Determinants of Effective Procurement Contract Administration in Selected Public Universities in Kenya

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Abstract: Procurement represents one of the most critical functions in public institutions that ensure efficiency in utilization of public resources as well as efficiency in service delivery. The procurement process involves going into contract with the supplier and subsequently fulfillment of the contract. The administration of procurement contracts is the sole responsibility of the procurement department. However, in the recent past, public institutions in Kenya have lost billions of tax payer's money through annulled contracts, uncompleted projects, unsupplied goods and services not provided, collusion in the tender evaluation and award, inadequate training of the procurement staff especially on the technical fields, corruptions and extended contract periods. The mismanagement of procurement contracts continues to be reported despite the enactment of the Public Procurement laws and oversight bodies in place in Public Universities in Kenya. These points out to weaknesses at the contract administration stage therefore prompting this study to assess the determinants of effective procurement contract administration in Public Universities. The study specifically focused on the use of information communication technology. The study was conducted among few selected Public Universities in Kenya. The study adopted the descriptive survey research design where the procurement staff of public universities was used to provide information on the influence of staff related factors and efficiency of contract administration. The study target population comprised of 141 procurement staff who included senior procurement officers, procurement officers, procurement assistants and clerks. A sample of 39 was selected using stratified random sampling technique to provide information. Questionnaires were then used to obtain data from the respondents. Data analysis was performed using both descriptive and inferential statistics. Descriptive statistics included frequency counts, percentages, mean, and standard deviation which were used to summarize the findings. Multiple regression analysis was then used to determine the relationship between variables. The study concluded that use of information communication technology has a statistically significant influence on contract administration in public universities in Kenya. Additionally, the study concluded that a unit increase in the use of information communication technology results in an increase in procurement contract administration.

Key Words: Contract Administration, Information Communication Technology, Procurement Contract

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I. Introduction

A contract is a written or oral legally-binding agreement between the parties identified in the agreement to fulfill the terms and conditions outlined in the agreement. A prerequisite requirement for the enforcement of a contract, amongst other things, is the condition that the parties to the contract accept the terms of the claimed contract. Historically, this was most commonly achieved through signature or performance, but in many jurisdictions especially with the advance of electronic commerce - the forms of acceptance have expanded to include various forms of electronic signature. Contracts can be of many types, e.g. sales contracts (including leases), purchasing contracts, partnership agreements, trade agreements, and intellectual property agreements (Arrowsmith, 2004).

Contract management involves the activities of a buyer during a contract period to ensure that all parties to the contract fulfill their contractual obligation (Bailey, 2008). Contract life cycle management is the process of systematically and efficiently managing the contract creation, execution and analysis of maximizing operational and financial performance and minimizing risks (Elsey, 2007). A procurement contract is the agreement between a company (the buyer) and a supplier who is intending to sell products and/or services within agreed terms and conditions. The company (buyer) in return is obligated to acknowledge the goods / or service and pay for liability created (Atkinson, 2003).
The Office of Government Commerce (OGC, 2002) defines contract management as the process that enables both parties to a contract to meet their obligations in order to deliver the objectives required from the contract. It also involves building a good working relationship between customer and provider. It continues throughout the life of a contract and involves managing proactively to anticipate future needs as well as reacting to situations that arise. The central aim of contract management is to obtain the services as agreed in the contract and achieve value for money. This means optimizing the efficiency, effectiveness and economy of the service or relationship described by the contract, balancing costs against risks and actively managing the customer–provider relationship. Contract management may also involve aiming for continuous improvement in performance over the life of the contract.

The OGC (2002) identifies that for a good contract management an organization must ensure good preparation, the right contract and single business focus where each party needs to understand the objectives and business of the other. Contract administration to ensure that the customer gets what is agreed, to the level of quality required. Further, relationship management to ensure mutual trust and understanding, openness, and excellent communications are critical. Continuous improvements in price, quality or service should be sought and, where possible, built into the contract terms. There must be people with the right interpersonal and management skills to manage these relationships on a peer-to-peer basis and at multiple levels in the organization. Clear roles and responsibilities should be defined, and continuity of key staff should be ensured as far as possible. Those involved in managing the contract must understand the business fully and know the contract documentation inside out. Management of contracts usually requires some flexibility on both sides and a willingness to adapt the terms of the contract. Contracts should be capable of change. Good contract management is not reactive, but aims to anticipate and respond to business needs of the future.

The rapid uncontrolled expansion of Public Universities in Kenya has led to various challenges. According to Sifuna (2013), unlike in other contexts, such as the corporate sector, governance in higher education has been quite diffuse and entails shared responsibilities among a variety of stakeholders. Sifuna further asserts that biggest challenge in governance within the University sector relates to issues of power and responsibilities as dealt with by councils, the University leadership, senior administrators, academics, staff, students, policy makers and other external stakeholders.

Audit reports for the financial year 2013/2014 by the Office of the Auditor General in 12 out of the 22 Public Universities revealed challenges in the procurement management in the Universities. The audit reports show serious mistakes in procurement laws and procedures. Some of the procurement challenges identified in Technical University of Mombasa, Technical University of Kenya and in the Multimedia University, audit reports revealed gross violation of procurement rules and regulations where goods were procured from suppliers who were not prequalified, payment for goods not received, and procurement of consultancy services not in line with the procurement rules and consequently value for money was compromised (RoK, 2015a). A similar situation was also observed in Chuka University (RoK, 2015b). In Meru University no bids were invited for the professional services (RoK, 2015c).

II. Literature Review

Theoretical Review

The theoretical review examines the theory relevant to this study.

Dynamic Capabilities Theory

The dynamic capabilities refer to the firm’s ability to build, incorporate, and reconfigure internal and external competencies to address rapidly changing environments (Seleim, 2007). Dynamic capability enables business enterprises enhance their points of differentiation by identifying organizational or individual capabilities thus allowing the business enterprise to build and maintain value (Sifuna, 2013). Capabilities are the firm’s capacity to deploy resources that have been properly integrated to achieve a desired goal. There are two components which form the basis of dynamic capability which are the ability of the firm to uniquely deliver value and the flexibility and adaptive nature of the firm to change depending on the circumstances (Seleim, 2007). In this context, the dynamic capabilities are the antecedent strategic and organizational routines that enable a shake-up of the resource base where resources are acquired or shed, integrated, and combined to generate new value creating strategies. The dynamic capability approach seeks to understand how firms develop, refresh and renew important capabilities.

Objective of the Study

To examine how the use of information communication technology affects procurement contract administration in Public Universities in Kenya.

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Research Hypothesis

H_0: Use of information communication technology has no statistically significant influence on effective contract administration in Public Universities in Kenya.

H_1: Use of information communication technology has a statistically significant influence on effective contract administration in Public Universities in Kenya.

III. Methodology

The study adopted the descriptive research design. The study was conducted in few selected Public University in Kenya including Egerton University, Laikipia University, Kenyatta University, and the University of Nairobi. The study target population was comprised of all the staff in procurement departments directly involved in procurement. This category of staff was chosen because of the nature of their duties in managing day to day procurement matters of the University. They are responsible for implementing University policies on procurement and interact with the systems on daily basis. There is an approximate 141 procurement staff in the selected Public universities. This study employed Nassiuma’s (2002) formula to calculate the size of the sample. The formula states that:  

\[ n = (Nc_2)^2 / (c^2 + (N-1)e^2) \]

Where:

- \( n \) = Sample size
- \( N \) = Population
- \( c \) = Coefficient of variation (take 0.5)
- \( e \) = Tolerance at desired level of confidence, take 0.05 at 95% confidence level

Upon substitution, the sample size would be as follows:

\[ n = (141*0.5^2) / (0.5^2 + (141-1)*0.05^2) \]

59 respondents

Therefore a sample size of 59 respondents was used for the study. Therefore, 59 questionnaires were distributed to the respondents and 51 questionnaires were found to be complete, which formed the basis of the data analysis in this study. In this context, the response rate for this study was 86.4% which was deemed sufficient for data analysis. According to Creswell (2013), a minimum response rate of 80.0% is recommended for data analysis.

IV. Findings And Discussions

Descriptive Statistics for Use of ICT

Table 1: Descriptive Statistics for Use of ICT

<table>
<thead>
<tr>
<th></th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>The university has embraced use of information communication technology in procurement</td>
<td>31.4%</td>
<td>60.8%</td>
<td>7.8%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>4.24</td>
<td>0.59</td>
</tr>
<tr>
<td>We maintain a database of suppliers through our ICT system</td>
<td>25.5%</td>
<td>51.0%</td>
<td>13.7%</td>
<td>5.9%</td>
<td>3.9%</td>
<td>3.88</td>
<td>0.99</td>
</tr>
<tr>
<td>We perform online procurement</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>35.3%</td>
<td>64.7%</td>
<td>1.35</td>
<td>0.48</td>
</tr>
<tr>
<td>We have been using the government prescribed IFMIS in our procurement functions</td>
<td>0.0%</td>
<td>9.8%</td>
<td>19.6%</td>
<td>29.4%</td>
<td>41.2%</td>
<td>1.98</td>
<td>1.01</td>
</tr>
<tr>
<td>The procurement department has enough ICT equipment for performing its functions</td>
<td>0.0%</td>
<td>15.7%</td>
<td>31.4%</td>
<td>35.3%</td>
<td>17.6%</td>
<td>2.45</td>
<td>0.97</td>
</tr>
<tr>
<td>We do appraisal of our suppliers online</td>
<td>27.5%</td>
<td>49.0%</td>
<td>11.8%</td>
<td>9.8%</td>
<td>2.0%</td>
<td>3.90</td>
<td>0.98</td>
</tr>
<tr>
<td>Our inventory management records are computerized</td>
<td>39.2%</td>
<td>37.3%</td>
<td>23.5%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>4.16</td>
<td>0.78</td>
</tr>
<tr>
<td>We collect information and monitor supply contracts using computers</td>
<td>56.9%</td>
<td>29.4%</td>
<td>13.7%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>4.43</td>
<td>0.73</td>
</tr>
</tbody>
</table>

More than half of the respondents (60.8%) tended to agree that the university has embraced use of information communication technology in procurement. Additionally, 31.4% of the respondents tended to strongly agreed that the university has embraced use of information communication technology in procurement. On the other hand, none of the respondents (0.0%) chose “disagree” or “strongly disagree” when asked whether the university has embraced use of information communication technology in procurement.

When asked whether a database of suppliers is maintained through their ICT system, slightly more than half of the respondents (51.0%) tended to agree that it was maintained. Additionally, 25.5% of the respondents tended to strongly agree that a database of suppliers is maintained through their ICT system. While no respondents (0.0%) tended to strongly agree, agree or be neutral when asked whether they perform online procurement, 35.4% of the respondents tended to disagree and 64.7% of the respondents tended to strongly disagree that they perform online procurement.

Most of the respondents (41.2%) tended to strongly disagree that they have been using the government prescribed IFMIS in their procurement functions supported by 29.4% of the respondents who tended to disagree with the statement. There was also no respondent (0.0%) who chose “strongly agree” and only 9.8% of the
respondents chose “agree”. A majority of respondents (35.3%) tended to disagree that the procurement department has enough ICT equipment for performing its functions. There were 31.4% of respondents who neither agreed nor disagreed that the procurement department has enough ICT equipment for performing its functions.

Almost half of the respondents (49.0%) tended to agree that they do appraisal of their suppliers online while 27.5% of the respondents tended to strongly agree with the statement. Most of the respondents tended to strongly agree (39.2%), 37.3% of the respondents tended to agree, and 23.5% tended to disagree that their inventory management records are computerized. No respondents used the “disagree” or “strongly disagree” responses in regards to the whether their inventory management records are computerized. More than half of the respondents were in strong agreement that they collect information and monitor supply contracts using computers. Additionally, 29.4% of the respondents tended to agree, and 13.7% were neutral (neither agree nor disagree) that they collect information and monitor supply contracts using computers. There were no respondents (0.0%) who tended to either disagree or strongly disagree that they collect information and monitor supply contracts using computers.

There was moderate consensus and on average respondents tended to agree that the university has embraced use of information communication technology in procurement (mean=4.24; std. dev=0.59), that they do appraisal of their suppliers online (mean=3.90; std. dev=0.98), and that they maintain a database of suppliers through their ICT system (mean=3.88; std. dev=0.99). Additionally, there was moderate consensus amongst respondents and on average respondents tended to agree that they collect information and monitor supply contracts (mean=4.43; std. dev=0.73) and that their inventory management records are computerized (mean=4.16; std. dev=0.78).

On the other hand, there was high consensus amongst respondents and on average they tended to disagree that they perform online procurement (mean=1.35; std. dev=0.48). There was no consensus amongst respondents and respondents on average tended to disagree that they have been using the government prescribed IFMIS in their procurement functions (mean=1.98; std. dev=1.01). There was moderate consensus amongst respondents and on average respondents tended to disagree that the procurement department has enough ICT equipments for performing its functions (mean=2.45; std. dev=0.97).

**Simple Linear Regression for Use of ICT**

The study sought to know the relationship between the use of ICT (independent variable) and procurement contract administration (dependent variable). In this context, procurement contract administration was regressed against use of ICT and the correlation results presented in Table 2.

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.822</td>
<td>0.675</td>
<td>0.669</td>
<td>0.54603</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Use of ICT

There was positive correlation between the procurement contract administration and the use of ICT as the correlation coefficient was 0.822. The coefficient of determination gave a value of 0.675 which implies that 67.5% of the variance in procurement contract administration was as a result of the use of ICT in Public Universities in Kenya.

The ANOVA was used to determine whether the simple linear regression with procurement contract administration as the dependent variable and the use of ICT in Public Universities in Kenya as the independent variable was reliable. In this context, the p-value was used to determine this with the minimum requirement for reliability of the model being a p-value less than 0.05 (p<0.05). The results are presented in Table 3.

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>30.371</td>
<td>1</td>
<td>30.371</td>
<td>101.865</td>
</tr>
<tr>
<td>1</td>
<td>Residual</td>
<td>14.609</td>
<td>49</td>
<td>.298</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Total</td>
<td>44.980</td>
<td>50</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Procurement Contract Management
b. Predictors: (Constant), Use of ICT

This simple linear regression with procurement contract administration (dependent variable) and use of ICT (independent variable) gave a p-value of 0.000. This p-value was less than 0.05 (p<0.05) thus the model was deemed reliable.

The simple linear regression analysis also helped to understand how much change would occur in procurement contract administration when there was change in use of ICT. The regression coefficient ($\beta$) was...
used to determine the expected increase (or decrease) in procurement contract administration when there is a unit increase in use of ICT, as in Table 4.

<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></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>.363</td>
<td>.367</td>
<td>.989</td>
</tr>
<tr>
<td></td>
<td>Use of ICT</td>
<td>.923</td>
<td>.091</td>
<td>.822</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Procurement Contract Management
The regression coefficient was 0.453 and resulted in the following regression model;

Procurement Contract Administration = 0.363 + 0.923 (Use of ICT)

This therefore implies that for every unit increase in use of ICT on its own, the performance procurement contract administration in Public Universities in Kenya increases by 0.923 (β=0.923). This implies that use of ICT has a positive influence on procurement contract administration.

V. Conclusion
The use of information communication technology has a statistically significant influence on procurement contract administration in Public Universities in Kenya. The study also concluded that a unit increase in the use of information communication technology results in an increase in procurement contract administration.

VI. Recommendation
More emphasis should be put on collection of information and monitoring supply contracts using computers for ease of access to information and for transparency purposes.

References