Strategic Purchasing and Performance of Public Procurement in Rwanda

Mudaheranwa Euthyme

Master of Science in Procurement and Supply Chain Management of the University of Kigali

Abstract

The purpose of the study was to examine the relationship between strategic purchasing and performance of public procurement, a case of Rwanda Basic Education Board (REB). The specific objectives were to examine the relationship between cost management and performance of public procurement at REB, to establish the relationship between supplier relationship and performance of public procurement at REB and to examine the relationship between procurement plan management and performance of public procurement. A cross sectional data was collected from a sample of 112 staff from REB and its supplier/contractors in the period 2016-2018. Data was collected using a close-ended questionnaire. The literature review was based on the institutional, network and agency theories. Empirical literature on variables studied in this study were also reviewed.

The results on the first objective indicated a positive relationship between cost management and performance of public procurement at REB. For the second objective, the results indicated a positive relationship between supplier relationship and performance of public procurement at REB. For the third objective, the results indicated the positive relationship between records management and performance of public procurement at REB and for the fourth objective, the findings indicated a positive relationship between procurement plan management and performance of public procurement. Findings also revealed that among the predictors procurement plan management was noted to be a better predictor of relationship.

The researcher recommends Government of Rwanda to give important place in public procurement items that were produced/ manufactured in Rwanda. Apart from enhancing made in Rwanda, the researcher recommends the government of Rwanda to review the public procurement process. The researcher recommends that trainings in procurement planning shall be offered to procurement officers and other people in connection with public procurement. For REB, the researcher recommends them to put in place strategic purchasing policy which shall determine why where, when and what services, works and goods to be purchased. The researcher also recommends REB to review the way archive for tender documents is maintained.

Introduction

The study examined the relationship between strategic purchasing and performance of public procurement, case of Rwanda Basic Education Board (REB). This chapter reviews the background, the problem statement, objectives, research questions and conceptual framework. The last point of this chapter covers the scope of the study and its significance. Strategic purchasing has become an important element in the competitive strategies of firms (Cox, 2005). For this reason, the World Bank (2004) recommends that a good procurement system in all public institutions that has transparency, accountability, and stakeholder participation can be an applied tool for carrying out effective governance, public financial management, political accountability, effective checks and balances.

In 2014, \$3 trillion was paid through public procurement contracts, up from \$75 billion in 2012 that to say 60 % of the world public finance (Caldwell, Bakker, Read, 2007). Due to that big amount, different countries like

Korea, United Arab Emirates, Portugal United, Romania, South Africa, Ghana, Kenya and Rwanda have put an emphasis on their way of acquiring goods, services and works through improving their procurement.

21st century has started with the high speed of technology. Many countries like Korea, United Arab Emirates, Portugal United and Romania for example look in technology the best strategy to enhance their procurement.

After detecting the role of technology in enhancing public procurement, Korea launched Korea Online E-Procurement System (KONEPS) to enable online processing of all procurement from purchase request to payment. Through the digitalised system, customer organisations and companies are involved in scrutinising the way public funds are managed in the procurement process. The System covers all stages of the procurement process, from the pre-bidding to contract management and payment (Economic Commission for Africa, 2015).

Dubai (United Arab Emirates) has established regulations to enable the development of an integrated eprocurement system, Tejari. Tejari is a government-initiated, profit-driven online marketplace that enables all phases of the negotiation to take place on line. In addition, government departments use an Enterprise Resource Planning system that can be used for making purchases requests since it is linked to the accounting and invoicing system. These systems are used together in an integrated manner (OECD, 2007).

Portugal on his part has launched e-Procurement Programme in June 2003 as a priority target of the National Action Plan for the Information Society. This system, implemented by the Knowledge Society Agency (UMIC), was set up with the main objectives of creating a centralised and high quality technological platform that promotes efficiency and competition through increased transparency and savings in the whole public procurement process (OECD, 2007).

E-procurement in Romania started as a pilot project in March 2002, initially including 159 public authorities and 7 product categories. At present, the system assists 1000 public authorities, more than 3000 supplier companies and 80 categories of goods (OECD, 2007).

In Africa, South Africa sees green procurement as a good strategy for its procurement. Green procurement has been embraced by legislation through the incorporation and implementation of green procurement principles. South-Africa (S.A) authorities consider environmental criteria through environmental impact assessments that are required by national law. Beyond this, some provinces and municipalities are already implementing green procurement policies and practices in their procurement systems mainly the Province of Western Cape and municipalities such as Tshwane (Pretoria) and Nelson Mandela Metro (Economic Commission for Africa, 2015).

Concerning Ghana and Kenya, an emphasis on legal and institutional framework reform as procurement strategy has been made (Economic Commission for Africa, 2015).

Procurement processes and procedures in Ghana have gone through a number of changes, with the main objective of reducing or at best eliminating corruption in public procurement, realizing value for money, efficiency in the procurement process among others. A major change was the passing of the Procurement Act, Act 663, in 2003. As much as the usage of Act 663 has streamlined procurement processes in the country, including the use of e-Procurement (PPA, 2010).

In Kenya, a review of the country's public procurement systems had shown many weaknesses including: a lack of uniformity in the public sector procurement system; absence of sanctions or penalties against offenders; inaccurate, incomplete or absent records of procurement transactions, among others. Accordingly, a law of Public Procurement and Disposal Act, 2005 was enacted, becoming operational in 2007. The Act created necessary institutions to enforce it, including the Public Procurement Oversight Authority (PPOA), the Public Procurement Advisory Board (PPAB) and the continuance of the Public Procurement Complaints, Review and Appeals Board as the Public Procurement Administrative Review Board (PPARB). These mechanisms intend to uphold the principles of an open tender system in the public sector, including of transparency and accountability (Economic Commission for Africa, 2015)

Concerning Rwanda, after the tragedy of Genocide against Tutsi in 1994, Rwanda has made a number of reforms to improve its procurement. It is in 2007 when legislative reforms at the public procurement level

began with the introduction of the Rwanda Public Procurement Authority (RPPA) which is a public body established on February 20, 2008 by the Law N° 63/2007 of 30/12/2007 (Prime minister office, 2011). It was created to replace the National Tender Board during a reform process in Public financial management launched by the Government of Rwanda (GoR) at that time. By 2016 Rwanda has broken the myth that e-procurement cannot be done in Africa. Currently all public institutions use e-procurement (World Bank, 2017).

Statement of Problem

Over 60% of the Rwanda national budget that is utilised by public entities is used through public procurement (Gatome, 2014). This explains why it is essential to monitor well how this money is used by putting in place the adequate purchasing strategies. Unfortunately, public procurement in Sub-Saharan Africa countries is nearly all susceptible to fraud and corruption, which lead to public financial embezzlement. In those countries, public procurement dealings are corrupt more than anywhere else, because this is where the occasions to involve in corrupt practices are utmost and where the recompenses of corruption can be very high (Mantazaris, 2014) Rwanda as sub-Saharan country has also the problem of public financial embezzlement which is linked to public procurement. Rwanda Auditor general office in 2017 revealed issues relating to inefficiencies in implementing competence based curriculum through distribution of textbooks, flaws in procurement process and problems in the use of information and communication technology in education. These issues affected two thematic areas of REB mandate namely curriculum development and promotion of the use of information and communication technology in education. All these issues adversely affect the quality of education including inefficiencies in implementation of competence-based curriculum through distribution of textbooks: In 2015, REB introduced Competence-Based Curriculum, to replace the former Knowledge-Based Curriculum. The new curriculum "Competence Based" was to be implemented progressively. However, the audit identified the following issues in implementation of competence-based curriculum through distribution of textbooks; unsupplied textbooks to some secondary schools to support implementation of Competence-Based Curriculum cause by poor procurement strategies.

Rwanda Basic Education Board appears also in the audit report for the 2017/2018 as a vulnerable public institution, which needs assistance in financial management and public procurement. For this reason, the researcher considers it suitable to examine the relationship between strategic purchasing and performance of public procurement, case of Rwanda Basic Education Board. Hence the study discovered the relationship between Cost management, Supplier relationships, records management, procurement plan management (Independent variables) and Performance of Public procurement (Dependent variable) at Rwanda Basic Education Board (REB).

Purpose of the Study

- 1) The purpose of the study was to examine the relationship between strategic purchasing and performance of public procurement, case of Rwanda Basic Education Board (REB).
- 2) The study was guided by the following objectives:
- 3) To examine the relationship between Cost management and performance of public procurement at REB
- 4) To establish the relationship between Supplier relationship and performance of public procurement at REB
- 5) To establish the relationship between Records management and performance of public procurement at REB
- 6) To examine the relationship between procurement plan management and performance of public procurement.

Literature Review

Today procurement is important function in every organization due to its role in reducing costs, time and increase productivity. Procurement has grown from a transactional function to one, which is supporting to the present and future health of the organization. To achieve this end, countries and organizations have adopted

different strategic purchasing approaches to managing procurement. These approaches include the integration of supply chain in order to reduce costs and time and increase productivity (Giunipero& Sawchuck , 2000) .

According to Scott and Westbrook (1995), institutional theory explains how an organization's environment through regulative, normative and cognitive mechanisms institutionalizes and legitimizes strategies. Varying institutional pressures may cause organizations to source in different ways, which may have economic consequences and may lead to ethical dilemmas. Nonetheless, it is important for firms to be within the range of legitimate sourcing strategies because a legitimate firm obtains resources of higher quality at more favorable terms than an illegitimate firm. For this concern, Logan (2000) argues that monitoring changes in government policies and regulations (e.g. changes in changes in free trade agreements among countries, or changes in tax regulations, or legislation supporting minority and women owned businesses) as they relate to sourcing decisions may allow a firm to be an early adopter of sourcing innovations. However, outsourcing may have serious negative short- and long-term consequences such as increased costs and decreased performance and the loss of critical skills and knowledge, hence, managers should be careful to make sourcing decisions based on their strategic merit.

Institutional theory

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The network theory

Hult et al. (2006) discussed the Network theory. They state that this theory centers on the relationships a firm have with other firms and on how these relationships influence a firm's behavior and outcomes. Network theory does not seem to inform the choice of when to make, buy or ally. It does however, appear to inform choice of which firms an organization chooses to buy from or engage with as alliance partners. Centrality refers to how pivotal a firm is within a network. High centrality refers to a firm that is always sought out as a partner. Being central within a network offers four key competitive priorities within supply chains: speed, quality, cost, and flexibility. A highly central firm can tap its tight links in order to rush orders when needed, seek out the provider offering the best materials and lowest prices and make seamless transitions over time. Thus, with regard to sourcing, a firm should strive to be central to its network and should seek sources that are central to their networks.

Empirical Literature

The relationship between cost management, supplier relationship, record management, procurement plan management and performance of public procurement are discussed under empirical literature.

Oyuke and Shale (2014) argue that costs have to be managed well to achieve the firm's performance goals. There are several key success factors, related to both the competency of the service provided by an online auction intermediary and to the organizations own internal capabilities. One key success factor relating to cost management is technical capability of the system. Oyuke and Shale (2014) specified technical service quality in terms of system cost (security, reliability, easy to use, accessibility) and service quality (e.g., responsiveness

of service). In addition, trust in the service provider is another major success factor for strategic procurement adoption.

Togar et al. (2002) state that two or more chain members working together can create a competitive advantage through sharing information making joint decisions and sharing benefits which result from greater profitability of satisfying customer needs than acting alone. Supplier relationship is departure from the anchor point of discreteness that underlies business transactions to a relational exchange as the roles of supplier and buyer are no longer narrowly defined in terms of simple transfer of ownership of products. By focusing on relational exchange entails the activities that are undertaken faintly rather than unilaterally Heide (2003) suggests that the requirements for effective collaboration are mutual objectives, integrated policies joint decision-making information sharing of benefits and losses. Through commitment, partners dedicate resources to sustain and further the goals of the collaboration.

Davila et al. (2002) showed that, electronic records are becoming the primary mode of record of transactions. Increasingly, many hard copy records are being digitalized so that they may be managed in digital form. There are some clear advantages to digital records; they are easier to duplicate, to share, and do not require the expensive "real estate" which hard copy records do, Further, the ease with which such records may be searched, accessed, and edited allows large entities to manage information in a much more efficient way than in the past. However, the ability to preserve electronic records has not matched the ability to create such records. They can be fragile, easily lost, destroyed, or altered, and run the risk of obsolescence as software and hardware age and are replaced. Almost all employees create records, in multiple formats, every day. Some keep these records on hard drives, some on departmental servers, and still others print to paper.

Organizational record management systems also have a major influence on the organizational performance (Croom and Jones, 2007). Organizational record management is an important driver for increasing internal process improvement, enhancing learning and innovation including the knowledge of purchasing personnel, their computer skill and resources. Record Management support is key influence organizational performance. Croom and Jones (2007) found that record management is one key success factor of strategic procurement implementation. Record management makes the procurement process more transparent and helps organizations achieve good governance impacts.

Ellram and Zsidisin (2002) found out that the US and some countries in Europe use reverse e- sourcing to reduce costs and that supply managers expect continued cost reduction in the future. The research shows that in reverse e- sourcing, suppliers compete dynamically, in real-time, for a buyer's business and typically bid down the price of an item to be purchased. Using the internet, suppliers submit multiple electronic bids during a fixed time period, often 30 minutes or less. Johnson and Lenders (2003) found also that e- sourcing can reduce purchase prices, save time, streamline the bidding process, and enable suppliers from anywhere in the world to compete for a buyer's business thus enhancing organizational performance. They state that Risks of high costs can damage the supplier relationships, switching to suppliers who are not capable, underestimating the total costs associated with using suppliers with lower purchase prices, and negatively affecting the supply market in the long run by driving out qualified suppliers. To attain the greatest benefits, purchasing processes should be evaluated and improved before implementation to take care of the cost function.

Jin Su et al. (2012) argues that at the public sector level, information technology communication increases market transparency, enhances infinite and non-restricted access to government information. When ICT is used in procurement, it enhances a virtual market, open to capable suppliers (and goods). Moreover, ICT systems are complicated, expensive, and difficult to manage and maintain. The road to executing successful ICT in developing countries public procurement management is paved with difficulties, such as resistance from the bureaucracies involved; lack of decision making from the top; lack of motivation; weak human capital; corruption and fraud; and, in the case of conflict-ridden countries, the instability and violence that damage any efficient long-term work.

Methodology

Research methodology presents the overall framework on how research results were achieved through data collection and analysis. This part covers the methods that were used in the study. It indicates the research design, study population, sampling, sampling size, data collection methods and instruments/tools, validity and reliability, data processing, limitation and ethical consideration.

The study was a cross sectional and correlational survey research design in order to find out the relationship between cost management, supplier relationship, records management, procurement plan management (Independent variables) and Performance of Public procurement (Dependent variable). Data (primary data) was collected by the means of questionnaire, processed, coded and analyzed. The study used SPSS software (v.16.0) as an analysis tool. Simple random sampling was used. This means, the researcher formed the sample size by picking randomly in each section a number of respondents equal to its percentage weight.

To meet the information needs for research objectives, the researcher used primary data. For primary data, a questionnaire was administered to respondents (The selected staff from different department and supplier/contractors who worked with REB in the period 2016-2018). The questionnaire was initially prepared in English using a self-administered questionnaire to create anonymity which leading to more valid response as well as allowing respondents to fill them at their convenience. The questionnaire was made of questions grouped into 5 sections. The responses to the questions were anchored on a five (5) point Likert scale ranging from 5 = strongly agree to 1 = strongly disagree.

The study used a pilot test in order to test validity and reliability of instrument (Questionnaire). The pilot test used 10% of sample size, which is equal to 11 respondents to test reliability of questionnaire. Reliability measurement was done using Cronbach's alpha technique.

Reliability of variables

Variables	Anchor	Cronbach Coefficient
Procurement plan management	5	.764
Record management	5	.882
Cost management	5	.749
Supplier relationship	5	.808
Procurement performance	5	. 707

Source: Primary data, 2021

Findings, Discussion and Interpretation

The study established a number of findings, the summary of the findings is outlined here under objectives of the study.

The first objective was to examine the relationship between cost management and performance of public procurement, the findings reveal a significant positive relationship between cost management and procurement performance (r = .680, p < .05) hence supporting the findings from study made by Kihanya et al. (2015). Their study found out that cost management benefits both buyers and suppliers. It benefits buyers because they can negotiate lower unit prices for high volume purchases, thus reducing cost of goods sold and maintaining the ability to price their products competitively. It benefits suppliers because they are able to sell a significant portion of their output, which makes planning easier and gives management long-term cash flow visibility.

Cost management has been proven to be affective and result in cost reduction, increases in productivity, quality improvement, and return on investment. Cost management allows an organization to shares information with its suppliers in real time with the aim of cutting the cost of materials, minimizing inventory, reducing shortages, and expediting deliveries. Cost management can reduce costs by consolidating purchases with a limited number of suppliers and by allowing the centralized purchasing departments negotiating leverage via a purchase of increased volume. Cost management can also help reduce ordering costs of purchasing orders thus reducing inventory handling costs and improving the public procurement performance.

The second objective of the study was to examine the relationship between supplier relationship and performance of public procurement (r = .474, p < 0.05), the results indicated a positive relationship between supplier relationship and performance of public procurement at REB. This supports the findings from Jin Su et al. (2012). They state that it is critical for companies to have good relationships with strategic suppliers and that the strategic suppliers are aware of the implicit or explicit criteria by which buyers evaluate relationships. Strong relationships with supplier can provide great benefits for buyer and supplier and enhance procurement performance. Companies need to develop a functional partnership with strategic supplier and buyer-supplier relationships can be a base of competitive advantage if companies combine resources in unique ways. Supplier relationship includes a wide range of activities namely creating an overall strategy for sourcing, evaluating and selecting suppliers, procuring materials/services and managing supplier relationships. Relationship if properly structured can effectively combine the core competencies of a given firm with the skills and capabilities of its suppliers. Supplier relationship is vital for any organizations that want to leverage on its core competencies and outsource other activities in order to gain and retain competitiveness.

The third objective of study was to examine the relationship between procurement plan and procurement performance. The findings indicate a positive relationship between procurement plan management and procurement performance (r = .591, p < .05). This supports the findings from Alipour et al. (2013) who found out the importance of procurement plan on procurement performance. They state that successful managers who know the power of commitment and believe that continuous pursuit of organizational goals emphasizes the planning as key of success of their activities. Program is considered kind of commitment to perform certain activities to achieve the goal and in other definitions program is clear express and description of intentions and decisions. Program is the output of planning process and word planning has a variety of definitions but what is received from the various definitions including "setting goals and standards, and setting rules and procedures to doing work, preparation programs (both for themselves and for those who work with him). Forecast is prediction or planning for some future events. Planning in term of aspects of the nature is divided to types of physical planning, organizational planning, process planning, financial planning, task planning and public planning. Planning is not thinking about the future or its control but also is a process that can be used in conducting these affairs. Decision is not in common form but through the process of planning is made a series of coordinated decisions. For Alipour et al. (2013) Planning can have the following advantages: fulfilment of organization goals, helps to create opportunities for implementing decisions, to help organizations implement systematic plans and fulfilment of goals. Only effective planning can be adapted organization to the rapid growth of technology in environment. It increases economic growth at the macro level, financial planning and budgeting is a tool to control the activities It helps to boost morale of teamwork and leads to increasing organizations efficiency.

The last objective of the study was to examine the relationship between record management and performance of procurement performance. The findings indicate a positive relationship between record management and procurement performance (r = .074, p < 0.05). This supports the findings from Namukasa (2017) in her study entitled the influence procurement records management had on the performance of the procurement. The results of her study indicated that procurement records management had a significant effect on procurement performance. Whereby, there was a positive and statistically significant relationship between records creation and procurement performance; there was a positive relationship between records maintenance, preservation and procurement performance; and, finally, records access and use had a positive significant influence on procurement performance.

Conclusion and Recommendation

In general, this study has examined the relationship between strategic purchasing and performance of public procurement, case of Rwanda Basic Education Board (REB). Precisely, the study examined the relationship between cost management and performance of public procurement at REB, to establish the relationship between supplier relationship and performance of public procurement at REB, to establish the relationship

between records management and performance of public procurement at REB and to examine the relationship between procurement plan management and performance of public procurement. A positive relationship between cost management, record management, procurement plan management, supplier relationship and procurement performance has been found.

Recommendations

Basing on the study findings, the recommendations are offered to the Government of Rwanda and REB: Different reports have demonstrated that public procurement has become a high way of public financial embezzlement. As country which has limited resources, the Government of Rwanda shall make a great attention to this issue in order support other initiatives in place that aimed to boost economic growth of the country. Basing on the findings from the study, the researcher recommends that procurement of items that were produced/ manufactured in Rwanda shall gain important place in public procurement of Rwanda. The adoption or purchasing made in Rwanda has double importance. One, it will reduce the unnecessary imports, cut unnecessary costs and regulate the balance between export and import which is good for the country's economy. Secondly the use of made in Rwanda will generates an income for small business owners and increase the capacity of nationals in industrialization and production. Apart from enhancing made in Rwanda, the researcher recommends the government of Rwanda to review the public procurement process. It was stated that cost management can increase procurement performance. From this point of view, the public procurement process in Rwanda is highly costly in term of money and time. Once unnecessary costs are eliminated (for instance: payment of the tender document, payment of RRA certificate, bid security, RSSB certificate, etc). It will increase competition, which may lead to the price reduction comparing to the current situation. Different reports also showed that poor planning is a root of the failure in performance of public procurement. This failure can be associated to the poor planning itself or control of activities already planned and the lack of skills. For this reason, the researcher recommends that trainings in procurement planning shall be offered to procurement officers and other people in connection with public procurement.

For REB, the researcher recommends them to put in place strategic purchasing policy which shall determine why where, when and what services, works and goods to be purchased. Currently, the action plan of REB does not link to procurement plan. These inconsistencies leads to the poor results during the implementation of procurement plan. The study also found out that record management increases procurement performance. Different reports for auditor general of Rwanda showed that archive of tender's documents at REB is not well maintained. For this reason, the researcher recommends REB to review the way archive for tender documents is maintained.

Areas for Further Study

This study examined the relationship between strategic purchasing and performance of public procurement, a case of Rwanda Basic Education Board (REB) but it does not assess the contribution of other factors that lead to procurement performance such as behavior of people who are involved in public procurement. For that reason, the further study shall clarify that.

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