Factors Influencing Effective Procurement Management in Organizations; a Study of National Hospital Insurance Funds, Eldoret Branch

Edwin K. Toroitich
Masters Student, Jomo Kenyatta University of Agriculture and Technology, Kenya
Dr. Mike Iravo
Senior Lecturer, Jomo Kenyatta University of Agriculture and Technology, Kenya

Abstract:
The purpose of the study was to find out the factors contributing to effective procurement management in organizations with specific reference to National Health Insurance Fund (NHIF). The specific objectives of the study was to establish the effects of needs identification, delivery schedule, supplier relations management and product review and acceptance on procurement management at NHIF, Eldoret Branch
The study employed a descriptive survey research design. The target population for the study were 150 respondents. The target population comprised of procurement manager and 149 members of staff of different departments within the organisation. The sample size comprised of 63 respondents. The researcher used purposive sampling technique to select procurement manager and stratified random sampling technique in selecting employees. Questionnaires and interview schedules were used as instruments of data collection. The research instruments were validated and tested for reliability prior to field administration. The data was organized, edited, analyzed and interpreted using descriptive and inferential statistics with the help of statistical package for social sciences (SPSS). The data was analyzed using frequency tables, percentages, charts and graphs. The effectiveness of procurement management at National Health Insurance Fund (NHIF) was found to be influenced by 21.5% of four factors that were studied; needs assessment (β=0.079), delivery schedule (β=0.173), supplier relationship management (β=0.123) and product review and acceptance (β=0.274). The overall coefficient of was R=0.548 which showed that there existed an average degree of correlation between the four factors studied and procurement management in organisations. To improve the procurement effectives, employees and other managers need to refrain from having conflict of interest by also being suppliers. This will ensure that good quality products and services are procured in the organisation. To improve SRM, close interaction should be enhanced whereby organisations will provide suppliers with information on the date, standards and quality of goods and services to be provided. The study is also significant in that it forms a useful foundation against which future studies can be undertaken by other researchers taking into account the suggestions for further studies. Findings of the study provide useful literature for other scholars who may wish to explore the area of procurement management and organizational performance further.

Keywords: Effectiveness, Organizational Performance, Procurement & Supplier.

1. Introduction

Organizations worldwide have various ways of enhancing their organizational performance although the ways vary from one organization to another depending on the actual functions of each organization. This is done in a bid to improve the performance of the organizations. Procurement management has emerged as the most important phenomenon in organizations that enables managers to harness the energies of all employees to determine their strength and maximize both employee and organizational productivity. Companies are striving to increase procurement management in what is the domain of management. For instance, procurement management has been used in Japanese super markets where managers ultimately depend on the ability of their members to work in concert to accomplish competitive supremacy. The managers use the procurement approach to link and align the resources available towards the attainment of the organizational goals and they facilitate efficiency and reduce operational costs. Public procurement management frameworks in Eastern Europe, specifically Russia are recognized as being characterized by an unstable tension between the public expectations of transparency and accountability, and of efficiency and effectiveness of resource management (Kelman, 2000).

The significance of public procurement reform for UK is increasingly being appreciated by development agencies globally, recognizing that the social and economic costs (Scott, 2004) of the weaknesses in public procurement governance are compounded by increases in sovereign risk that this represents for foreign investment (Soudry, 2007). In Africa, for instance Lewis and Roehrich (2009) point out that in Cameroon and Ghana effective procurement management starts with acknowledging that managing the processes used to sign contracts benefits the company. In Nigeria, developing critical procurement management expertise allows business professionals to increase their knowledge of production and inventory management, improve efficiency by streamlining processes across the supply chain using accurate forecasting techniques, maximize customer satisfaction by delivering products and services in a timely manner and enhancing credibility among peers, employers and suppliers. In Kenya, in the past decades, According to Odhiambo and Kamau (2003), 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. Using procurement management processes, organization in the country purchase the resources they need from suppliers or vendors to conduct business. Effective procurement management policies and procedures enable purchasing organizations to negotiate prices from supplies and vendors to get the best quality materials and services for business operations. Because large companies purchase resources in large volumes, they typically utilize formal procurement management processes.

In National Hospital Insurance Company, the company is trying to operate leaner, with a minimum of staff to maximize profitability. Findings of the procurement review of the National Hospital Insurance Fund (NHIF), carried out from 9 September to 29 November 2010. The Human Resource Management-Procurement and Supplies Property and Estates Management and the accounting officer of the NHIF ensure that the procurement management and plans are approved and reviewed as necessary in the organization. Procurement management in NHIF is essential for effective organizational performance and procurement. Procurement management entails more than the development of estimates for various goods, civil works and services. It combines the legal and institutional frameworks within which procurement must be carried out. It is against this background that the researcher investigated factors influencing the effectiveness procurement management at National Hospital Insurance Funds, Eldoret Branch (Procurement Review of National Hospital Insurance Fund, 2010).

1.1. Objectives of the Study
The general objective of the study was to find out the factors influencing effective procurement management in organizations with specific reference to NHIF Eldoret branch. The specific objectives of the study were;
1. To establish the effects of needs identification on effective procurement management at NHIF, Eldoret Branch.
2. To find out the effect of delivery schedule on effective procurement at NHIF, Eldoret Branch.
3. To find out the effect of supplier relations management on effective procurement management at NHIF, Eldoret Branch.
4. To determine the effect of product review and acceptance on effective procurement management at NHIF, Eldoret Branch.

2. Review of Literature

2.1. Review of Theoretical Literature
Need identification is the stage in which the sale professional takes the qualified prospect through a series of questions and answer sessions to determine or identify the requirements of the prospect. During this question and answer session, the sales person will attempt to help the buyer identify and qualify a business need or 'gap' between where the prospect is today and where they need to be in the future. Based on the gap, needs can be clarified to determine if the solution will fill all or part of this overall gap. Needs can be explained another way: the salesperson who uses selling skills to uncover prospects needs then tailor the response to them. The solutions presented relate directly to the prospects situation and needs. Features are still mentioned, but the emphasis is on the benefit – or value – to the prospect (Caldwell, 2009).

Delivery schedule is the timing or rate of delivery as required by a buyer, or as agreed between a buyer and a seller, for goods or services purchased for a future delivery period. Delivery Schedule (DS) is a business metric used to calculate the timeliness of deliveries from suppliers. It is a commonly used supply chain metric and forms part of the Quality, Cost, and delivery group of performance indicators. Poor DS can result in enhanced buffer stock being carried to compensate for suppliers that fail to deliver on time. This has an associated business cost whilst the potential for stock outs can affect customer service levels. Targets for DS are therefore usually set quite high and the calculation and review of the metric important. Some organizations experience problems in producing delivery schedule adherence information this can be caused by a failure of systems to record delivery forecast information, unreliable processes and poor communication between buyer and seller. Ensuring that DSA can be correctly calculated and then improved often forms part of improvement (Cousins and Spekman 2003).

Supplier relationship management (SRM) is the discipline of strategically planning for, and managing, all interactions with third party organizations that supply goods and/or services to an organization in order to maximize the value of those interactions. In practice, SRM entails creating closer, more collaborative relationships with key suppliers in order to uncover and realize new value, and reduce risk. Supplier relationship management (SRM) is the systematic, enterprise-wide, assessment of suppliers' assets and capabilities with respect to overall business strategy, determination of what activities to engage in with different suppliers, and planning and execution of all interactions with suppliers, in a coordinated fashion across the relationship lifecycle, in order to maximize the value realized through those interactions. The focus of SRM is to develop two-way, mutually beneficial relationships with strategic supply partners

to deliver greater levels of innovation and competitive advantage than could be achieved by operating independently or through a traditional, transactional purchasing arrangement (Ntayi, *et al.,* 2010).

Acceptance criteria are defined as the list of requirements that must be satisfied prior to the customer accepting delivery of the product". This document defines the acceptance process, the acceptance criteria, and the review/approval required for customer acceptance of the (Agency name) (project name) project deliverables. Product review and acceptance is an important element of the marketing arsenal of any organization. Unfortunately, many firms do not seem to realize it. Consequently, they develop strong arteries to innovation that rubs their performance rough. From the marketing standpoint, the socio-economic justification for the existence of any business organization is the satisfaction of customers' needs and wants. The organizational survival over-time depends on its ability to create loyal customers because its products match the needs of the buyers. Thus, the organization meets its basic responsibility to the society through its product offerings (Scott, 2004).

2.2. Empirical Review of Studies

Various studies have been conducted by researchers in Kenya to check on various factors influencing procurement in organisations. For instance, Chilikona and Muturi (2015) evaluate the factors affecting the performance of the procurement function among public technical training institutions in Kisumu County Kenya. Primary data was collected by using questionnaires. Data was analyzed using quantitative analysis by employing both descriptive and inferential statistics. The study concluded that information technology, ethics and staff competency had a positive effect on performance of the procurement function in technical training institutions. This study will not investigate technology, but will focus on the performance of procurement function in organisation.

Ojil, Kibet and Musiega (2014) research sought to assess the factors that influence the performance of supplies unit with special focus on County Government of Kakamega. The study adopted a descriptive research design. The study established that financial stability of a supplier had a positive effect on county government supplies units in Kakamega County. The study also revealed that quality management had a positive impact on county government supplies units in Kakamega County. The study further established that reliability of supplier had a positive effect on county government supplies units in Kakamega County. The study established the performance of suppliers before awarding tenders to them had positive influence on the county government supplies units in Kakamega County.

Bashuna (2013) assessed selected factors affecting effective management of the procurement function at Nakuru North Sub County Procurement Unit. This study carried out a census in the procurement units among departmental heads from all the 30 Ministry departments. The study established that management of the procurement function was found to be slightly effective. This was greatly attributed to project financing, accountability, ICT adoption and the internal control system as applied in departments.

Gikonyo (2014) assessed factors affecting implementation of the public procurement in SACCO societies in Kenya where the main variables include strategic planning, enforcement and organizational culture. Through a descriptive research design, the study findings revealed that 55% of the respondent believes that the impact of the regulator on SACCO is high, .The findings reveals that on the issue of the SACCO culture favors good procurement procedures, 53% of the respondent strongly agree.

Ocharo (2013) examine the factors that influence procurement performance in public institutions in Kenya. The study was conducted through a descriptive design using a cross sectional survey within Kenya's Ministry of Energy workforce at the Nairobi head office. Findings indicate that procurement planning has a significant impact on procurement performance. From the study, the model depicts that Planning accounts for 26.9% of variations in procurement performance, second resource allocation accounts for 17.2%, third, staff competency accounts for 20.1 % and lastly contract management accounts for 23.3% of variations in procurement performance.

Njeru (2015) conducted a research on determine factors affecting effective implementation of procurement practices in tertiary public training institutions in Kenya. A descriptive correlational research design was adopted and the target population comprised 40 tertiary public training institutions in Kenya. The study concluded that supplier management followed by training and then procurement policies are the major factors that mostly affect effective implementation of procurement practices tertiary public training institutions in Kenya.

3. Materials and Methods

The study utilised a descriptive research design technique. The target population comprised of 1 branch procurement manager and 149 members of staff. The researcher used purposive sampling technique to select procurement manager. The employees were selected through stratified random sampling method. The methods that were adopted include the questionnaires and interview schedule. Selection of these tools was guided by the nature of data collected, time available and objectives of the study. The data was organized, edited, analyzed and interpreted using descriptive statistics and inferential statistics. The researcher used the computer programme SPSS to code, enter and analyse quantitative data. Qualitative data from interview schedule was analysed using content analysis method. Data analyzed was presented using tables, percentages, charts and graphs.

4. Results

4.1. Effectiveness of Procurement Management

As a measurement of dependent variable, the respondents were asked to state the level of effectiveness of procurement management in their organisation. The results of the analysis are given in Table 1.

Effectiveness	N	Mean	Std. Deviation
Minimisation of procurement expenditure	61	4.3934	.58534
Organisation's economic performance / profitability	61	4.3443	.57403
Transparency and accountability of procurement funds	61	4.3115	.56394
Compliance with procurement regulations	61	4.1967	.51054
Quality of procured goods and services	61	4.0820	1.12982
Valid N (Listwise)	**61**	**4.2656**	**0.67273**

Table 1: Effectiveness of procurement management

Out of the five statements measuring the effectiveness of procurement management process, the respondents tended to agree (M=4.26 and SD=0.67) that there is effective procurement management based on the following reasons; there is minimisation of procurement expenditure (M=4.39 and SD=0.58), organisation economic performance and profitability has been attained (M=4.34 and SD=0.57), transparency and accountability of procurement funds (M=4.31 and SD=0.56), compliance with procurement regulations (M=4.19 and SD=0.51) and quality of procured goods and services (M=4.08 and SD=1.12).

4.2. Relationship between Needs Assessment and Effective Procurement Management
The study sought to determine the relationship that existed between needs assessment, and effective procurement management at NHIF, Eldoret Branch. To arrive at the study findings, a bivariate correlation analysis using ordinal scale was computed and the results are presented in Table 2. Results showed that there exist a significant positive relationship (r=0.431 and p=0.001) between needs assessment and effective procurement at NHIF Eldoret branch. This shows that needs assessment is an important factor influencing effectiveness of procurement management in organisations. The results coincides with Ocharo (2013) research who established that procurement plans influenced procurement plans in the sense that they provided focused and efficient utilization of the available resources, helped in budgeting and planning and therefore with adequate provision of funds due to procurement plans, performance is assured. Moreover, the respondents indicated that procurement plans helped to know what to buy, when, how and using which method of procurement.

4.3. Influence of Delivery Schedule on Effective Procurement Management
Results show that there exist significant positive relationship (r=0.440 and p=0.001) between delivery schedule and effective procurement management at NHIF. This implies that if goods are delivered on time and as per the schedule approved by both the organisation and suppliers, procurement process becomes easy.

4.4. Effect Supplier Relations Management on Effective Procurement
Supplier management is a business process that allows a company to adequately select its vendors and negotiate the best prices for goods and services that it purchases (Njeru, 2015). The third objective of the research was to investigate the effect of supplier relations management on effective procurement management at NHIF Eldoret Branch. Results show that at 0.05 significant level, there exist a significant positive relationship (r=0.338 and p=0.008) between supplier relationship management and effective procurement management at NHIF. This implies that organisation maintaining close relationship with suppliers, the procurement process will be effective (Table 2).

4.5. Relationship between Product Review and Acceptance on Procurement Management
The fourth objective of the study was to determine the influence of product review and acceptance on procurement management at NHIF Eldoret branch. Findings showed that there exist significant positive effect (r=0.489 and p=0.001) between product review and acceptance on effective procurement management in organisations. This implies that continuous product review and management would improve effective procurement in organisations (Table 2).

		Effective procurement
Needs assessment	Pearson Correlation	.431[**]
	Sig. (2-tailed)	.001
	N	61
Delivery schedule	Pearson Correlation	.440[**]
	Sig. (2-tailed)	.000
	N	61
Supplier relationship management	Pearson Correlation	.338[**]
	Sig. (2-tailed)	.008
	N	61
Product review and acceptance	Pearson Correlation	.489[**]
	Sig. (2-tailed)	.000
	N	61

Table 2: Effect of needs assessment on effective procurement management
**. Correlation is significant at the 0.01 level (2-tailed).

4.6. Factors Influencing Effective Procurement in Organisations
To answer the main objective of the study, four factors; needs assessment, delivery schedule, SRM and product review and acceptance were studied to determine the degree to which they influenced effective procurement in organisations. Therefore, a multiple linear regression analysis was computed and the results are presented in Table 3, 4 and 5.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.548[a]	.301	.251	.44194
a. Predictors: (Constant), Product review and acceptance, Supplier relationship management, Delivery schedule, Needs assessment				

Table 3: Model Summary

The coefficient of multiple determinations is 0.251 that suggests that 25.1% of variation in procurement management is explained by the four factors that were being studied. The correlation is r=0.548 which suggests that there exist a positive degree of correlation between the factors being studied and effective procurement management in organisations. The Analysis of Variance results are illustrated in Table 4.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.702	4	1.175	6.018	.000[a]
	Residual	10.938	56	.195		
	Total	15.639	60			
a. Predictors: (Constant), Product review and acceptance, Supplier relationship management, Delivery schedule, Needs assessment						
b. Dependent Variable: Effective procurement						

Table 4: ANOVA[b]

The ANOVA goodness of fit model shows that at α=0.05 level of significance, there existed enough evidence to conclude that the factors being tested in this study are useful for predicting effective procurement management making the model to be useful. The coefficient of correlations for the independent variable is given in Table 5.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1.510	.599		2.519	.015	.309	2.711
	Needs assessment	.079	.191	.069	.415	.680	-.304	.462
	Delivery schedule	.173	.129	.191	1.346	.184	-.085	.431
	Supplier relationship management	.123	.114	.135	1.077	.286	-.105	.351
	Product review and acceptance	.274	.156	.289	1.759	.084	-.038	.587
a. Dependent Variable: Effective procurement								

Table 5: Coefficients[a]

Findings show that at α=0.05 level of significance, there existed enough evidence to conclude that the slope of the independent variable is not zero hence the independent variable effective procurement management in organisations. The equation is presented as:

$$y = 1.510 + 0.079\beta_1 + 0.173\beta_2 + 0.123\beta_3 + 0.274\beta_4$$

This shows that a unit increase in automation of product review and acceptance, effective procurement reduces by 0.038 on the lower bounds, but increases by 0.587 on the upper bound at 95.0% confidence interval for beta values. The 't' values show the significant and comparatively high relatedness of predicting variable and criterion variable. The results show that the beta values for supplier relationship management is 0.123. Therefore, supplier relationship management significantly influences the effective implementation of procurement practices and thus has a significant positive relationship with effective implementation of procurement practice. The study concludes that; needs assessment, delivery schedule, supplier relationship management and product review and acceptance have a significant positive influence effectiveness of procurement management at NHIF, Eldoret Branch. The respondents were asked to indicate other factors influencing effective procurement at NHIF. The results of open-ended question are illustrated in Table 6.

Factor	Frequency	Percent
The timeframe for the goods to be supplied - thus the office should not have no stocks as they wait the supplier to avail the required items	17	27.9
Slashed budgets	15	24.6
non-compliance to the relevant laws	15	24.6
Number of supplies are few	13	21.3
Conflict of interest	11	18.0
Lack of training	10	16.4
Lack of needs identification from users	7	11.5
Prices especially of heavy machinery that are taxed by the government. this makes the employers capital intensive thereby running up costs of providing service	3	4.9

Table 6: Employee responses on other factors affecting effective procurement at NHIF

It is evident that 17 (27.9%) of respondents believed that the timeframe for the goods to be supplied - thus the office should not have no stocks as they wait the supplier to avail the required items. Secondly, 15 (24.6%) identified that non-compliance to the relevant laws and slashed budgets affected effective procurement. The number of suppliers was found to be few (21.3%), lack of training (18.0%), conflict of interest (16.4%), lack of early need identification form users (11.5%) and government taxes (4.9%). The result obtained by the study coincides with Chilikona and Muturi (2015) research in Kisumu County that revealed that competency of staff was the main areas that were observed to be the key contributors to staff competence. They included; included the training of new employers in the procurement departments, enhancing teamwork of procurement staff, acquaintance of the procurement act of 2009 by the procurement team and employing qualified and competent personnel in the procurement departments among others. It was established from the results that competency of staff/employees affects positively the performance of procurement functions in the two institutions.

5. Conclusions and Recommendations

The effectiveness of procurement management at National Health Insurance Fund (NHIF) was found to be influenced by 21.5% of four factors that were studied; needs assessment (β=0.079), delivery schedule (β=0.173), supplier relationship management (β=0.123) and product review and acceptance (β=0.274). The overall coefficient of was R=0.548 which showed that there existed an average degree of correlation between the four factors studied and procurement management in organisations. Moreover, study findings revealed that for procurement process to be effective, needs have to be identified early, regular communication is important between the organisation and its suppliers, delivery date should be well defined, products and services delivered should be periodically reviewed and supplier relationship management. These factors were found to play a significant role ($p<0.01$) towards ensuring procurement process achieve its objectives.

Based on the findings of the study, the following recommendations are made: There is need for employees and managers to be trained on the PPDA. This should be so for all the procurement department sections. This will ensure that they adhere and comply with all regulations hence improve procurement management process. To improve the procurement effectives, employees and other managers need to refrain from having conflict of interest by also being suppliers. This is because work ethics is fundamental in the success of organizational performance. This will ensure that good quality products and services are procured in the organisation. To improve SRM, close interaction should be enhanced whereby organisations will provide suppliers with information on the date, standards and quality of goods and services to be provided. This will minimise delay and ensure right and quality goods and services are provided.

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