant documents have to be kept for all purchases. If these records are open for review (at least by the PPDA, but preferably also by suppliers and citizens) both accountability and transparency are enhanced. However, this effect is diminished when records are incomplete. It's the responsibility of PDE's to keep all records complete and accessible.

The recommendations just described can result in a better public procurement system in Uganda, in the sense that the system fulfils its objectives to a greater extent. To achieve this result, the eleven steps in the supplier selection process (described in chapter 3) have to be adjusted. Appendix 2 provides a new overview of the selection process that incorporates the recommendations.

Final word

The recommendations provided by this research are all based on scientific literature and are appropriate in the context of Uganda. Every recommendation will have an effect on the public procurement system, regardless which of the other recommendations are followed as well. If, for example, a PDE thinks that e-procurement is too difficult to implement, it can still improve its performance using any of the other recommendations. However, if more recommendations are followed simultaneously, a disproportionately larger improvement may be expected; an effect of synergy. For example, little will be gained by prescribing high quality decision support techniques if they remain unused or by choosing wisely from a set of inappropriate techniques. On the other hand, when the regulations prescribe a high-quality set of decision techniques *and* the PDE's make a justified choice from this set for every procurement project, major improvements will follow. If the PPDA and (the majority of) the Ugandan PDE's jointly strive for such improvements, Uganda will slowly move towards the desired public procurement system.

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Appendix 1: Top-25 Journals on Purchasing and Supply Management

Rank	Journal	# articles	Scopus covered?
1	Journal of Purchasing and Supply Management (<i>JPSM</i>)	100	Yes
2	Journal of Supply Chain Management (<i>JSCM</i>)	93	Yes
3	Industrial Marketing Management (<i>IMM</i>)	73	Yes
4	Supply Chain Management: An International Journal (<i>SCM</i>)	62	Yes
5	Int. Journal of Production Economics (<i>IJPE</i>)	52	Yes
6	Int. Journal of Operations & Production Management (<i>IJOPM</i>)	47	Yes
7	Int. Journal of Physical Distribution and Logistics Management (<i>IJPDLM</i>)	45	Yes
8	European Journal of Operational Research (<i>EJOR</i>)	41	Yes
9	Journal of Business and Industrial Marketing (<i>JBIM</i>)	38	Yes
10	Management Science (<i>MS</i>)	38	Yes
11	Int. Journal of Production Research (<i>IJPR</i>)	26	Yes
12	Journal of Business Research (<i>JBR</i>)	24	Yes
13	Journal of Operations Management (<i>JOM</i>)	24	Yes
14	Decision Sciences (<i>DS</i>)	20	Yes
15	Journal of the Operational Research Society (<i>JORS</i>)	18	Yes
16	Computers & Industrial Engineering (<i>CIE</i>)	17	Yes
17	Production and Inventory Management Journal (<i>PIMJ</i>)*	17	Yes
18	Journal of the Academy of Marketing Science (<i>AMSJ</i>)	16	Yes
19	Production and Operations Management (<i>POM</i>)	16	Yes
20	Int. Journal of Logistics Management (<i>IJLM</i>)	15	Yes
21	Journal of Business Logistics (<i>JBL</i>)	15	No
22	IEEE Transactions on Engineering Management (<i>IEEE</i>)	14	Yes
23	Journal of Business-to-Business Marketing (<i>JBBM</i>)	13	Yes
24	Manufacturing & Service Operations Management (<i>MSOM</i>)	13	Yes
25	Omega (<i>OMEGA</i>)	13	Yes

Table 8: Top-25 Journals on Purchasing and Supply Management

"# articles" refers to the number of relevant articles published between 1999 and 2003.

Top-10 coverage of Scopus	100%
Top-25 coverage of Scopus	96%

Table 9: Coverage of Scopus

List based on:

Mol, M.J. and F. Wynstra (2008). "Purchasing and Supply Management: Defining, Describing and Assessing a Multidisciplinary Field."

Appendix 2: Adjusted supplier selection process

This appendix provides an overview of the eleven steps prescribed for supplier selection in Uganda, adjusted with the recommendations provided by this research. The overview may serve as a handle for persons trying to improve supplier selection in Uganda. As the original steps are already elaborately explained in chapter 3, the overview will primarily focus on the suggested adjustments.

- 1,2,3. Step one to three are carried out in the same manner as currently prescribed by the regulations. The user departments submit their work plans to the PDU (1), after which the plans are combined to an overall procurement plan (2). To approve the further execution of the procurement process, a procurement requisition form is signed by the accounting officer, a representative of the involved user department and by a PDU officer (3).
4. The PDU chooses the procurement method based on the value of the requirement and the circumstances. An open procedure is always preferred. However, the additional costs of such a procedure are balanced against the value of the procurement.
5. The suppliers that are invited to submit a bid are determined. The method used for this selection depends on the procurement method that is used. In any situation, as much suppliers are invited as reasonably possible. E-procurement is suggested as a useful tool in this step: both bid-notices and decisions taken while developing shortlists can be made publicly available online.
6. The solicitation documents are prepared by the PDU. The documents contain a detailed description of the evaluation procedures, including the criteria, their weights and the scoring rules.
7. The bidding period starts. In order not to discourage small and/or non-local suppliers, the costs of placing a bid are kept low and the procedures are not redundantly complex. The regulations allow for several procedures, which differ in complexity. Simple procedures that require little time are used for low-value or non-complex purchases. Again, e-procurement is suggested to help establish low-cost simple bidding procedures.
8. The bids are opened during a formal bid opening in the same manner as currently prescribed.
9. The evaluation of the bids is conducted by the evaluation committee using the method that is prescribed in the bidding documents. The choice for this method depends on the nature, the value and the complexity of the purchase. The regulations prescribe a set of high-quality methodologies that differ in complexity and resource requirements. An appropriate choice for an evaluation method is made for every individual procurement project. None of the prescribed methodologies uses relative scores.
- 10,11. The final two steps are executed in the same manner as currently prescribed by the regulations. Post-qualification and/or negotiations might be undertaken to determine whether the best evaluated bidder has the capabilities and resources needed for the contract (10). Based on the evaluation process and the negotiations, the PDU submits a recommendation for award to the contracts committee (11).

Throughout these 11 steps, the PDU maintains a procurement record that contains all relevant documents used. The procurement records are open for review to the Authority, potential suppliers and to all other interested citizens.