

ROLE OF PROCUREMENT PLANNING ON PERFORMANCE: A CASE AT NYAYO TEA ZONES DEVELOPMENT CORPORATION

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ABSTRACT

Procurement is generally the process of acquiring goods and services as well as hiring contractors and consultants to carry out works and services. Statistics from Republic of Kenya ROK (2012) show that Nyayo Tea Zone Development Corporation, (NTZDC) had entered into bankruptcy for an amount of over Ksh. 14 million in debt owed by supplies and other stakeholders. The general objective of the study is to establish the role of procurement planning on performance at Nyayo Tea Zones Development Corporation. The specific objectives of this study were to determine whether supplier participation affects the role of procurement planning on performance to investigate how ICT affects the role of procurement planning on performance. To find out how staff competency affects the role of procurement planning on performance and finally to investigate how operational cost affects the role of procurement planning on performance. The study adopted Descriptive Research Design to support and meet the objectives of the research. The study population to be used will be 600 employees and care was taken to ensure that the accessible population sampled was of a size able to inform the researcher on the research objectives. The researcher used both primary and secondary data. Primary data was collected using self-administered questionnaire. The researcher carried out a pilot study to pre-test and validate the questionnaire. The aim of the pilot study was to test the reliability of the questionnaires. Analysis was done using SPSS Version 20 software. The study also found that organization embrace the use of modern technology in procurement planning .New technologies are promising to save costs, to improve customer and supplier relationships, business processes and performance, and to open new business opportunities. The study also concludes that technologies allow organizations to respond better to existing challenges and improve the anticipation of future developments and that unified data gives you the information integrity required to develop compliance and procurement management practices.

Key Words: *Procurement: Procurement process, Planning, Procurement planning, Procurement plan, Organizational performance, Decision making.*

Introduction

Procurement is generally the process of acquiring goods and services as well as hiring contractors and consultants to carry out works and services Hornby, (2005). Procurement is the process of obtaining goods or services in any way, including borrowing, leasing and even force or pillage. It also embraces clearing out unnecessary acquisitions either due to obsolescence or depreciation in their usefulness and value to an entity. Procurement planning is the primary function that sets the stage for subsequent procurement activities; it fuels and then ignites the engine of the procurement process. It is the process of determining the procurement needs of an entity, their funding and timing of their acquisition such that operations are met as required in an efficient manner *Arrowsmith & Hartley (2002)*.

According to ROK, (2012) Procurement planning is the process of deciding what to buy, when and from what source. During the procurement planning process the procurement method is assigned and the expectations for fulfilment of procurement requirements determined. Planning both as a concept and function is probably one of the extensively talked about concepts in the management literature. Planning implies that managers think through their goals and actions in advance and that their actions are based on some method, plan or logic rather than on a hunch Locke & Latham (2002). It is a function that forms the foundation for the rest of management functions and serves as an important mechanism for extracting, distributing and allocating resources Laub, (2001)

Statement of the problem

Statistics from Republic of Kenya (ROK, 2012) show that Nyayo Tea Zone Development Corporation, (NTZDC) had entered into bankruptcy for an amount of over Ksh. 14 million in debt owed by supplies and other stakeholders ROK, (2012). KPMG, (2012), indicates that Kenya, Zimbabwe, South Africa and Nigeria make up 74% of all fraud cases reported in Africa, in the East African, Kenya stands out with 7.75% of reported fraud cases, well ahead of Uganda, 2.98% and Tanzania 2.78% (KPMG). Further statistics show that there was misappropriation of funds and procurement scandals at Nyayo Tea Zone Development Corporation, KPMG, (2012). PPOA, (2007) revealed that there are a number of loopholes in the management capacity of public procurement at Nyayo Tea Zones Development Corporation.

A case in the High Court of Kenya seeking and gathering relevant information from the public relating to the incidents under investigation, analyzing the information and making appropriate recommendations, preparing and presenting the final report and recommendations to the

appointing authority at Nyayo Tea Zone Development Corporation (Kenya Law Reports Gazette Vol. CXIV-No 111 2012).

Locally, studies which have been done include, Rogers (2005) providing the foundation for later study. In an attempt to explain the benefits of Procurement, researchers have examined the impact of procurement sector. Rogers (2005) did a study on procurement performance measurement systems (Akech, (2005) studied factors influencing the implementation of e-procurement among firms listed on the Nairobi Securities exchange. The problem motivating this study is the need to understand the role of procurement planning on organizational performance with reference to Nyayo Tea Zone Development Corporation (NTZDC) affiliated to, top management support, organizational culture and staff competency.

Purpose of the study

The purpose of the study is to establish the role of procurement planning on performance at Nyayo Tea Zones Development Corporation.

Objectives of the study

1. To determine whether supplier participation affects the role of procurement planning on performance at Nyayo Tea Zones Development Corporation.
2. To investigate how ICT affects the role of procurement planning on performance at Nyayo Tea Zones Development Corporation.
3. To find out how staff competency affects the role of procurement planning on performance at Nyayo Tea Zones Development Corporation.
4. To investigate how operational cost affects the role of procurement planning on performance at Nyayo Tea Zones Development Corporation.
5. The moderating variable was the government regulations.

Importance of the Study

This study was of great importance in different ways to different people or organizations, as discussed below;

The finding of the study was of benefit to Nyayo Tea Zones Development Corporation, as it enabled the organization to make strategic decisions concerning the role of procurement planning on performance. The benefits of the research project if implemented by the organization may also be felt by shareholders in terms of increased dividend and customers' requirements fulfilment.

Academics and researchers may use the findings of this study as a basis for further research in determining the role of procurement planning on performance.

Literature Review

Supplier Participation

Understanding the level of supplier participation by the selling firm was selected as a variable for the research due to the numerous authors advocating its importance in successful supplier development processes (Burt et al., (2003). Procurement activities simply begin with the supplier's promise to fulfil buyer's requests. However, those promises and expectations are generally vague and uncertain in nature, especially for technology-intensive procurement projects (Nyiri, Osimo, Özcivelek, Centeno& Cabrera, 2007). Promises, expectation, and discussion mostly involve knowledge interaction and communication (Bargh& Williams, 2006). The current interest in SRM (supplier relationship management) among academics and business practices focuses more on basic transactional issues, particularly the sourcing and trading including supplier selection, quality/cost demands, and supplier capabilities/evaluation. Technology and knowledge communication are relatively neglected (Bargh & Williams, 2006).

In line with Edler & Uyarra (2012) findings, showed that where supply chain leadership dedicated greater resources to spend more time at suppliers' locations as a result of greater supplier development results. Vinnova, (2009) determined two key elements: lean supplier development requires an organization to invest in talent and resources with knowledge in activities to improve a supplier's performance and the activity requires a long-term commitment by the leadership of the organization.

Information and communication technology (ICT)

According to Archie & Kevin (2004), information technology is the use of man-made tools for the collection, generation, communication, recording, re-management and exploitation of information. It includes those applications and commodities, by which information is transferred, recorded, edited, stored, manipulated or disseminated. Arrowsmith, (2002), describes information technology as a revolution which has penetrated almost all fields of human activity, thus transforming economic and social life. UNDP (2001) asserts that even if sustainable economic growth facilitates the creation and diffusion of useful innovations, technology is not only the result of growth but can be used to support growth and development.

ICTs are credited with the ability to transform, and deep and significant changes are expected from their widespread use in Africa. From this stand point Africans can take maximum advantage of the new technologies even if major challenges remain. These challenges include adapting ICTs to local conditions and uses in developing countries, and allowing each country

understand those innovations and adjust them to their own development needs. There is widespread research interest in information and communication technologies (ICTs).

Staff Competency

Competency is the cluster of skills and attitude that, affects a major part one's job; that correlates with performance on the job that can be measured against well-accepted standard; and that can be improved through training and development (scans, 2000). This scans report extract shows that different categories include generic knowledge and skills needed in the work place. Included also are behavioural predictors that according to career counsellors can be measured by a number of authentic and performance-based assessment instruments available in the market.

Operational Cost

According to Basheka & Bisangabasaija (2010), operating cost refers to cost per unit of a product or service, or the annual cost incurred on a continuous process. Operating costs are the recurring expenses which are related to the operation of a firm, or to the operation of a device, component, and piece of equipment or facility. They do not include capital outlays or the costs incurred in design and implementation phases of a new process. These are expenses that relate to firms' operations. It can also refer to the costs of operating a specific device or branch of a corporation (Berger & Zeng, 2006). There are two categories of operating costs names; fixed costs and variable costs. A firm may have more of one type of operating cost than the other. Fixed operating costs are expenses that tend to remain the same whether the firm or device is inactive or operating at full capacity. Examples of such expenses include employee salaries and machinery leasing fees. Employee salaries must be differentiated from hourly wages in this regard. Firms have to keep track of both operating costs and costs associated with non-operating activities, such as interest expenses on a loan. Both costs are accounted for differently in a company's books, allowing analysts to see how costs are associated with revenue-generating activities and whether or not the firm can be run more efficiently (Basheka & Bisangabasaija 2010).

Firms with high fixed costs, after reaching the breakeven point, see a greater increase in operating revenue when output is increased compared to firms with high variable costs. The reason for this is that the costs have already been incurred, so every sale after the breakeven transfers to the operating income. On the other hand, a high variable cost firms sees little increase in operating income with additional output, because costs continue to be imputed into the outputs. The degree of operating leverage is calculated by ratio of this mix, this has effects on operating income. The computation of operating costs is considered essential to sound business planning. When these costs are not properly budgeted, a firm is adversely affected. Lack of planning increases the risk that a firm will not maintain adequate funds to operate properly. Since some operating costs are fixed, possible firm interruptions or economic declines should be taken into consideration. These commitments generally cannot be deferred until a firm finds it

convenient to pay them. Fixed operating costs are normally set on a payment schedule and need to be paid accordingly for the company to maintain good credit. Within the category of variable operating costs are expenses that are incurred only occasionally. Property maintenance and equipment repair are prime examples of this. These operating costs are difficult to speculate (Basheka & Bisangabasaija (2010). Many firms employ business advisers or consultants for such a task. They also find it beneficial to maintain a budget for incidental expenses. Start-up expenses are generally not calculated into operational costs.

Research Methodology

Research Design

This study employed a descriptive case study design. The descriptive research attempts to describe what was or what is in a social system such as a training institution. The research design is the conceptual structure within which research is concluded, it constitutes the blue print for the collection, measurements and analysis of data, Kothari (2004).

Target Population

The study population to be used was 600 employees and care was taken to ensure that the accessible population sampled was of a size able to inform the researcher on the research objectives.

Data Analysis

Analysis was done using SPSS Version 20 software. Regressions and ANOVA test will be used to determine the effect of procurement planning on performance.

$$Y' = A + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 \quad \text{equation (i)}$$

Where Y'=Dependent variable and X₁, X₂, X₃ and X₄ are the four independent variables

Where Y'-Organization Performance

X₁.supplier participation

X₂- ICT

X₃- Staff competency

X₄- Operational cost

To test the moderating effect of Government Regulation, moderated multiple regression (MMR) analysis which is an inferential procedure consisting of comparing two different least-squares

regression equations (Aguinis, 2004) was utilized. Using the MMR analysis, the moderating effect of the variable (product term) will be analyzed by interpreting the R^2 change in the models obtained from the model summaries, and the regressions coefficients for the product term obtained from the coefficients tables. Prior to conducting the MMR analysis, preliminary analyses will be conducted to ensure that there will be no violation of the assumptions of normality, linearity and homogeneity of error variance (Sazali et al., 2009).

Regression analysis

This section presents a discussion of the results of inferential statistics. The researcher conducted a multiple regression analysis so as to determine the relative importance of each of the variables with respect to the role of procurement planning on performance at Nyayo Tea Zones Development Corporation. The researcher applied the statistical package SPSS. Findings are presented in the following tables;

Model Summary

Model	R	R Square
1	.705 ^a	.693

a. **Predictors:** (Constant), Supplier Participation, Information communication and technology (ICT), Staff competency and Operational costs

b. **Dependent Variable:** Organizational Performance

Coefficient of determination explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable (Organizational Performance) that is explained by all the 4 independent variables (Supplier Participation, Information communication and technology (ICT), Staff competency and Operational costs).

The four independent variables that were studied, explain 69.3% of variance in Organizational Performance as represented by the R^2 . This therefore means that other factors not studied in this research contribute 21.2% of variance in the dependent variable. Therefore, further research should be conducted to investigate the role of procurement planning on performance at Nyayo Tea Zones Development Corporation.

ANOVA (Analysis of Variance)**ANOVA^a**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	4.356	15	1.786	65.763	.049 ^b
Residual	7.765	45	.678		
Total	12.121	60			

a. Predictors: (Constant), Supplier Participation, Information communication and technology (ICT), Staff competency and Operational costs.

b. Dependent Variable: Organizational Performance.

The F critical at 5% level of significance was 6.1. Since F calculated is greater than the F critical (value = 65.763), this shows that the overall model was significant. The significance is less than 0.05, thus indicating that the predictor variables, explain the variation in the dependent variable which is Organizational Performance.

Multiple Regression Analysis

Model		B	Sig.
1	(Constant)	5.543	0.007
	Supplier Participation	4.654	0.005
	Information communication and technology	3.563	0.04
	Staff competency	1.675	0.003
	Operational costs	1.234	0.002

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

$$Y = 5.543 + 4.654X_1 + 3.563X_2 + 1.675X_3 + 1.234X_4$$

Where Y is the dependent variable (Organizational Performance), X_1 is Supplier Participation variable, X_2 is Information communication and technology, X_3 is Staff competency and X_4 the Operational costs.

According to the equation, taking all factors (Supplier Participation, Information communication and technology (ICT), Staff competency and Operational costs.) constant at zero, Organizational Performance will be 5.543. The data findings also show that a unit increase in Supplier Participation variable will lead to a 4.654 increase in Organizational Performance; a unit increase in Information communication and technology (ICT), will lead to a 3.563 increase in Organizational Performance; a unit increase in Staff competency will lead to a 1.675 increase in Organizational Performance while a unit increase in Operational costs will lead to a 1.234 increase in Organizational Performance. This means that the most significant factor is Operational cost and Staff competency.

At 5% level of significance and 95% level of confidence, Supplier Participation 0.005 level of significance; Information communication and technology had a 0.004, Staff competency had a 0.003 level of significance while Operational costs had 0.002 level of significance.

Summary of the Findings

Supplier participation

The study found out supplier participation affect quality of procurement process. The findings are in line with Burt et al., (2003) who stress on the understanding of the level of supplier participation by the selling firm. Further the study found out that the respondents were neutral on the statements that Global sourcing of suppliers contributes to planning improvement of innovative goods or services; Supplier participation makes no contribution to quality of goods procured and that Suppliers view the public sector as good customers. Respondents disagreed that Supplier management does not contribute to quality control of complex goods and services procured.

Information and communication technology (ICT)

On Information and communication technology (ICT) the study found out that organization embrace the use of modern technology in procurement planning processes. Donald & Pamela, (2009) argues that use of ICT is positively correlated with improved overall organizational performance. The study also found out that new technologies are promising to save costs, to improve customer and supplier relationships, business processes and performance, and to open new business opportunities, that technologies allow organizations to respond better to existing challenges and improve the anticipation of future developments and that unified data gives you the information integrity required to develop compliance and procurement management practices. Further the study found out that respondents were neutral on the statements that technology (IT) infrastructure may contribute to challenges in system specification; Supply and demand volatility and poor visibility into total purchase, complex and overlapping procurement activities all compound the difficulty of lowering costs. Respondents agreed that Unified data gives you the information integrity required to develop compliance and procurement management practices; Technologies allow organizations to respond better to existing challenges and improve the anticipation of future developments; New technologies are promising to save costs, to improve customer and supplier relationships, business processes and

performance, and to open new business opportunities and that technology provides tools to enable organization operations to consistently procure the best-value materials and services, using unified internet-based sourcing tools and streamlined support for complex negotiations. Cave & Frinking (2007) backs the findings above from his argument that, ICTs are crucially important for sustainable development in developing countries.

Staff competency

From the findings most of the respondents had attended procurement related workshops. The study further revealed that staff competency affect the role of procurement at NTZDC .The findings collates with those of Scans, (2000) that competency is the cluster of skills and attitude that, affects a major part one's job; that correlates with performance on the job that can be measured against well-accepted standard; and that can be improved through training and development. Additionally the study found out that respondents disagreed that all the staffs in user departments aren't professionally qualified to raise procurement requirements; respondents were neutral that all members of the procurement committee don't have appropriate competences to overseas procurement planning and that most of the staff in the procurement departments are not properly trained and lack skills required to run the procurement. Finally respondents strongly disagreed that lack of professionalism is high amongst public procurement officers in Kenya and this can still be attributed to the fact that the profession is still young in Kenya.

Operational costs

The study found out that operational costs affect the role of procurement planning at NTZDC. On the extent to which the factors of procurement planning influence performance at Nyayo Tea Zones Development Corporation respondents indicated that to a very great extent industry leadership future outlook influence procurement planning. Further respondents indicated that to a moderate extent Industry leadership and accountability influence procurement planning.

Conclusions

The study concludes that Global sourcing of suppliers contributes to planning improvement of innovative goods or services and that Supplier management does not contribute to quality control of complex goods and services procured and that supplier management does not contribute to quality control of complex goods and services procured

The study also concludes that organization embrace the use of modern technology in procurement planning .New technologies are promising to save costs, to improve customer and supplier relationships, business processes and performance, and to open new business opportunities. The study also concludes that technologies allow organizations to respond better to existing challenges and improve the anticipation of future developments and that unified data gives you the information integrity required to develop compliance and procurement management practices.

Further the study concludes that the staffs in user departments aren't professionally qualified to raise procurement requirements; respondents were neutral that all members of the procurement committee don't have appropriate competences to overseas procurement planning and that most of the staff in the procurement departments are not properly trained and lack skills required to run the procurement processes. There is also lack of professionalism amongst public procurement officers in Kenya and this can still be attributed to the fact that the profession is still young in Kenya.

Recommendations

The study recommends that new technologies should be improvised in procurement planning on performance at Nyayo Tea Zones Development Corporation since they are promising to save costs, to improve customer and supplier relationships, business processes and performance, and to open new business opportunities and allow organizations to respond better to existing challenges and improve the anticipation of future developments and that unified data gives you the information integrity required to develop compliance and procurement management practices.

The study also recommends that all members of the procurement committee should have appropriate competences to overseas procurement planning and should be professionally qualified to raise procurement requirements. Further the study recommends that the staff in the procurement departments to be properly trained and equipped with skills required to run the procurement processes.

References

- Aguinis, H. (2004). "Regression Analysis for categorical Moderators". The Guilford press.
- Akech, J. M. M. (2005). Development partners and governance of public procurement in Kenya: enhancing democracy in the administration of aid. *International law and politics*, 37(4), 829-868.
- Archie L. III & Kevin M. (2004), "*Linking SCOR planning practices to supply chain performance: An exploratory study*", Emerald 24,
- Bozarth, C., Handfield, R. and Das, A. (1998) Stages of global sourcing strategy evolution: an exploratory study. *Journal of Operations Management*, vol. 16, iss. 2-3, pp. 241–255
- Burt, D.N (2003): *Proactive procurement: The key to increased profits, productivity and quality*. Englewood Cliffs, N.J: Prentice Hall

- Cabral, L., Cozzi, G., Denicoló, V., Spagnolo, G. & Zanza, M. (2006). "Procuring Innovations." In N. Dimitri, G. Piga & G. Spagnolo (Eds). Handbook of Procurement (pp. 483-528). Cambridge: Cambridge University Press.
- Caldwell, N., Walker, H., Harland, C., Knight, L., Zheng, J., Wakeley, T. (2005). Promoting competitive markets: the role of public procurement. Journal of Purchasing & Supply Management 11, 242-251.
- Cave, J. & Frinking, E. (2007). Public Procurement for R&D. [Online]. Available at www2.warwick.ac.uk/fac/soc/economics/staff/faculty/cave/publications/pp_for_r_d.pdf. [Retrieved March 1, 2010].
- Cooper, D.R and Schindler, P.S. (2003) Business Research Methods (8th edn) McGraw-Hill: New York
- Creswell, J. W. (2003) Research Design (2nd edition) Sage Publications Inc.
- Davis, T. (2008). *Effective Supply Chain Management*. Sloan management review, Volume 34
- Freeman, R. B. (2006), "The New immigration and the New US economy", Testimony at Hearings on "Immigration: the economic impact", United States Senate, Committee on the Judiciary, April 25.
- Handfield, B. (2001). *Introduction to Supply Chain Management*. London: Prentice Hall.
- Kinyua. (2001). A survey of outsourcing of selected procurement Activities by publicly quoted companies in Kenya. Unpublished MBA project. University of Nairobi.
- Kombo & Tromp. (2006). Research Methodology (2nd Edition). Rob Zwettler: New York, USA. Louis Cohen, Lawrence Manion, and Keith Morrison, 2000, 'Research methods in education', 5th edition RoutledgeFalmer Publisher, USA and Canada.
- Kothari, C.R. (2004). Research methodology: methods and techniques", New Delhi: New Age International.
- OECD (2007) Integrity In Public Procurement: Good Practice From A To Z – Isbn-978-92-64-02750-3 ©
- Porter and Lawler (1968) "The Competitive Advantage of Nations" Harvard Business Review, 68 (2): 73-93
- Weiss, L. and Thurbon, E. (2006) "The Business of Buying American: Public Procurement as Trade Strategy in the USA," Review of International Political Economy 13:701–724.

- Wiese, B.S., & Freund, A.M. (2005). Goal progress makes one happy, or does it? Longitudinal findings from the work domain. *Journal of Occupational and Organizational Psychology*, 78,1–19.
- Wittig, W. A. (1999). *Public Procurement and the Development Agenda*, International Trade Centre, Geneva, Switzerland.
- Wood, B. (2000), “Financing for Women-owned Businesses: The Canadian Case”, 2nd OECD Conference on Women Entrepreneurs in SMEs: Realising the Benefits of Globalisation and the Knowledge-based Economy, 29-30 November, Paris, OECD.