Effect of Electronic Supplier Management Practices on the Implementation of Preference Regulations on State Corporations in Kenya

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Abstract:
The use of technology, including electronic tools and platforms, is vastly changing the way public procurement is executed and constitutes a key part of modern public procurement. The study sought to determine the effect of electronic supplier management practices on the Implementation of preference regulations in Kenyan State Corporations. The specific objective of the study was to find out the effect of interaction, categorizing and evaluating new suppliers' online practices on the implementation of preference regulations in Kenyan state corporations. The targeted population was 292 state corporations. Random sampling was used to select the 127 state corporations. Data collection instruments used was mainly questionnaires which were administered to the procurement staff of the government agencies while PPOA staffs were interviewed. Both content and construct reliability was carried out through engagement of experts in preparing the questionnaire. Piloting was done in University of Eldoret and Moi Teaching and Referral Hospital, though the results were not used in the study. To ensure that the instrument is reliable, a Cronbach's Alpha of Coefficient of 0.781, was attained, which is far way above the recommended 0.7 in social sciences. The study employed descriptive and explanatory research designs. Descriptive statistical procedures including cross-tabulations and frequency distributions was used to provide comparisons and contrasts between electronic supplier management practices and implementation of preference regulations. The collected data was analyzed using multiple regressions and correlation analysis, the significant of the independent variable was tested at a confidence level of 95%. Data analysis was done using the statistical Package for Social Science (Version 20). The results were presented in form of tables, charts and cross tabulations. The study recommended that sufficient effort needs to be directed towards the evaluation of new suppliers, categorizing new customers together with a focus on appraisals on marginalized groups and there is need to focus on electronic supplier management as it will help implement preference regulations. The findings will contribute to the pool of knowledge in the field of procurement and will form the basis of reference by interested parties in future. The management of state corporations will use the findings of this study to guide them in performance management. Furthermore, the findings will be a source of reference for academicians who intend to carry out studies in relation to the subject of state corporations' regulations. Further research needs to be done on IFMIS and with other variables relevant to the study.

Keywords: Electronic supplier management, implementation, preference regulations

1. Introduction

1.1. Background

The preference regulations have been on for some time with Germany and Britain being the early adopters of the process in the late 20th century. (GIZ, 2013), The adoption also came with trading blocs which gave preferential treatment to members of the trading blocks in the European Union. According to the African Development Bank (ADB) report in 2014, Britain first adopted preference regulations in public procurement in 1999, with a view at improving efficiency, modernization and competitive approach. (ADB, 2014). According to the GIZ (German Development Corporation) report, in 2000, e-procurement was pioneered in conjunction with e-auctions and e-sourcing with measures at cost cutting. This led to a number of commonwealth countries revamping their procurement systems and Canada adopted the system in 2003, Australia in 2004, New Zealand in 2009, South Africa in 2002 and Kenya in 2005 among other countries. (ADB, 2014)

The use of technology, including electronic tools and platforms, is vastly changing the way public procurement is executed and constitutes a key part of modern public procurement. The benefits of e-procurement are much more than improved efficiency through computerization of processes. It represents a powerful information and management tool that underpins the strengthening of public procurement systems and that can transform the provision of public services (Bailey 2008). While not a panacea, many countries have been successful in lowering transaction costs, time, and prices, mainly for high-volume, low-value items that are particularly amenable to the use of framework agreements, reverse auctions, catalogues, and purchase cards. In some cases, these systems are shown to increase competition and may even be more reliable in terms of integrity than other methods. (ADB, 2014). In Africa, the concept of preference regulations started in South Africa in 2000 and has undergone quite a tremendous change to suit the dynamics of changing policies and environment (Ambe & BaddenHorst-Weiss, 2010).

They further stated that South Africa gave Supply chain management constitutional status in 2003 so as to address past inequitable policies and practices. Cane (2004) stated that procurement is central to the government service delivery system, and promotes aims which are, arguably, secondary to the primary aim of procurement such as using procurement to promote social, industrial or environmental policies. Prior to 1994, public procurement in South Africa was geared towards large and established contractors. It was difficult for new contractors to participate in government procurement procedures. Reforms in public procurement in South Africa were initiated to promote the principles of good governance, and the National Treasury introduced a preference system to address socioeconomic objectives.

The reform processes were due to inconsistency in policy application and the lack of accountability and supportive structures as well as fragmented processes (Ambe & BaddenHorst-Weiss, 2010). Thus, procurement in South Africa had the following objectives Primary Objective Procurement system to be fair, equitable, transparent, competitive and cost effective Section 217(1). Secondary objective of Procurement policy is that it may provide for categories of preference in the allocation of contracts and the protection or advancement of persons, or categories of persons, disadvantaged by unfair discrimination Section 217(2). (Ambe & BaddenHorst-Weiss, 2010). The general purpose of this study was to analyze the effect of electronic supplier management practices on the implementation of preference regulations on state corporations in Kenya.

2. Literature Review

2.1. Electronic Supplier Management Practices

According to Weele Van (2005) Electronic Supplier relationship management is a broadly recognized, widely-implemented strategy for managing and nurturing a company's interactions with suppliers and vendor prospects. It involves using technology to organize, automate, and synchronize business processes principally buying activities, but also those for marketing, customer service, and technical support. Knowledge management is a discipline that promotes an integrated approach to identifying, capturing, evaluating, retrieving, and sharing all of an enterprise's information assets. These assets may include databases, documents, policies, procedures, and previously un-captured expertise and experience in individual customers. Supplier Relationship Management is an aspect of knowledge management that will focus on the suppliers and their relationships with the organization.

It will integrate with various aspects of the organization like logistics and marketing and management. Research and development will also be integrated as well as quality assurance departments (Herington and Peterson, 2000). Most organizations are now more customer-focused and use knowledge-based strategies to reach out to their customers. Knowledge management's overall goal is to build an organization that can 'see' the customer (customer-focused), for it is the customer that drives any business. "Knowledge management is the process of capturing, distributing, and effectively using knowledge." (Herington and Peterson, 2000). Managers can identify opportunities to use information systems to achieve a competitive advantage through: Automation of processes and production, Total quality management, Computer-based applications, Effective use of resources and Value chain analysis (Weele Van 2005). A radical Business Process reengineering can link the SRMIS with other nodes of the MIS within the organization to help ensure competitive advantage in terms of knowledge management of the suppliers. (Bailey et al 2010).

When doing an analysis to which system would work, porters five forces competitive model would be quite relevant in helping to do a gap analysis and tell us who our suppliers are, where are they strategically, barriers to entry if any, substitute products, threat of buyers, threat of suppliers and the industry as a whole. (Bailey et al 2010). An effective Supplier Management Information System (SMIS) will have a decision support system attached to it to help make decisions and also an integrated system to help integrate with other nodes on MIS within the organization (Siebel, 2001) With the SMIS, we can manage knowledge about our customers from all perspectives and it will help in gaining a competitive advantage because it is easier to maintain the current customers and get new ones and notice if something changes in the customer trends to help mitigate any losses of customers or also improve products and services. (Stigler 1971).

Lean supply chain management is a comprehensive production management system developed by Toyota in Japan but perfected by other scholars and organizations that deals with elimination of waste and reduction of error reduced inventories costs bringing about efficiency and effectiveness (Lu, 2012). With the introduction of concepts like JIT (Just in Time) and VMI (vendor managed inventory), it is paramount that best practice organizations introducing lean supply chain management practices identify strong suppliers and develop those suppliers into partners (KPMG, 2012). The report further states that a diverse supplier base and mentoring of suppliers by the buyer means that efficiency and effectiveness is achieved in service delivery. When conducting a new supplier appraisal whether electronic or manual, assessment emphasis is put on product quality, planning, supply assurance, customer focus

and change control. Low scores indicate supplier improvement is needed but supplier potential should also be seen. This means that even preference groups with low scores cannot be eliminated from supplying in public entities (KPMG 2012).

This supports out the hypothesis H_{o1} Electronic Supplier Management has no significant effect on the implementation of preference regulations.

3. Research Methodology

The study adopted both descriptive and explanatory research designs. Descriptive research can be either quantitative or qualitative. It involves collections of quantitative information that can be tabulated along a continuum in numerical form. This provided a better understanding of the research problem than the use of either one method alone in a study. This is argued to be one, if not, the most of the central premise of the positivism philosophical reasoning in research today (Tashakkori & Teddlie, 2003). On the other hand, According to Cooper and Schindler (2003), an explanatory study uses theories or hypotheses to account for the forces that caused a certain phenomenon to occur. They further said it goes beyond description and attempts to explain the reasons for the phenomenon. Orodho (2003) explained that an explanatory study analyses the cause-effect relationship between two or more variables. The explanations argue that phenomenon Y (absorption of preference regulations) is affected by variable X (E- Supplier Management). This design was chosen because it applied closely to the research objectives of this study and was practical in testing the study.

The proposed study target population comprised of all the 292 state corporations that implement the preference regulations in Kenya (PPOA 2015). The number of state corporations was selected through random sampling technique to obtain 127 state corporations. The sample size was obtained using the following Nassiuma (2000) formula;

$$\frac{Nc^2}{c^2 + (N-1)e^2} = n$$

Where, n=Sample size, N=Population, c=covariance, e= standard error

Nassiuma, (2000) asserts that in most surveys, a coefficient of variation in the range of $21\% \leq C \leq 30\%$ and a standard error in the range $2\% \leq e \leq 5\%$ is usually acceptable. Therefore, a coefficient variation of 30% and a standard error of 2% were used. The higher limit for coefficient of variation and standard error was selected so as to ensure low variability in the sample and minimize the degree or error

$$\frac{292(0.3)^2}{0.3^2 + (292-1)0.02^2}$$

= 127 state corporations. Using this formula, a sample of 127 state corporations were selected. This study used the questionnaire and interview schedules for data collection. The questionnaires were self-administered because all the respondents had a high level of education and were relatively cheaper. The questionnaires were hand-delivered to the respondents by two research assistants. The questionnaires were administered by the researcher and research assistants to avoid misinterpretation of questions by 'drop and pick' technique.

Collected data was coded and analyzed using descriptive techniques. Objective was analyzed using descriptive statistics and presented in cross tabulation and frequency tables. Regression analysis was used to analyze the objective to ascertain how performance appraisal variables interact with employee job productivity. This method was then adopted since the data to be collected was categorical. The findings drawn from the study guided the researcher in drawing informed conclusions and later recommendations. All statistical tests were performed using SPSS version 20 software programs commonly accepted descriptive statistics including measures of central tendency for frequency distribution, correlation, regression and standard deviation as a measure of variation were determined, as advocated by Neuman (2003) and Stephens (2004).

4. Results and Discussions

4.1. This section of the analysis presents results on electronic supplier management. Table 1 presents the results.

	Electronic Supplier Management		SD	D	N	A	SA	Mean	Std. Deviation
1	We electronically search for new suppliers	Freq.	0	38	25	34	25	3.38	1.131
		%	0	31.1	20.5	27.9	20.5		
2	We electronically search for new products in the markets	Freq.	0	8	36	46	32	3.84	0.894
		%	0	6.6	29.5	37.7	26.2		
3	We electronically evaluate new suppliers	Freq.	1	43	12	52	14	3.29	1.095
		%	0.8	35.2	9.8	42.6	11.5		
4	We Electronically Confirm new supplier's references	Freq.	8	17	29	47	21	3.46	1.129
		%	6.6	13.9	23.8	38.5	17.2		
5	We Electronically Interact with new suppliers	Freq.	13	39	19	25	26	3.1	1.345
		%	10.7	32	15.6	20.5	21.3		
6	We Electronically Categorize new customers	Freq.	24	19	25	47	7	2.95	1.252
		%	19.7	15.6	20.5	38.5	5.7		
7	We electronically do supplier prequalification	Freq.	7	20	4	70	21	3.64	1.121
		%	5.7	16.4	3.3	57.4	17.2		
8	WE Electronically do E-auctions	Freq.	16	23	15	47	21	3.28	1.313
		%	13.1	18.9	12.3	38.5	17.2		
9	We electronically do location search	Freq.	23	21	7	53	18	3.18	1.391
		%	18.9	17.2	5.7	43.4	14.8		
10	We electronically do appraisals on marginalized groups	Freq.	7	27	23	32	33	3.47	1.261
		%		5.7	22.1	18.9	26.2	27	

Table 1: Electronic Supplier Management

Based on the findings in the table, 20.5% (25) of the respondents strongly agreed that they electronically search for new suppliers, 27.9% (34) of them agreed and 20.5% (25) were neutral. However, 31.1% (38) of the respondents disagreed that they electronically search for new suppliers. The results summed up to a mean of 3.38 and standard deviation of 1.131 an indication that search for new suppliers has not been fully electronic.

Also, the respondents were asked whether they electronically search for new products in the market. From the results, 26.2% (32) of the respondents strongly agreed, 37.7% (46) of them agreed while 29.5% (36) of the respondents were neutral and 6.6% (8) of them disagreed. This summed up to a mean of 3.84 and standard deviation of 0.894 an indication that the respondents were in agreement. Additionally, 11.5% (14) of the respondents strongly agreed that they electronically evaluate new suppliers, 42.6% (52) of the respondents agreed with the statement, 9.8% (12) of the respondents were undecided whereas 35.2% (43) of the respondents disagreed.

The item revealed a mean of 3.29 inferring that the respondents were undecided as to whether they electronically evaluate new suppliers. Furthermore, 17.2% (21) of the respondents strongly agreed that they electronically confirm new suppliers' references,38.5% (47) of the respondents agreed,23.8% (29) were neutral while 13.9% (17) of them disagreed and 6.6% (8) of them strongly disagreed. The results summed up to a mean of 3.46 and standard deviation of 1.129 meaning that employees electronically confirm new suppliers' references. In a similar vein, 21.3% (26) of the respondents strongly agreed that they electronically interact with new suppliers, 20.5% (25) of them agreed, 15.6% (19) of them were neutral while 32% (39) of them disagreed and 10.7% (13) of the respondents strongly disagreed. The results on the item revealed a mean of 3.1 and standard deviation of 1.345 indicating that it has not been fully established whether employees electronically interact with new suppliers.

Also, 5.7% (7) of the respondents strongly agreed that they electronically categorize new customers, 38.5% (47) of them agreed, 20.5% (25) of them were undecided while 15.6% (19) disagreed and 19.7% (24) of the respondents strongly disagreed that they electronically categorize new customers. The mean for the item was 2.95 and the standard deviation 1.252 indicating that the respondents were uncertain as to whether new customers are categorized electronically.

As well, 17.2% (21) of the respondents strongly agreed that they electronically do supplier prequalification, 57.4% (70) of them agreed that they electronically do supplier prequalification, 3.3% (4) of them were undecided while 16.4% (20) of them disagreed and 5.7% (7) of the respondents strongly disagreed. The results summed up to a mean of 3.64 and standard deviation of 1.121 indicating that the respondents were in agreement that they electronically do supplier prequalification. In a bid to establish whether the respondents electronically do E-auctions, the respondents were asked to respond accordingly. The results revealed that 17.2% (21) of the respondents strongly agreed, 38.5% (47) of them agreed, 12.3% (15) were neutral while 18.9% (23) of the respondents disagreed and 13.1% (16) of them strongly disagreed. The results summed up to a mean of 3.28 and standard deviation of 1.313. Additionally, 14.8% (18) of the respondents agreed that they electronically do location search, 43.4% (53) of them agreed while 5.7% (7) were undecided, 17.2% (21) of the respondents disagreed and 18.9% (23) of them strongly disagreed.

The item revealed a mean of 3.18 and standard deviation of 1.391 meaning that the respondents were generally undecided. Finally, 27% (33) of the respondents strongly agreed that they electronically do appraisals on marginalized groups, 26.2% (32) of them agreed,

18.9% (23) of them were neutral whereas 22.1% (27) disagreed and 5.7% (7) of the respondents strongly disagreed. The mean for the item was 3.47 and the standard deviation was 1.261 implying that appraisals on marginalized groups was mostly done electronically.

In corroboration with the study findings, Weele Van (2005) posits that supplier relationship management nurtures a company's interactions with suppliers and vendor prospects thus reaching out more to customers. This is also in line with Herringson and Peterson (2000) who stated that Supplier Relationship Management is an aspect of knowledge management that will focus on the suppliers and their relationships with the organization. It will integrate with various aspects of the organization like logistics and marketing and management. Research and development will also be integrated as well as quality assurance departments.

4.2. Factor Analysis

4.2.1. Electronic Supplier Management

4.2.1.1. KMO and Bartlett's Test
Sampling adequacy was tested using the Kaiser- Meyer- Olkin Measure (KMO measure) of sampling adequacy for each of the four factors. As evidenced in Table 2, KMO was greater than 0.5, and Bartlett's Test was significant.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.702
Bartlett's Test of Sphericity	Approx. Chi-Square	805.443
	Df	45
	Sig.	0.000

Table 2

4.2.1.2 Total Variance Explained
Electronic supplier management with ten measurement items were subjected to the factor analysis and three components with Eigen values ≥ 1 were extracted which cumulatively explained 75.755% of variance. The first factor accounted for 42.805% of the total variance, the second factor accounted for 19.612 and the third factor 13.338 as shown in Table 3 below.

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.28	42.805	42.805	4.28	42.805	42.805	3.055	30.548	30.548
2	1.961	19.612	62.417	1.961	19.612	62.417	2.754	27.544	58.092
3	1.334	13.338	75.755	1.334	13.338	75.755	1.766	17.664	75.755

Table 3

4.2.1.3 Rotated Component Matrix for Electronic Supplier Management
Factor analysis for electronic supplier management was conducted to ensure that all of the constructs used are valid and reliable before proceeding for further analysis. In Table 4, the study requested that all loading less than 0.5 be suppressed in the output, hence providing blank spaces for many of the loadings. Also, all values for all the factors were more than 0.5 reflecting the accepted value of factor loading.

	1	2	3
We electronically search for new suppliers			0.87
We electronically search for new products in the markets		0.761	
We electronically evaluate new suppliers			0.721
We Electronically Confirm new suppliers' references	0.63		
We Electronically Interact with new suppliers		0.906	
We Electronically Categorize new customers	0.704		
We electronically do supplier prequalification	0.825		
WE Electronically do E-auctions	0.906		
We electronically do location search	0.714		
We electronically do appraisals on marginalized groups		0.884	
Extraction Method: Principal Component Analysis.			
Rotation Method: Varimax with Kaiser Normalization.			
a Rotation converged in 5 iterations.			

Table 4

4.3. Variables Constructions

The findings in Table 5 provide descriptive statistics for the variable. Results showed that electronic supplier management had a mean of 3.3574. Further, to test the normality distribution the study examined the Skewness and kurtosis values. Skewness is used to measure the symmetry of a distribution while kurtosis is used to measure the peakness or flatness of a distribution (Tabachnick and Fidell, 2007). Based on the results, the values of Skewness and kurtosis revealed that the data was normally distributed where the Skewness values was in the range of -1.739 to 1.099. The value for kurtosis, on the other hand, was in the range of -1.106 to 2.834.

Variables constructions	Mean	Std. Deviation	Skewness	Kurtosis
Implementation of preference regulations	3.7698	0.36538	1.099	0.418
Electronic Supplier Management	3.3574	0.76837	-0.042	-0.54

Table 5

4.4. Correlation Results

Correlation statistics is a method of assessing the relationship between variables/factors. To be precise, it measures the extent of association between the ordering of two random variables although; a significant correlation does not necessarily indicate causality but rather a common linkage in a sequence of events.

Thus, the study analyzed the relationships that are inherent among the independent and dependent variables as well as among the independent variables/ factors. The results regarding this were summarized and presented in Table 6. Pearson Correlation results in Table 6 showed that regulated electronic tendering is positively related with implementation of preference regulations with a Pearson Correlation coefficient of r= .611 which is significant at p < 0.01. The output also shows that electronic supplier management is positively related with implementation of preference regulations, with a coefficient of r = .629 which is also significant at p< 0.01.

Also, the correlation results indicated that electronic order processing is positively related with implementation of preference regulations as shown by a coefficient of r = .235 which is significant at p< 0.01. However, IFMIS exhibited a negative and insignificant relationship with the implementation of preference regulations as evidenced by a coefficient of r = -.04. From the foregoing, there is a linear relationship between regulated electronic tendering, electronic supplier management and electronic order processing with implementation of preference regulations. This provided more ground to perform multiple regression analysis.

	Implementation of preference regulations	Electronic Supplier Management
Implementation of preference regulations	1	
Electronic Supplier Management	.629**	1
	0.000	

Table 6

4.5. Model Summary

Table 7 presents the model summary for regression analysis. The R^2 which means the percentage of independent variables that explain the variance in dependent variable (implementation of preference regulations). Table 7 illustrates that all the four predictors (regulated electronic tendering, electronic supplier management, IFMIS and electronic order processing) explained 47.7 percent variation of implementation of preference regulations. Autocorrelation, also known as serial correlation, refers to the correlation of error components across time periods.

This condition violates the classical assumption of regression analysis but it is a reasonable characteristic of error term in time series analysis (Wooldridge, 2003). From the findings, the Durbin- Watson value was within the thumb rule (1.624) which shows lack of serial correlation.

R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
.691a	0.477	0.459	0.26869	1.624
a Predictors: (Constant), IFMIS, Electronic Order Processing, Electronic Supplier Management, Regulated Electronic Tendering				
b Dependent Variable: Implementation of preference regulations				

Table 7

4.6. ANOVA Model

Study findings in Table 8 indicated that the above discussed coefficient of determination was significant as evidence of F ratio of 26.689 with p value 0.000 <0.05 (level of significance). Thus, the model was fit to predict implementation of preference regulations using regulated electronic tendering, electronic supplier management, IFMIS and electronic order processing.

	Sum of Squares	df	Mean Square	F	Sig.
Regression	7.707	4	1.927	26.689	.000b
Residual	8.447	117	0.072		
Total	16.154	121			
a Dependent Variable: Implementation of preference regulations					
b Predictors: (Constant), IFMIS, Electronic Order Processing, Electronic Supplier Management, Regulated Electronic Tendering					

Table 8

4.7. Hypothesis Testing
Before explaining the results of multiple regression analysis, it is useful to check for multicollinearity. Multicollinearity means that two or more of the independent variables are highly correlated and this situation can have damaging effects on the results of multiple regressions. The correlation matrix was a powerful tool for getting a rough idea of the relationship between predictors. The VIF values in Table 26 were less than four meaning that there was no multicollinearity.

Findings in Table 9 showed that regulated electronic tendering had coefficients of estimate which was significant basing on $\beta_1 = 0.365$ (p-value = 0.000 which is less than $\alpha = 0.05$) thus we conclude that regulated electronic tendering has a positive and significant effect on implementation of preference regulations. This suggests that there is up to 0.365 unit increase in implementation of preference regulations for each unit increase in regulated electronic tendering.

The effect of regulated electronic tendering is more than 4 times the effect attributed to the error, this is indicated by the t-test value = 4.066. Research findings also showed that electronic supplier management had coefficients of estimate which was significant basing on $\beta_2 = 0.35$ (p-value = 0.000 which is less than $\alpha = 0.05$) implying electronic supplier management has a significant effect on implementation of preference regulations. This indicates that for each unit increase in electronic supplier management, there is 0.35 units increase in implementation of preference regulations. Furthermore, the effect of electronic supplier management was stated by the t-test value = 3.932 which implies that the standard error associated with the parameter is less than the effect of the parameter.

As shown in Table 10, p-value is significant ($p < 0.05$), and the beta value of electronic order processing was positive (beta = 0.144). Therefore, the researcher rejects the null hypothesis and concludes that electronic order processing has a positive and significant effect on implementation of preference regulations. Consequently, for each unit increase in electronic order processing, there is 0.144 unit increase in implementation of preference regulations. Finally, the effect of electronic order processing is shown by the t-test value of 2.116 which implies that the effect of electronic order processing surpasses that of the error by over 2 times.

Hypothesis	Beta	*p* - Values	Comments	Decisions
$H_{o1:}$ Regulated Electronic Tendering practices has no significant effect on the implementation of preference regulations in Kenyan state corporations.	0.365	0.000	Significant	Reject
$H_{o2:}$ Electronic Supplier Management practices have no significant effect on the implementation of preference regulations in Kenyan state corporations.	0.35	0.000	Significant	Reject

Table 9
Source: Survey Data (2016)

5. Conclusions

5.1. Summary of Findings
The study specifically determined the effect of electronic supplier management practices on the implementation of preference regulations in Kenyan state corporations.

5.1.1. Electronic Supplier Management
Findings on electronic supplier management revealed that employees electronically search for new products in the market. Supplier prequalification is done electronically together with confirmation of new suppliers' references. Besides, appraisals on marginalized groups is done electronically though there is doubt whether new suppliers are searched for electronically. Also, it was not fully established whether new suppliers are evaluated electronically, if employees electronically interact with new suppliers, if employees electronically categorize new customers, whether employees electronically do E-auctions and if employees electronically do location search.

5.2. Conclusion
Electronic supplier management exhibited a positive and significant effect on the implementation of preference regulations. This is due to the fact that the electronic supplier management makes it possible for employees to search for new products in the market. It is therefore possible for organizations to implement preference regulations since there is a system for appraisals on marginalized groups.

5.3. Recommendations
In order to implement preference regulations, there is need for focus on electronic supplier management. With this in place, it would be possible for employees to electronically search for new products in the market and also suppliers. Besides, sufficient effort needs to be directed towards the evaluation of new suppliers, categorizing new customers together with a focus on appraisals on marginalized groups. The study has added sufficient knowledge on the link between electronic supplier management and the implementation of preference regulations.

5.4. Further Research Recommendations

Other avenues of future research in the area of preference regulations, relate to some of the inconclusive or contestable findings encountered in the study. Also, future research should have to draw sample of respondents on a larger sample for the sake of generalizing the results of the study. Moreover, more time should be allocated to the same and a combination of more than one data collection instrument should be used for example focus group discussions, as this will help to counter check the information provided by the respondents. A further study needs to be conducted using more variables that may be relevant to this study. Ethics should also be a study variable that can be researched into further. Procurement as an avenue for empowerment in affirmative action can also be researched on to see if the objectives of preference regulations are being met or not.

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