EFFECTS OF TENDERING PROCESS ON SERVICES DELIVERY IN ROAD CONSTRUCTION SECTOR. A CASE OF KERRA

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ABSTRACT
The aim of this study was to establish the effects of tendering process on services delivery in road construction sector in Kenya. The target population of the study was 196 employees of KERRA The sample frame included the employees defined by their departments. Data collection instrument used was the questionnaires. The pilot test was conducted to ensure the validity and reliability of the instruments. The findings were analysed using Statistical Package for Social Sciences (SPSS Version 21) and presented using windows 8 Microsoft office (version 2014). It was notable that there exists strong positive relationship between the independent variables and dependent variable. Procurement planning is usually the first stage of procurement process and therefore organization need to develop the skills of the employees on developing quality procurement plans based on the approved budgets. The study recommended that the organization need to identify the most appropriate procurement methods to enhance service delivery. There was need to have an open tendering to increase the needed experience and qualified tenderers, lead to fairness and transparency in the tendering process. The study recommended that there was need for organization to create and maintain a good relationship with the contractors. There should be a mutual trust between the contractor and organization. There was need to enhance regular communication with the contractor and timely management of possible problems in the contract. The study recommended that the organization control and manage contract changes efficiently by ensuring that the contractors are paid in time. There should be regular communication between the organization and contractor. The organization should ensure that the contract terms were well adhered to and final reports always well maintained.

Key Words: Procurement Planning, Tendering Method, Supplier Selection, Contract Management, Road Construction
INTRODUCTION
The extent that procurement of goods and services is of benefit to a public organization, and the public at large depends on how effective and efficient the tendering process is (Snider & Rendon, 2012). Public tendering process entails all phases used in acquisition of works, property and services, that involve the use of money belonging to the public to accomplish certain public goal. The process commences with need identification and concludes with the completion of contract. The evaluation of needs is carried out, products, scope of works, or services identified, delivery means and procedure for entering into a contract determined, the buying entity and supplier enter into a contract arrangement and services, goods or works are performed (Bolton, 2008). Tendering process is the sequential phases in the cycle of procurement, which include the procurement plan, procedures choice, soliciting of tenderers, examining and evaluating offers, awarding of contract as well as contract management. In other words, the tendering process begins from need identification, through suppliers selection, to awarding of contract and contract management, including disposal (Lindsley & Stephenson, 2008).

Public tendering process follows a stipulated legal framework during execution while advancing goals of the government (Gordon, 2009). The public entities carrying out the tender may have internal aims such as efficiency, cost and on time delivery of goods or services. In the same token, the public organizations have to attend to the objectives and goals of the public in general who may happen to have conflicting demands (Knight, Harland & Telgen, 2012). This complicates the tendering process and more so the tendering entities who have to attain the expected objectives. In the long run, many tendering entities suffer massive losses because of poor management of the tendering processes. The tendering process is mainly comprised of the tender plan, tendering itself as well as contract management (Shirima, 2009).

The processes of tendering especially tender planning impacts on duration it takes for the execution of works, goods or services to be delivered, the quality and also cost of the works, services or goods acquired, (Basheka, 2008). The management of contract stage aids government entities in getting the right quality of goods or services, within a specific time and budget. It is vital to take note of the tendering processes, among them planning, supplier selection, tendering method, as well as contract management, and it requires a holistic approach. These processes have a central role in the tendering process particularly in managing the contract smoothly and ultimate delivery of expected outputs. Consequently, so as to have a thorough tendering system, efficient tendering processes are of extreme importance to the tendering organization (Mahmood, 2010).

According to Liu, Wang and Wilkinson (2016), efficient and effective tendering processes results in positive social impacts such as enhanced expectation of realizing other government objectives, more access to government contracts by citizens, better reputation for government institutions, and quality social services including stable and reliable electricity, better roads, clean water, airports, schools, hospitals (Raymond, 2008). Poor public tendering processes translates to higher cost to the government and the citizens, delays in execution of projects or deliverables which ends up in escalation of cost, poorly executed project and delaying the delivery of benefits to the beneficiaries. They further result in poor proficiency of job contracts, delivering of poor-quality goods, delaying of benefits to the beneficiaries and nurtures elements of corruption in the tendering process (Tweneboah & Ndebugri, 2017).

Service delivery is a function that is very fundamental in the relationship between citizens and government of the day (Wagana, Iravo, Nzulwa & Kiboro, 2016). Government performance is measured through
service delivery to its people (Shimengah, 2018). Abe and Oluwaley (2014) contends that the people expects to better service delivery from the government. They offered that improved health care at affordable rates, low inflation, provision of good urban roads and good road networks to the rural areas for the transport of agricultural products and raw materials, better education, provision of clean water, are the indices that can be used to measure service delivery to the people. Scholars around the globe contend that service delivery is an indicator of the health of a society, which strengthens the social contact between the state and its citizens. Public service delivery is also a key determinant of quality of life and an important element of poverty reduction strategy (Akinboade, Mokwena, & Kinfack, 2013).

Statement of the Problem
The service delivery in government has continued to draw attention from the internal and external environment. Weakness in delivering public services can be put down to governance failure in developing countries, but it can be equally the case in the context of developed countries (Kemoni & Ngulube, 2008). It is a matter of how, in a given socioeconomic context, a particular country chooses to have its public services designed, developed and delivered. Various factors affecting service delivery include factors such as workforce remuneration, promotional procedures, training, and organizational culture among other factors (Pathak, Naz, Singh & Smith, 2010). However, it is important to note that service delivery in government institutions is highly dependent on efficient and effective tendering processes. Despite the existence of procurement departments and tendering committees in public institutions, the service deliveries they offer are still questionable. Kulshrestha (2013) notes that there is lack of transparency, efficiency, and unreliable delivery of services that mainly originates from poor tendering processes.

Efficient tendering system is a main prerequisite of managing public expenditure in a contemporary budgetary system. Effective tendering policies and practices can reduce public expenditure; yield timely outputs, stimulate private sector development; as well as reduce delays, waste, corruption and inefficiencies in government (Djurovic-Todorovic & Djordjevic, 2009). Conversely, using public funds inefficiently emanates from issues across the whole process of tendering, from needs identification, bidding documents creation, to a tender process that lacks competition and transparency especially during bidding, evaluation of bids, contract awarding, as well as poor contract supervision. Despite the efforts made to streamlining the public tendering processes in Kenya, tendering processes are still inefficient and usually lack proper accountability. Shirima (2009) is of the opinion that, tendering processes are key among the things that impede attainment of value for money in public sector procurement.

In Kenya, ninety three percent (93%) of all freight and passenger traffic is carried by road. The road network is extensive, consisting of approximately 161,451.4 kilometers (out of which 10% is paved, while the rest of the network is either gravel or earth roads). It is estimated that about 30% of the paved roads are in good condition while only about 20% of the unpaved roads is in maintainable condition. Hence a large portion of the network is in either poor or failed condition and requires urgent rehabilitation to restore it to a maintainable condition. According to the latest data from the Road Inventory and Condition Survey (RICS), the condition of paved roads is – 19% good, 22% fair and 59% poor; while condition of unpaved roads is - 12% good, 22% fair and 66% failed (KRB Annual Report, 2016). According to Annual Public Roads Programme for the Financial Year 2017/2018, road maintenance levy fund collected was 63.5 Billion Kenya Shillings from which 11.4 Billion Kenya Shillings (32%) was allocated to KeRRA. Comparatively, this was huge allocation and...
yet very little had been achieved in terms of road development, rehabilitation, maintenance and management of rural roads in the country which fell under KeRRA. It was from this point of view that this study sought to find if tendering process had any effects on services delivery particularly in road construction sector. Besides, there was not a single study that had been carried out in this area and especially using a case of KeRRA. Therefore, this study sought to fill this gap.

**Objectives of the Study**

The aim of this study was to establish the effects of tendering process on services delivery in road construction sector in Kenya. The specific objectives were:-

- To determine the influence of Procurement Planning on services delivery in road construction sector in Kenya
- To find out the influence of Tendering Method on services delivery in road construction sector in Kenya
- To assess the influence that supplier selection has on services delivery in road construction sector in Kenya
- To establish the influence of contract management on services delivery in road construction sector in Kenya

**LITERATURE REVIEW**

**Theoretical Review**

**Principal-Agent Theory**

The Principal-Agent theory (also known as Agency Theory) was proposed by Jensen and Meckling in 1976 and is one of the main theoretical foundations for describing and analysing public governance. The theory brings out the relationship between a ‘principal’ who has objectives that are specific and ‘an agent’ who is mandated with the implementation of activities geared towards achieving those objectives. Principal-agent theory is dependent on flow of information between the principal and the agent as well as power positions. The issue arises with management of agent’s interests by the principal so that the agent’s interests are matched with the principal’s goals (Leruth & Paul, 2008).

The theory directs that two fundamental tasks have first to be dealt with by the principal so as to choose and control their agents. The first task entails the selection of the best agents as well as creating incentives in order to get the desired results from them. The second task demands that the principal monitors if their agent’s performance is as agreed (Gailmard, 2012). A problem may arise when the principal and the agent have conflicting goals or when verification of what the agent is actually doing is expensive or difficult for the principal. In this case asymmetric information introduces a moral hazard problem and an issue of adverse selection (Ballwieser, Bamberg, Beckmann, Bester, Blickle, Ewert & Gaynor, 2012). The problem of agency is predominantly prominent on the public service delivery demand-side, that originates from the fact that people involved such like politicians, citizens and contractors or suppliers have interests that are divergent in nature (Kamara, Ofori-Owusu & Sesay, 2012).

**New Public Management Theory**

The new public management theory developed by Hood in 1991 contends that to restructure the public sector in a more effective and cost-efficient way then it has to be opened up to a greater influence from private sector. Hughes (2012) asserts that new public management reform agendas focused on improving service quality in the public sector, public expenditure saving, making government operations more efficient as well as increasing the effectiveness of implementing policies. The opinion that monopolistic and large public organizations are fundamentally inept had a serious impact on the new public
management theory emergence (Diefenbach, 2009). New Public Management theory embodies a set of values, ideas and practices that aim to emulate practices in the private sector in the public sector (Groot & Budding, 2008).

**Conceptual Framework**

<table>
<thead>
<tr>
<th>Procurement Planning:</th>
<th>Tendering Method:</th>
<th>Supplier Selection:</th>
<th>Contract Management:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Needs assessment</td>
<td>Direct tendering</td>
<td>Supplier finances</td>
<td>Change management</td>
</tr>
<tr>
<td>Budget</td>
<td>National tendering</td>
<td>Lead times</td>
<td>Relationship management</td>
</tr>
<tr>
<td>Time Schedule</td>
<td>International tendering</td>
<td>Quality management</td>
<td>Dispute resolution</td>
</tr>
</tbody>
</table>

Service Delivery in Road Construction:
- Reduction of costs
- Number of completed road projects
- Quality of roads

**Independent Variables**

**Dependent Variable**

**Figure 1: Conceptual Framework**

Source: Researcher (2018)

**Empirical Review**

**Procurement Planning**

Planning consist of steps with an end result that is not concerned with decisions of ‘today’ but ‘today’s’ impact of decisions that were made ‘yesterday’ (Basheka, 2009). In addition, procurement planning involves finding out the business requirements that are best met by procuring services, works or goods. This process is concerned with; what to procure, how, where, how much, and when to procure (Snider & Rendon, 2012). Khan and Kumar (2012) noted that procurement plan illustrates the products being acquired, as well as when and how they are going to be acquired from suppliers. This process needs to be supported by other departments through appropriate and timely submission of their procurement needs to the procurement department. In addition, procuring entities need to carry out regular market research on prices of different procurement supplies in order to establish representative cost estimate/budget.

A procurement plan must be prepared as required under public procurement act of 2015 for all public procuring entities so as to avoid emergency procurements and to use suitable procurement method wherever possible. Further, Arney, Yadav, Miller and Wilkerson (2014) notes that procurement plan makes possible aggregation of its requirements wherever possible, both in the procuring entities as well as between procuring entities so as to gain value for money and lessen cost of procurement while drawing on contract framework wherever necessary to provide cost effectiveness, efficiency and a flexible approach to procurement of services, works and supplies which are continuously needed in a given period.

**Tendering method**

Appropriate procurement method selection is fundamental for the buyer and supplier as it helps in the general satisfaction of the buyer and success of the project (Ramanathan & Narayanan, 2016). This selection depends on factors such as quality and time as well as the cost and they are generally regarded as the most important attaining the end product in the shortest time possible, highest quality and at the lowest cost (Kakwezi & Nyeko, 2010). Project developers today have a wide variety of procurement methods at their disposal and this has led to performance comparison between different methods of procurement. The variety of tendering methods at the disposal of buying entities has made the decision to choose any particular method for a given task quite a difficult one. Several determinants need to be considered for an informed decision to be made on the right method of procurement.
According to Love, Davis, Edwards and Baccarini (2008), selecting appropriate procurement method involves first carrying out an analysis so as to establish priorities for project objectives and secondly, there is a need to compare variety of other options available before selection of the most appropriate one. It is crucial that the buyer’s needs and requirements be presented accurately and vividly. There’s a preference for using competitive methods of procurement given that they tend to promote transparency, economy and efficiency, and limit favouritism. This procurement methods include direct procurement, National Competitive Tendering (NCT), International Competitive Tendering among others.

Supplier selection
Supplier selection is considered to be one of the most important steps in the purchasing process and usually occurs after the specification is done. This because too detailed specifications will limit the suppliers hence giving the buyer limited buying power over the supplier (Ho, Xu & Dey, 2010). Supplier selection is generally done working together with buyers, and it relates to all activities that require doing to determine the best supplier (Lee, Kang, Hsu & Hung, 2009). To begin with, the buyer should provide a response to the ‘make-or-buy’ question, and then determine the likely suppliers from the existing or find new suppliers. After the buyer decides to buy, the second step involves determination of the subcontracting method mainly either, turnkey or partial subcontracting. Turnkey subcontracting leaves the whole responsibility of supplying to one supplier while partial subcontracting divides the responsibility between various suppliers. The buyer afterwards decides whether payment to the supplier should be made on a cost-reimbursable basis or fixed-price (Van Weele, 2010; Zhang & Chen, 2013).

Contract Management
Benton and McHenry (2010) describe a contract as an agreement between the supplier and the buyer whereby both parties have to agree to the transaction buying before the sale can take place. It is critical that a buyer understands contract laws and terms as well as ways to manage them. Moreover, there are various parts in the contract that the buyer may not understand and as such legal counselling is necessary (Rendon, 2008). The contract should clearly indicate terms and conditions as well as the prices. The supplier must accept all the risks, and take responsibility for such things as late deliveries, which might not be part of the contract. The buyer should normally ask for a fixed price mode of engagement, through competition in bids or negotiating with the supplier as this makes it easier to control the cost (Guth, 2009).

For a contract to be enforceable it must contain four different components, in which case if it lacks any of the components the contract may not be binding. In the first component, both buyer and supplier should have awareness of what they are doing. This means that none of the parties signing the contract can be an alcoholic, a drug addict, or insane. The second component requires that the contract be legal such that the service or product is not against public policy or illegal. In the third component is there has to be mutual consideration, which simply means that a certain promised value has to be delivered. Such values include price as well as right quality and quantity of deliverables. The last component has to do with the agreement by both parties whereby both accept and sign the contract (Knight, Harland & Telgen, 2012). Usually, a penalty clause has to be included in the contracts to ensure that the deliverables are delivered in good condition. Van Weele and Van Raaij (2014) observe that a contract is not complete until it provides a penalty clause that indicates what happens if a party does not honour its obligations, e.g. late deliveries.

Service Delivery
Service is defined as an activity or a product that solves a user’s problem or can be useful to users in
their day-to-day events. Elsewhere, Carlson and O'Cass (2010) depicted service delivery as the relationship between policy makers, service providers and poor people. Service delivery encompasses services and their supporting systems that are typically regarded as a state responsibility. These include social services (primary education and basic health services), infrastructure (water, sanitation, roads and bridges) and services that promote personal security (Alford, 2009).

It is hard and difficult task to measure services rendered. However, Mugambi (2013) avers that to be effective, services are related to attributes such as; timely and available at space and time scales needed by the user; They also need to be reliable and dependable; usable that is, presented in a format users can fully understand; useful implying that user needs are responded to appropriately; credible so that the user can confidently use it in decision-making and it should also be flexible and responsive to the changing user needs. The determinants of service quality by order of importance include reliability, responsiveness (willingness to help customers and prompt service assurance), and the ability to convey trust, empathy and individualized attention to customers (Mutali, 2008).

METHODOLOGY

The research was explanatory and followed a cross-sectional survey as the main objective was to determine the effects of tendering process on services delivery in road construction sector. A case of KeRRA, Kenya. Explanatory survey design allows the use of inferential statistics to determine relationship between the study variables in the model (Hair et al., 2010). The source of information was employees and management of KeRRA, Kenya. This was so as to provide first hand details concerning the information being sought by the study. The total population for this study was 780 employees and management of KeRRA, Kenya. This study adopted simple random sampling method as it enabled the researcher to eliminate sampling bias. The study used structured questionnaires for collecting primary data from respondents. The study was guided by a model of the form:

\[ Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon \]

Where:

- \( Y \) = Represents the dependent variable (Service Delivery)
- \( \beta_0 \) = The Constant or the value of \( Y \) when all \( X \)-values are zero.
- \( \beta_i \) = The regression coefficients \( (i = 1, 2, 3 \text{ and } 4) \). The regression coefficients indicate the relative importance of each of the independent variables in prediction of the dependent variable.
- \( X_i \) = The independent variables \( (i = 1, 2, 3 \text{ and } 4) \) will explain the variation in the dependent variable (Service Delivery). In this case:
  - \( X_1 = \) Procurement Planning
  - \( X_2 = \) Tendering Method
  - \( X_3 = \) Supplier Selection
  - \( X_4 = \) Contract Management
- \( \varepsilon \) = the error term (To account for all other Variables not considered in the study), assumed to be normally distributed with mean zero and constant variance.

RESULTS

Responses were given on a five-point likert scale (where 1 = Strongly disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5= Strongly Agree). The scores of ‘strongly disagree’ and ‘disagree’ were taken to represent a statement not agreed upon, equivalent to mean score of 0 to 2.5. The score of ‘Neutral’ were taken to represent a statement equivalent to a mean
score of 2.6 to 3.4. The score of ‘agree’ and ‘strongly agree’ were taken to represent a statement highly agreed upon equivalent to a mean score of 3.5 to 5.0.

**Procurement Planning**

The study sought to assess the effects of procurement planning on the service delivery in the road construction sector in Kenya. Table 1 presented the findings. As tabulated, a majority of respondents were found to be neutral with the statement posed in regard to the effects of procurement planning on the service delivery in the road construction sector in Kenya. The study established that the procurement methods used in the organization were in line with the Act (Mean=3.212). The organization carried out procurement in accordance with the set procedures (Mean=3.009). The procurement plan was prepared early enough to allow for proper allocation of funds (Mean=2.897). The budget was first approved before any procurement was initiated (Mean=3.112).

**Table 1: Procurement Planning Statistics**

<table>
<thead>
<tr>
<th>Procurement Planning</th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>The procurement methods used in the organization are in line with the Act</td>
<td>3.212</td>
<td>1.243</td>
</tr>
<tr>
<td>The organization carries out procurement in accordance with the set procedures</td>
<td>3.009</td>
<td>1.432</td>
</tr>
<tr>
<td>The procurement plan is prepared early enough to allow for proper allocation of funds</td>
<td>2.897</td>
<td>1.535</td>
</tr>
<tr>
<td>The budget is first approved before any procurement is initiated</td>
<td>3.112</td>
<td>1.529</td>
</tr>
<tr>
<td>The organization ensures there is a procurement plan to avoid reckless and over spending of funds</td>
<td>3.342</td>
<td>1.908</td>
</tr>
</tbody>
</table>

**Tendering Methods**

The study sought to assess the influence of tendering methods on service delivery in the road sector in Kenya. As tabulated, a majority of respondents found that the organization ensured that there was open tendering to increase the needed experience from the tenderers (3.232); The organization offered the open tendering to encourage applications from the qualified tenderers (3.121); The organization ensured that open tendering led to fairness and transparency in the tendering process (2.998); The organization ensured that the single sourcing of suppliers leads to reduction of procurement costs in the tendering process (2.876); The organization ensured that the single sourcing of suppliers enhanced timely delivery of goods and services (2.987). The organization ensured that the request for quotations from suppliers led to reduction of procurement costs in the tendering (3.154). The study findings indicated that procurement methods influence tendering process in the organization. The study findings were in agreement with literature review by Kiage (2013) notes that request for quotations does not allow for
competition in the county’s procurement department. Request for quotations involves the entity lending itself to irregularities because the procuring entity selects the suppliers, service providers or contractors that it wants to send a request for quotations.

Table 2: Tendering Methods Statistics

<table>
<thead>
<tr>
<th>Tendering Methods</th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>The organization ensures that there is open tendering to increase the needed</td>
<td>2.987</td>
<td>1.237</td>
</tr>
<tr>
<td>experience from the tenderer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The organization offers the open tendering to encourage applications from the</td>
<td>3.223</td>
<td>1.379</td>
</tr>
<tr>
<td>qualified tenderers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The organization ensures that open tendering lead to fairness and transparency in</td>
<td>2.902</td>
<td>1.908</td>
</tr>
<tr>
<td>the tendering process</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The organization ensures that the single sourcing of suppliers leads to reduction</td>
<td>3.452</td>
<td>1.114</td>
</tr>
<tr>
<td>of procurement costs in the tendering process</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The organization ensures that the single sourcing of suppliers enhance timely</td>
<td>2.762</td>
<td>1.238</td>
</tr>
<tr>
<td>delivery of goods and services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The organization ensures that the request for quotations from suppliers leads to</td>
<td>4.214</td>
<td>1.908</td>
</tr>
<tr>
<td>reduction of procurement costs in the tendering process</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Supplier Selection

The study sought to assess the effects of supplier selection on the service delivery in the road construction sector in Kenya. A majority of respondents were found to be neutral with the statement posed in regard to the influence of supplier selection on the service delivery in the road construction sector in Kenya. The study established that the organization believed in supplier evaluation to improve performance of its suppliers (Mean=2.908). The organization focused on building long lasting relationships with suppliers (Mean=3.218). The county organization made timely payments to the suppliers after goods and service delivery (Mean=2.986). The organization conducts supplier appraisals annually (Mean=3.217). The study findings were in agreement with literature review by Ansari (2009) that supplier selection allows firm to make better use of their suppliers capabilities and coordinating operational activities through joint planning also results to inventory reduction, smoothing production, improve product quality, and lead time reduction Browne (2004) contends that supplier selection is a comprehensive approach to managing an enterprise’s interactions with the organizations that supply the goods and services it uses.

Table 3: Supplier Selection Statistics

<table>
<thead>
<tr>
<th>Supplier Selection</th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>The organization believes in supplier evaluation to improve performance of its</td>
<td>2.908</td>
<td>1.876</td>
</tr>
<tr>
<td>suppliers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The organization focuses on building long lasting relationships with suppliers</td>
<td>3.218</td>
<td>1.276</td>
</tr>
<tr>
<td>The organization makes timely payments to the suppliers after goods and service</td>
<td>2.986</td>
<td>1.653</td>
</tr>
<tr>
<td>delivery</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The organization conducts supplier appraisals annually</td>
<td>3.217</td>
<td>1.287</td>
</tr>
</tbody>
</table>
Contract Management

The study sought to assess the effects of contract management on the service delivery in the road construction sector in Kenya. According to the study results in Table 4, a majority of respondents were found to disagree with the statement that the organization ensured that it controls and certifies that both contracting parties had honored the contractual responsibilities (2.325). The organization controlled and certified activities involved in evaluating degree of successful contract execution (2.223); The organization ensured that there was achievement of the expected results (2.221); The organization ensured that both parties terminated the contracts effectively (2.321).

Table 4: Contract Management Statistics

<table>
<thead>
<tr>
<th>Contract Management</th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>The organization ensures that it controls and certifies that both contracting parties have honored the contractual responsibilities</td>
<td>2.325</td>
<td>.235</td>
</tr>
<tr>
<td>The organization controls and certifies activities involved in evaluating degree of successful contract execution</td>
<td>2.223</td>
<td>.321</td>
</tr>
<tr>
<td>The organization ensures that there is a of the expected results</td>
<td>2.221</td>
<td>.251</td>
</tr>
<tr>
<td>The organization ensures that both parties terminates the contracts effectively</td>
<td>2.321</td>
<td>.238</td>
</tr>
</tbody>
</table>

Service Delivery

The study sought to determine the effects of tendering process on service delivery in road sector reached attributed to the adoption of the procurement planning, tendering methods, supplier selection Findings in Table 5 below revealed improved service delivery in road sector across the 5 year period running from the year 2013 to 2016.

In the reduction of costs, a majority of respondents affirmed having grown incrementally from 0%-20% in 2012 (41.9%), to cost reduction by 0%-20% in 2013 (37.9%), 21%-40% in 2014 (34.80%), reduction of costs by 21%-40% in 2015 and 21%-40% in 2016 Quality of roads also recorded positive with a majority affirming a majority of respondents affirmed having grown incrementally from 0%-20% in 2013 (42.30%), to quality of roads by 0%-20% in 2013 (37.7%), 21%-40% in 2014 (31.10%), quality of roads improved by more than 40% in 2015 and improved by more than 40% in 2016(37.30%).

A similar trend was recorded in number of completed roads of 0%-20% in 2012 (44.10%), 0%-20% in 2013 (35.20%), 21%-40% in 2014 (36.40%), number of completed roads improved by more than 40% in 2015(41.10%) and improved by more than 40% in 2016(37.30%). It was deduced from the findings that service delivery in road construction sector had considerable improved with the adoption of the procurement planning, tendering methods, supplier selection and contract management.

Table 5: Service Delivery

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduced by 0%-20%</td>
<td>41.9</td>
<td>37.9</td>
<td>33.8</td>
<td>29.7</td>
<td>29.1</td>
</tr>
<tr>
<td>Reduced by 21%-40%</td>
<td>33.2</td>
<td>29.6</td>
<td>34.8</td>
<td>31.3</td>
<td>34.7</td>
</tr>
<tr>
<td>Reduced by more than 40%</td>
<td>24.9</td>
<td>31.5</td>
<td>31.4</td>
<td>39.0</td>
<td>36.2</td>
</tr>
<tr>
<td>Quality of Roads</td>
<td>2012</td>
<td>2013</td>
<td>2014</td>
<td>2015</td>
<td>2016</td>
</tr>
<tr>
<td>Reduced by 0%-20%</td>
<td>42.3</td>
<td>37.7</td>
<td>31.6</td>
<td>30.7</td>
<td>29.5</td>
</tr>
<tr>
<td>Reduced by 21%-40%</td>
<td>31.8</td>
<td>32.9</td>
<td>36.1</td>
<td>28.2</td>
<td>33.0</td>
</tr>
</tbody>
</table>
Reduced by more than 40% 25.9 29.4 32.3 41.1 37.5
Number of Roads Completed 2012 2013 2014 2015 2016
Improved by 0%-20% 44.1 35.2 33.4 25.7 27.1
Improved by 21%-40% 31.7 32.6 30.2 33.9 35.6
Improved by more than 40% 23.5 32.2 36.4 40.4 37.3

Multiple Regression Analysis Model

It was notable that there exists strong positive relationship between the independent variables and dependent variable as shown by R value (0.844). It showed that the independent variables in the study were able to explain 71.20% variation in the service delivery in the road sector while the remaining 29.80% was explained by the variables or other aspects outside the model. This indicated that procurement planning; tendering methods, supplier selection and contract management need to be well adopted to enhance service delivery in the road sector in Kenya.

Based on the study results of the ANOVA Test or F-test in Table 7, obtained F-count (calculated) value was 23.749 greater the F-critical (table) value 12.345 with significance of 0.000. Since the significance level of 0.000 < 0.05 we concluded that the set of independent variables (procurement planning, supplier management, ICT and professionalism) had significant influence on the implementation of procurement practices in the county governments in Kenya (Y-dependent variable) and this showed that the overall model was significant.

From the study findings in table 8, regression equation established, taking all factors into account (independent variables) constant at zero service delivery in the road sector would be 16.890. The data findings analysed also showed that taking all other independent variables at zero, a unit increase in procurement planning would lead to a 0.732 increase in service delivery in the road sector. Based at 5% level of significance, procurement planning was found to have a calculated t = 5.008 (greater than the tabulated value of t > 1.96) and a significance level of 0.000. This indicated that procurement planning influenced service delivery in the road sector in Kenya.

A unit increase in supplier selection would lead to a 0.600 increase in service delivery in the road sector, supplier selection show a calculated t = 6.406 (greater than the tabulated value of t > 1.96) and a significance level of 0.002 thus the value of less than 0.05. This indicated that supplier selection influence service delivery in the road sector in Kenya. This provided the supplier selection to focus on the activity, performance standards, and results achieved in respect to the work involved in the planning for, the establishment and subsequent management and use of supply arrangements in the public sector. This helped to ensure the organization achieved maximum spending leverage in supply negotiations. It also ensured consistent and thorough market analysis, costing measures, and compliance methods are applied to each expenditure category (SDPC, 2009).

A unit increase in contract management would lead to 0.545 increases in service delivery in the road sector in Kenya. The contract management was found to have a calculated t = 5.927 (greater than the tabulated value of t > 1.96) and significance level of 0.015 thus the value of less than 0.05. This indicated that contract management influenced service delivery in the road sector in Kenya.
Table 6: Model Summary (Overall)

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R²</th>
<th>Adjusted R²</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.844</td>
<td>.712</td>
<td>.698</td>
<td>.001</td>
</tr>
</tbody>
</table>

Table 7: ANOVA Results

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>d.f</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>65.908</td>
<td>4</td>
<td>16.477</td>
<td>36.253</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>65.908</td>
<td>145</td>
<td>.4545</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>81.816</td>
<td>149</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NB: F-critical value = 18.764

Table 8: Coefficient Results

<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>β</td>
<td>Std. Error</td>
<td>β</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>16.890</td>
<td>2.859</td>
<td>.687</td>
<td>5.908</td>
</tr>
<tr>
<td>X₁-PP</td>
<td>.732</td>
<td>.146</td>
<td>.687</td>
<td>5.008</td>
</tr>
<tr>
<td>X₂-TM</td>
<td>.630</td>
<td>.098</td>
<td>.596</td>
<td>6.406</td>
</tr>
<tr>
<td>X₃-SS</td>
<td>.600</td>
<td>.101</td>
<td>.497</td>
<td>5.927</td>
</tr>
<tr>
<td>X₄-CM</td>
<td>.545</td>
<td>.109</td>
<td>.456</td>
<td>5.000</td>
</tr>
</tbody>
</table>

CONCLUSION

The study concluded that there was a significant relation between the procurement planning and service delivery in the road construction sector in Kenya. Procurement planning was found to have a significant positive influence on service delivery in the road construction sector in Kenya. This can be deduced to conclude that increasing levels of procurement planning would increase the levels of service delivery in the road construction sector in Kenya.

The study concluded that there was a significant relation between the tendering methods and service delivery in the road construction sector in Kenya. Tendering methods was found to have a significant positive influence on service delivery in the road construction sector in Kenya. This was deduced to conclude that increasing levels of tendering methods would increase the levels of service delivery in the road construction sector in Kenya.

Further, the study concluded that there was a significant relation between the supplier selection and service delivery in the road construction sector in Kenya. Supplier selection was found to have a significant positive influence on service delivery in the road construction sector in Kenya. This was deduced to conclude that increasing levels of supplier selection would increase the levels of service delivery in the road construction sector in Kenya.

Finally, the study concluded that there was a significant relation between contract management and service delivery in the road construction sector in Kenya. Contract management was found to have a significant positive influence on service delivery in the road construction sector in Kenya. This was deduced to conclude that increasing levels of contract management would increase the levels of service delivery in the road construction sector in Kenya.

Recommendations of the Study

The study recommended that the organization need to identify the most appropriate procurement
methods to enhance service delivery. There is need to have an open tendering to increase the needed experience and qualified tenderers, lead to fairness and transparency in the tendering process. The organization should ensure that that the single sourcing of suppliers leads to reduction of procurement costs in the tendering process and enhance timely delivery of goods and services.

The study recommended that there is need for organization to create and maintain a good relationship with the contractors. There should be a mutual trust between the contractor and organization. There is need to enhance regular communication with the contractor and timely management of possible problems in the contract. The study recommends that the organization control and manage contract changes efficiently by ensuring that the contractors are paid in time. There should be regular communication between the organization and contractor. The organization should ensure that the contract terms were well adhered to and final reports always well maintained.

Areas for Further Research

The study established that tendering process affects service delivery in road construction sector in Kenya. The tendering process in terms of procurement planning, tendering methods, supplier selection and contract management accounted for the 62.00% of service delivery in road construction sector in Kenya. There is need to establish other factors which account for 38.00% of service delivery in road construction sector in Kenya. There is need also to establish whether the contract management practices influence service delivery in road construction sector in Kenya.

REFERENCES


