

# Factors Affecting the Performance of the Procurement Function in Government Organisations: A Case Study of National Oil Corporation of Kenya

Robert Kasisi<sup>1</sup>, Mumo Mwangangi Benjamin<sup>2</sup>, Gitonga Harun Mwangi<sup>3</sup>

<sup>1</sup>Moi University, Department of Statistics and Actuarial Science

<sup>2</sup>Jomo Kenyatta University, School of Human Resource Development, Department of Procurement and Logistics

<sup>3</sup>Kirinyaga University College, School of Pure and Applied Sciences

**Abstract:** *The purpose of this study was to establish the factors affecting the performance of the procurement function in government organizations and specifically, the National Oil Corporation of Kenya. It was purposely selected due to the fact that the Corporation has sound procurement system that purchases products locally and internationally thus investing more funds in acquiring goods and services. Inefficiency and incompetence of overall administration and management of procurement function has contributed to excessive losses due to poor procurement management practices leading to less than expected performance. The general objective of the study was to establish the factors that affect procurement function in government organizations. The specific objectives of the study were; to find out the effect of government regulations and bureaucracy on the performance of the procurement function. To determine the effect of E-procurement on the performance of the procurement function. To find out the effect of tendering methods on the performance of the procurement function and finally to investigate the effect of quality standards and specifications on the performance of the procurement function. In data collection, qualitative and quantitative research designs were used. This entailed the use of structured questionnaires. The useful data was also obtained from magazines, periodicals, journals and procurement analysis reports on the company. The target population was one hundred and the sample size was fifty. The sample size of the target population consisted of the procurement section, Nairobi National oil terminal, finance and logistics department. Purposive sampling technique was used because of the nature of the research, where the respondents were identified before data collection. Data analysis was done with the help of Statistical Package for Social Sciences computer program. The key findings of the study indicated that government regulations affected procurement performance such as following procurement rules and regulations. Open tendering is the most advocated method of acquiring goods and services in government organizations. The study established that there are various risks associated with e-procurement. For instance, hacking of confidential information. In order to improve on procurement function and consequently organizational performance the following are the recommendations. The recommendations entailed need to employ procurement officers with professional qualifications, offer training to the workers and opportunities for further education, strong control of e-procurement system so as to improve flow and access of information.*

**Keywords:** E-procurement, Service delivery, Organisation performance, Tendering, specification.

## 1. Introduction

The importance of proper management of procurement is highlighted by the fact that it accounts for a substantial portion of firm's resources and time. In such a highly competitive environment nowadays, it is necessary for every firm to maintain an efficient and effective procurement function to cut administration cost and to keep abreast of the market conditions to procure material and services at the right price, quality and time. Procurement is generally effected via a contract. Simple procurement may involve nothing more than repeat purchasing. Complex procurement could involve finding long term partners – or even 'co-destiny' suppliers that might fundamentally commit one organization to another. Lengthy procedures have sometimes undermined efficiency in the public procurement system (Arminas, 2006).

Sound public procurement policies and practices are among the essential elements of good governance (World Bank, 2005). Otieno (2007) notes that irregular procurement activities in public institutions provide the biggest loophole through which public resources are misappropriated. In some cases, tenders are awarded to firms either through single sourcing or manipulation of bids; and worse still, full payments have often been made for projects that fail to take off or are abandoned half way. Still in other cases, tenders

are awarded to un-competitive bidders through irregular disqualification of the lower bidders. According to Thai (2009), the basic principles of good procurement practice include accountability, where effective mechanisms must be in place in order to enable procuring entities spend the limited resources carefully, knowing clearly that they are accountable to members of the public; competitive supply, which requires the procurement be carried out by competition unless there are convincing reasons for single sourcing; and consistency, which emphasizes the equal treatment of all bidders irrespective of race, nationality or political affiliation (Uyarra & Flanagan, 2010).

The world oil industry has experienced significant change in the past decades. Part of this change is the result of external, global forces. Internally, the industry has found ways to cut the cost of finding and producing oil (Donald, 2006). Thanks to new technologies like three-dimensional seismic, horizontal drilling and computer-aided modeling, the cost of producing a single barrel of oil is now a fraction of what it used to be. Likewise, the industry has applied new methods to extend oilfield life, confront the toughest challenges and be more efficient along the entire chain upstream and downstream. The oil market has undergone a process of transformation. Increasing competition and liberalization of oil production which has helped in making the market more transparent. The entry of financial houses

and the use of futures, options and swaps have added to the factors influencing oil prices (Anily, Glass & Hassin, 2006).

The security-of-supply issue is global in nature. A price increase or decrease, a shortage or over-supply, will affect all countries in the free market system. For example, oil price changes are felt by consumers in an oil-exporting country, such as the United Kingdom, in a similar way they are felt by those in an oil-importing country. Today, the world's political, economic and energy relations are more favorable than ever. The expanded oil reserves, the excess production capacity, and the transparent market should all ease the concern over supply security. Today, there is unused production capacity of 6 million barrels per day. This capacity, which represents 8 percent of global demand, provides insurance against unexpected supply interruption or demand surge. This is a far cry from 1980 when there was no excess capacity in the system (Anily, Glass & Hassin, 2006).

According to the Arabian Gulf and its relation to the security of supply, one should not ignore geology and economics. The Arabian Gulf has the largest world reserves and readily available supply. During the different supply disruptions in the past two decades, such as the Iranian Revolution, the Iran-Iraq War, and the Iraqi invasion of Kuwait, the only alternative to the disrupted oil supplies came from the region itself; and mostly from Saudi Arabia. (Sriskandarajah, Jardine & Chan 2007).

The government of Kenya is the main provider of essential services such as health, education, defence and infrastructure. This is done through procurement function, making it to be very important, and the sheer magnitude of procurement outlay has a great impact to the economy and needs to be well managed. Each country has its own economic, social, cultural and political environment and therefore, each country's public procurement practitioners face different types of challenges, indeed in all countries in the world, estimates of financial activities of the government procurement are believed to be in 10%-30% of GNP (Callender & Mathews, 2005). Efficient handling of this size of procurement outlay has been a policy and management concern as well as a challenge to procurement professionals. Rapid advancement in technology, public-private partnership, privatization, outsourcing of non-core services and increased focus on result base management in the public sector have all contributed to increased importance and sophistication of the public procurement function (O'Regan, 2009).

Public procurement cannot be perceived as mere clerical routine as procurement practitioners are involved in strategic procurement planning (Hinson & McCue, 2007) and the major roles in current purchasing are tactical. Before 1974, public procurement in Kenya was largely undertaken by foreign organizations like crown agents on behalf of the government. This was so because the local source was not adequate. Public procurement regulations and guidelines were issued through Treasury circulars (Akech, 2005). In an effort to streamline procurement procedures, the East Africa Community (EAC) developed guidelines under the title East African Supplies Manuals and on it collapsing Kenya government developed its own

Supplies Manual. At the same time, the government moved the Central Tender Board (CTB) from Treasury to the office of the president under the Cabinet. These reforms saw the review of country's public procurement procedures and establishment of Public Procurement Directorate (PPD) under the Exchequer and Audit and the Public Procurement Regulations 2001 (Akech, 2005).

The core mandate for PPD was policy formulation, policy implementation, and human development. Consequently, the PPDA, 2005 and its regulations were developed to direct the public procurement function according to the law. The Act established Public Procurement Oversight Authority (PPOA) which was operationalized in the year 2007 to oversee compliance to the procurement procedures. Despite these reforms, the bulk of corrupt practices in Kenya occur in public procurement. The explanation for this state of affairs is found on the political dynamics of the state. Public procurement constitutes the principal instrument for exercising political patronage, a practice prevalent in Kenya and other African countries since there are very few means of economic advancement outside of the state. The procurement system did not put sanctions against government officers who breached them, hence vulnerability for abuse and for officers who engage in corruption. The procurement policies and procedures are scattered in various government documents. The Supplies Branch was established through Treasury Circular Ref. No. 12/57/02 of 19th January, 1960. It was started with a capital fund of Kshs. 15 million. At inception by Ministry of Finance it was a department in the former Ministry of Public Works with a main objective to procure frequently used items for the Colonial Government and later to undertake the same main objective for the independent Kenyan Government. Since then, Supplies Branch has moved severally between the Ministry responsible for Works, Office of the President and Ministry of Finance.

This led to government firms to have their independent supplies and procurement unit under supervision of Public Procurement Oversight Authority (PPOA, 2011). The corporation has its headquarters in Nairobi and has warehouses at the different deports and sub-deports located in other towns in the country. The mandate and core functions of procurement department are:-bulk procurement and storage of frequently used items, sourcing of term contracts, and sourcing and supply of fuel. Procurement has become most successful applications of electronic commerce (e-commerce), having been implemented by many companies seeking better business processes (Aberdeen Group, 2006). Kalakota & Robinson (2010) have identified benefits in cost saving, improved efficiency, this being catalysts driving growth in procurement area.

### 1.2.1 A Profile of National Oil Corporation of Kenya

National Oil is a State Corporation under the Ministry of Energy incorporated in April 1981 and charged with participation in all aspects of the petroleum industry. National Oil has a 100% Government of Kenya shareholding. It became operational in 1984 and its initial operations were limited to exploration activities delegated from the Ministry of Energy. In 1988, National Oil went downstream and actively started participating in the

importation and sale of petroleum products including crude oil, white fuels, lubricants and LPG. The intent of National Oil Corporation of Kenya is to be the premiere regional energy company in Africa, providing a full range of downstream services and supporting an active exploration program in Kenya and Africa. National Oil facilitates and directly participates in oil and gas exploration activities in Kenya. As a facilitator, National Oil is tasked with the marketing of Kenya's exploration acreage, management of gas and exploration data and the running of the National Petroleum Laboratory among other attendant responsibilities.

National Oil is among the few African national oil companies directly involved in the search for oil and gas. National Oil operates its own exploration acreage in Block 14T which is located within the Tertiary Rift Basin and runs from the shores of Lake Bogoria down to Lake Magadi Basin on the border of Kenya and Tanzania. National Oil has remained the Government's policy instrument in matters related to oil and gas specifically in the upstream exploration of oil and gas, mid-stream petroleum infrastructure development and the downstream marketing and distribution of petroleum products and services.

### **1.3 Statement of the Problem**

Procurement encompasses the whole process of acquiring property and services. It begins when an agency has identified a need and decided on its procurement requirement (Ebrahim, 2010). Procurement continues through the processes of risk assessment, seeking and evaluating alternative solutions, contract award, delivery and payment for the property or services and, where relevant, the ongoing management of a contract and consideration of options related to the contract. Procurement also extends to the ultimate disposal of property at the end of its useful life (Leeders, 2006). Public procurement is concerned with how public sector organizations spend taxpayers' money on goods and services (Hall, 2009). Globally, in many developed nations, government organizations across the world tend to spend between 8 per cent and 25 per cent of GDP on goods and services (Organization for Economic Co-operation and Development, 2006); in the UK, public procurement expenditure is approximately £150 billion (Department of Environment, Food, and Rural Affairs, 2007). In Africa, public procurement procedures are poorly executed and this negatively affects realization of increased economic development in the region. In Nigeria for instance, high level of corruption and bureaucratic procedures in the government are some of the key challenges responsible for lack of development of road network infrastructure in the northern parts of the country.

The inefficiency and incompetence of overall administration and management of Procurement function in many Public institutions contributes to loss of Ksh 50 million annually (PPOA, 2010). According to Victor (2012) Procurement expenditure could be minimized through implementation of effective Procurement practices. Enactment of Public Procurement Disposal Act PPDA (2005) and the Regulations 2006 as well as establishment of Public Procurement Oversight Authority (PPOA) were

some of the reforms meant to promote efficiency, effectiveness, good performance and accountability in Public Procurement. The goods which were being delivered were not of the right quality as specified by the user departments hence there were many complains raised by the departmental heads which resulted to conflicts amongst the staff.

The principle reason for the enactment of the Public Procurement and Disposal Act, 2005 was to have a legal regime that would weed out ineffectiveness in the procurement process, remove patterns of abuse, poor quality of products/services, and the failure of the public purchaser to obtain adequate value in return for the expenditure of public funds. However, these objectives have never been fully achieved in practice especially at the procuring entity level at National Oil Corporation of Kenya due to reported weaknesses among procuring entities in adhering to the provisions and regulations of procurement processes found in the PPDA. Hence this research seeks to investigate the factors affecting the performance of the procurement in government organisations.

## **1.4 Research Objectives**

### **1.4.1 General Objective**

The general objective of this research project was to establish the factors that affect the performance of the procurement function in government organizations in Kenya. A case study of National Oil Corporation of Kenya.

### **1.4.2 Specific Objectives**

This study was guided by the following specific objectives;

1. To find out the effect of government regulations and bureaucracy on the performance of the procurement function.
2. To determine the effect of E-procurement on the performance of the procurement function.
3. To find out the effect of tendering methods on the performance of the procurement function.

## **1.5 Research Questions**

1. How does government regulations and bureaucracy affect the performance of the procurement function?
2. How does E-procurement affect the performance of the procurement function?
3. How does tendering methods affect the performance of the procurement function?

## **2. Research Design and Methodology**

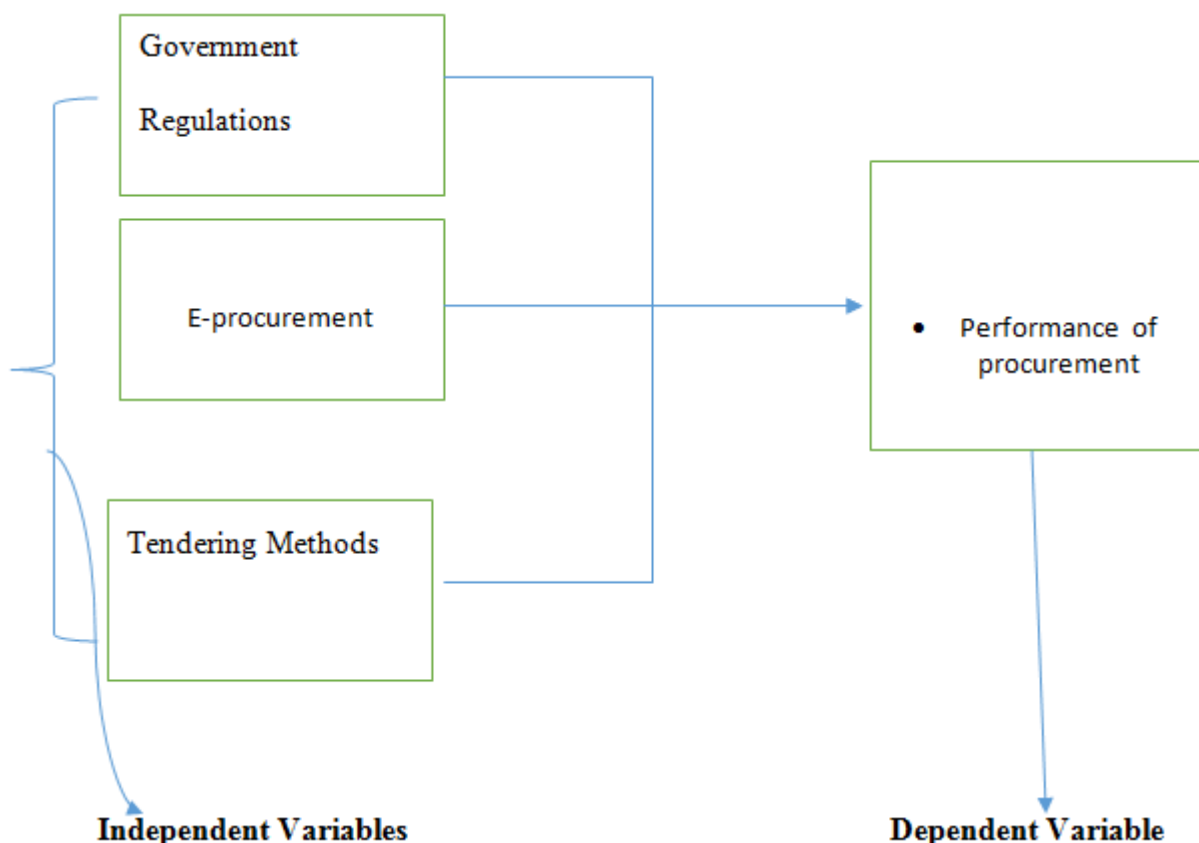
### **2.1 Introduction**

According to Kothari (2004) research commonly refers to search for knowledge or a scientific and systematic search for pertinent information on a specific topic. Research methodology on the other hand is a way to systematically solve the research problem or a science of studying how research is done scientifically (Flick, 2011). This chapter sets out the various stages and phases that were followed in

conducting the study. This section is an overview scheme, plan or structure that aids the study in answering the research questions, execution of research, approach respondents, when, where and how the research was done and completed. It laid down the procedures and analysis of data. It has been presented in terms of introduction, research design, target population, sampling frame, sample and sampling technique and data collection.

Conceptual framework is a diagrammatical representation that shows the relationship between dependent and independent variables. Dependent variable is that responds to another variable outcome. Independent variable explains and predicts the value of another variable. The figure below shows the independent variables and dependent variable of factors affecting procurement performance in government organisations.

**Conceptual Framework**



**Figure 2.1:** Conceptual Framework of factors affecting the performance of procurement

**2.2 Research Design**

This study applied a descriptive survey in design. According to Mugenda and Mugenda (2003), a survey is an attempt to collect data from members of population in order to determine the current status of data from members of a population with respect to one or more variables. This research took a descriptive design that means that descriptive research included surveys and fact finding inquiries in order to describe the state of affairs as it is (Burrows, 2011). It was used in this case in exploring the factors affecting the performance of the procurement function in government organizations.

**2.3 Target Population**

Target Population represents all cases of people or organizations which possess certain characteristics; it is the larger group from which a sample is taken (Flick, 2011). Because there is very rarely enough time and money to gather information from everyone or everything in a population, the goal becomes finding a representative

sample (or subset) of population which becomes the target population. Ngechu (2004), states that population is well-defined set of people, services, elements that a researcher wants to study. The population included employees of the National Oil Corporation of Kenya. The researcher’s target population for investigation was drawn from four departments’ of the organization of the study. The departments from which the sample size was selected included procurement, Nairobi National oil Terminal, finance and logistics.

**Table 2.1:** Target population and sample size for the study

<i>Department</i>	<i>Target population</i>	<i>Sample size</i>
Procurement section	40	17
NNT Depart	30	14
Finance	20	11
Logistics	10	8
<b>Total</b>	<b>100</b>	<b>50</b>

**2.4 Sampling Frame**

A sampling frame describes a list of all populations from which a sample is selected (Render, Stair & Hanna, 2012).

It is a list of all those people or items within a population that can be sampled. The sample size was fifty (50) employees from the four departments and was selected from the target population.

**2.5 Sample and Sampling Technique**

In survey methodology, sampling is concerned with the selection of subset of individuals from within a statistical population to estimate characteristics of the whole population. Two advantages of sampling are that the cost is lower and data collection is faster than measuring the entire population. The study used stratified random sampling to determine the sample which had the least bias of all sampling techniques, there is no subjectivity-each member of the total population had an equal chance of being selected.

**2.6 Data Collection**

Data was collected using questionnaires so as to give accurate information. There was pre-testing questionnaires whereby respondent were served with questionnaires and given a few days to fill them at their own time. Questionnaires were hand delivered and due to time constraints were collected as agreed. The questionnaire had semi-structured questions to ensure that the given answers were relevant and also for in depth response and accuracy. Open ended questions were used because it was economical in times of time and money and the respondents were able to give insight into their feelings, background, hidden motivation, interest and decisions.

**3. Research Findings and Discussion**

**3.1. Introduction**

This topic discusses the outcome of our study. The analysis was done using SPSS package. A regression analysis was done to determine the relation of the three independent variables: Tendering methods, E-procurement and Government Regulations on the performance of procurement function. Descriptive statistics showed that tendering methods had a standard deviation of 0.49. This meant that there was a wide variety of tendering methods to choose. Government regulations also varied widely as displayed by a coefficient of 0.435. The next in that order was E procurement with a value of 0.405. Overall, the performance of the procurement function would vary by 0.367. We considered the following table:

Descriptive Statistics			
	Mean	Std. Deviation	N
Performance	1.84	.367	45
E- Procurement	1.80	.405	45
Tendering Methods	1.38	.490	45
Government Regulations	1.24	.435	45

We also carried out a co relational study and the results were quite convincing. Government regulations were negatively related to E-procurement (coefficient = -0.156), positively related to Tendering methods (coefficient = 0.024) and E- procurement was negatively related to Tendering methods (coefficient = -0.049). This information was obtained from the below table.

Coefficient Correlations					
Model		Government Regulations	Tendering Methods	E- Procurement	
1	Correlations	Government Regulations	1.000	.024	-.156
		Tendering Methods	.024	1.000	-.049
		E- Procurement	-.156	-.049	1.000
	Covariances	Government Regulations	.014	.000	-.002
		Tendering Methods	.000	.011	-.001
		E- Procurement	-.002	-.001	.016

To ensure there was no inter dependence between our predictor variables we carried out a multi collinearity test. The results were as follows.

Coefficients						
Model		Correlations			Collinearity Statistics	
		Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)					
	E- Procurement	-.061	.005	.004	.974	1.027
	Tendering Methods	-.298	-.321	-.303	.997	1.003
	Government Regulations	-.327	-.344	-.328	.975	1.025

The tolerance levels were less than 1, which indicated lack of multicollinearity. Lack of multicollinearity was sufficient for us to retain the three independent variables in our study.

The next item was to check the overall model fit. The following results were obtained from the SPSS software.

## Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.446 <sup>a</sup>	.199	.140	.340

## ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.174	.391	3.389	.027 <sup>b</sup>
	Residual	4.737	.116		
	Total	5.911	44		

## Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.499	.293		8.528	.000
	E- Procurement	.004	.128	.004	.029	.977
	Tendering Methods	-.227	.105	-.304	-2.169	.036
	Government Regulations	-.280	.119	-.332	-2.347	.024

From the output above, the Anova table showed a significance level of 0.027 which was less than the standard probability value of 0.05. This implied that our study variables were quite significant. The R value of 44.6% was a clear indication that there exists other factors that influence the performance of the procurement function, other than those we considered in the study. We then fitted a regression equation to magnitude of contribution of the independent variables.

The equation was

$$Y_{\text{performance}} = 2.499 - 0.004x_{\text{E.procurement}} - 0.227x_{\text{tendering methods}} - 2.80x_{\text{Government regulations}}$$

From this equation, Government regulations had greater significant effect (coefficient=0.28). This was followed by Tendering methods (coefficient=0.227) and then E-procurement (coefficient=0.004).

The results were then reported according to the objectives of the study.

### 3.2. Specific Objective 1: To find out the effect of government regulations and bureaucracy on the performance of the procurement function.

From the regression analysis we found that Government regulations had significant effect on the performance of corporation. This independent variable (Government Regulation) had a p-value of 0.024 which was less than the standard p-value of 0.05 hence implying its significance.

### 3.3. Specific Objective 2: To determine the effect of E-procurement on the performance of the procurement function.

From the regression analysis we found that E-procurement had no significant effect on the performance of procurement function. This independent variable (E-procurement) had a p-value of 0.977 which exceeded the standard p-value of 0.05 hence implying no significance.

### 3.4. Specific Objective 3: To find out the effect of tendering methods on the performance of the procurement function.

From the regression analysis we found that Tendering methods had significant effect on the performance of procurement function. This independent variable (Tendering Methods) had a p-value of 0.036 which was less than the standard p-value of 0.05 hence implying it was significant.

## References

- [1] Armstrong, M. (2008). Human Resource Management. (5th Ed.). Washington DC: Kogan Page Publishers.
- [2] Andrew, M. (2008). Procurement Reforms in Kenya. Journal of Economics, 22(1), 23-50
- [3] Bayens, B., Martell, M., (2007), "Budget and organization reform: impact on Public procurement in Belgium", in Knight, L., Harland, C., Telgen, J., Thai
- [4] Best, J., & Khan, V. (2000). Research in education. New Jersey: Prentice Hall
- [5] Cox, A., (1997), Business Success and Critical Supply Chain Assets: A way of Thinking about Strategy, critical Supply Chain Assets and Operational Best Practice, Ears gate press, Boston
- [6] Cooper, D. R. and Schindler, P.S. (2003). Business Research Methods. (8<sup>th</sup> Ed.), McGraw-Hill: New York
- [7] Dale L.F, Aziza S., (1990). Operational Audits of Purchasing, Pitman. London
- [8] Driedonks, B., Gevers, J. & Van Weele, A.J. (2009). Managing Sourcing Team Effectiveness: The need for a team perspective in purchasing, Journal of Purchasing and Supply Management, Winter 2009
- [9] Devaraja, S., Swaroop, V., & Zou, H., (1996). "The Composition of public Expenditure and Economic Growth." Journal of Monetary Economics 37 (2): 313-44