



**INFLUENCE OF PROCUREMENT PROCEDURES ON PERFORMANCE OF PUBLIC-PRIVATE PARTNERSHIPS  
PROJECTS IN KENYA**

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**Accepted: October 14, 2019**

**ABSTRACT**

*The purpose of the study was to investigate the influence of procurement procedures on the procurement performance in the public-private partnerships projects in Kenya. Descriptive research design was used in collecting the data. The target population was 228 respondents which in the PPPs projects. Data collection instrument used was the questionnaires. The pilot test was conducted to ensure the validity and reliability of the instruments. The findings were analyzed using Statistical Package for Social Sciences and presented tables. It was notable that there exist strong positive relationship between the independent variables and dependent variable. The coefficient of determination ( $R^2$ ) explained the extent to which changes in the dependent variable could be explained by the change in the independent variables or the percentage of variation in the dependent variable and the four independent variables that were studied explained 79.70% of the performance of PPPs. The tendering procedures improve the performance of PPPs projects in Kenya. Tendering application procedures should clearly contain the design and specification of the projects. The study established a positive relationship between procurement appraisal procedure and procurement performance. The organization should therefore invest on modern appraisal criteria that have been proven to have greater procurement performance. The study recommended that there should be a centralized material management team co-ordination between the site and the organization, proper control, tracking and monitoring of the system is required. The study therefore recommended that ethical procedure should be enhanced to reduce the cases of unethical practices relating to procurement in the PPPs in Kenya. Conflict of interest should be put on a check since it affects the setting of projects. Tender bids evaluation need to be improved to take lesser time. The tender committee needs to be investigated for allegations of corruption and specifications should be made clear in the projects.*

**Key Words:** Tendering Procedure, Supplier Assessment, Material Control, Ethical Procedure, Public-Private Partnerships

**CITATION:** Kanyaru, S. K., & Gekara, G. M. (2019). Influence of procurement procedures on performance of public-private partnerships projects in Kenya. *The Strategic Journal of Business & Change Management*, 6 (4), 558 – 570

## INTRODUCTION

According to Aliza et al., (2011), the influence of procurement procedures on efficient and effective in projects is undisputable over the years. The existence of sound procurement procedures requires the existence of competent workforce highly equipped with relevant skills for specified procurement activities (Makabira & Waiganjo, 2014). However, the process on creation of a procurement workforce with the required skills and capabilities poses a challenge, given the various changes that always occur in areas such as procurement processes, the introduction or expansion of alternative contracting approaches, and increased reliance on services provided by the private sector (Mokogi et al., 2015).

Kenya's Vision 2030, Kenya's Second Medium-Term Plan (MTP2), as well as the World Bank (WB) Country Partnership Strategy (CPS) 2014-2018 Report No. 87024-KE call for large investments in infrastructure by leveraging private sector resources through innovative Public Private Partnerships, World Bank (2017). Kenya's growth is expected to average 6.5% over the next three years. The growth rate is anchored on the Government Transformative Agenda which is captured in 5 (five) broad policies and strategies; creating a conducive business environment for job creation; investing in sectoral transformation to ensure broad based and sustainable economic growth; investing in infrastructure; investing in quality and accessible healthcare services and quality education as well as strengthening the social safety net; and consolidating gains made in devolution for better services and enhanced economic development (National Treasury, 2016).

According to the National Treasury, (Kenya PPPU, 2015), the provision of public infrastructure (including power, roads, rail, sea and airports) and services (including water, health and sanitation) is a key mandate of governments the world over. These public goods are a fundamental prerequisite for

economic growth and development. A significant share of the investment is expected from the private sector. PPPs present the most suitable option of meeting these targets, not only in attracting private capital in creation of infrastructure but also in enhancing the standards of delivery of services through greater efficiency.

Kenya's infrastructure funding gap is estimated at approximately KES.178.5 Billion (\$2.1 billion) per year. Responding to this challenge, the GOK, through the National Treasury, has made infrastructure development and public service provision through PPP a priority mechanism that can help it address this major infrastructure funding gap and achieve the benefits of successful PPP investments including: substantial private investment; transfer of significant risk to the private sector; improving access to infrastructure; creating higher quality assets with better operation and maintenance; and helping achieve better value for money (National Treasury, 2016).

### Statement of the Problem

Roodhooft and Abbee (2016) alluded that PPPs infrastructure projects had always been big purchasers that dealt with huge budgets. There's need for accountability and transparency in PPPs infrastructure procurement due to the large amount of money that's involved and also due to the fact that the money comes from the public (Hui et al., 2011). Due to inefficiency and losses in PPPs projects, the Government is required to carry major procurement burdens (SCAC, 2013). In a study on project governance problems in Kenya, the following issues emerged: huge financial losses, inefficiency in operations and provision of poor products and services (Atieno, 2009). This was attributed to procurement procedures, which resulted to heavy budgetary burden to the public. Inefficiency and incompetence of administration and management of the Procurement function in numerous PPPs

infrastructure has contributed to a loss of Ksh 50 billion annually (PPOA.2016).

Procurement procedures as in Legal Notice No. 60 2013 address budgetary allocations, Efficiency, service delivery and prudent financial management. However, there is a gap in procurement processes and performance of PPPs infrastructure projects particularly in the in Kenya. The government has put in place provisions to ensure realization of long term objective in improving the quality of life substantial resources have been committed towards improving service delivery in areas such as infrastructure development and maintenance, human development and management. The implementation of these interventions would be incomplete without proper procurement procedures (KNBS, 2008). It is on this premise that the current study sought to establish the relationship between procurement procedures and procurement performance in the PPPs infrastructure projects in Kenya.

### **Objectives of the Study**

The general objective of this study was to examine the influence of procurement procedures on the procurement performance of PPPs Road Projects in Kenya. The specific objectives were;

- To examine the influence of tendering procedures on procurement performance of Public Private Partnerships Road Projects in Kenya.
- To examine the influence of supplier assessment procedure on procurement performance of Public Private Partnerships Road Projects in Kenya.
- To examine the influence of material control procedure on procurement performance of Public Private Partnership Road Projects in Kenya.
- To examine the influence of ethical procedures on procurement performance of Public Private Partnership Road Projects in Kenya.

## **LITERATURE REVIEW**

### **Institutional Theory**

Institutional theory is a wide ranging and often confusing area, which, according Scott (2004) serves the profound depths and more resilience of social structure elements. It looks into the methodologies by means of which structures, such as diagrams, set of laws, customs, and habits, become entrenched as respected directives for social conduct. Directly, it can be seen that there is a large and perhaps surprising degree of correspondence between institutional theory and the current topic of procurement procedures and performance in security firms. Blair, (2010).The regulative pillar deals with unequivocal control procedures –rule-making, tracking, and sanctioning functions. Organizations comply with the rules for reasons of expediency as basis for compliance Brammer et al. (2012).

In Kenya, the PPDA ACT 2015 dictates private procurement guidelines. All PPPs infrastructure projects ought to strictly adhere to these regulations and guidelines. Thus each of the three pillars has its own area of theorists who will tend to give more emphasis to a particular pillar than to the others. The rules, which according to the researcher are the procedures, must be well diffused for the best performance of procurement, since it plays a key role in performance of projects.

### **The Principal Agent Theory**

The principal agent theory as advocated by Cohen *et al.*, (2003) explains that procurement managers in public sector play a relationship role. The principal-agency theory holds that shirking is likely to occur when there is some disagreement between policy makers and the bureaucracy. The democratic perspective focuses on responsiveness to citizens and their representatives (Brammer & Walker, 2011).According to Kiruja (2014) agency theory if applied rigorously offers a versatile tool to identify and solve enduring puzzles in procurement law and policy,

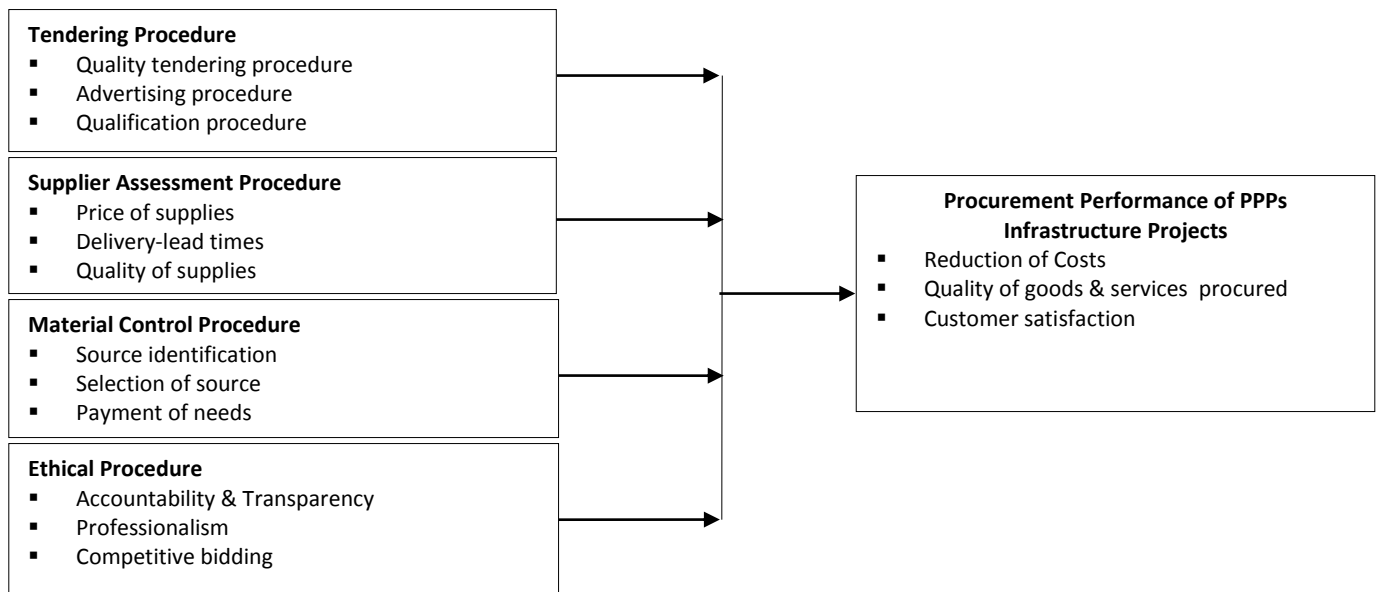
in part by breaking down traditional boundaries in the law. According to Hunja, (2011) while contract formation has centered on transparency, competition, and integrity, public contract administration have tended to emphasize an efficient allocation of risk between the public and private actors (Kuruja, 2014).

**Reinforcement Theory**

The reinforcement theory argues that people’s behaviour is greatly determined by its consequences. People tend to repeat those actions that produce positive effects (Deng, Yang & Liu, 2014). As such, decision makers in a firm should strive to ensure that the effects of good performance are pleasant while those of poor performance are unpleasant. With regard to procurement methods, it should be made clear that meeting the selection criteria would result in winning the confidence of the one placing the bid (Spagnolo, 2012). This in turn results in the supplier benefiting by having the contracts awarded to them which as per the theory, can be referred to as the ‘pleasant consequence.’ Reinforcement theory involves four strategies namely positive reinforcement, negative reinforcement, extinction and

punishment. Positive reinforcement entails assuring suppliers of long term business partnership as long as they continue meeting the client’s expectations. Moreover, they can be issued with recommendations letters due to their exemplary performance (D’agostino et al. 2011). Positive reinforcement may be applicable best in single sourcing procurement method.

Negative reinforcement, on the other hand, involves using unpleasant consequences to prevent persons from behaving in an undesirable manner. Suppliers will change their ways to meet requirements of the organization when unpleasant effects are made contingent on poor performance (Deng, Yang & Liu, 2014). This is mostly applicable in tendering and RFP methods whereby effects of not meeting the criteria is made known in the tender or request for quotation documents so as to serve as a reminder of negative effects. Extinction is expressed in cases where the supplier deliberately fails to deliver the requested items on time in order to seek attention from the client (Spagnolo, 2012).



**Independent Variables**

**Dependent Variable**

**Figure 1: Conceptual Framework**

## Empirical Review

Kuloba (2016) study focused on effects of procurement procedures on organizational performance at Moi Teaching and Referral Hospital, Eldoret. The objectives of this study were; to establish tendering procedures influencing organizational performance at Moi Teaching and Referral Hospital, Eldoret, to determine the effects of supplier assessment on organizational performance at, Moi Teaching and Referral Hospital, Eldoret and to evaluate the effects of material control procedure and organizational performance at Moi Teaching and Referral Hospital, Eldoret. The study established that there is no strong correlation between tendering, supplier assessment and organizational performance, while material planning was highly correlated with performance.

Omondi (2013), while looking into the effect procurement procedures can have on the performance of a construction project, found that in terms of the procurement approach or procedure employed in his research, the survey found out that a number of approaches and procedures were used contrary to norm, where only one procurement approach is selected and used thus negatively impacting on the project. Thus it's clear that procedures are very key in performance of entities.

Onyango and Moturi (2016) sought to assess the effects of procurement procedures on the operational performance of private institutions. The specific objectives of the study was to establish the extent to which tendering procedures, supply regulation procedures, ethical procedures and operating procedures affect the performance of private institutions in Kenya. The study findings showed that there was a strong positive relationship between compliance of public procurement regulations procedures and performance of the private sector. From the findings, strongly supported this discovery finally the findings revealed that there is significant correlation and this implies that an

increase in procurement ethical procedures increases the performance of cooperative societies sector.

Musau (2016) aimed at probing the correlation between procurement procedures and performance of security firms in Nairobi, Kenya. To find out whether there are procurement procedures used by security firms in Nairobi, Kenya, to determine the extent of adherence of procurement procedures in security firms in Nairobi, Kenya, to inaugurate the relationship between procurement procedures and procurement performance in security firms in Nairobi, Kenya. The study was anchored on Institutional and Agency Theory. Correlation analysis was utilized in the determination of the independent variables and dependent variable relationships, while to find out the degree of the relationship among the variables, regression analysis was brought into play. This research found the existence of a solid important positive correlation between procedures employed in procurement and the procurement performance of security firms

Ndolo and Njagi (2014) observed that the more ethical the practices organizations are, the better the effectiveness of the procurement process. Transparency, fair treatment in bidding and award of tenders; accountability and responsible purchasing and supply have a positive implication on procurement processes in any organization and could thus result into increased performance and delivery. Mbae (2014) observed that unethical practices among procurement officers in public procurement negatively affected procurement processes in Machakos County hence the overall procurement performance was affected.

Chemoiwo (2014), in her study on public procurement procedures and supply chain performance asserted that on the extent of compliance with procurement procedures, improving the capabilities of service companies has been shown to a booster successful reforms in public

procurement, a principle that's also true for private security providers. There is the urgent need for those in charge of procurement to set up training programs to ensure compliance which is value addition to supply chain.

## METHODOLOGY

The study used a descriptive survey designed to establish the influence of procurement procedures on the procurement performance of PPPs projects in Kenya. The unit of analysis were the Private Partnerships infrastructure projects. The unit of observation was the accounting officers of a contracting authority (public entities) and technical officers who consisted of financial, technical, procurement and legal personnel as appointed by the contracting authority.

The study relied mainly on primary data. The researcher used questionnaire as the research instrument. The researcher used questionnaires to collect primary data. The questionnaires were self-administered and distributed to the respondents and reasonable time given before they were collected. Data collected were analyzed using both quantitative and qualitative methods with the help of (SPSS). The regression model equation was expressed as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon,$$

Where; Y= Procurement Performance of PPPs infrastructure Projects

$\beta_0$ = constant (coefficient of intercept),

$X_1$ = Tendering procedure

$X_2$ = Supplier assessment procedure

$X_3$ = Material control procedure,  $X_4$ = Ethical procedure

$\epsilon$  = Error term

$\beta_1 \dots \beta_4$ = regression coefficient of four variables.

## RESULTS

### Tendering Procedure

The study sought to assess the influence of tendering procedure on performance of PPPs in Kenya. This section presented findings to statements posed in this regard with responses given on a five-point Likert scale (where 1 = strongly disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5= Strongly Agree). Table 1 presented the findings.

The scores of 'strongly disagree' and 'disagree' have been 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. Table 1 presented the findings.

As tabulated, a majority of respondents were found that the tender documents clearly contain the design and specification of the project (3.345); They received tender responses within the times provided (3.908); The organization ensured that open tendering lead to fairness and transparency in the tendering process (3.248); The government always delayed when advertising for tender (3.882); The organization ensured that the single sourcing of suppliers enhance timely delivery of goods and services (3.909).

The organization ensured that the request for quotations from suppliers leads to reduction of procurement costs in the tendering (4.212); We can download tender document from the internet (4.008); The organization ensured that the request for quotations from suppliers led to reduction of procurement costs in the tendering process (3.982); The firm submitted it tender document online (4.332). The study findings indicated that tendering procedure influenced performance of PPPs in Kenya.

**Table 1: Influence of Tendering Procedure and Performance of PPPs**

<b>Tendering Procedure</b>	<b>Mean</b>	<b>Std. Dev</b>
Tender documents clearly contain the design and specification of the project	3.345	1.237
We received tender responses within the times provided	3.908	1.379
The government always delay when advertising for tender	3.248	1.908
We can download tender document from the internet	3.882	1.114
The firm submits it tender document online	3.909	1.238

**Supplier Assessment Procedure**

The study sought to assess the influence of supplier assessment procedure on performance of PPPs in Kenya. This section presented findings to statements posed in this regard with responses given on a five-point Likert scale (where 1 = strongly disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5= Strongly Agree). Table 2 presented the findings. 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.

As tabulated, a majority of respondents were found to highly agree the company had supplier evaluation criteria in place for each category (3.897); Supplier performance checklist been developed in the company (3.219); Appraisal procedures incorporated sustainability aspects and support the supplier performance demand professionals with high level strategic , tactical as well as operational skills to improve order fulfillment (4.218); Preference given to the multidimensional methods of supplier performance (3.290). The study findings indicated that supplier assessment procedure affected performance of PPPs in Kenya.

**Table 2: Influence of Supplier Assessment on Performance of PPPs**

<b>Supplier Assessment</b>	<b>Mean</b>	<b>Std. Dev</b>
The company has supplier evaluation criteria in place for each category	3.897	1.226
Supplier performance checklist been developed in the company	3.219	1.120
Appraisal procedures incorporate sustainability aspects and support the supplier performance demand professionals with high level strategic , tactical as well as operational skills to improve order fulfillment	4.218	1.569
Preference given to the multidimensional methods of supplier performance	3.290	1.902

**Material Control Procedure**

The study sought to assess the influence of material control procedure on performance of PPPs in Kenya. This section presents findings to statements posed in this regard with responses given on a five-point Likert scale (where 1 = strongly disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5= Strongly Agree). Table 3 presented the findings. 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.

As tabulated, a majority of respondents were found to highly agree that there was always monitoring of the material storage practices (3.678); The project averagely uses the technique of reorder point to determine the time when the order should be raised



(3.890); There is the practice of inspection of new procured items using technical staff (3.864); Fund disbursement for procurement processes is timely (2.998); The goods received note is not always issued

and submitted to finance whenever new items are procured and stocked in (3.880). The study results indicated that material control procedure affect performance of PPPs in Kenya.

**Table 3: Influence of Material Control Procedure on Performance of PPPs**

Material Control Procedure	Mean	Std. Dev
There is always monitoring of the material storage practices	3.678	1.653
The project averagely uses the technique of reorder point to determine the time when the order should be raised	3.890	1.907
There is the practice of inspection of new procured items using technical staff	3.864	1.238
The goods received note is not always issued and submitted to finance whenever new items are procured and stocked in.	2.998	1.753

### Ethical Procedure

The study sought to assess the influence of ethical procedure on performance of PPPs in Kenya. This section presented findings to statements posed in this regard with responses given on a five-point Likert scale (where 1 = strongly disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5= Strongly Agree). Table 4 presented the findings. 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.

From the study results, majority of the respondents were neutral that that the procurement staff had been certified by the professional body thus there was

quality of procured goods and services in the organization as shown by a mean of 3.332, There was a continuous testing of staff competence which enhance diversity of procurement functions to increase efficiency and effectiveness in the procurement process as shown by a mean of 2.990; The organization employed procurement and supply management from the recognized institutions to enhance timely delivery of goods and services as shown by a mean of 3.618; to a small extent the organization procurement professionals acknowledge and device strategies for managing complex challenges thus reduction of procurement costs as shown by a mean of 2.876 and there is a requirement to educate professionals and equip them with new and higher-level skills to have reduced procurement costs as shown by a mean of 3.210.

**Table 4: Ethical Procedure**

Statement	Mean	Std
The procurement staff have been certified by the professional body thus there is quality of procured goods and services in the organization	3.332	.543
There is a continuous testing of staff competence which enhance diversity of procurement functions to increase efficiency and effectiveness in the procurement process	2.990	.093
The organization employs procurement and supply management from the recognized institutions to enhance timely delivery of goods and services	3.678	.209
The organization procurement professionals acknowledge and device strategies for managing complex challenges thus reduction of procurement costs	2.876	.206
There is a requirement to educate professionals and equip them with new and higher-level skills to have reduced procurement costs	3.210	.180

### Performance of PPPs

The data was collected from the different indicators of the variable performance of PPPs which was ordinal categorical. The data was therefore presented in frequency tables with the median being used as the appropriate measure of central tendency. The results were presented in Table 5. The first indicator for the dependent variable required to know what the organizations level supply performance was timely delivery of goods and services was, 0% of the respondents had 0-20%, 3% had 20-30%, 11% had 30-40%, 17% had 40-50%, 69% had had over 50%. The modal class is of the respondents who had over 50% timely delivery of goods and services. The mode was found to be 5 which implied that on average the organizations level of timely delivery of goods and services is over 50%.

The next indicator required the respondents to state the level of minimization of procurement expenditure in the organization, 3% of the respondents had 0-20%, 3% had 20-30%, 14% had 30-40%, 26% had 40-

50%, 49% had over 50%. The modal class is of the respondents who had over 50%. The median was found to be 5 which implied that on average firm's levels of minimization of procurement expenditure was by over 50%. When the respondents were asked what the level of order fulfillment was, 0% of the respondents 0-20%, 3% had 20-30%, 3% had 30-40%, 34% had 40-50%, 60% had over 50%. The modal class was of the respondents who had over 50% level of order fulfillment. The median was found to be 5 which implied that on average the level of level of order fulfillment in organizations was over 50%.

Finally, the respondents were asked what the level of quality of procured goods and services offered was, 0% of the respondents 0-20%, 3% had 20-30%, 20% had 30-40%, 43% had 40-50%, 34% had over 50%. The modal class of the respondents who had between 40-50% quality level. The mode was found to be 4 which implied that on average the level of quality of procured goods and services offered is between 40-50%.

**Table 5: Performance PPPs Statistics**

Statement	0%-10%	11%-20%	21%-30%	31%-40%	Over 40%	Mode
What is the level of timely delivery of goods and services?	0	3	11	17	69	5
What is the level of minimization of procurement expenditure?	3	3	14	26	49	5
What is the level of order fulfillment?	0	3	3	34	60	5
What is the level of quality of procured goods and services offered?	0	3	20	43	34	4

### Multiple Regression Analysis

The study adopted a multiple regression analysis so as to establish the relationship of independent variables and dependent variables. Multiple regression analysis explains or predicts variation in a dependent variable because of the independent variables and this is assessed using the coefficient of determination known as R square and the larger the coefficient, the larger the effect of the independent

variable upon the dependent variable. The R Square can range from 0.000 to 1.000, with 1.000 showing a perfect fit that indicated that each point is on the line (Carver *et,al.*, 2009). The coefficients or beta weights for each variable allowed the researcher to compare the relative importance of each independent variable (Gupta, 2007). In this study the unstandardized coefficients are given for the multiple regression

equations. The discussions were based on the standardized coefficients for studying each variable.

According to the model summary Table 6, R is the correlation coefficient which shows the relationship between the independent variables and dependent variable. It was notable that there exist strong positive relationship between the independent variables and dependent variable as shown by R value (0.893). The coefficient of determination ( $R^2$ ) explained 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 and the four independent variables that were studied explain 79.70% of the supply chain performance and represented by the  $R^2$ . This therefore meant that other factors not studied in this research contributed 20.30% of the performance of PPPs. This implied that these variables were very significant therefore needed to be considered in any effort to boost performance of PPPs.

**Table 6: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.893	.797	.775	.281

### Analysis of Variance

From the ANOVA statics Table 7, the study established analysis of variance had a significance level of 0.000 which was an indication that the data was ideal for making a conclusion on the population parameters as the value of significance (p-value) was

less than 0.05. The calculated value was greater than the critical value ( $13.480 > 3.458$ ) indication that set of independent variables affect all influence performance of PPPs. The significance value was less than 0.05 indicating that the model was significant.

**Table 7: Analysis of Variance**

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	32.876	4	8.129	13.480	.000
Residual	112.765	179	.603		
Total	40.267	183			

Critical value = 3.458

### Regression Coefficients

From the data in Table 8, it was established that regression equation was  $Y = 33.298 + 0.865X_1 + 0.768X_2 + 0.611X_3 + 0.543X_4$ . Therefore, performance of PPPs =  $33.298 + (0.865 \times \text{Tendering Procedure}) + (0.768 \times \text{Supplier Assessment procedure}) + (0.711 \times \text{Material Control Procedure}) + (0.611 \times \text{Ethical Procedure})$ . From the results of this study, procurement procedure contributed more to the performance of PPPs. The finding revealed that holding independent variables constant to a constant zero, supply chain performance would be at 33.298, a unit increase in tendering procedure would lead to increase in

performance of PPPs by a factor of 0.865, a unit increase in supplier assessment procedure would lead to performance of PPPs by factor of 0.768, a unit increase in material control procedure would lead to increase in performance of PPPs by a factor of 0.611 and unit increase in ethical procedure lead to increase in performance of PPPs by a factor of 0.603. At 5% level of significance, tendering procedure had a p-value of 0.001, supplier assessment procedure had a p-value of 0.003, material control procedure had a p-value of 0.006, and ethical procedure had a p-value of 0.007. Therefore, the most significant factor was tendering procedure.

**Table 8: Regression Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
Constant	2.730	.953		2.865	.006
Tendering Procedure	.865	.173	.558	4.950	.001
1 Supplier Assessment Procedure	.768	.174	.438	4.397	.003
Material Control Procedure	.611	.192	.366	3.187	.006
Ethical Procedure	.603	.252	.326	2.391	.007

a. Dependent Variable: Performance of PPPs

## CONCLUSIONS

The study concluded that tendering procedures were the first important factor which influences procurement performance in PPPs projects in Kenya. The regression coefficients of the study showed that tendering procedure has a significant influence on procurement performance in PPPs projects in Kenya. This implied that increasing levels of tendering procedure would increase the levels of procurement performance in PPPs projects in Kenya.

The study concluded that supplier assessment procedures were an important factor which influences procurement performance in PPPs projects in Kenya. The regression coefficients of the study showed that supplier assessment procedures have a significant influence on procurement performance in PPPs projects in Kenya. This implies that increasing levels of supplier assessment procedure would increase the levels of procurement performance in PPPs projects in Kenya.

Further, the study concluded that material control procedure was an important factor which influences procurement performance in PPPs projects in Kenya. The regression coefficients of the study showed that material control procedure has a significant influence on procurement performance in PPPs projects in Kenya. This implied that increasing levels of material control procedure would increase the levels of procurement performance in PPPs projects in Kenya.

Further, the study concluded that ethical procedure was an important factor which influences

procurement performance in PPPs projects in Kenya. The regression coefficients of the study showed that ethical procedure has a significant influence on procurement performance in PPPs projects in Kenya. This implied that increasing levels of ethical procedure would increase the levels of procurement performance in PPPs projects in Kenya.

## RECOMMENDATIONS

From the study results the tendering procedures improves the performance of PPPs projects in Kenya. Tendering application procedures should clearly contain the design and specification of the projects. The tendering process reduces quality of projects, all bodies involved in supplying and receiving tender documents should ensure this is done within the time frame provided and if possible adjust the time framework currently in use.

The study established a positive relationship between procurement appraisal procedure and procurement performance. The organization should therefore invest on modern appraisal criteria that have been proven to have greater procurement performance. The study established that capacity assessment affects procurement performance. The study recommended that, the organization should pursue capacity assessment techniques that are geared towards long term relationship, in order to save on the cost on regular supplier appraisal

The study recommended that there should be a centralized material management team co-ordination between the site and the organization, proper control, tracking and monitoring of the system is

required. There is a need of an efficient MIS integrating all aspects of material management. The projects employing proper material management system are seen to have increased their overall efficiency.

The study therefore recommended that ethical procedure should be enhanced to reduce the cases of unethical practices relating to procurement in the PPPs in Kenya. Conflict of interest should be put on a check since it affects the setting of projects. Tender bids evaluation need to be improved to take lesser time. The tender committee needs to be investigated for allegations of corruption and specifications should be made clear in the projects.

#### **Areas for Further Research**

The study was a milestone for further research in the field of procurement performance in PPPs in Africa

and particularly in Kenya. The findings demonstrated the important factors to enhancement of performance of PPPs to include; tendering procedure, supplier assessment procedure, material control procedure and ethical procedure. The current study should therefore be expanded further in future in order to determine the effect of procurement legal framework on procurement efficiency in PPPs. Existing literature indicated that as a future avenue of research, there is need to undertake similar research in other government institutions and public sector organizations in Kenya and other countries in order to establish whether the explored factors can be generalized to affect procurement efficiency in the public sector.

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