DETERMINANTS OF PROCUREMENT PERFORMANCE OF RURAL ELECTRIFICATION PROJECTS

Benedict Kiema Kavua
Jomo Kenyatta University of Agriculture and Technology
KENYA

Dr. Karanja Ngugi
Kenyatta University Department of Accounting and Finance
KENYA

ABSTRACT

In the past decades, the public procurement system in Kenya has undergone significant developments. In developing countries, public procurement is increasingly recognized as essential in service delivery. Governments are the biggest "spenders" and most of this amount is "internal" spending but some 25% to 50% is indeed spent "externally" (on sourcing goods and services) and mainly through Public Procurement. The purpose of this study was to assess the determinants of procurement performance of rural electrification projects and it will be guided by the following objectives: staff competency, organization resources, stakeholder influence and government policy. The study was carried out at the Rural Electrification Authority. The sample of the study comprised 110 respondents from the top, middle and low level management. The study employed a descriptive case study design. The study found out that the diversity of the work involved in public procurement necessitates that procurement officers are competent in a wide variety of generic procurement skills; that it is important to identify, develop and assess the competencies of procurement officers in public procurement to ensure that procurement activity is both compliant with legislation and obtaining value for money.

Definitions:

Determinants of Procurement Performance of Rural Electrification Projects.

Introduction

Procurement is the process of acquiring goods, works and services. Public Procurement (PP) as a function of government includes decisions about the services that will be delivered to local authorities and the communities they serve (Hughes, 2005). It is utilized not only to secure goods and services required by public sector organizations for their missions and to support services...
provided to taxpayers, but it is also used to implement national policies and to achieve social and other objectives (Thai, 2005). Many national and international instruments have been concerned with building an effective procurement system. In this context, particular procurement issues, such as the implementation of secondary policies, the review mechanism to address complaints, provisions on electronic procurement or rules governing privately financed projects, have received an in-depth examination (De Castro, 2006).

As a commonwealth country, in Kenya there is a tendering unit/organ otherwise known as the procurement department directly responsible to the accounting officer. The procurement units within ministries, department and implementing agents (Parastatals) prepare and submit their requirements for procurement and disposal in which qualities, quantities and prices are spelt out to the tendering unit. Once the user departments spell out their requirements they are processed for tendering or quotation or proposal based on the threshold which is finally adjudicated by either the tender committee or procurement committee for award (RoK, 2001).

In the past decades, the public procurement system in Kenya has undergone significant developments. From being a system with no regulations in the 1960s, and a system regulated by Treasury Circulars in the 1970s, 1980s and 1990s, the introduction of the Public Procurement and Disposal Act (PPDA) of 2005 and the Procurement Regulations of 2006 has introduced new standards for public procurement in Kenya. In Kenya, the Government established the Kenya Anti-Corruption Authority (KACA) now Ethics and Anti-corruption Authority to fight corruption head-on and although this organization has since been outlawed, there exists a police unit to fight against corruption. The gist of public procurement audits is to ensure that public funds are expended for their intended purpose, and with a view to maximizing value received by the public purchaser, ensuring that proper and accountable systems are in place and adhered to, and identifying any weaknesses in procurement (TISA, 2009) and as such public procurement audits ought to be adequately sensitive to procurement related issues (PPOA, 2007). The elaborate process of public procurement audit includes a bid process audit, contract audit, award audit, contract award audit, performance audit and disposal audit (RoK, 2003).

The Rural Electrification Authority was established under Section 66 of the Energy Act, 2006 (No 12 of 2006) as a body corporate. It was created in order to accelerate the pace of rural
electrification in the country, a function which was previously undertaken by the Ministry of Energy. The Rural Electrification Authority is mandated to manage the Rural Electrification Programme Fund Develop and update the rural electrification master plan, Promote the use of renewable energy sources including small hydros, wind, solar, biomass, geothermal, hybrid systems and oil fired components taking into account specific needs of certain areas including the potential for using electricity for irrigation and in support of off-farm income generating activities. Implementation and sourcing of additional funds for the rural electrification programme Management of the delineation, tendering and award of contracts for licenses and permits for rural electrification. REA aims to efficiently provide high quality and affordable electricity connectivity in all rural areas and to achieve high standards of customer service through advancing community participation to ensure long term sustainability and socio-economic development (www.ecoprofiles.org).

Statement of the Problem

Inevitably, governments are the biggest "spenders" world-wide (World Bank, 2007). The figure, varies from country to country, but according to various sources (Knight et al., 2003) government spending on public services accounts for anywhere between 15-45% of GDP. Singapore reported 17%, while Canada is over 40% and the UK is in the range of 44% (Knight et al. 2003). Most of this amount is "internal" spending (of salaries and alike), but some 25% to 50% is indeed spent "externally" (on sourcing goods and services) and mainly through Public Procurement. The sheer amount of this spending has a huge impact on the economy. Mahmood (2010) reiterated that public procurement represents 18.42% of the world GDP. In developing countries, public procurement is increasingly recognized as essential in service delivery (Basheka & Bisangabasaija, 2010), and it accounts for a high proportion of total expenditure. For example, public procurement accounts for 60% in Kenya (Akech, 2005), 58% in Angola, 40% in Malawi and 70% of Uganda’s public spending (Wittig, 1999; Government of Uganda, 2006) as cited in Basheka and Bisangabasaija (2010). This is very high when compared with a global average of 12-20 % (Frøystad et al; 2010). Due to the colossal amount of money involved in government procurement and the fact that such money comes from the public, there is need for accountability and transparency (Hui et al; 2011).
Local studies that have been done include Otieno, (2004) who did a study on procurement activities in public institutions; Akech, (2005) did a study on development partners and governance of public procurement in Kenya; Ombaka (2009) carried a study on management of medicine procurement in Developing countries and Kiawa, (2012) conducted a study on accountability in Public Sector Procurement in the State Law Office. It is against this background that this study sought to fill the existing research gap by assessing the determinants of procurement Performance at the Rural Electrification Authority (REA).

Objectives of the Study

General Objective

The purpose of this study was to assess the determinants of procurement performance of rural electrification projects.

Specific Objectives

i) To establish the effect of staff competency on the performance of rural electrification projects

ii) To assess the effect of the organization resources on performance of rural electrification projects.

iii) To establish the effect of stakeholder influence on the performance of rural electrification projects.

iv) To ascertain to what extent government policy affects performance of rural electrification projects

Literature Review

Competency Theory

The global move to Competency Based Training has introduced a number of new concepts and chief among these concepts is the concept of competence (Mansfield, 2004). The concept has created confusions and a host of conceptual misunderstandings at global (Van Loo J and Semeijn, 2001a) (Mansfield, 2004), national (Mitchell, Chappell, Bateman and Roy, 2005), (Smith & Keating, 2003), (Schofield. & McDonald, 2004), (Azemikhah, 2005), and State (Robinson & Misko, 2003) levels. The learners identify and select the required concepts, from
the relevant domain knowledge, which is facilitated by the teacher. The learners are then guided
to identify and draw the relationship of the concepts from the problem to required
knowledge, from the required knowledge to performance criteria using skills as the interplay
elements or links, and, finally, from performance criteria to the problem.

According to Boyatzis (2008), maximum performance is believed to occur when the person’s
capability or competency is consistent with the needs of the job demands (roles and
responsibilities) and the organizational environment, systems and structures. Competencies are
framed as abilities related to motive and personality constructs that influence the frequency and
intrinsic affective value associated with the execution of specific behaviours and cognitive-
affective processes. In this way, competencies not only imply what an individual is capable of
doing but what they want to do. Thus for effective prediction of work performance, both of these
factors have to be taken into account. This implies that competencies differ significantly from
abilities, because motives form a critical element of the theoretical framework. In other words,
abilities inform you about what a person can do, while competencies provide insight into what a
person can and will do (Ryan, Emmerling & Spencer, 2009).

**Resource Based View**

In recent years many studies on the status, evolution, and/or trends of the resource-based theory
(RBT) have been published (Barney, 2001; Priem and Butler, 2001; Makadok, 2001; Mahoney,
the link between a firm’s internal characteristics and performance”. As the basis for a
competitive advantage, the resource based view considers the application of a bundle of tangible
and intangible resources (Wernerfelt, 1984). In order to make competitive advantage sustainable,
resources are required to be heterogeneous and immobile (Peteraf, 1993). Building on this, the
resource based view enable firms to determine their core competences which are also critical for
the creation of the latter (Espino-Rodríguez & Padrón-Robaina, 2006). The resource based view
can also be applied to supply management and the purchasing function. As shown in the results,
the resource based view is able to contribute to and support every decision point of the
purchasing year cycle.

**Stakeholder theory**
Stakeholder interests could encompass a broad range of issues, such as labour conditions, environmental issues or social responsibility, some of which might be contrary to a firm’s interests (Friedman & Miles, 2006). This touches on Frooman’s (1999) suggestion that stakeholder management could be seen as managing potential conflict stemming from diverging interests. In a related debate on corporate responsibility and citizenship, Waddock (2001) argues that becoming a good corporate citizen means “defining, and achieving, responsible operating practices fully integrated into the entire corporate strategy, planning, management, and decision-making processes.” Although such issues are important to achieve a further understanding of stakeholder-oriented management and its applications in business, they do not offer much insight into the relationship between stakeholders and firms. As Frooman (1999) notes, in stakeholder research much attention has already been paid to characterizing stakeholders and considering their aims, leaving influence strategies employed by stakeholders largely unattended. Therefore, he aimed “to build a model of stakeholder influence strategies that will address this missing part of stakeholder theory and ultimately enable managers to better understand and manage stakeholder behavior” (Frooman 1999).

**Empirical Review**

According to Boyatzis (2008), a competency is defined as a capability, ability or an underlying characteristic of an individual which is casually related to effective or superior performance. It is a set of related but different sets of behavior organized around an underlying construct, which we call the “intent”. The behaviors are alternate manifestations of the intent, as appropriate in various situations or times. It is important to clarify the difference between the concepts of “competence” and “competency”; competence refers to areas of work in which the person is competent and competency refers to the dimensions of behaviour underlying competent performance (Kagaari & Munene, 2007; Palan, 2003). However, for purposes of this study, competency (and its related plural form) is adopted from Armstrong (2000) as a hybrid term containing the two aspects of competence and competency. Thus, the concept of competency is used to refer to applied knowledge and skills, performance delivery, and the behaviours required getting things done very well (Armstrong and Baron, 2005).

According to the World Bank (2003), achieving VFM requires a strategic and integrated approach to procurement. This, of course, has significant organizational and institutional
implications. VFM may be compromised if the Public Procurement Act and Regulations are not followed. This in procurement function is an important test against which well functioned procurement management must be addressed to justify a procurement outcome as necessary conditions for best value, transparency and accountability in public procurement (World Bank, 2003). It is associated with deployment of resources for realization of some expected value in an economic, in efficient and effective manner.

According to PPDA (2008) performance is defined as achieving the set objectives and responsibilities from the perspective of the judging party. Consequently, indicators have to be gathered relating to activities conducted by procurement officers, the outputs produced by the activities, the intended outcomes (improved performance) and impact (more value for money). Further, procurement performance is the extent to which operational procurement outcomes demonstrate high levels of improved performance in lead time, cost, labor-productivity, and capacity utilization (Martinez-Martinez, 2008).

In order to achieve performance goals and increase the value of the procurement function, the two most fundamental dimensions of performance are efficiency and effectiveness. Efficiency measures how successfully the inputs have been transformed into outputs while effectiveness measures how successfully the system achieves its desired output (Kumar, Ozdamar & Ng, 2005; Neely, 1999).

According to Van Weele (2000) and Knudsen (2009), effectiveness is defined as the extent to which, by choosing a certain course of action, a previously established goal or standard is being met while efficiency is defined as the relationship between planned and actual sacrifices made in order to be able to realize a goal previously agreed upon. Efficiency is a rather narrow concept, focusing on the internal workings of the function, and is generally defined as the amount of resources used to produce a unit of output, which is time or cost based. Effectiveness, on the other hand, has been defined in terms of the degree to which a function meets its goals; the ability of the function to acquire needed resources; the internal health or internal processes of the function; or the degree to which the function meets the needs of its constituencies (Dumond, 2004). Thus, performance can be considered as the extent to which the procurement officer is able to realize their predetermined goals at the sacrifice of a minimum of the organization’s resources (Van Weele, 2000; Knudsen, 2009).
Data Analysis/Findings

Regression analysis

This section presents a discussion of the results of inferential statistics. The researcher conducted a multiple regression analysis so as to assess the determinants of procurement performance of rural electrification projects. The researcher applied the statistical package SPSS, to enter and compute the measurements of the multiple regressions for the study. Findings are presented in the following tables;

Table 4. 1: overall Model Summary

<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>.927a</td>
<td>.858</td>
<td>.858</td>
<td>.84843</td>
</tr>
</tbody>
</table>

Source: Research, 2014

a. Predictors: (Constant), Staff competency, organization resources, Stakeholder influence and Government policy

b. Dependent Variable: Procurement performance

Coefficient of determination ($r^2$) explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable (Procurement performance) that is explained by all the 4 independent variables (Staff competency, organization resources, Stakeholder influence and Government policy).
The four independent variables that were studied, explain 85.8% of variance on determinants of procurement performance of rural electrification projects, as represented by the $R^2$. This therefore means that other factors not studied in this research contribute 14.2% of variance in the dependent variable. Therefore, further research should be conducted to determine procurement performance of rural electrification projects.

**Table 4. 3: ANOVA (Analysis of Variance)**

<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>707.486</td>
<td>10</td>
<td>707.486</td>
<td>98.856</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>116.612</td>
<td>100</td>
<td>.720</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>824.098</td>
<td>109</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Staff competency, organization resources, Stakeholder influence and Government policy

b. Dependent Variable: Procurement performance

The F critical at 5% level of significance was 9.20 since F calculated is greater than the F critical (value = 98.856), this shows that the overall model was significant. The significance is less than 0.05, thus indicating that the predictor variables, explain the variation in the dependent variable which is procurement performance. If the significance value of F was larger than 0.05 then the independent variables would not explain the variation in the dependent variable.
Table 4.5: Multiple Regression Analysis

<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>3.780</td>
<td>0.87</td>
<td>6.778</td>
</tr>
<tr>
<td></td>
<td>Staff competency</td>
<td>4.121</td>
<td>0.831</td>
<td>0.276</td>
</tr>
<tr>
<td></td>
<td>Organization resources</td>
<td>2.693</td>
<td>0.432</td>
<td>0.68</td>
</tr>
<tr>
<td></td>
<td>Stakeholder influence</td>
<td>1.775</td>
<td>0.449</td>
<td>0.326</td>
</tr>
<tr>
<td></td>
<td>Government policy</td>
<td>1.576</td>
<td>0.272</td>
<td>0.344</td>
</tr>
</tbody>
</table>

Source Research 2014

From the regression findings, the substitution of the equation \( Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 \) becomes:

\[
Y = 3.780 + 3.121X_1 + 2.893X_2 + 1.775X_3 + 0.576X_4
\]

Where \( Y \) is the dependent variable (Procurement Performance)

\( X_1 \) is Staff competency variable, \( X_2 \) is Organization resources, \( X_3 \) is Stakeholder influence and \( X_4 \) is the Government policy.

According to the equation, taking all factors (Staff competency, organization resources, Stakeholder influence and Government policy) constant at zero, Procurement performance will be 3.780. The data findings also show that a unit increase in Staff competency, variable will lead to a 4.121 increase in Procurement performance; a unit increase in Organization resources will lead to a 2.693 increase in procurement performance; a unit increase in Stakeholder influence will lead to a 1.775 increase in procurement performance and a unit increase in Government policy will lead to a 1.576 increase in Procurement performance. This means that the most significant factor is Staff competency followed by Organization resources.
At 5% level of significance and 95% level of confidence, Staff competency had 0.005 level of significance; Organization resources had a 0.004, Stakeholder influence had a 0.003 level of significance while Government policy had a 0.001 level of significance, implying that the most significant factor is Staff competency followed by Organization resources.

REFERENCES


