

# An Insight into Procurement Standard Practices in Africa

Joseph Ogachi, PhD

Centre for Advanced Procurement Studies, Nairobi, Kenya

\*E-mail of the corresponding author: [jogachi@spainfosuv.co.ke](mailto:jogachi@spainfosuv.co.ke)

## Abstract

Effective procurement practices in Africa add value and lead to successful projects. This exploratory research is based on a survey of 415 procurement professionals in East Africa. The results suggest that factors that predict well projects success include national procurement policy, capacity of procurement units, updated procurement plans, and open competitive bidding. Procurement laws and national procurement regulatory bodies have negative impact on projects success while national procurement policy had positive impact. Moreover, the most important predictors of procurement professionalism were regular staff training, procurement certification, and procurement professional opinion. Policy implications include continuing enhancement of procurement policy reforms and focused in training procurement planning and contract management.

**Keywords:** Procurement, planning, policy, professionalism, Africa.

## 1. Introduction

Africa is now the world focus and to some a final frontier in the search for resources and growth. A concern for African governments is how to harness the incoming resources in order to attain the best value for money for their citizens. The role of procurement practices has become increasingly critical. This brief exploratory research starts to address these practices and the likely impact on successful implementation of projects. It was done with financial support from the Centre for Advanced Studies, Nairobi, Kenya.

## 2. Research design

The survey utilised a quantitative research methodology to explore the research objectives. The survey was distributed through the membership base at the Kenya Institute of Supplies Management, the national professional body for procurement and supply chain management in Kenya. The institute has over 5,000 members, spread across Kenya and some working outside the country. Although the target emails were to all members, only 2,000 emails were usable.

## 3. Instrument

The survey instrument was based on a review of relevant literature on procurement practice and successful projects. The instrument had 13 grouping variables on gender, country, sector, reporting, procurement category, number of staff, certification, education, age, job title, membership, years of experience, and work field. The constructs used to measure different procurement practices are outlined in Annex 1. The survey data were collected from November 2012 to December 2013 through online SurveyMonkey software.

## 4. Scale Validity and reliability

The scales were subjected to tests for validity and reliability as shown in Annex 2. The factors were extracted using principal component analysis with varimax rotation, retaining one factor. All the scales had factor loadings above the recommended minimum of 50% (Field, 2014) except that for procurement method that had loadings of 31.9%. The KMO measures of sampling adequacy were all above 0.5 and the Bartlett's tests were all significant at alpha .01 as recommended by Norusis (2012). The scales, other than that for procurement method, were considered valid to measure the respective constructs of procurement practice and project success. The extracted factors were saved using regression method for statistical analysis.

The scales were tested to check if they were reliable to measure the constructs of procurement practice. As shown in Annex 2, all the Cronbach's alpha values were above the minimum recommended of 0.5 (Field, 2014). The ANOVA test for mean differences in the measured variables was significant at .01. Hence, the scales were reliable measures of the constructs of procurement practice.

## 5. Descriptive statistics

About 415 procurement professionals responded to the survey, of which 70.4% were male. Responses were from Afghanistan, Australia, Bermuda, Ethiopia, Mozambique, Rwanda, Sierra Leone, Tanzania, and Uganda, but the majority were from Kenya. Responses from state corporations were highest at 38.6% followed by the private sector at 30.9%, national governments 15.1%, non-state actors at 9.3%, county government 5% and development sector 1.2%.

The respondents with at least a diploma level qualification in procurement and supply management were 76.9%, those with a degree in procurement 20.4% and the rest 2.6% had a certificate in procurement. Most of the respondents, 45.3%, had a bachelors degree of academic qualification. Those with masters were 31.3%. The majority 67.4% were full members of their national professional body for procurement and supply management. While 51.1% worked in procurement management, 24.6% worked in procurement processing.

## 6. Brief Findings

### 6.1. Reporting lines

In 40.1% of organisations, the procurement unit reported to the chief executive officer while 16.4% to the deputy chief executive officer. Whereas 27.1% of procurement units reported to the head of finance, 10.3% reported to the head of operations and the rest to human resources and legal departments.

### 6.2. Professional membership profile

Those that were full members in their national professional body were the majority at 67%. The associate members, without procurement certification, were 22% of the respondents. Student and affiliate members were 10.6%. Full members had a more positive perception about the success of procured projects than associate member, but the difference was non-significant.

### 6.3. Number of staffs in procurement units

The average number of procurement staffs in the sampled organisations was 27. A typical procurement unit would have between 18 and 40 staffs, based on 95% BCa CI.

### 6.4. Experience of procurement staffs

The average and median experience was 10 years. The lower band experience level was 9.7 years and the upper level of 12, based on 95% BCa CI. These results suggest the staff had been in office largely after year 2003; the year a new crop of procurement staffs were recruited afresh in Kenya. About 41.6% of the staffs in the survey were youth under the age of 35 years, while 80.5% of the staffs were aged below 45 years. There was no significant difference in perceived project success between the youth the older professional colleagues, although the youth were more pessimistic about the success of implemented projects than their older counterparts.

### 6.5. Professionals' perception about projects success

Procurement professionals were asked to rate the success of projects in their country. As Figure 1 shows, they reckoned that projects largely met set objectives ( $M=3.55$ ). But projects were neither completed on time ( $M=2.93$ ) nor within budget ( $M=3.32$ ). Of the three triangle factors, time was the most adversely affected, followed by cost, and lastly quality. These results suggest issues about delayed projects that overrun the set budgets.

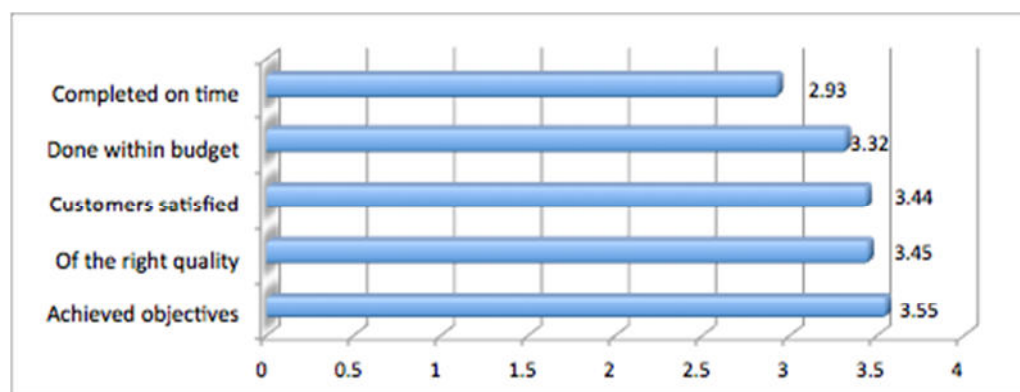


Figure 1. Perceived project success (maximum score=5)

### 6.6. National procurement structures that predict well project success

Four factors were used to measure national procurement structures: an established public procurement law, a national procurement policy organ, a national procurement regulatory authority, and a national procurement appeals board. The results showed that the national procurement policy organ was the most important predictor

of projects success,  $F(4, 209)=2.9, p=.022$ . Hence, a well functioning procurement policy organ is a core factor in procured projects.

The procurement law ( $B=-.227$ ) and the procurement regulatory authority ( $B=-.033$ ) had negative contribution to project success. The procurement appeals board had a positive association with projects success, but statistically non-significant. The negative perception about the procurement laws and regulatory bodies should be addressed to ensure a law that is geared to achieve development goals and less as a document for compliance.

### 6.7. Procurement capacity and projects success

Existence of a functional procurement unit, other departments' perception about the unit, clear roles and responsibilities, adequate office facilities, own budget, and qualified head of procurement were found to have significant positive impact on successful projects. Direct reporting line to the chief executive officer did not have significant correlation with successful projects. As noted earlier, in only 40.1% of organisations did procurement units have direct report to chief executive officers.

### 6.8. Impact of national procurement professional body

Effective procurement practices were characterised as existence of a national procurement professional body, that operates independently, affiliated to the International Federal of Purchasing and Supply Management, registers members, enforces a code of ethics, disciplines its members, conducts national professional exams, and delivers continuous professional training. All these factors had significant positive impact on projects success. Moreover, the discipline of members predicted well the success of procured projects,  $F(8, 192)=2.4, p=.015$ .

### 6.9. Extent of using procurement systems and project success

The extent to which organisations used different procurement systems is shown in Figure 2. Bidding documents and manuals were widely used. Moreover, the quality of bidding documents was the most important predictor of projects success,  $F(9, 177)=3.2, p=.001$ . Procurement agents and inspection agents were the least commonly used in organisations. Procurement manuals and performance systems were negatively associated with projects success.

These results suggest a low uptake of procurement agents as consultants to assist organisations deliver value. It also shows the importance of developing quality bidding documents that are used to source competent firms that deliver projects to the required success levels. A more effective application of manuals and performance management system that are aligned to deliver successful projects could turn these systems to positive correlation with successful projects.

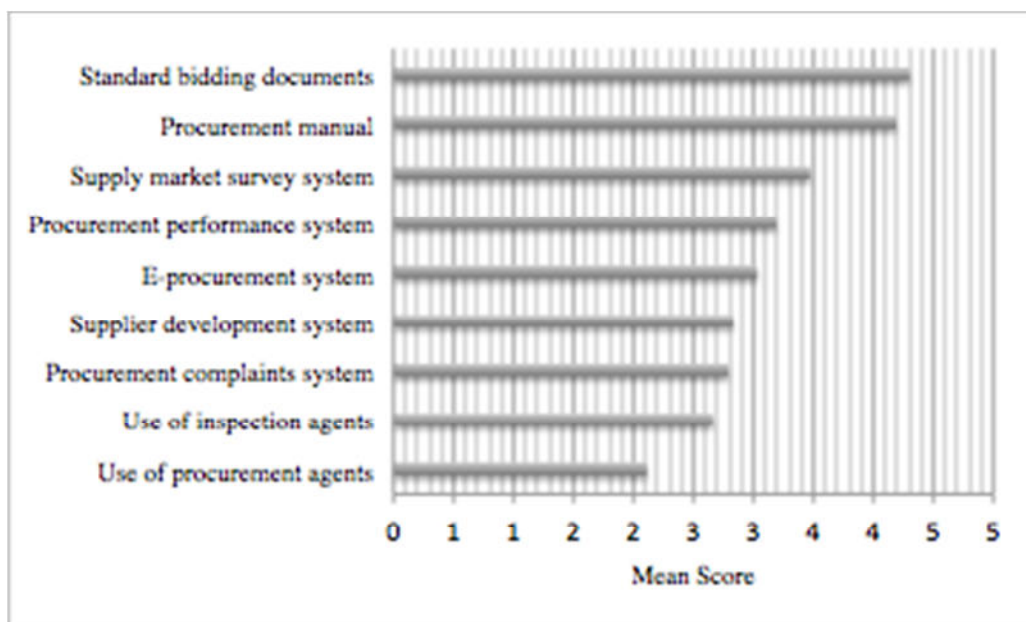
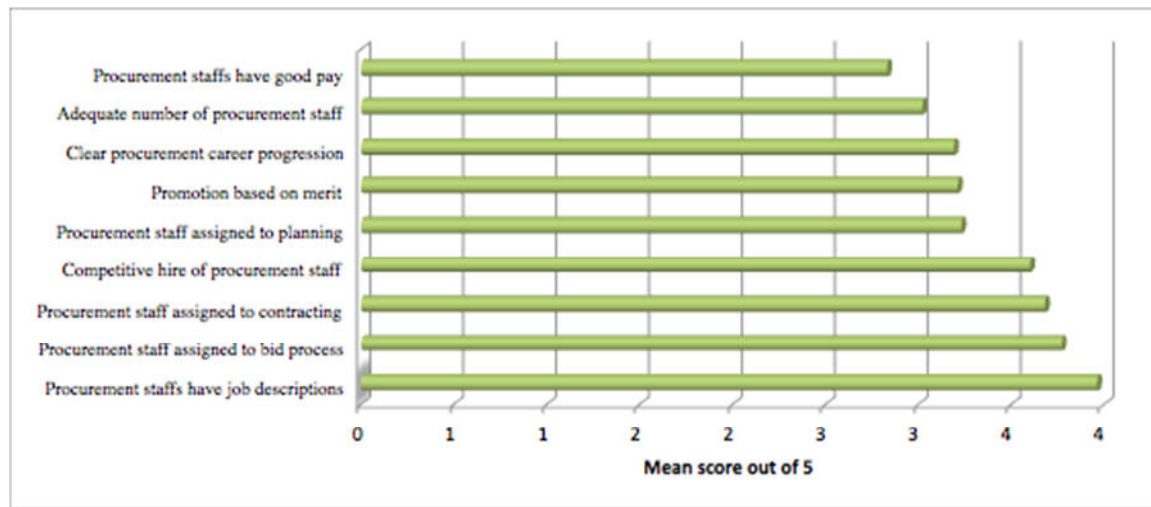


Figure 2. Mean scores for procurement systems

### 6.10. Practices in procurement staffing

As Figure 3 shows, the procurement staffs had issues to do with the professional pay and the adequacy of staff



numbers. The staff had job descriptions, mostly based on assigning staff to procurement bid processing.  
 Figure 3. Practices in procurement staffing

### 6.11. Procurement professionalism

The procurement staffs had good relevant experience and certification (Figure 4). But, there were constraints in regular training and signing of professional codes of ethics, which were areas requiring attention to enhance professionalism. The most important predictors of procurement professionalism were regular staff training, procurement certification, and procurement staff offering their professional opinion,  $F(8, 200)=4.5, p<.01$ . These results point to the importance of CPD training, national certification exams such as the Certified Procurement and Supply Professional of Kenya, and procurement staff giving their professional opinion wherever difficult procurement decisions are being made.

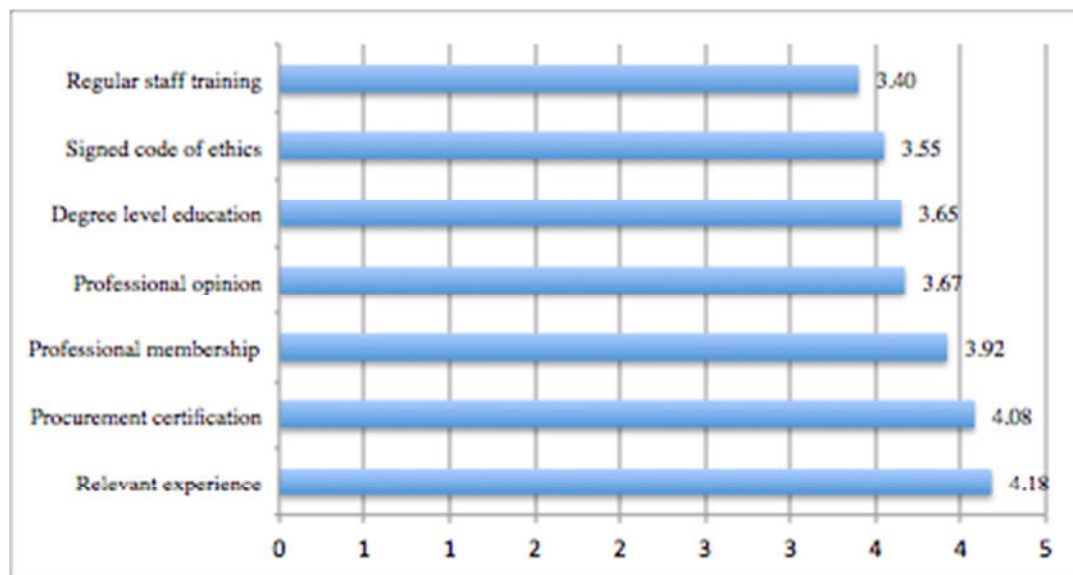


Figure 4. Factors in procurement professionalism

### 6.12. Impact of procurement planning on project success

Figure 5 contains standardised mean scores on six factors used to measure practices in procurement planning. The results show that organisations prepared procurement plans, based largely on available budget, and aligned them to corporate plans. However, as the negative standardised scores show, the procurement plans were seldom updated regularly, rarely based on sound market survey, and procurement staff were not involved in projects preparation.

Yet, regular update of procurement plans and procurement staff input in project preparation were the most important predictors of successful projects,  $F(7, 200)=3.9, p<.01$ . Integration of procurement plans to budgets was negatively associated with projects success. Efforts should be made to have procurement staff input in projects preparation, and the use procurement plans to monitor and implement projects to ensure success.

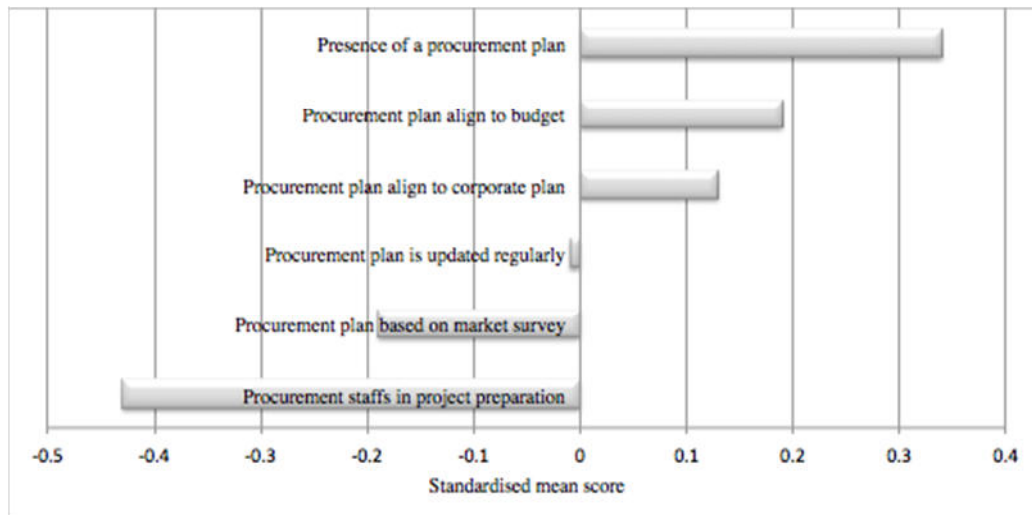


Figure 5. Practices in procurement planning

### 6.13. Procurement methods

Procurement staffs most often used request for quotations to procure ( $M=4.45$ ), and to a lesser extent, open competitive bidding ( $M=4.22$ ). The methods that predict well success in procured projects were open competitive bidding and two-stage bidding,  $F(9, 182)=3.2, p=.001$ . The use of two-stage bidding method in cases where the requirements are difficult to clearly define should be considered to increase chances of success in procured projects.

### 6.14. Selection methods

Procurement staffs were more conversant with procurement methods for goods and works ( $M=3.95$ ) compared with selection methods for consultants ( $M=3.25$ ). Procurement staffs most often used quality and cost based selection method to procure consultants ( $M=3.69$ ). Expertise in consultant selection method, the most important predictor of projects success, should be an area to focus in CPD skills,  $F(6, 190)=3.9, p=.001$ .

### 6.15. Procurement of works and goods

Annex 3 details the level of experience in the procurement of works and goods. The procurement staffs self rated high on choice of procurement method, receipt and opening of bids, and notification of contract awards. There were lower scores for preparing price adjustment formulae, organising pre-bid conferences, and publishing contracts. Expertise in organising pre-bid conferences and offering professional procurement opinion were the most important factors that predict well projects success,  $F(37, 124)=1.7, p=.017$ . Developing skills among staff on the preparation of professional opinions on procurement would be core in nurturing the profession to deliver successful procurement of goods and works projects.

### 6.16. Selection of consultants

The staffs reported higher level of experience in preparation of letters of invitation, receipt of proposals, contract award and notification. There were less experience levels in organising pre-proposal conferences and issuance of

clarifications, moderating evaluators' scores, negotiation of contract, and writing procurement professional opinions (see Annex 4).

### 6.17. Procurement contracting

Annex 5 details the scores for experience levels in procurement contracting. Procurement professionals self rated high on notification of contract award and drafting letters of acceptance. However, there were low scores in the use of percentage contracts, retainer fee contracts, and price adjustment formulae in the procurement of consultants. These results suggest a lack of experience in a wide range of contracting models that are useful in certain procurement situations, especially given that drafting of contract agreements barely made it as a core competence among staff. Overall, there was less expertise in procurement contracting, indicating a need to enhance staff skills in this important procurement function.

### 6.18. Procurement evaluation

The procurement staffs reckoned that they had reasonable procurement and contracts records ( $M=4.28$ ). However, supplier performance monitoring ( $M=3.65$ ) and spend analysis ( $M=3.79$ ) had lower scores (see Figure 6). Nevertheless, the most important predictor of projects success was found to be projects evaluation on implementation,  $F(7, 2010)=5.7, p<.01$ . Going forward, emphasis on supplier performance management, spend analysis, and performance audit would be crucial practices to enhance procurement professional practice for success.

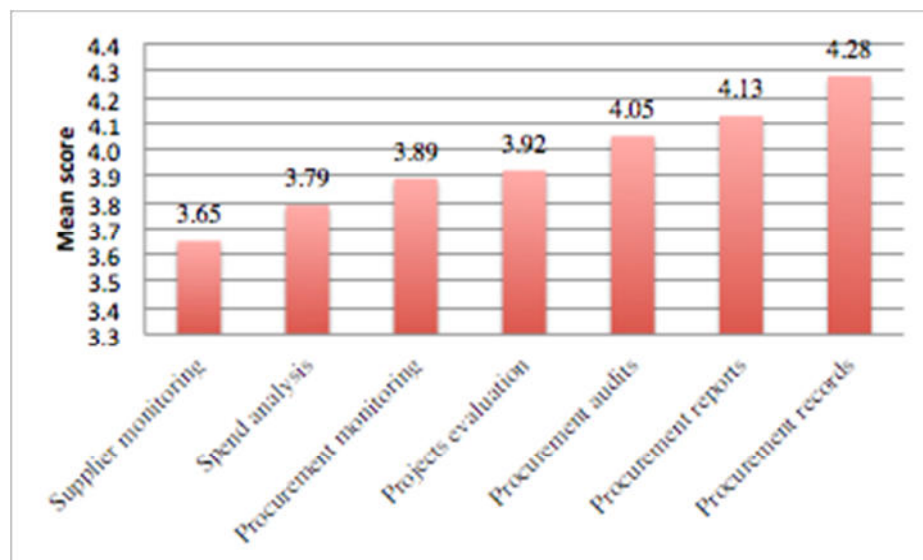


Figure 6. Practices in procurement monitoring and evaluation

## 7. Implications for Policy and Strategy

The main issues in projects success are untimely completion and budget outruns. Whereas procurement plans are meant to ameliorate these risks, the procurement staffs are rarely involved in projects preparation, the plans are seldom based on sound market survey, and are rarely updated to reflect changes in projects needs. The implication is that procurement units should be designed and its staff trained on projects formulation, supply market surveys, and use of updated procurement plans to implement projects successfully.

The national procurement policy organ is the most important predictor of successful projects. Well designed procurement rules that are geared towards a country's socio-economic goals is key to successful projects. The finding that procurement laws by themselves and national procurement regulators as currently functioning, had a negative impact on projects success was not entirely unexpected. Where regulators focus more on procurement audit and compliance to the law and less on innovative research and capacity building, such negative perception is likely to persist. A change in strategy by national procurement regulators is called for to ensure they provide supportive and innovative solutions to projects delivery.

As expected, a well capacitated and functional procurement unit has a positive contribution to successful projects. More so when the staff are well remunerated and possess national procurement certifications relevant to



their country context, and are able to offer authoritative professional opinion on procurement matters. The policy implication to national governments is clear: Implement quality national certifications programs, empower the procurement units to offer their professional opinions on decisions regarding procurement and supply chain management.

The quality of bidding documents is one of the most important factor in successful projects. The procurement staff should focus on developing their skills in drafting quality documents, that increase chances of successful procurement with less bidder complaints and less time overrun in delivery. The major assumption however is that the national procurement regulator has quality standard bidding documents and continuously introduces documents used in specialised procurements.

Whereas procurement units oftentimes use of request for quotation and less open competitive tendering, the latter method is the most important predictor of projects outcomes. Notably, the staffs are more conversant with procurement methods than selection methods, indicating less skills in the selection of consultants. The professionals should be trained on the use of a variety of methods but attention should be on the use of different variants of open competition and consultant selection to increase chances of success.

The procurement staffs depict less expertise in procurement contracting, an area national professional bodies should focus on as part of the CPD training. At implementation, the expertise in performance monitoring of suppliers, contractors, and consultants as well as spend analysis and project evaluation are core areas that require improvement and capacity building among procurement professionals.

## 8. References

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## Biodata

Joseph Fidelis Ogachi, has PhD from Northcentral University USA. His research interests are in procurement policy and strategy, procurement value for money, and procurement of P3s. He serves in the Council of the Kenya Institute of Supplies Management, is a Board Member of consulting firm SPA Infosuv East Africa Ltd. He does research and training at the Centre for Advanced Procurement Studies, Nairobi, Kenya. He is a member of the American Educational Educational Research Association (AERA), and the International Purchasing and Supply Education and Research Association (IPSERA). His procurement practice spans over 20 years in the public and private sectors dealing with procurement and supply chain management in developing countries.

Annexes

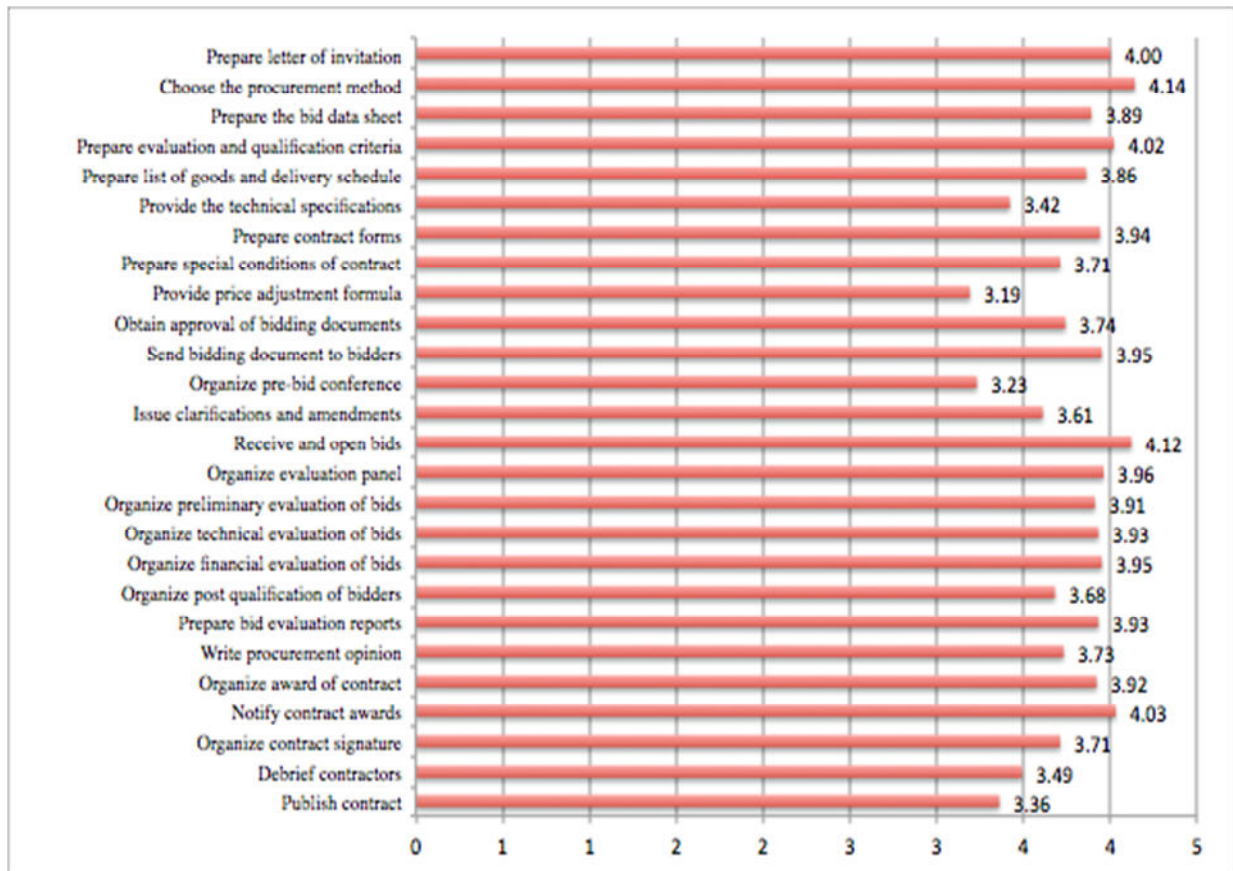
Annex 1. <i>Outline of the survey instrument</i>	
Scale	Description
Law	Four items to measure the extent to which the country had put in place procurement laws and national structures to guide procurement decisions. A 5-point Likert scale ranging from 1( <i>strongly disagree</i> ) to 5( <i>strongly agree</i> ).
Structure	Seven items to measure the extent to which the organisations had structured the procurement management to deliver value in procurements. A 5-point Likert scale ranging from 1( <i>strongly disagree</i> ) to 5( <i>strongly agree</i> ).
Body	Eight items to measure the existence and practices of the national professional body for procurement and supply chain management. A 5-point Likert scale ranging from 1( <i>strongly disagree</i> ) to 5( <i>strongly agree</i> ).
Systems	Nine items to measure the extent to which the procurement systems were in use in the organisation. A 5-point Likert scale ranging from 1( <i>strongly disagree</i> ) to 5( <i>strongly agree</i> ).
Staffing	Nine items to measure the capacity of procurement management units in the organisation, A 5-point Likert scale ranging from 1( <i>strongly disagree</i> ) to 5( <i>strongly agree</i> ).
Professionalism	Eight items to measure the extent of procurement professionalism in the organisation. A 5-point Likert scale ranging from 1( <i>strongly disagree</i> ) to 5( <i>strongly agree</i> ).
Planning	Seven items to measure practices for procurement planning in the organisation. A 5-point Likert scale ranging from 1( <i>strongly disagree</i> ) to 5( <i>strongly agree</i> ).
PMethods	Nine items measuring practices in the use of procurement methods for goods and works. A 5-point Likert scale ranging from 1( <i>never</i> ) to 5( <i>very often</i> ).
SMethods	Six items measuring practices in the use of procurement methods for goods and works. A 5-point Likert scale ranging from 1( <i>never</i> ) to 5( <i>very often</i> ).
Works	37 items measuring the practices in the procurement of works and goods. A 5-point Likert scale ranging from 1( <i>never</i> ) to 5( <i>very often</i> ).
Consultant	35 items measuring practices in the selection of consultants in the organisation. A 5-point Likert scale ranging from 1( <i>never</i> ) to 5( <i>very often</i> ).
Contracting	Seventeen items measuring practices in procurement contracting. A 5-point Likert scale ranging from 1( <i>never</i> ) to 5( <i>very often</i> ).
Evaluation	Seven items measuring the practices in procurement monitoring and evaluation. A 5-point Likert scale ranging from 1( <i>strongly disagree</i> ) to 5( <i>strongly agree</i> ).
Success	Five items measuring the perceived success of procured projects.



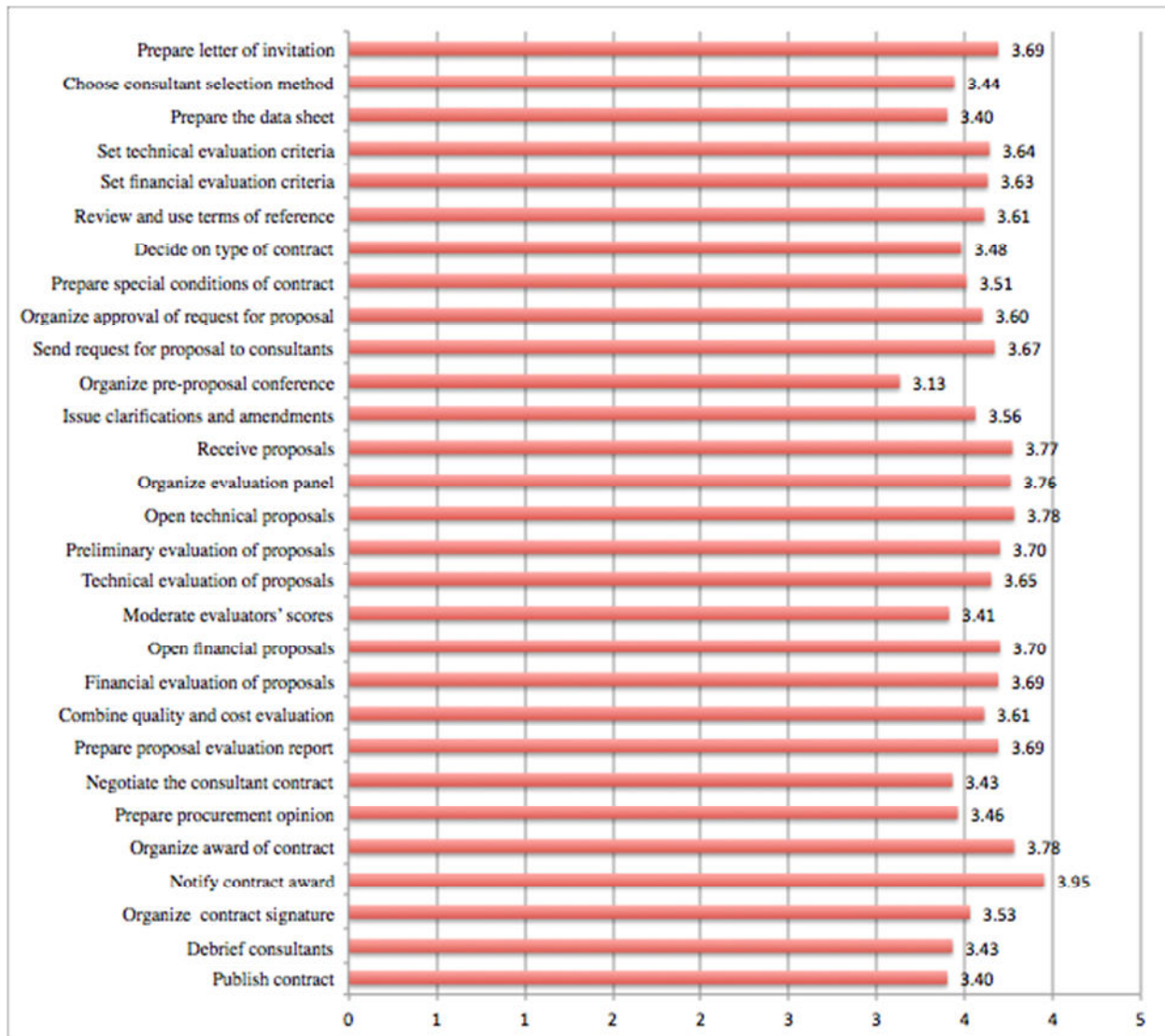
*Annex 2. Results of tests for scale validity and reliability*

Scale	Validity				Reliability			M
	Factor (%)	Loading	KMO-MSA	Bartlett's Test	Cronbanch's Alpha	ANOVA F		
Law	77.1		0.830	<.01	.897	6.9	<.01	4.69
Structure	52.2		0.862	<.01	.825	39.4	<.01	3.74
ProfBody	58.7		0.865	<.01	.859	70.0	<.01	4.24
Systems	52.5		0.845	<.01	.845	42.4	<.01	2.87
Staffing	52.8		0.865	<.01	.888	37.1	<.01	3.40
Professionalism	51.7		0.868	<.01	.859	54.2	<.01	3.66
Planning	67.2		0.897	<.01	.917	29.5	<.01	3.94
PMethods	31.9		0.750	<.01	.728	147.5	<.01	3.21
SMethods	56.0		0.772	<.01	.841	17.5	<.01	3.32
Works	61.6		0.954	<.01	.982	21.3	<.01	3.76
Consultant	73.8		0.987	<.01	.989	8.3	<.01	3.59
Contracting	58.2		0.924	<.01	.955	30.5	<.01	3.28
Evaluation	65.2		0.895	<.01	.910	22.5	<.01	3.95
Success	76.8		0.858	<.01	.921	51.5	<.01	3.35

Annex 3. Experience levels in the procurement of works and goods



Annex 4. Experience levels in procurement of consultants



### Annex 5. Experience levels in procurement contracting

