Contract Management, Inter Functional Coordination, Trust and Contract Performance of Works Contracts in Ugandan Public Procuring and Disposing Entities

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Abstract
Purpose – The paper aims to improve upon the highly unconcretised works contract performance research, by examining the relationships between contract management, inter-functional coordination, trust and works contract performance and whether these variables have an effect on the contract performance.

Design/methodology/approach – This study is cross-sectional and correlational. It also takes the descriptive and analytical design. Data were collected from a representative sample of 108 completed and fully documented works contracts in the central government procuring and disposing entities in Uganda, in the financial year 2013/2014. Out of these, responses from 64 were used for analysis, using the Statistical Package for Social Scientists (SPSS).

Findings – The results suggest that delivery management is relatively more important than relation management and contract management and that in a rules based system, the importance of inter-functional coordination to contract performance is minimal, further expounding on the critical difference between private and public procurement systems.

Originality/value – This study, unlike other studies in developing countries, considers individual issues of contract performance rather than holistic performance of a procuring and disposing entity. Works contracts considered in this study, have unique inherent challenges that deserve being isolated and studied. The study also makes an original contribution that whereas inter-functional coordination has been in general terms recognized by literature as important determinant for contract performance, in a rules based system, inter-functional coordination is not as important as in a best practices system in enhancing performance of a works contract. Insights from our findings provide a platform for subsequent academic research.

Practical implications – From the results, practitioners appreciate the need to pay for certified completed works in reasonable time, and to effectively manage the relationship between the functions in a procuring and disposing entity and contractors. Insights for the study demonstrate the need for policy makers to adjust laws governing public procurement to allow reasonable interaction between the procuring and disposing entities contract management teams and contractors.

Type of paper – Research paper

Keywords – contract management, Inter-functional coordination, Trust, Contract performance.

Introduction
Contract management is the active monitoring and control of the contract between the procuring and disposing entity and the contractor, to ensure delivery of a cost effective and reliable service at an agreed standard and price. Contract management is the final stage in the bidding process and marks the beginning of a contractual relationship between the procuring and disposing entity and contractor. According to OECD (2011), contract management consists of; delivery management, relationship management and contract administration.

Public Procurement and Disposal of Public Assets Capacity Building Strategy Report (2011-2014) revealed that the overall performance under the compliance areas where procuring and disposing entities scored lowest were record keeping, contract award and contract management. According to the Public Procurement and Disposal of Public Assets performance report (2015) during the financial year 2013/2014, 27% of the contracts in the Ugandan public procurement system were rated as high risk, while only 16% of the contracts were rated as low risk. Works contracts take a bigger share of the country’s expenditure compared to supplies and services (Government of Uganda Budget Speech, 2014). The size and complexity of works contracts and the conditions of contracts tend to be more complicated. Performance of works contracts is not always monitored to ensure that the citizens continue to get value for money. Some works are paid before corresponding completion certificates are issued (Office of the Auditor General Report, 2014).

In contract management, mutual trust and understanding, openness, and excellent communications between key stakeholders in contract management and monitoring like user department, contractor, contract manager, procurement and disposal unit and accounting officer are as important to the success of an arrangement as the fulfillment of the formal contract terms and conditions. There are very few records kept by the government entities regarding the contract management stage (PPDA, 2014). Review meetings between the entities and contractors do not take place regularly, not all contracts have appointed contract manager and therefore lack a
contract management plan. Without regular review meetings, errors in the contract are not corrected in time, or sometimes not corrected at all. The contract changes are not done, even when deemed necessary. Lack of error correction and contract adjustments means that contracts go on even when there are sufficient grounds to be terminated. Some payments made are not as per works completed and as per supportive documentation. Payments are sometimes made without contracts or for non-performing contracts (Ntayi et al., 2013).

Inter-functional coordination is the integration and collaboration of various functional areas within an organization as a way of enhancing communication and information in order to better meet the organizational goals (Narver and Slater, 1990). Inter-functional organization enhances trust between the various stakeholders in a contract. There are various user departments and stakeholders for a works contract. However, the entity top level managers from different user departments regularly meet and discuss issues concerning the contract being executed. Even at the stage of due diligence, the evaluation committee or the procurement and disposal unit does not visit the contractor being considered for prequalification or for contract award. There is overwhelming evidence that post qualification evaluation of bidders that reach final stage of evaluation is rarely done (PPDA, 2014). The user departments and the contracts committee do not devise means to search for solutions that are mutually agreeable.

Inter-functional coordination, leads to regular interaction, which creates bonds that are hard to break, making parties involves to feel more obliged to collaborate (Muhwezi, 2010), thus trust is built. Trust in this case, is the procuring and disposing entity’s belief that the contractor will act in a consistent manner and do as per contract requirements. It gives the confidence that the contractor can be relied upon. Trust smoothens out the business relationship operations and makes partners view the short run benefits from an opportunistic defection as being outweighed by the long run benefits from continued cooperation (Montgomery, 1998).

Contract management, inter-functional coordination and trust have influenced the level of contract performance in Uganda. According to the PPDA (2014), the overall performance of central government entities in Uganda during the 2012/2013 financial year was rated at 0% (highly satisfactory), 42% (satisfactory), 25% (moderately satisfactory), 25% (unsatisfactory) and 8% (highly unsatisfactory). Works procurement contracts have high values than the supplies and services contracts and account for a significant portion of the national budget. Reports indicate that the works related contracts are the poorest performing contracts (PPDA, 2014). During the 2013/2015 financial year, the Ministry of Works and Transport took 478 days to process a procurement deal from initiation to publication of the best evaluated bidder.

According to UNRA (2014), open bidding for works and services may take up to 9-15 months including Government and Donor approvals, while open bidding through Expression of Interest/Prequalification for works and services may take up to 15-24 months including government and donor approvals. This time is unacceptable in any best practice. The report indicates a variance of 122% and 136.9% variance in contract price above the estimated prices for the Insurance Regulatory Authority and National Agricultural Advisory Services respectively. Contract variations are common with works contracts, like in referral hospitals where 8% of the contracts were varied (PPDA, 2013).

**Literature Review, Conceptualization and Hypothesis Development**

Many scholars have studied contract performance, but using constructs that reflect wide organizational processes. This study focuses on constructs that deal with the contract itself, from time it is signed to when it is concluded. Whereas several studies explain contract performance by considering the whole public procurement processes, from procurement planning to contract closure, it may not be an optimal strategy because the processes from procurement planning to contract award are controlled by the procurement and disposal unit, while the contract management process is largely controlled by the user department and contract manager. It is more realistic therefore to link contract performance to processes that are directly related. This study also includes the soft constructs; inter-functional coordination and trust that moderate the relationship between contract management and contract performance. The study is guided by the conceptual framework in Figure I below:

**Figure I**
Managing contracts is important for the success of any procurement process. It is an issue of strategic importance to all parties involved (Pillai and Adavi, 2013). The management of contracts based on performance is complex as is the alignment of long term relationship and indicators (Lazzarotto et al., 2014). A contract between an entity (principal or government entity) and a contractor (agent) reflects a principal-agent relationship as explained by the agency theory (Eisenhardt, 1989). The entity (principal) wants to achieve value for money while the contractor (agent) has business oriented objectives. This creates a difference in objectives, behaviours of which will be different, including withholding information resulting into information asymmetry.

Contract administration aims at ensuring enforcement of contract terms while giving attention to achievement of stated output and outcome of the contract (Davidson and Sebastian, 2009). According to agency theory, the divergence of interests between principal and agent can be mitigated by instituting proper contract management procedures (Mutua et al., 2014) and by monitoring activities to limit opportunistic actions which are aspects of inter-functional coordination.

Once a contract is signed, it has to be managed if the intended objectives are to be met. This involves; ensuring that whatever is required is delivered at the required level of quality, keeping the relationship between contracting parties open and constructive and ensuring that there is formal governance of the contract (OECD, 2011). Given the risks associated with procurement contract management like proposal risk, liability risk, schedule risk, contractual risk, performance risk, price risk (Abi-Karam, 2001; Davidson and Wright, 2004), contract reviews are expected.

**Contract Management and Inter-functional Coordination**
Contract management processes like contract signing, review meetings and control systems explicitly define rules of the game. Subsequently, these processes necessitate inter-functional coordination (D’Amour et al., 1999). According to Galbraith and Nathanson (1978), rules and procedures as reflected in the contract management processes can be an effective method for achieving inter-functional coordination. Empirical support was further provided by Reukert and Walker (1987) linking contract management elements with inter-functional coordination. Therefore:

\[ H1: \text{Contract management is positively related to inter functional coordination.} \]

**Inter-functional Coordination and Trust**
As businesses grow more complex, the need to increase commitment and obligations to each other has grown substantially (Krappe and Kallayil, 2003). Some studies indicate trust as an antecedent of inter-functional coordination (Min, 2001; Mentzer et al., 2001, Eng, 2005). Therefore:

\[ H2: \text{Inter-functional coordination is positively related to trust.} \]

**Contract Management, Inter-functional Coordination, Trust and Contract Performance**
The integration of functional units in an entity with each other is a means to achieve strategic consensus (Foerstl et al., 2013). Entities have various functional units that in various ways deal with the procurement process. Cross functional coordination leads to trust since it makes functions view the short run benefits from an opportunistic defection as being outweighed by the long run benefits from continued cooperation (Montgomery, 1998). Therefore inter-functional coordination is a key strategic dimension of procurement (Axelsson et al., 2005) and leads to contract performance.

With most countries undergoing procurement function professionalization, the focus should be put on
functional coordination. Inter-functional coordination increases interaction between functions in the entity which in turn creates bonds that are hard to break, and members feel more obliged to work together (Muhwezi, 2010). Functional units in entities are dependent on each other (Mentzer et al., 2001) and once they share tasks, contract performance will improve.

Inter-functional coordination enables synergy potentials in an entity (Faes et al., 2000). Furthermore, coordination practices enable an entity make right decisions, avoid possible resentment or rejection by the user department because of non-inclusion in the process, and enables timely execution of the contracted works. Hence in order to render these benefits, functions in an entity should coordinate activities therein (Kaufmann and Hedderich, 2004).

For a contract to be fully executed, several challenges including conflict among stakeholders, sufficiency of allocated resources, changes in original terms and conditions are expected. This necessitates all functions in an entity to be concerned and involved (Flint and Mentzer, 2000). This enhances problem solving capabilities and responsiveness to any challenge in the execution of the contract. Inter-functional coordination enables quick exchange of information (Menon et al, 1997), which will minimize obstacles to contract completion. Inter-functional coordination enables entities achieve full potential of contract performance.

Inter-functional coordination is a central element in large number of supply chain management studies (Berlin-Munier, 2008). It ensures that functions unit in the entity work together to realise contract extension (Pinto et al., 1993). Contract management units are diverse functions and therefore require inter-functional coordination to optimize their contribution to contract performance (Mentzer et al., 2004).

Therefore:

\[ H3: \text{Inter-functional coordination is positively related to contract performance.} \]

**Trust and Contract Performance**

Trust between functions and new members of an entity can contribute to the completion of procurement contracts because trust increases efficiency in the entity; functions and suppliers (Dirks and Ferrin, 2001).

Missing from the literature review, however, is a more comprehensive discussion on how trust is related to contract performance. This examines the relationship between trust and contract performance.

Trust facilitates cohesion and collaboration between parties and according to Meyer et al., (1995); it is an important social resource that facilitates cooperation. Also according to the Agency theory, it reduces divergent objectives of portions involved in the contract, thus improving contract performance.

Therefore:

\[ H4: \text{Contract management is positively related to trust.} \]

\[ H5: \text{Trust is positively related to contract performance.} \]

**Methodology**

*Research design, setting and procedure*

This study adopted a descriptive ( Creswell, 1994, Glass and Hopkins, 1984) and analytical research design. The design was used to gather data that describe variables; contract management, inter-functional coordination, trust and contract performance and then describe their relationships. Given that contract performance has not been deeply studied in Uganda and the dire need to get insightful findings upon which more systematic studies will be based, the study sought to appreciate what is actually happening in relation to the variables of study and also to know why the situation is as it is. This is also based on the objectivism and logical positivism philosophy which presents the belief that knowledge of the world exists out there waiting to be discovered (Pratt 1998).

This study was done in Uganda in East Africa. Uganda government initiated public procurement and disposal reforms in 1997 and later enacted the public procurement and disposal Act in 2003, based on the United Nations Commission on International Trade Law (UNCITRAL) model. The model, originally designed in developed countries was adopted for use in Uganda. This model has not fully suited the public procurement practices in Uganda and has not been fully harmonized with international norms. Specifically, the UNCIRAL model law has not adequately addressed issues in procurement contract administration (Ntayi et al., 2013). We base on contextual epistemology (Ferrier, 1808 - 64) to posit that contract management and contract performance procedures in Uganda are context-sensitive. This study therefore was undertaken to find out context specific insights.

The unit of analysis was a works contract. This is because works procurements compared to supplies and consultancy procurements; apart from being complex, have a long process and duration of contract management, which could through inter-functional coordination and trust influence contract performance. We identified a total of 150 completed and documented works contracts in the central government public procuring and disposing entities in Uganda in the financial year 2013/2014. A sample of 108 works contracts was randomly selected from the list of works contracts as guided by Kredjice and Morgan (1970).

For each works contract selected, the unit of inquiry was a contract manager. Where there was no
appointed contract manager, the head of the respective user department was picked, since the Ugandan public procurement law provides for user departments as the responsible units for contract management. Given their roles in the contract management process, the respondents selected had adequate information on the data required for the study.

A self-administered questionnaire was used, with items derived from previous studies but adapted to suit the study. Measurement items were pretested prior to full data collection.

**Philosophical positioning**

We explore knowledge between procuring and disposing entities and works contracts therein. So our unit of analysis is a works contract. We only involve individuals to the extent to which their knowledge of reality becomes paramount (these are units of enquiry in our study). Therefore, based on Brymann and Bell (2003) our view of reality is more independent of social actors than being influenced by them, thus making our ontological positioning on the objectivism paradigm. Being a rules based profession, public procurement practice applies methods of natural sciences. Our survey which ends up in measurement in order to achieve understanding, is more based on the positivistic epistemological paradigm, taking a functionalistic paradigmatic position.

**Measurement of variables**

The study utilized measurement items derived and utilized in previous research studies. Contract management was measured according to OECD (2011) under three dimensions of delivery management, relation management and contract administration. Respondents were asked to respond to the statements which were anchored on a 5 point scale with 1 = strongly disagree and 5 = strongly agree. Seventeen items used were: In this PDE, the contractor’s performance is monitored against the specific targets and levels as laid down in the contract; In this PDE, performance indicators at various stages of contract implementation are put used in monitoring; In this PDE, completed work is monitored; In this PDE, only works which meet the set standard is accepted and paid for; In this PDE, complaints received from users during contract implementation are recorded; In this PDE, contractors responsible for the contracts they are allocated; In this PDE, contractors are kept safely and for appropriate duration; In this PDE, contract management reports are made and in correct format; In this PDE, regular contract management reports are made; In this PDE, there is regular communication between the contractor, contract manager and user department; There are regular review meetings between this PDE and contractors; In this PDE, every contract has an appointed contract manager; In this PDE, the quality of work that require corrective action are identified in time; In this PDE, when deemed so, changes are made to the contract; In this PDE, when deemed so, contract termination is done; In this PDE, payments are made as and when due; In this PDE, payments are based on stipulated documentation in the contract. Measurement scales for the contract management construct, yielded a Cronbach alpha reliability coefficient of 0.858.

Trust was measured according to Swan and Trawick (1987) dimensions of dependability/ reliability, honesty/candidness, competency, partner orientation and friendliness. Respondents were asked to respond to the statements which were anchored on a 5 point scale with 1 = strongly disagree and 5 = strongly agree. Nine items used were: We have confidence in the contractors we deal with; The contractors we deal with always inform us immediately if problems occur in their operations that may have an impact on the contact; The contractors we deal with are very competent; The contractors we deal with are always obliging; The contractors we deal with always provide information we require; The contractors we deal with are always cooperative; The contractors we deal with always keep their promises; We always receive a good response from the contractors we deal with; The contractors we deal with are always polite. Measurement scales for the trust construct, yielded a Cronbach alpha reliability coefficient of 0.833.

Inter functional coordination was measured according to Narver and Slater (1990) and Ntayi et. al., (2013) with 8 items anchored on a 5 point scale with 1 = strongly disagree and 5 = strongly agree. The items are: In this PDE, heads of functional departments regularly meet to discuss contract management issues/ experiences; In this PDE, heads of functional departments regularly visit as a team our contractors; In this PDE, heads of functional departments regularly visit as a team our prequalified contractors; In this PDE, information about contractors is shared amongst user departments; In this PDE, we regularly have inter departmental meetings to discuss ongoing contracts progress; In this PDE, there is a culture of mutual cooperation between user departments; In this PDE, the PDU and functional departments communicate on going contracts information to each other. Measurement scales for the inter functional coordination construct, yielded a Cronbach alpha reliability coefficient of 0.817.

Contract performance was measured according to Ntayi (2011). The 8 items used, anchored on a 5 point scale with 1 = strongly disagree and 5 = strongly agree are: In this PDE, procurement contracts are always completed on or by due date; In this PDE, procurement contracts are always undertaken within contract price of the bidder; In this PDE, procurement contracts adhere to agreed reliability tests; In this PDE, procurement contracts adhere to required standards of consistency; In this PDE, dependent on changing conditions, our procurement contracts can change; In this PDE, the quality of service delivery is high; In this PDE, the procured
contract deliverables meet provisions of the statement of requirements; In this PDE, the procured contract deliverables conform to user department and stakeholder expectations. Measurement scales for the contract performance construct, yielded a Cronbach alpha reliability coefficient of 0.713.

**Results and discussion**

**Descriptive statistics**

The summary of descriptive statistics for contract management, inter-functional coordination, trust and contract performance of works contracts in Ugandan entities is presented in the Table I. Results show that the mean of contract management is 3.61 with standard deviation of items ranging between 0.85 and 1.34, that for trust is 3.66 with standard deviation of items ranging between 0.75 and 0.98, that of inter-functional trust is 3.02 with standard deviation of items ranging between 1.08 and 1.39 while that for contract performance is 3.53 with standard deviation ranging from 0.56 and 1.23. The small values of standard deviation relative to the mean reflect that the scores cluster closely around the average score. This means the calculated means highly represent the observed data (Field, 2009; Saunders et al., 2007).

Comparing the three dimensions of contract management; delivery management, relationship management and contract administration, respondents are more positive to existence of delivery management of works contracts compared to the other two. Under relationship management respondents feel payments are not made as and when they are due. From the descriptive statistics, it is clear that whereas works are monitored to completion and only work that meets the set standard is accepted, payments in respect of such works are not accordingly made as and when due.

Means of items under trust range between 3.41 to 4.02, an indication that respondents were more positive towards existence of trust between the procuring and disposing entities and respective contractors. On the other hand, means of items under the inter-functional coordination range between 2.59 and 3.53, an indication that they are not as positive to the existence of inter-functional coordination in their entities as is the case with trust and contract management variables. The heads of functional departments do not regularly visit the prequalified suppliers, nor do they to the contractors.

Means of items under contract performance range between 2.59 and 3.86. Results show that respondents do not strongly agree that procurement contracts are always completed on or by due date, even when they more positively agree that the procurement contracts adhere to required standards of consistency and conform to user department and stakeholder expectations.

<table>
<thead>
<tr>
<th>Table I: Summarized descriptive statistics</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>In this PDE, the contractor’s performance is monitored against the …………………</td>
<td>64</td>
<td>1</td>
<td>5</td>
<td>3.98</td>
<td>1.05</td>
</tr>
<tr>
<td>In this PDE, performance indicators at various stages of contract implementation …</td>
<td>64</td>
<td>1</td>
<td>5</td>
<td>3.70</td>
<td>0.94</td>
</tr>
<tr>
<td>In this PDE, completed work is monitored</td>
<td>64</td>
<td>2</td>
<td>5</td>
<td>4.05</td>
<td>0.90</td>
</tr>
<tr>
<td>In this PDE, only works which meet the set standard is accepted</td>
<td>64</td>
<td>1</td>
<td>5</td>
<td>4.03</td>
<td>0.96</td>
</tr>
<tr>
<td>In this PDE, complaints received from users during contract implementation are …</td>
<td>64</td>
<td>1</td>
<td>5</td>
<td>3.61</td>
<td>1.08</td>
</tr>
<tr>
<td>In this PDE, contract managers have clear records on the contracts they are</td>
<td>64</td>
<td>1</td>
<td>5</td>
<td>3.47</td>
<td>0.99</td>
</tr>
<tr>
<td>In this PDE, records are kept safely and for appropriate duration</td>
<td>64</td>
<td>1</td>
<td>5</td>
<td>3.81</td>
<td>1.10</td>
</tr>
<tr>
<td>In this PDE, contract management reports are made and in correct format</td>
<td>64</td>
<td>1</td>
<td>5</td>
<td>3.42</td>
<td>1.11</td>
</tr>
<tr>
<td>In this PDE, regular contract management reports are made</td>
<td>64</td>
<td>1</td>
<td>5</td>
<td>3.19</td>
<td>1.13</td>
</tr>
<tr>
<td>In this PDE, there is regular communication between the contractor ……</td>
<td>64</td>
<td>1</td>
<td>5</td>
<td>3.13</td>
<td>1.09</td>
</tr>
<tr>
<td>There are regular review meetings between this PDE and contractors</td>
<td>63</td>
<td>1</td>
<td>5</td>
<td>3.49</td>
<td>1.09</td>
</tr>
<tr>
<td>In this PDE, every contract has an appointed contract manager</td>
<td>63</td>
<td>1</td>
<td>5</td>
<td>3.84</td>
<td>1.31</td>
</tr>
<tr>
<td>In this PDE, problems that require corrective action are identified in time</td>
<td>63</td>
<td>2</td>
<td>5</td>
<td>3.33</td>
<td>1.08</td>
</tr>
<tr>
<td>In this PDE, when deemed so, changes are made to the</td>
<td>63</td>
<td>1</td>
<td>5</td>
<td>3.87</td>
<td>0.85</td>
</tr>
<tr>
<td>In this PDE, when deemed so, contract termination is done</td>
<td>63</td>
<td>1</td>
<td>5</td>
<td>3.49</td>
<td>1.12</td>
</tr>
<tr>
<td>In this PDE, payments are made as and when due</td>
<td>63</td>
<td>1</td>
<td>5</td>
<td>2.94</td>
<td>1.34</td>
</tr>
<tr>
<td>In this PDE, payments are based on stipulated documentation in the contract</td>
<td>63</td>
<td>1</td>
<td>5</td>
<td>4.06</td>
<td>0.98</td>
</tr>
<tr>
<td>We have confidence in the contractors we deal with</td>
<td>64</td>
<td>2</td>
<td>5</td>
<td>4.02</td>
<td>0.75</td>
</tr>
<tr>
<td>The contractors we deal with always inform us immediately if problems occur in</td>
<td>64</td>
<td>2</td>
<td>5</td>
<td>3.52</td>
<td>0.93</td>
</tr>
<tr>
<td>The contractors we deal with are very competent.</td>
<td>64</td>
<td>1</td>
<td>5</td>
<td>3.77</td>
<td>0.90</td>
</tr>
<tr>
<td>The contractors we deal with are always obliging.</td>
<td>63</td>
<td>1</td>
<td>5</td>
<td>3.68</td>
<td>0.86</td>
</tr>
</tbody>
</table>
The contractors we deal with always provide information we require. 64 2 5 3.78 0.79
The contractors we deal with are always cooperative. 64 2 5 3.78 0.86
The contractors we deal with always keep their promises. 63 2 5 3.41 0.98
We always receive a good response from the contractors we deal with. 64 2 5 3.55 0.94
The contractors we deal with are always polite. 64 1 5 3.47 0.96
In this PDE, heads of functional departments regularly meet to discuss contract 64 1 5 2.80 1.26
In this PDE, heads of functional departments regularly visit as a team our contract 64 1 5 2.77 1.39
In this PDE, heads of functional departments regularly visit as a team … 64 1 5 2.66 1.24
In this PDE, information about contractors is shared amongst user departments 64 1 5 2.97 1.25
In this PDE, we regularly have inter-departmental meetings to discuss ongoing .. 64 1 5 3.20 1.21
In this PDE, there is a culture of mutual cooperation between user departments 64 1 5 3.53 1.08
In this PDE, the PDU and functional departments communicate on going contracts 64 1 5 3.19 1.13
In this PDE, procurement contracts are always completed on or by due date 64 1 5 2.59 1.23
In this PDE, procurement contracts are always undertaken within contract price .. 64 1 5 3.56 1.10
In this PDE, procurement contracts adhere to agreed reliability tests 63 1 5 3.65 0.83
In this PDE, procurement contracts adhere to required standards of consistency 64 1 5 3.86 0.66
In this PDE, depending on changing conditions, our procurement contracts .. 63 1 5 3.51 1.03
In this PDE, the quality of service delivery is high 64 1 5 3.45 0.94
In this PDE, the procured contract deliverables meet provisions of the statement of 64 2 5 3.77 0.77
In this PDE, the procured contract deliverables conform to user department and .. 64 2 5 3.86 0.56

**Correlation analysis**
We tested for correlation using the Pearson’s correlation coefficient method. We used this method since our data were mainly interval data and normally distributed (Field, 2009). Note that from literature review we got sufficient evidence regarding the direction of our hypotheses. Thus we used one-tailed tests in our analysis.

Table II below demonstrates significant positive relationships between contract managements and trust ($r=.362^{**}, p<0.01$), contract management and inter-functional coordination ($r=.661^{**}, p<0.01$), contract management and contract performance ($r=.539^{**}, p<0.01$), inter-functional coordination and trust ($r=.278^{*}, p<0.05$), trust and contract performance ($r=.501^{**}, p<0.01$), and inter-functional coordination and contract performance ($r=.424^{**}, p<0.01$), hence supporting H1-H5. Thus all the hypotheses were supported.

Based on Cohen (1992) and Tabachnick and Fidell (2001), correlations for contract management and inter-functional coordination, contract management and contract performance, trust and contract performance are moderate while correlations for inter-functional coordination and trust, and inter-functional coordination and contract performance are weak.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
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<tbody>
<tr>
<td>Contract management(1)</td>
<td>1</td>
<td>.362^{**}</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Trust(2)</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inter-functional Coordination(3)</td>
<td>.661^{**}</td>
<td>.278^{*}</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Contract performance(4)</td>
<td>.539^{**}</td>
<td>.501^{**}</td>
<td>.424^{**}</td>
<td>1</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed). * . Correlation is significant at the 0.05 level (2-tailed).**

**Table II: Correlation matrix**

**Regression analysis results**
All correlations are between 0.278 and 0.661. None of the correlations among our independent variables is close to 0.80, the threshold which according to Field (2009) suggests existence of multicollinearity. So we rule out the
probability that a good predictor of the outcome could have been found non-significant and rejected from the model, limiting the size of \( R \) (a measure of the multiple correlation between the predictors and the outcome), making it difficult to access the individual importance of a predictor, and increasing the variances of the regression coefficients, resulting in unstable predictor equations (Hair et al., 2010). Despite this, since a certain degree of multicollinearity can still exist (Myers, 1990), we examine the variance inflation factors to further test for multicollinearity. Based on Myers (1990) cut off rule of a VIF value of 10 at which to worry, we conclude that there is no multicollinearity in our data since all VIF figures are below 3. We also used the tolerance statistic. Based on Menard (1995) cut of rule of existence of multicollinearity with figures below .2, we still do not find multicollinearity since all our values are .361 and above.

Consistent with correlations, results show the variation explained by the predictor variables (contract management, trust, and inter-functional coordination) in the dependent variable (contract performance). All these antecedents explain .403% of the observed variance in contract performance (\( R^2 = .403 \)). Surprisingly, Inter-functional coordination was not found to be a significant predictor of contract performance.

### Table III: Regression analysis-Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>9.398</td>
<td>3.102</td>
<td>3.029</td>
<td>.004</td>
</tr>
<tr>
<td>Contract management</td>
<td>.146</td>
<td>.058</td>
<td>.348</td>
<td>2.518</td>
</tr>
<tr>
<td>Trust</td>
<td>.256</td>
<td>.079</td>
<td>.348</td>
<td>3.218</td>
</tr>
<tr>
<td>Inter functional coordination</td>
<td>.069</td>
<td>.095</td>
<td>.097</td>
<td>.726</td>
</tr>
</tbody>
</table>

Dependent Variable: Contract performance

\[ R^2 = .403 \]

From the results a 40.3% variability in contract performance is brought about by the variables in the study; contract management, trust and inter-functional coordination. Of these variables, trust (\( \beta = 0.256 \)) relatively contributes more to this variability than contract management and interfunctional coordination. This makes sense because public procurement being a rules based profession, inter-functional coordination does not contribute much to operations already decided on, much as it may be crucial in the initial phases of making procurement plans and strategies. This is contrary to the finding by Ntayi et al., (2013) which suggests that in order to achieve contract performance, all activities of the public procuring entities must be aligned to the procurement strategy and coordinated as a unified whole. We argue that Ugandan procurement practice capacity has increasingly advanced and become professionalized in a way that based on the legal provisions, individual functions tend to work independently, thus minimizing the need for synergistic interaction. This finding reflects the fact that even if it is important for functional units in an entity to jointly execute tasks like visiting contractors, visiting prequalified supplies to access their suitability, sharing information between contractors and market, discuss ongoing contract progress, the Ugandan public procurement practice and the law create an atmosphere of individualism. Based on individualistic epistemology, that in principle, an individual can know everything that can be known by a community (Hartl and Margitay, 2012)

### Summary and conclusion

The objective of this research was to investigate the effect of contract management, inter functional coordination, trust on works contract performance in Ugandan public procuring and disposing entities. This was realized through a questionnaire survey of 108 works contracts randomly selected from the central government public procuring and disposing entities. Of these, 64 responses representing 64 works contracts were usable for analysis. Contract performance was measured using eight statements on a 5 point Likert scale. The results show that at 0.05 level, contract management, inter-functional coordination and trust are significantly associated with contract performance.

These results have implications for academicians as well as public procurement practitioners and regulators. For academicians, it is insightful to interpret the individual dimensions of contract management and note that delivery management is relatively more important than the other dimensions in contract performance. Our results also seem to suggest that under rules oriented conditions in public procurement, inter-functional coordination does not contribute a lot to performance, since inter-functional coordination in its true sense, makes sharing of information open, which is not be fully supported by the public procurement laws and regulations. In public procurement, contracting has historically been viewed as a linear occupation. After contract award, the contract is usually monopolized by one office and sometimes one officer. All processes of negotiation,
correspondence, monitoring, contract adjustment, measurement of contract performance, are governed by the assigned office or officer. This is as per Phillips (2007) that the natural tendency for contract managers, and perhaps others, is to address a task, project, or program alone. Not utilizing functional units in a procuring and disposing entity for example the information and communications technology function makes a procuring and disposing entity forfeit speed, innovation, and variety in contract management (Harris, 2008).

This orientation is important in clarifying more on the existing debate that seems to depict that private procurement and public procurement are fundamentally similar (Thai, 2001; Murray, 2001; Telgen et al., 2007). Contrary to the view by Harris (2008) that, individualism in public procurement operations is ineffective and disengaging, we note that in a rules based public procurement system, the role of inter-functional coordination in enhancing contract performance is relatively low. Therefore academicians, should have a more deep understanding of inter-functional coordination in private and public procurement systems. However, given the preconceptions as a result of standards and customs of the Ugandan and African culture, academicians should use the ethnocentrism philosophy and individualistic epistemological platforms to further understand this interesting insight. This study, unlike many other studies related to general public procuring and disposing entities in developing countries which consider organizational performance, considers performance of an individual contract. Conceptually, understanding performance based on the whole organization, involves analysis of all procurement processes, right from budgeting and procurement planning to contract closure. This involves many processes that cannot be validly attributed to the public procurement function. By concentrating on contract performance, one can isolate the individual contract aspects and derive the organizational interventions thereafter.

The public procurement practitioners and regulators have key lessons to get from the study. Under the Ugandan setting, the regulations require that payments to certified completed works be made in reasonable time. The study shows that this remains a big problem, as payments are not always made as and when due (mean = 2.94; SD = 1.34). Under contract management we note that whereas delivery management and contract administration are moderately handled, relationship management requires more attention. Teamwork between individual functions in the public procuring and disposing entities was also found wanting and should be built. Policy makers and regulators like the Public Procurement and Disposal of Public Assets Authority (PPDA) should take interest in adjusting the laws and regulations to allow reasonable interaction between functions in the procuring and disposing entities and contractors.

There are limitations to this study. First, the study was limited to only central government procuring and disposing entities, leaving out local government procuring and disposing entities, which may be having unique circumstances especially those that relate to capacity. Besides, the study only considered works contracts, which have an inherent problem of being complex and long in nature, posing challenges to contracting. Second, whereas we considered staff in entities as our units of enquiry, we believe the contractors themselves could have been more objectives in assessment of some of the issues under the study. However, our choice of units of enquiry is justified based on the objectivism epistemological paradigm; that knowledge exists independent of the learners’ interest in it, or awareness of it...basic theories, principles, and rules which govern our lives and world exist quite separately from our experience of them; knowledge about the world exists ‘out there’ waiting to be discovered (Pratt 1998).

References


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