

**“THE CONSEQUENCES OF POOR SPECIFICATION AND  
STANDARDIZATION IN PUBLIC ORGANIZATIONS  
A CASE OF KIBAHA EDUCATION CENTRE”**

**“THE CONSEQUENCES OF POOR SPECIFICATION AND  
STANDARDIZATION IN PUBLIC ORGANIZATIONS  
A CASE OF KIBAHA EDUCATION CENTRE”**

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**A Dissertation Submitted in Partial Fulfillment of the Requirements for the  
Award of the Degree of Master of Science in Procurement and Supply Chain  
Management (Msc - PSCM) of Mzumbe University.**

**2013**

## **CERTIFICATION**

We, the undersigned, certify that we have read and hereby recommend for acceptance by Mzumbe University, a dissertation entitled “*The Consequences of Poor Specification and Standardization in Public Organizations: A case study of Kibaha Education Centre*”, in partial fulfillment of the requirements for the award of the degree of Master of Procurement and Supply Chain Management of Mzumbe University.

.....

Major Supervisor

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Internal Examiner

Accepted for the Board of MUDCC

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**DEAN/DIRECTOR/FACULTY/DIRECTORITY/SCHOOL/BOARD**

## **DECLARATION**

I declare that, this dissertation is my own work. It is submitted in partial fulfillment of the requirements for the Masters of Science in Procurement and Supply chain Management. It has not been submitted for any degree or examination in any other University, Institute or College.

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Date -----

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My special appreciation also goes to my lovely wife Mary who helped, encouraged and gave me support in doing this dissertation report.

## **DEDICATION**

I dedicated this dissertation report to my lovely wife Mary and to my Lovely daughters Marion and Morin.

This Dissertation is also dedicated to the family of Mr. & Mrs. Josephat Igembe and to my beloved brothers and sisters.

## **ABBREVIATIONS**

|       |   |                                                          |
|-------|---|----------------------------------------------------------|
| C/ADM | - | Central Administration                                   |
| CIA   | - | Chief Internal Auditor                                   |
| DN    | - | Delivery Note                                            |
| ESD   | - | Education Service Department                             |
| FDC   | - | Folk Development College                                 |
| GPSA  | - | Government Procurement Services Agency                   |
| GRN   | - | Goods Received Note                                      |
| HSD   | - | Health Service Department                                |
| KCOTC | - | Kibaha Clinical Officer Training Centre                  |
| KEC   | - | Kibaha Education Centre                                  |
| LPO   | - | Local Purchase Order                                     |
| MSD   | - | Medical Store Department                                 |
| PE    | - | Procurement Entity                                       |
| PMU   | - | Procurement Management Unit                              |
| PPRA  | - | Public Procurement Regularity Authority                  |
| PR    | - | Purchase Requisition                                     |
| PSPTB | - | Procurement and Supplies Professionals Technicians Board |
| TBS   | - | Tanzania Bureau of Standard                              |
| TSH   | - | Tumbi Special Hospital                                   |

## **ABSTRACT**

The study report on consequences of poor specification and standardization was carried at Kibaha Education centre.

The purpose of the study was to assess the outcomes of poor specification and standardization of goods and services at KEC. Specification is the first and important point in procurement circle thus right specification can lead the user to acquire right requirements hence gain value for money. Right specification also leads to standardization. Thus report argues that apart from the lack of specification manual also the user department doesn't know how to specify their need this is due to lack of standardization of some of their needs.

The main objective of the report intended to determine the significance of specification and standardization in the performance of procurement activities at Kibaha Education Centre. However, it has been found that there was poor communication, poor time management, lack of specification and standardization manual, lack of knowledge, poor planning, unavailability funds and lack of qualified personnel. These are some major causes to inefficiency in specification and standardization at Kibaha Education Centre.

The study examined how a well-determined specification of requirement can add economic value to the performance in public organization. In order to achieve this there must be policy that can be applied in improving and supporting specification and standardization of requirements.

The report at the end draws a conclusion and recommendations that, KEC needs to institute specification and standardization measures to enhance procurement activities, to prepare and apply specification and standardization manual and to make a sound communication between user departments and PMU. However Kibaha Education Centre as to recruit personnel with appropriate academic and professional qualification personnel and need to establish good system of training of existing staff.

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## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Introduction**

Chapter one of this dissertation covers the back ground of the research problem on consequences of poor specification and Standardization in public organization, how did the problem emerged, statement of the research problem, research questions including General and Specific questions, research objectives including General objectives and Specific objectives, significance and scope of the study and it will also cover Limitation and delimitation of the study.

#### **1.2 Background of the Problem**

Kibaha Education Centre was established in 1970 particularly in service oriented. Its major objectives are to provide education, health, and community development services.

In the course of executing such services KEC is necessarily compelled to indulge not only on procurement of various inventories but also to acquire or procure right goods and service so to meet her mission and vision of its existence.

In this regard KEC has to apply procurement, warehousing, inventory control, specification and standardization concepts so as to ensure efficient and effective provision of services.

KEC has to consolidate the requirements of the Education Services, Health Services, Community Development, Finance and Accounts, Planning and Economic Development and Administration and Human Resources Departments. The requirements should meet users need and should cover an optimum time horizon to run in consonance with the shelf lives and useful lives of the different items so as to gain value for money.

A specification is an explicit set of requirements to be satisfied by a materials, product, or service. Should material product or service fail to meet one or more of the applicable specification may be referred to as poor or improper specification. Specification are the type of technical standard and may be developed by any of kind organization, both public and private, a trade association, a national government, a professional association and or a purpose made standard organization such as ISO. It is common for one organization to refer to the standard of another. Sometimes specification is used in connection with a data sheet that describes technical characteristics of an item or product or service(Waters, 2003).

An important method of avoiding purchasing sub-standard supplies is the development of product specifications. If vendors are given very clear and precise instructions about what is being ordered, this will go a long way to avoiding costly misunderstandings. This is especially true where there are many different options associated with components of a product(Waters 2003).

Specification leads to the standardization hence quality management. These standards tell the suppliers and manufactures what is required of a quality oriented management system. Further, these specified standards ensure desirable characteristics of the products and services such as quality, environmental friendliness, safety, reliability, efficiency and interchangeability and at an economical cost (Kothari, 2004).

Requirement specification is the activity of determining the users' specific needs in term of quality of requirements of products and services in a standardized way and quantities of materials that should be acquired for intended use to meet and satisfy users' need (Rushlon et al, 2010).

It is estimated that the procurement of works, goods and services in Tanzania government account for 85% of the Government expenditure. Similarly, it is estimated that corporations spend about 70% of the resources on procurement of goods and services (Mahanga, 2006).

A number of procurement rules and regulations including procurement Act of 2001 and 2004 have been established. Contrary to the expectations, however poor or unwell specification of users needs of goods and services leads to poor performance of most government institutions K.E.C being among them.

Therefore, good specification and standardization leads to provision of quality goods and services hence attainment of value for money to these organizations. Many Organizations have been facing inefficiency in quality of goods and services mainly due to improper and timely provision of standardized specification.

However, the proper and timely specified requirements can have the significant impact on corporate profitability and management's ability to implement it (Mahanga, 2006).

Specification and standardization should be concerned with insuring quality and sufficient materials are always available without causing stoppage in production, unnecessary wastes for inferior low quality materials and products or services. In order to achieve this purchasing department need not to implicitly buy what the user intends. They have to question the requirement from the background of their experience and suggest alternatives. The inspection department will verify whether the quality supplied is in accordance with the order of requirements. Working policy should be established such that goods are ordered according to standardized specification in term of quality and quantity to ensure availability of specified and standardized materials without incurring unnecessary costs. Specification policies such variety reduction policy, standardization policy, designs and specification guidelines, ABC analysis policy, national master specification systems and international standard organization should be implemented (Douglas M & James R, 1987).

The following will normally be the sources of specifications:

- (i) Users (e.g. production, administration and finance) for the goods they need for use in their operations.

- (ii) Research and development or design engineering through the bill of materials for the raw materials, parts and sub-assemblies that will be needed for manufacturing products from their designs.
- (iii) Marketing in distribution organizations for goods that are the buy in order to sell
- (iv) Stock control for the items that are stocked in the organization.
- (v) Purchasing staff 'by default'(Douglas M & James R, 1987).

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

A specification is simply a definitive description of what is wanted. It is the description of the characteristics of the goods to be acquired or purchased. Hence, in purchasing, there are two conditions:

- (i) The description and characteristics of goods and services
- (ii) The goods and services to be purchased or acquired.

Since specification is the first and important activity in procurement cycle, correct standardized and professional material, products and services are an essential basis for successful sourcing hence achievement of supply chain management goals. Many public organizations in Tanzania have been facing this challenge of poor specification leading to acquiring low quality requirements hence uneconomical utilization of public funds.

If the public Organizations are not in control of specification, the supplier will take over and it will become difficult to gain opportunities from the market. There is a little time for preparation of specification. Most of users apply individual specification according to their desired needs rather than the specified standard specification. (Tanzania Procurement activities trends, 2013)

Effective and proper specification and standardization is important for efficiency and profitability of the organization. Many Public organizations are faced with problem of poor specification leading to many wastes hence non-conformance of public funds usage.

In addition, lack of knowledge from staff who prepare specification, availability of fund at the required time and lack of standard specification manual to guide users on preparation of their requirement are source of problems like inferior materials and products, returns or reverse logistics for rejections, stoppage of production, failure to meet customers' requirements. Many organizations fail to answer the key question like what to order, how much to order and where to order. The problems affects many activities of the organization therefore, studies were conducted on standard specification and standardization of requirements by the public organizations in Tanzania.

To make matters worse the KEC has no specification and standardization Manual which could guide the stores personnel and the user department in executing their duties which are unfortunately not clearly specified as they do not have job descriptions.

This study dwells on identifying how does problem of poor specification and standardization in public institutions in Tanzania emerge and how can it be improved so as to improve procurement activities hence to attain value for money. Different scholars and researchers have conducted studies on consequences of poor specifications and standardization in both private and public organizations, but their findings could not be regarded as conclusive as majority of studies are conducted in the developed world. Furthermore, the methodology used in other studies differs significantly with the current study justifying the need for more studies in the area.

## **1.4 Research Objectives**

### **1.4.1 General Objective**

The General objective is to determine the significance of specification and standardization in the performance of public organizations procurement activities.

### **1.4.2 Specific Objectives**

The following are Specific Objective;

- (i) To examine how can a well-determined specification of requirements add economic value to the performance of public organizations in Tanzania.
- (ii) To examine the policy that support standardization and specification in the public organizations.
- (iii) To examine if there is any application of the specification policy for improving of procurement performance in the public organizations.

## **1.5 Research Questions**

### **1.5.1 General Question**

How effective is the specifications and standardization for improving performance and quality control in public organization?

### **1.5.2 Specific Questions**

- (i) Is the standardization and specifications add economic value to the performance in public organization?
- (ii) Is there any policy that supports standardization and specification in public organization?
- (iii) Is there any application of standardization and specification manual for improving procurement performance?

## **1.6 Significance of the Study**

The study was the fulfillment of the requirements of the degree of Master of Science in procurement and supplies chain management. The research findings enable the researcher to understand and gain practical experience on the formulation of specification and standardization.

The findings also would help the management of Kibaha Education Centre to identify the possible problems and solution regarding effective specification and standardization of requirements. The findings and recommendations of the study are expected to be beneficial to the public organizations in Tanzania. The study therefore will be used as a guidance and reference to the candidates who prepare themselves for research paper in procurement specifically in specification and standardization of requirements.

In addition, this research dissertation will contribute in upgrading the level of knowledge to some scholars by citing the helpful knowledge. To the individual staff who are preparing the specification and standardization of requirements on reading this dissertation report can be improve their knowledge hence effectiveness in procurement activities.

### **1.7 Scope of the Study**

This research study was undertaken to public organization departments in Tanzania. The concentration was to the user department or and any other departments initiating the requirement also to the procurement management unit. The study was conducted at Kibaha Education Centre and other public Institutional in coast Regional.

### **1.8 Limitation of the Study**

The major limitation of the study was; firstly, researcher was undertaking research while performing other daily official duties (activities). Thus, time was not adequate for conducting research in all public organizations. Secondly, some of respondents were reluctant to provide the required data the fact that restricted the capturing of all the reliable information. Lastly, inadequate fund to cover a vast area, because of these constraints the study had to favor the use of case study to capture deep information.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

In this chapter, the researcher will examine different literature related to Specification and standardization, including theoretical reviews and empirical studies from various books, various researches, and articles and from internet. The researcher will place forwards the conceptual definitions and basic theories to the study and identified the gaps in a view to assist him to come up with new insights to the current research.

#### **2.2 The purpose of Literature Review**

The main purpose of literature review in this study is that it helped to outline the study methodology. Also in this study, literature review helped to identify the effectiveness of specification and standardization system. Furthermore, through literature review the work of previous researchers were identified including areas that need further studies in this topic. For example, specification and standardization system has proven to be essential in improving procurement activities in the organization hence attainment of value for money. In this study, the methods of specification and standardization were identified (Mapalala, 2011).

#### **2.3 Conceptual Definitions**

##### **Specification**

A specification is an explicit set of requirements to be satisfied by a materials, product, or service.

A specification can be defined as a description of the physical or functional characteristics, or of the nature of a supply, service, or construction item; the requirements to be satisfied by a product, material, or process indicating, if appropriate, the procedures to determine whether the requirements are satisfied.

**Standardization**

Standardization is the process of developing and implementing technical standards. Standardization can also be defined as best technical application consensual wisdom inclusive of processes for selection in making appropriate choices for ratification coupled with consistent decision for maintaining obtained standards.

**Value for Money**

Value for money is a term used to assess whether or not an organization has obtained the maximum benefit from the good and/or service it both acquire and provides, within the resources consideration payable to procure it (Erlendsson, 2002, cited by Mapalala, 2011).

Either Value for money sees quality in terms of return on investment. If the same outcome can be achieved at a lowest cost, then the 'customer' has a quality product or service. The growing tendency for government to require accountability from higher education reflects a value-for-money approach. Increasingly students require value-for-money for the increasing cost they incur in getting higher education (Harvey & Green, 1993 cited by Mapalala, 2011).

**Variety Reduction**

Variety reduction involves reducing the number of different solutions used to fulfill the same need. When considering developing a procurement strategy for a new category, it is common to find that there is a variety of different standards and solutions employed across an organization to fulfill broadly the same need. Similarly, when looking at the range of items held in stock, it may be that there is more than one line held in stock to meet the same need. Variety reduction involves engaging with stakeholders and identifying whether it is possible to reduce the number of different solutions. If one solution can apply across the organization this would involve standardization (Dobbler and Burt, 1997).

**The store officer/ storekeeper**

The store officer/ storekeeper the officer who is responsible to the supervising for the general level of holding of stores in his organization. He/she will carry out regular inspections of stores and stores in his organizations. He/she will carry out regular inspections of stores accommodations and will ensure that records are adequately kept (Dobbler and Burt, 1997).

**Store**

Is a place or building where work in progress, finished goods and spare parts are kept safely.

**Receiving Bay**

This is the separate pace or area where materials or goods are received and inspected before they can be kept in stores.

**Quality**

Totality of characteristics of goods and materials of an entity of that satisfy stated and implied need (James, 2004).

**Policy**

A policy is a statement that describes in very general terms an intended course of action. After the fundamental objectives of an activity are established, policies are developed to save as general guidelines in making operating decision that channel actions towards achievement of objectives.

**Safety inventories**

Safety inventories are remaining inventory between the times that an order is placed and when new inventory in received. If there are not enough inventories then a shortage may occur. Buffer inventory is hedge against running out of inventory; it is an extra inventory to take care on unexpected events (Datta, 2004).

## **Strategies**

A method or plan chosen to bring about a desired future such as achievement of a goal or solution to a problem, it is the road map which guide the organization in achievement of its goals and mission, ( Lysons K and Farrington B,2006).

The concept of strategies in public procurement is that through advanced planning, scheduling, and group buying initiatives, a firm can experience significant cost savings. In addition to hard dollar savings, there will be additional savings generated through a more efficient business operation and therefore increased profitability. The implementation of strategic procurement within a company requires focus on three procurement concepts which where group buying, centralized procurement services, and using procurement data management systems (National Public Procurement Policy, 2012).

## **Re-order level**

Re-order level is the level of inventories, which indicates when an order for replenishment of materials has to be placed. It is arrived by taking into account the rate of usage of materials; the expected lead-time as well as any safety inventories that are maintained (Kenneth, 2003).

## **Maximum Inventory Level**

Maximum inventory level represents the level beyond which the inventory in hand is not allowed to exceed. This is because excess inventory will increase the cost of storage, thereby increasing production/selling cost defeating the very purpose of efficient storekeeping (www.businessdictionary accessed on 23<sup>rd</sup>February.2013).

## **Minimum Inventory Level**

Minimum inventory level is that level of inventory below which inventory should not be allowed to fall. In case of any item falling below level, there is danger of stopping of production and therefore, the management should give top priority to the acquisition of new supplies (www.businessdictionary visited on 23<sup>rd</sup>Februay.2013).

**Call – Off orders**

Call off order is a contractual document that initiates requirements by the PE to the supplier basing on Framework agreement.

**Lead Time**

Lead Time is the interval/period from the initiation of the purchase of materials, parts of finished goods until when the materials are delivered(Kenneth, 2003).

**Procurement entity (PE)**

This is a public body and any other body or unit established and mandated by government to carry out public procurement activities (PPA No. 21 of 2004).

Procurement entity can also be explained as central government authority, local government authority, public institution, commission, government project, parastatal, agency, or any specialized institution engaged in procurement process and entering in contract with the successful bidder ([www.sribd.com](http://www.sribd.com) visited on 23<sup>rd</sup>February, 2013).

**Ordering Cost**

Ordering cost is referred to as the coast of placing an order and securing the supplies. It varies from time to time and from industry to industry. However, the ordering cost largely depends upon; the number of orders placed during a given period, and the number of items ordered at a particular time(Kenneth, 2003).

**Supply Chain Management**

Supply chain management is the coordination of production, inventory, location, and transportation among the participants in a supply chain to achieve the best mix of responsiveness and efficiency for the market being served (John wiley& sons 2003).

**Procurement**

Procurement means buying, purchasing, renting, leasing or otherwise acquiring any goods, works or services by a procuring entity spending public funds on behalf of a ministry, department or regional administration of the Government or public body and

includes all functions that pertain to the obtaining of any goods, works or services, including description of requirements, selection and invitation of bidders, preparation and award of contracts.

In addition, procurement can be defined as the process of obtaining goods or services in any way including borrowing, leasing, loan and even force or pillage. Either, it is considered as the full range of activities related to purchasing small assets such as office equipments. The procurement does not end at commissioning or contract award stage but spans the entire lifecycle of the product or services from in caption act through to contract management and disposal of redundant assets (Lyson& Farrington, 2006).

### **Public procurement**

This is the process of the acquisition, usually by means of a contractual arrangement after public competition, of goods, services, works and other supplies by the public service (Chaffey (2009).

### **Framework agreement**

This refers to the contractual arrangement that allows a procuring entity to procure goods, services or works that are needed continuously or repeatedly at an agreed price over an agreed period of time through placement of call off orders. Such agreements set out the terms and conditions for subsequent call-offs but place no obligations in themselves on buyers to purchase. With this approach Procurement are formed only when goods, works and services are called off under the agreement. Framework Agreements can be open or closed.

### **Integrity**

Integrity is a concept of consistency of actions, values, methods, measures, principles, expectations, and outcomes. In ethics, integrity is regarded as the honesty and truthfulness of one's actions. Integrity can be regarded as the opposite of hypocrisy in that it regards internal consistency as a virtue, and suggests that parties holding apparently conflicting values should account for the discrepancy or alter their beliefs. Principle of integrity imposes an obligation on all professionals accountant to be

straightforward and honest in professional business relationship. Integrity also implies fair dealing and truthfulness. The organization dealings are honest and objective and there are high standard of probability in the stewardship of public funds and resources in an organization's decision-making process. (Integrity, available at [www.en.wikipedia.org/integrity](http://www.en.wikipedia.org/integrity) accessed on 23<sup>rd</sup> February. 2013)

In addition, Integrity in procurement can be defined as the use of funds, resources, assets and authority according to the intended official purposes and in line with public interest. Integrity in public procurement is essential for effective and efficient use of public funds, resources, assets and authority. Acts that lead to violation of integrity include corruption, fraud and theft, conflict of interest, collusion, abuse and manipulation of information, discriminatory treatment in the public procurement process and waste and abuse of resources. (Frame work on common use items represented by GPSA)

### **Inspection**

Inspection is the process of examining the incoming goods or materials to ensure that they conform to specification made by the users and hence meet their intended purposes.

## **2.4 Review of Related Theories**

### **2.4.1 Objectives of Specification and Standardization**

After a quality level has been determined, usually the manufacturing, it becomes purchasing responsibility to secure the proper materials. The correct quality specification must be given to the suppliers. The quality level can be specified to the suppliers in variety of ways, including;

- (i) Commercial Standards,
- (ii) Design specifications,
- (iii) Engineering drawings,
- (iv) Materials and method-of-manufacture specification,
- (v) Performance specifications,
- (vi) Function and fit specification,

- (vii) Brand or trade names,
- (viii) Samples,
- (ix) Market grades,
- (x) Qualified products lists,
- (xi) Combination of the above (Douglas M & James R, 1987).

Specifications have the following objectives:

- (i) For internal specifications (i.e. specifications drawn by users etc.), to ensure that the purchasing department or section knows exactly what to buy.
- (ii) For external specifications, (i.e. specifications sent to suppliers) to ensure that the suppliers know what to supply.
- (iii) To serve as the heart of the resulting purchase order.
- (iv) To establish a standard against which inspection tests and quality checks are made.

Therefore, every purchase requisition and every purchase order must have clear specification. Or else, the objectives referred to above cannot be achieved. Only when there are special conditions (e.g. high value, critical/unusual requirements etc.) can the expense of writing very detailed specification be justified.

Standards are documents defining characteristics (for example, dimensions, safety aspects, performance requirements) of a product, process or service, in line with the technical/ technological state of the art.

Experts representing the interested economic and social parties “stakeholders” (producer, service providers, suppliers, users, consumers, public authorities, scientist/professional institutions, educational authorities develop standards...) can develop these specifications and standardization. According to the national standardization body’s procedures, they are organized in committees and sub committees, or often in specific working groups who address the detailed technical content, which are competent for their specific area of work.

Dobler in his book “Purchasing and Supply Management (1996)” asked a logical question that

What can be done to insure supplier’s performance after they have been added to firm’s suppliers’ base? He said that when the LPO with the detailed specification is issued, the receiving and inspection departments both receive the copies of LPO that will assist them during inspection.

He also said that if goods and materials fail to meet specifications, a more detailed report is usually completed by describing the reasons of rejections.

Dobler (1996) also argued that there are several different views of quality depending on one’s perspective. He mentioned them as follows;

**(a) Commercial Standards**

A commercial standard is a complete description of the item standardized. The description includes the quality of materials and workmanship that should be used in manufacturing the items, along with the dimensions chemical composition and method of testing in both materials and workmanship. Commercial standards are a corner stone of mass production system because all items that are made to standard specification can be expected to fit all standard specifications, regardless of who manufactured the item.

**(b) Brand and Trade names**

A brand represents the manufacture’s pledge that the quality of the product will be consistence from one purchase to the next. The primary reason is that most manufactures brand their products to as to bet repetitive sales.

**(c) Market Grades**

Grading is the process or method of determining the quality of commodities. A grade is determined by comparing a specific commodity with standard previously agreed on the value of grades as a description of quality depends on the accuracy with which they can be recognized during inspection.

#### **(d) Combination of Methods**

Many Products cannot be adequately be described by a single method of description. In such a case, a combination of two or more methods is of much importance. Combination of methods is the method most used during item description.

#### **2.4.2 Effective of Specification and Standardization**

Specifications have the following importance:

- (i) They directly affect the quality and performance of the items purchased.
- (ii) They affect the price to be paid for the goods.
- (iii) They fix the final design of the product to be made (i.e. in a manufacturing firm) and consequently the marketability and price of the product.
- (iv) They fix the competitive stance of the organization.
- (v) They fix the profit potential of the organization.

Good specifications must take into account some or all of the requirements or considerations listed below:

- (i) Design requirements of function, chemical properties etc.
- (ii) Marketing requirements of consumer acceptance.
- (iii) Manufacturing requirements of workability.
- (iv) Inspections requirements of testing materials for compliance with the specifications.
- (v) Stores needs to receive, store and issue the materials economically.
- (vi) Production control's requirements to schedule the material economically.
- (vii) The ability of purchasing to procure the material without difficulty and with adequate competition from other sources of supply and at low cost and at low cost.
- (viii) The ability of production control and purchasing to substitute the material when necessary.
- (ix) The total firm's requirements of suitable quality at overall minimum cost
- (x) The total firm's requirement to use commercial and industrial standard material whenever possible, to establish company standards in all cases whenever possible,

and to establish company standards in all cases where non-standard material is used repetitively.

#### **2.4.3. Cost Raised on Improper Specification and Standardization**

Mapalala (2011), “Significance of Proper Specification writing to value for money” explained that Public procurement in Tanzania is facing a number of bottlenecks which bring about inefficiencies that end up making such procurement not able to obtain value for money. Some of these bottlenecks are, improper specification writing, lack of integrity and lack of professionalism. He explained that specifications are the major determinant of efficiency and value for money in procurement. The level of integrity among public officers and the level of professionalism can influence proper specification.

Mapalala (2011), also explained the demarcation that must be considered when it comes to quality as follows;

- (i) Quality is conformance to requirements (specification) and,
- (ii) When it comes to cost, the cost of a product or services is made up by the complexity of features and attributes to the particular product or service. Therefore, the quality of goods or service is the major determinant of the cost and consequent price for that good or service.

Unclear or incorrect specifications can result in;

- (i) Disruption and delays in the supply of the product or services caused by time spent on providing additional information and clarification or correction of errors with suppliers, and
- (ii) Additional costs arising from the product or service not performing as needed (the cost of rectifying its performance)

#### **2.4.4 Reasons for Variety Reduction**

The Chartered Institute of Purchasing explains that variety reduction involves reducing the number of different solutions used to fulfill the same need. When considering developing a procurement strategy for a new category, it is common to find that there is

a variety of different standards and solutions employed across an organization fulfill the same need. Similarly, when looking at the range of items held in store to meet the same need.

However, it was explained that variety reduction involves engaging with stakeholders and identifying whether it is possible to reduce the number of different solutions. If one solution can apply across the organization this would involve standardization (Variety reduction available at [www.cips.org](http://www.cips.org) accessed on 23<sup>rd</sup> February. 2013)

#### **2.4.5 Methods and Principles for Specification and Standardization**

Mapalala (2011) explained that for an organization to achieve value for money through proper specifications writing there should be clarity, conciseness and absence of ambiguity in writing the specifications.

He pointed out two approaches to specification writing, namely conformance approach and performance approach.

- (i) Conformance approach in specification writing one has to clearly state the attribute and the features of product. For example, specification for a knife would be; made up of stainless steel, wooden handle, 10 inches long, 4 inches wide, sharpened on one side, covered with 500 gauge plastic material, packed in 12 pcs pack.
- (ii) Performance approach in specification one has to state the outcome that is expected from the product or service. Take a example of specification for a lorry could be as follows; A lorry with a capacity to carry 10 tones, in a fully covered body, a minimum speed of 120 km/hr and ability to operate in tropical countries.

In General he pointed out that the main difference between conformance and performance approaches in specification is that the conformance tries to present the attributes that are to be included in the product or service while in the performance side, specifications tries to state what, how and where the product is expected to work.

Purdy D.C (1991) as cited by Mapalala, (2011) identified seven principles that should be observed by all specification writers as follows;

**If Something is Not Specified, it is Unlikely to Be Provided**

The corollary is that all requirements should be stated in the specification before awarding the order. Suppliers will normally charge requirements subsequently added as “extras”.

**Every Requirement Increases the Price**

All specifications should, therefore, be subjected to rigorous value analysis.

**The shorter the specification, the less time it takes to prepare it.**

The expenditure in staff time devoted to the preparation of a specification can be high. This can be significantly lower when the length of a specification and time taken in its preparation is reduced.

**The specification is equally binding on both the purchaser and the vendor.**

Omissions, incorrect information or imprecision in a specification can be cited by the vendor in any dispute with the purchaser. He pointed out that a rule of evidence is that words are construed against the party who wrote them. Where there is uncertainty about the meaning of a specification, the court will generally, interpret it in the vendor’s favor.

**Specifications, should, as far as possible, be presented in performance terms rather than as a detailed design.**

This is particularly applicable to items about which the purchaser has little expert knowledge.

**Specifications, should, wherever possible, be open and not closed.**

Open specifications are written so that the stated requirements can be met by more than one supplier. By making the requirements sufficiently flexible so that several suppliers can meet them, competition is encouraged and prices are reduced.

**Specification must not conflict with national or international standards or health,** safety and environmental laws and regulations. National and International specifications should be identified by their number and titles.

The office of Procurement and supply chain management, University of Limerick, Ireland, (2012) pointed out that there are three basic types of specifications:

### **Functional Specifications**

A functional specification is a clear indication of the purpose, function, application and performance expected of the supplied material or service, whereby the supplier is allowed or encouraged to provide an appropriate product. These specifications describe the capabilities that the article where applicable, performance specifications are to be selected as they allow wider competition and enable suppliers to suggest new or improved ways of meeting the requirement. Tests or criteria are developed to measure a product's ability to perform and to last, as required.

### **Technical / Design Specifications**

This specification details the characteristics of the product to be purchased, it is so detailed that it describes how the product is to be manufactured, detailing the physical dimensions of the product and materials to be used etc. (Most often used for building contracting and roads)

### **Combination**

These specifications include both design and functional features. Characteristics of both are used as prerequisites and as limiting factors in developing the specification.

A specification should be sufficiently detailed so that the product or service will fit the users' requirements. It should not be so explicit that it prevents negotiation or discourages buyers or suppliers from using their expertise to propose alternative solutions that may offer better value for money.

Preparation of a specification should involve close communication between the user and the Procurement and Supply Chain Manager and, if required, assistance from technical experts. Involvement of potential suppliers may also be helpful in developing

a specification. If supplier input is required it must not result in adoption of a specification that favours one particular supplier. This is a requirement, not only of the national Regulations, but also of the EU Treaty under Article 30.

## **2.5 Review of Related Empirical Studies**

### **Overseas study**

#### **Ireland**

The office of Procurement and supply chain management, University of Limerick, Ireland defines specification as a statement of the attributes of a product, process or service a user wishes to purchase, and consequently, which the supplier is expected to supply. As far as practicable, it is desirable that the requirements be expressed numerically in terms of appropriate units together with their limits.

Specifications have two basic functions:

- (i) **Communicate:** When prepared by the purchaser, specifications inform the supplier what is required. When prepared by the supplier they provide a prospective purchaser with a description of the attributes of a product.
- (ii) **Compare:** Specifications also provide criteria against which the products and services supplied or available can be compared.

#### **When preparing a specification the following should be considered**

Use functional and performance criteria where possible.

- (i) Any technical specifications should be defined by reference to any European, International, National and quality assurance requirements, which are relevant.
- (ii) References, which have the effect of favoring or eliminating particular suppliers, contractors, products or services, should be avoided.
- (iii) It is not normally permitted to use brand names, sources of supply, trademarks, patent types, origins or other means of production when writing product specifications. The exception is when the goods and services cannot otherwise be described by reference to technical specifications, which are sufficiently precise and intelligible to all suppliers. In these cases, the brand names etc. must be accompanied by the words "or equivalent".

There are, however, instances where it is permissible to derogate from the prescribed hierarchy of specifications. Again, like other exceptions, these are clearly defined. For example, where there exists a statutory duty in relation to, say, health and safety; technical reasons of conformance; incompatibility or disproportionate technical differences or disproportionate costs; or innovative reasons.

### **In Kenya**

In Kenya the Procurement of goods, services and work is governed by Public Procurement and Disposal Act no. 3 of 2005. According to Kenya Gazette Supplement, number 77 (Acts no 3) in part IV section 34 pointed out that;

- (i) The procuring entity shall prepare specific requirements relating to the goods, works or services being procured that are clear, that give a correct, complete description of what is to be procured, and that allow for fair and open competition among those who may wish to participate in the procurement proceedings.
- (ii) The specific requirements shall include all the procuring entity's technical requirements with respect to the goods, works or services being procured.
- (iii) The technical requirements shall, where appropriate;
  - (a) Relate to performance rather than to design or descriptive characteristics; and
  - (b) Be based on national or international standards.
- (iv) The technical requirements shall not refer to a particular trademark, name, and patent, design, type, producer or service provider or to a specific origin unless;
  - (a) There is no other sufficiently precise or intelligible way of describing the requirements and
  - (b) The requirements allow equivalents to what is referred.

### **United Nation Development Programme**

According to the UNDP Procurement Manual (User Guide) (January, 2006) in Contract, Asset & Procurement Management it states a requisition of goods, services or civil works should include, at a minimum the following;

- (i) Detailed description of goods, civil works or services sought;
- (ii) Quantity of inputs to be procured;
- (iii) Unit of measure;
- (iv) Required delivery/engagement date;
- (v) Delivery location or location of civil works/services to be performed;
- (vi) Estimated price or cost; and
- (vii) Any additional information (i.e., standardization, preferred method of shipment).

In the case of goods, the description should include all technical specifications; norms and standards; functional guarantees; inspection requirements; etc. In the case of civil works, a requisition should describe the statement of works, quality standards of different materials to be used, handling of defects. Etc. Lastly, in the area of services, requisitions should provide the terms of reference; qualification and experience of consultants required; output of reports; etc

The Manual pointed out that in Procurement of goods specifications or the description of physical or functional characteristics of tangible goods or civil works must provide all relevant terms and criteria required. They should be generic, in nature to maximize the broadest possible competition.

In addition, the manual explained that specifications might be stated as a hybrid, or combination of the following types:

**Functional**

Functional defines the task to be performed in conjunction with various design attributes (i.e., cost, weight, environmental impact, reliability). A functional specification focuses on what a product is to do and rather than what materials and/or dimensions should be employed. (e.g., recycled laser copy paper, smooth, uniform surface for fine resolution, 88 brightness rating for contrast, use in a variety of printers and copiers, or offset printing)

**Performance**

Performance focuses on the function of the product or service required. This ideal specification is built around a description of what is to be achieved rather than a fixed description of how it should be done. To assure the quality, a reference to the concerned product standards (i.e., ISO) and environmental requirements (i.e., Energy Star, Eco-label), should be made.(e.g., fine tip dry erase markers; durable tip will not soften or spread; quick drying ink; wipes off easily; certified non-toxic by marker industry (AP)standards)

**Design**

Design defines exact details of a good (i.e., the physical attributes, materials to be used, power input and output, the manufacturing processes required, or in the case of a service, the working methods to be used). Due to its uniqueness, design specifications may limit competition because of differences in engineering practices. Where specifications require the use of drawings, blue prints or white papers, all dimensions stated must utilize the metric system. (e.g., construction of an overhead transmission tower requires details of the type of transmission line [e.g., voltage, circuit, conductor, electrical clearance, sag of conductor, foundation load, grade and size of steel structure, thickness of zinc coating).

**Brand or Trade name**

In the drafting of any of the aforementioned specifications, the use of brand names or similar references must be avoided. If it is necessary to cite a brand name, the words “or equal” shall be included. (e.g., Dell® Desktop Computer or equal). The term “or equal” means that the desired product is of comparable quality and/or capable of performing the intended function. For the procurement of small quantities, brand purchasing is acceptable.

**Sample**

Only where the above-mentioned methods to describe a good are not feasible, samples may be used to facilitate the procurement of goods.

### **In Tanzania**

Public procurement in Tanzania is governed by the Public Procurement Act 2004 (PPA – 2004) and its regulations of 2005. This Act and its Regulations provide a framework for the procurement processes, methods and decision making baseline in order for public organization to achieve value for money.

The User Department (UD) is the consumer of the services procured by the entity. Basically the User Department initiate the procurement and disposal by Tender requirements, inputs to specifications and in evaluations as well as perform duties as outlined in Sect. 36 of the Act. Regulation 22 (2) of Public Procurement Regulation (2005) provides that, to the extent possible, any specifications, plans, drawings, designs and requirement or description of goods or construction should be based on the relevant objective, and technical and quality characteristics of the goods or construction to be procured.

There should be no requirement of or reference to a particular trade mark, name, patent, design, type, specific origin or producer unless there is no other sufficiently precise or intelligible way of describing the characteristics of the goods, work or services to be procured or provided that word such as “or equivalent” are included.

Section 45 of PPA 2004 put a legal mandate that a procuring entity shall plan its procurement in a rational manner and in particular shall-

-45 (b) -Aggregate its requirements wherever possible, both within the procuring entity and between procuring entities, to obtain value for money and reduce procurement costs;

-45 (c) -Make use of framework contracts wherever appropriate to provide an efficient, cost effective and flexible means to procure works, services or supplies that are required continuously or repeatedly over a set period of time.

In his study, Mungure (2003) as cited by Maggid (2012) in her study of “effectiveness of inventory control in public organization” at KEC states that “lack of qualified staff in management and its impact in manufacturing firm” in Tradeco Soap Industries found that, the problems of the factory being out operation as a result of lack of materials is

within the company's control as it has been due to the failure of the firm to recruit professional staff will manage all matters pertaining to materials management.

In his study Makombe (1995) "The effect of poor material plans to the organization operation" in Pemaco (1995), as cited by Maggid (2012) in her study of "effectiveness of inventory control in public organization" at KEC found that the company is face with problems caused by the Bureaucratic important procedures and also it has problems of lacking a good system of buying its requirements. The company also faces the problems of poor planning of materials required in production and buying materials is small quantities.

Tanzania Bureau of Standards (TBS) governs Tanzania's standards for all sectors of economy. The Act of Parliament, the Standards Act No 3 of 1975, established TBS under the Ministry of Industries and Trade. TBS started its operations in April 1976. Its current name of TBS was the result of an amendment through Act No 1 of 1977.

### **Functions of TBS**

The establishment of TBS was part of the government endeavor to strengthen the industry and sectors of the Tanzanian economy. As such then, TBS was charged with undertaking measures to control the quality of all descriptions and promote standardization in industry and commerce. Therefore, TBS has the following functions:

To formulate and promulgate the country's standards in all sectors of the economy. Priorities have been given to establishing national standards in the fields of textiles, leather, agriculture and food, chemicals and engineering.

To implement the promulgated standards through a third party Standard Marking Certification Scheme

To improve the quality of both exported and imported industrial products. This TBS does through various certification schemes such as pre-export and import inspection and testing, the tested product certification and quality system registration.

To promote standardization and quality assurance services in industry and commerce. In order to do this, TBS trains personnel in company standardization, quality assurance, and quality improvement and laboratory techniques.

To test product samples drawn by TBS inspectors in the course of implementing standards.

To undertake calibration of industrial and commercial measuring equipment and instruments in areas such as mass, length, volume and temperature.

## **2.6 Theoretical Framework**

Specification and Standardization of goods and services is one of importance in supply chain management that can lead in maximization of Organization's performance hence achievement of economic value for money. It is therefore that goods, materials, or service to be procured is precisely described that the PMU can source and procure by using the right procurement method from right source, at the right time, with right price hence meeting users needs.

There must be a procedures and specific standards to guide the user departments on specifying their requirements. Standardization of requirements is also important because it leads in variety reduction hence minimization of ordering and storage costs.

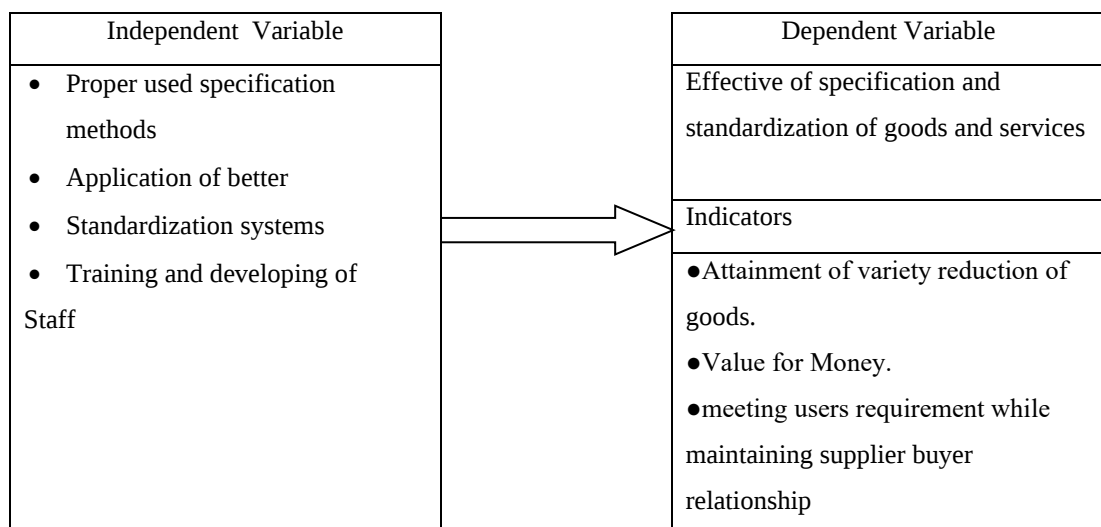
The policy of the organization must be specified on specification and standardization so as quality and general conformity of goods and services to the right specification provided be achieved hence attainment of organizations goals on quality products and services.

The well knows standardization and specification procedures and system will effectively brings out high organization performance in production and services provision. Staff training and development is important so as to be conversant to standardization and specification system and procedures.

## 2.7 Conceptual Framework

This refers to the diagrammatic presentations of the concepts that the researcher used operationally in order to achieve objectives. The theory is presented in a model where researcher variables and relationship between them are translated into visual picture to illustrate interconnections between the independent, extraneous, and dependent variables.

**Figure 2.1: Conceptual Framework**



**Source: researcher's idea (2013).**

## 2.8 Description of Framework

The model above shows the relationship that exists between dependent and independent variables. The proper specification methods, application of better standardization systems and training and developing of staff depends much on the effectiveness of specification and standardization of goods and services during public procurement.

The model shows in detail the different indicators that are attainment of variety reduction of goods, meeting user's requirement while maintaining supplier buyer relationship and gaining value for money. The independent variables were used to see whether there were effects on the dependent variable.

## **2.9 Summary (Research Gap)**

From the above literature reviewed, different authors have discussed how the specification and standardization should be carried out and its importance. The main literature review sources used in this study includes several authors, related journals, previous researchers in Tanzania and other countries. Other literature review sources used are internet search websites specific to inventory control relevant to this study. However, there are no clear guidelines that have been established to support the user department, suppliers and the procurement management unit on specification and standardization at KEC. Therefore, this study enabled the researcher to examine the level of awareness and proper usage of specification and standardization in the organization.

## **2.10 Research Hypotheses**

After studying the literature review and determining the research summary gap the researcher has developed a theoretical proposition that un proper specification and standardization of goods services and works leads to acquiring of low quality goods, services and work hence failure in gaining value for money.

The following were research hypotheses;

- (i) Improper or not well-specified requirements by user departments lead to procuring low quality goods, services and works hence failure to gain value for money.
- (ii) Standardization of goods, services and works will help the organization to make a proper supply chain management and achievement of the value for money. Also proper standardization will lead to achievement of variety reduction goals.
- (iii) Training of staff in user departments, storekeepers, head of departments and empowering them will assist in better specification of their requirements hence achievements of objectives of specification and standardization.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter presents how research was conducted. It discusses how inquiry was undertaken and presents the research methodology and techniques that was used in collecting data needed, in relation to the research goal and objectives of the study.

Kothari (2004) defines research methodology as a framework of which details the type of information to be collected, the data sources and the data collection procedures. He categorized research methodology under two overall approaches to inquiry: qualitative and quantitative research approaches. Each of them depends on the nature of the research problem. This chapter also describes various methods adopted by the researcher in data collection and data analysis types of the study, the study area, study population, unit of analysis, sample size and sampling techniques, types and source of data, data collection method, validity and reliability issues, expected results, data analysis methods, limitation of the study, research paradigms, research design and type of measurement.

The following methods were used to test the hypothesis;

##### **1. Deduction approach**

Under this approach, it involves the development of a theory that is subjected to a rigorous test. As such, it is the dominant research approach in the natural sciences, where laws present the basis of explanation, allow the anticipation of phenomena, predict their occurrence and therefore permit them to be controlled (Collins and Hussey (2003) as cited by Saunders et al (2009).

##### **2. Induction Approach**

Under this approach the researcher, need to interview the sampled staff in the organization. Saunders et al (2009) pointed out that the purpose here is would be to get a feel of what was going on, so as to understand the nature of the problem. The

researcher's task was to make sense of the interview data collected by analyzing those data. The results of this analysis were used in formulation of a theory.

Saunders et al (2009) also pointed out that research using an inductive approach is likely to be particularly concerned with the context in which such events were taking place. Therefore, the study of a small sample of subjects might be more appropriate than a large number as with deductive approach.

### **3.2 Research Paradigm**

Saunders et al (2009), defines paradigms as a way of examining social phenomena found which particular understanding of these phenomena can be gained and explanations attempted. Either Paradigm is a term used in the social sciences, but one, which can lead to confusion because it tends to have multiple meanings.

Churchill, et al (1982) explains there are two paradigms of doing research, namely, positivistic and phenomenology, positivistic is a statistical and quantitative based research approach to arrive at the conclusion, and phenomenology is a qualitative research approach in arriving at the conclusion.

### **3.3 Population of Study**

Population is the complete set of cases or group members (Saunders M.et all). Population of this study comprised 50 orders made in a year by the staffs of Kibaha Education Centre, particularly from supplies department and user department. Supplies department has been selected because it the sole department dealing with whole process of procurement operations. It also comprises of 100 staff from deferent KEC departments.

### **3.4 Sample and Sampling Procedure**

Sampling is the process of obtaining information about an entire population by examining only a part of it (Kothari C.R, 2004).

### 3.4.1 Sampling Technique or Procedures

Sampling technique is the procedure which helps the researcher to decide the type of sample she was used. Sampling procedure was conducted by considering the number of requisitions made in a year and taking into consideration the quarterly requirements raised at KEC.

### 3.4.2 Sample Size

Sample size can be defined as number of items to be selected from universe to constitute a sample. Therefore, the researcher considered the simple random sampling, this simple random sampling was used to determine sample size (where by every respondents has equal chance to be selected; however the readiness of respondents were the most determinant. The guiding number was 50, where every individual out of 100 had equal chance to be included. The sample was involved a total of 50 employees taken in one year 2012/2013. Also the sample involved 50 orders and 50 purchasing requisition made in one year 2012/2013 and other procurement documents.

$P/100 \times N =$  where

P- Population, N- Sample size

N=50

**Table 3.1: Sample Size**

| S/N | Departments/Sections                    | Population | Sample size |
|-----|-----------------------------------------|------------|-------------|
| 1   | Education Service                       | 16         | 8           |
| 2   | Human Resource Administration           | 14         | 7           |
| 3   | Health Service                          | 14         | 7           |
| 4   | Community Development                   | 12         | 6           |
| 5   | Planning and Economics                  | 8          | 4           |
| 6   | Finance and Accounting                  | 12         | 6           |
| 7   | Procurement & Supplies and Estate units | 24         | 12          |
|     | Total                                   | 100        | 50          |

**Source: Researcher Idea 2013**

**(a) Area of Study**

The study was conducted at Kibaha Education Centre. Mostly of the study focused in supplies section, user departments and accounts section that involved Chief of Procurement and Logistics, Supplies Officers, heads of departments, head of Public Relations and communication unit, Chief internal auditor, Chief Estate officer, Engineers, Other member of user departments from all departments and storekeepers.

**(b) Type of Data and Information Required**

The type of data for the research was qualitative and quantitative which were collected from primary and secondary sources within the organization. The secondary source of data and information was from publications and documents.

**(i) The Primary Data**

Primary data are those that are collected afresh and for the first time. The primary data could be obtained through observation and direct communication with respondents.

**(ii) The Secondary Data**

Secondary data are those data that have been collected by someone else and which passed through the statistical process. In addition, the secondary source of data and information was from publications and documents. Secondary data used in this study was from organization's documents including organization's policy manual, Stores manual, Local Purchase Order files and Tender Boards Meeting Files. These documents were obtained in various departments and sections such as Supplies section, Finance and Account Department, Education department, Health department, Community development department, Planning and Economic department, Human Resource department, Estate Unit, Internal Auditing unit and Public Relation Unit.

**(c) Data Collection Procedure/ Techniques**

The method that was used by researcher in collecting data and information was participation and direct observation and questionnaire. Specification and Standardization data and information required for the study was collected by using the research methods and techniques discussed in the previous section. The approaches

that were followed in data collection included identification and selection of the respondents from various department in the organizations who prepares specification. The key respondents in this study were the Storekeeper, procurement officer, directors, managers, education officer, health officer, accountants, and auditors.

### **3.5. Type of Data and Information Required**

#### **3.5.1 Primary Data**

##### **(i) Participation and Direct observation**

Observation method is the most commonly used method especially in studies relating to behavior sciences and participants observation is the situation where observer observes by making himself or herself, more or less, a member of the group he/she was observed so that he/she can experience what the members of the group experience forms (Kothari, 2004).

Since the research was conducted in my working place, I participated in different procurement activities that involved specification and standardization of goods and services led in identifying the strength and weakness.

This method was complementary to interview method. The technique involved direct participation observation that allowed collection of eye seen information. In this area various specification and standardization methods was observed and witnessed physically by the researcher.

##### **(ii) Questionnaire**

A questionnaire consist a number of questions printed or typed in a definite order on a form or set of forms (Kothari, 2004). It enables to find out facts, opinions, and views on what is happening. In this study, questionnaire technique was used for collecting data from respondent basing on assessing the capability of user on understanding the specification and standardization of their requirement at Kibaha Education Centre.

This method was used by researcher were sent to the respondent concerned with request to answer the questions and returns the filled questionnaires. The respondents have to

answer the questions in their own by filling in the blanks, put a tick if the answer is “yes” or “no” and sometimes they answered the question by explain. This method has an advantage to researcher because the respondents have adequate time to give well thought answers, and respondents who are not easily approachable the questionnaire were mailed to them. The questionnaires were distributed to supplies section, estate section, finance and accounts department, education service department, health services department, community development department, planning and economics department.

### **3.5.2 Secondary Data**

Secondary data used in this study was from organization’s documents including organization’s policy manual, Stores manual, Goods receive note, Local Purchase Order files and Tender Boards Meeting Files. These documents were obtained in various departments and sections such as Supplies section, Finance and Account Department, Education department, Health department, Community development department, Planning and Economic department, Human Resource department, Estate Unit, Internal Auditing unit and Public Relation Unit.

### **3.6 Data Analysis**

Data analysis refers to the computation of certain measures along with searching for pattern of relationship that exist among data groups (Kothari, 2004). The desired and result of the data analysis process is the formulation of conclusions that can be in decision making in future situation. The desired and result of the data analysis process is the formulation of conclusions that can be in decision making in future situation. In this research, qualitative and quantitative methods like tables and charts to increase validity and reliability were applied. The qualitative approach involves extensive narrative data in order to gain insights into phenomenon of interest while quantitative approach involves the collection of numerical data in order to explain, predict and control phenomenon of interest. Data gathered either by qualitative or quantitative methodologies in accordance to Thompson (2004) can be used to verify or generate new theory.

### **3.7 Validity and Reliability issues**

Validity and Reliability issues is the use of multiple methods in data collection was one way of ensuring validity and reliability.

#### **3.7.1 Validity**

In order to obtain validity of the data the researcher used measuring instrument that provide coverage of the topic by obtaining information from adequate representative sample of the universe. The content validity of the study captured all aspects of respondents from the selected sample on how they understand and perceive the issue of specification and standardization of goods and services in procurements. Masons and Bramble, 1989 explains that contents validity is the extent to which the measuring instruments provide adequate coverage of topic under investigation, contents validity measures include an adequate representative set of the members that capture the concept, if the instrument contains a representative sample of the universe the content validity is good.

#### **3.7.2 Reliability**

In the issue of reliability the researcher improved the reliability by standardizing the conditions under which the measurement took place thus external source of variation such as boredom ,fatigue was minimized, not only that the researcher designed direction for measurement with no variation from group to group and by asking similar question to sample who was interviewed.

Kothari, 2004 explains reliability as the quality of consistency of a study or measurement i.e. that measuring instrument is reliable if it provides consistent results means if some or different researcher repeats the study it should produce more or less the same results.

## **CHAPTER FOUR**

### **PRESENTATION OF FINDINGS, ANALYSIS AND DISCUSSION**

#### **4.1 Introduction**

The main objective of this chapter was to determine the answers to the research questions through data analysis of the collected sample. Data analysis provides specific basis for answering the research questions. The researcher expected that data analysis results would enable this study to draw a viable conclusion. This chapter therefore provides in summary form the information concerning the data collected and analysis performed for the study. Methods and techniques used for data collection and analysis based on research methodology, methods and techniques discussed in the previous chapter.

The chapter here concentrates in analysis of findings, and discussion on research topic of the consequences of poor specification and standardization at Kibaha Education Centre. Kibaha Education Centre has engaged or oriented in service provision, hence most of her activities including procurement are prepared to satisfaction rather than profit making. In this case, right goods and services from right source procured at right prices and be delivered at right time must be adhered so as to achieve the stated KEC's missions and visions. In order to achieve these qualified personnel must prepare clear and proper specification of goods / materials and service at right time. Standardization of requirements will help in preparation of proper and clear specification that will lead in adding value to procurement activities by reducing procurement costs hence gaining value for money.

Kibaha Education Centre, formerly known as Nordic Tanganyika Project, is a child of international collaboration; it was born from the joint ventures of five countries to contribute something towards the betterment of the living standards of a portion of a mankind. These countries were the four Nordic countries of Denmark, Finland, Norway and Sweden on the one hand and Tanzania on the other.

The Government Notice No 2 02/01/1970 to implement the Nordic Tanganyika Project, which lasted from 1962 - 1969, established the Centre. The project was handed over to the Government of Tanzania, on 10 January 1970. Since then the Nordic Tanganyika Project, became Kibaha Education Centre, under the Public Corporation Act No.17 of 1969.

Kibaha Education Centre is an Educational Institution, which was established in order to provide education to the people of Tanzania to enable them fight against the three enemies of Development, namely:

- (i) Ignorance,
- (ii) Poverty and
- (iii) Disease.

The purpose of KEC is to transform the life of Tanzanians so that they can live a more meaningful life and improve their environment. The activities of the Centre are integrated through the Management Committee that consists of all the Heads of the main departments under the Executive Director, who is the chief executive and accounting officer of the Centre.

In its existence, the Centre has continued to implement the policy of fighting the three enemies by providing pre-primary, primary and secondary education. In order to fight against poverty, the Centre has continued to provide training in technical skills, agriculture and home economics to the youths of Dar es Salaam and Coast regions; while serving small farmers and owners of domesticated animals by providing them with day-old chicks as well as expertise (expert advice) in animal husbandry and agriculture.

The Centre has become the place for practical training for local and foreign institutions of higher learning. In fighting against disease, the Centre has continued to provide health education related to preventive and curative at Tumbi Special Hospital.

The Centre is operating in the era of competition, and therefore, it has to create good working environment; provide different kinds of services needed by the community at a reasonable cost, increase internally generated income and attract local and foreign donors.

Kibaha Education Centre will continue to analyze achievements and problems in the education sector in order to fight against the three enemies of development.

The analysis will be concerned with financial matters, infrastructure, leadership and the objectives of the Centre in general; the immediate and future plans of the Centre are based on the improvement of its services for the satisfaction of its clients/customers.

### **Roles and Functions**

The following are KECs main role and functions.

- (i) Provision of Education services, pre-primary, primary and secondary education
- (ii) Provision of skills and knowledge to youths and adults for income generation and to raise their living standards
- (iii) Health Promotion (Preventive, Nutrition and Curative)
- (iv) Promotion of medical training and Allied Health Sciences
- (v) Provision of high quality day old chicks, fresh milk, crops, horticulture products and practical education to farmers around Kibaha Education Centre and students of higher learning Institutions

### **Kibaha Education Centre Vision and Mission**

#### **Vision**

To become a leading Centre in providing excellent social services, economic stimulants and entrepreneurship skills in Tanzania.

#### **Mission**

To provide to the public the best quality services that aim at enhancing quality of life and social well being by eliminating poverty, ignorance and diseases.

## 4.2 Characteristics of the Study Respondents

The guiding number was 50, where every individual out of 100 had equal chance to be included. The sample was involved 50 employees taken in one year 2012/2013. In addition, the sample involved 50 orders and 50 purchasing requisition made in one year 2012/2013 and other procurement documents. The 8 questionnaires were distributed to Education services departments among these only 6 (12%) responded and 7 questionnaires which were distributed to Human Resource Department only 5 (10%) responded, among 7 questionnaire which were distributed to Health service department only 6 (12%) responded. The researcher distributed 6 questionnaires to Community Development department but only 4 (8%) responded. 4 questionnaires which were distributed to Planning and Economic Development department all four respondents responded. Other 6 questionnaires were distributed to Finance and administration department only 5 (10%) and lastly 12 questionnaires were distributed to PMU and Estate units where only 9 (18%) respondent responded therefore making 78% of all respondents.

The table below shows how the questionnaires were distributed and collected from respondents with their percentages.

**Table 4.1: Questionnaires Response**

| S/N | Departments/Sections                    | Targeted/distributed | Collect ed | Not responded |
|-----|-----------------------------------------|----------------------|------------|---------------|
| 1   | Education Service                       | 8                    | 6          | 2             |
| 2   | Human Resource Administration           | 7                    | 5          | 2             |
| 3   | Health Service                          | 7                    | 6          | 1             |
| 4   | Community Development                   | 6                    | 4          | 2             |
| 5   | Planning and Economics                  | 4                    | 4          | 0             |
| 6   | Finance and Accounting                  | 6                    | 5          | 1             |
| 7   | Procurement & Supplies and Estate units | 12                   | 9          | 4             |
|     | Total                                   | 50                   | 39         | 11            |
|     | Percentages                             | 100%                 | 78%        | 22%           |

**Source: Study Analysis 2013**

The aim of the researcher was to get at least 70% of respondents from the group. Therefore 78% of the respondents imply a good response from the research group. Based on data collected by the researcher in view of the objectives and questions the researcher got the following findings that may lead to consequences of poor specification and standardization in procurements of goods and services in public Organization Kibaha Education Centre being a case study.

#### **4.3 To Determine the Significance of Specification and Standardization in the Performance of Public Organizations Procurement Activities at KEC**

In order to bring out the meaningful result, the researcher use questionnaire, participation and observation, and documentary reviews. Due to this objective the researcher used research question from chapter one to ask the respondents if the level of specification and standardization of requirements was High, Moderate or Low at Kibaha Education Centre.

The specification of goods and services is one of the most important processes in procurement cycle of any firm. At this point of view, the researcher seriously concentrated on questions concerned above. This research question was been observed and discussed as follows.

**Table 4.2: Responses for Research Question One**

| Sections                      | Number    | High      |    | Moderate  |    | Low       |    |
|-------------------------------|-----------|-----------|----|-----------|----|-----------|----|
|                               |           | Yes       | No | Yes       | No | Yes       | No |
| Education Service             | 8         | -         | -  | 02        | -  | 06        | -  |
| Human Resource Administration | 7         | -         | -  | 03        | -  | 04        | -  |
| Health Services               | 7         | 01        | -  | 02        | -  | 04        | -  |
| Community Development         | 6         | 01        | -  | 02        | -  | 03        | -  |
| Planning and Economics        | 4         | -         | -  | 02        | -  | 02        | -  |
| Finance &Accounts             | 6         | -         | -  | 01        |    | 05        | -  |
| PMU, Stores & Estates         | 12        | -         | -  | 01        |    | 11        | -  |
| <b>Total</b>                  | <b>50</b> | <b>02</b> |    | <b>13</b> |    | <b>35</b> |    |

**Source: Researcher Analysis 2013**

From the table above, it was revealed that KEC have low level in specifications and standardization of requirements this was evidenced by respondents where by 70% expressed their view that there were problem of specification and standardization compared to 26% who said specification and standardization of goods and services is in moderate level and 4% who said it is in high level.

Therefore, the KEC have a problem in writing the specification of goods and services even by observation there evidences of improper specification and standardization in the following aspects as it were observed;

#### **4.3.1 Presence of Unqualified Employee in user Departments and stores**

Kibaha Education Centre have employee in user departments and stores who prepare specification they have not enough experience. Due to lack of experience in specification writing it become hardly to procure their requirements to have value for money therefore these staff need training. No matter what kind a system is used, organizations need to pay closer attention in overseeing the matter of specifying and standardization of goods and services to make sure that employees receive proper in house training and they must attend workshops and seminars. Therefore, KEC is facing seriously number of unqualified personnel.

#### **4.3.2 Communication Problem**

The researcher observed poor communication between user departments, stores, PMU and suppliers on the case of preparing and writing specification of their requirements. Since there are no standards in requirements of goods and service at KEC, some of head of departments who are referred as user departments tend to have their own way on specifying their needs. When these needs are given to storekeepers who prepares purchasing requisitions they tends to present them as they are without proper specification. The researcher also observed that, apart from poor specification writing there is a problem of specifying unit of measurements.

For example in specifying medicines and drugs at Tumbi Special Hospital, Doctors tends to use brand names of hospital supplies instead of generic names which becomes

problem to pharmacists and stores in preparing and writing specification. This leads to PMU to prepare and send quotations or bid documents to supplies, which does not allow fair and open competition among those who may wish to participate in the procurement proceedings. The aim of proper and clear specification is to inform the supplier what the user intend to acquire or procure and consequently what the supplier is going to supply and at what price. As far as practicable, it is desirable that the requirements be expressed numerically in terms of appropriate units together with their limits. When the purchaser prepares specification, specifications inform the supplier what is required. When prepared by the supplier they provide a prospective purchaser with a description of the attributes of a product.

#### **4.3.3 Time Management**

Another problem which was observed by the researcher is poor management of orders, among the storekeepers lacked the scheduling criteria of requesting the need, they does not know how much to order, what exactly is to be ordered and at what time to order. This situation made every time rush order from user department hence un proper and unclear specification. The researcher notice that time management is barrier toward the improvement of efficiency and equity within the Kibaha Education Centre. When rush requirements arises there is no ample time for preparing right and clear specification leading in procuring goods or services which does not meet user needs hence failure to achieve value for money.

#### **4.3.4 Lack of Clear Annual Procurement Plan**

Procurement planning stands at the heart of the purchasing operations. Without planning, all procurement efforts would be opportunistic and it will be almost certainly to overlook important opportunities to contribute to the organizations profits and/or objectives.

Unclear Annual Procurement Plan was observed by researcher as another problem contributing to poor specification and standardization of requirements. User departments do not prepare their annual procurement plan on time, when they are requested to submit their plans to PMU they claim that they are not sure on the

availability of funds during the particular financial year. This is leading to partial and unclear plans hence poor specifications in terms of value, quantities and actual requirement. When it comes a time in applying these plans on the availability funds the user departments tends to request new items which were prior not specified in their plans hence lacking right specification.

#### **4.3.5 Poor Variety Reduction Technique**

Variety reduction involves reducing the number of different solutions used to fulfill the same need. When considering developing a procurement strategy for a new category, it is common to find that there is a variety of different standards and solutions employed across an organization to fulfill broadly the same need.

It was found that there is a high range of different items in KEC stores performing the same function hence increasing storage cost also leading to poor specification of requirements. Users fail to specify exactly what they need because there are many items in the store performing the same functions. Several staff member in one department in may prefer certain type of item that may differ from other staff therefore bringing confusions on what exactly should be ordered. On the other hand, failure in variety reduction may lead in storing of some undesirable items for long time increasing redundant and storage costs. The Research therefore recommends that there must be specific type of item performing certain function. A well-standardized requirement will lead to variety reduction hence reducing overhead cost in storing and buying unnecessary requirements.

#### **4.3.6 Poor Standardization Technique**

Standardization is necessitated by the fact that one cannot have numerous items for same usage hence standards are set for each items. It can be arrived up to by discussing it with other users and vendors who can give enough insights on the most common standards used in industry. Hence, each item is defined by correct specification such as length, weight, density, thickness, power, capacities, and so on.

The process of Standardization can help in simplifying procurement process and variety

reduction. It would result in reducing unnecessary varieties and standardizing into most economical size, grades, shapes, colors, types, etc, Thus Standardization helps in reducing inventory, better communication to vendors and users.

It was revealed that there is no proper written down standardization manual that can help user to define and standardize their requirements rather than every user has his/her way of ordering their requirements. This becomes difficult for PMU to perform procurement activities. It therefore advised that KEC in its policy must emphasize on the issue of specification and standardization of requirements that will lead to betterment in Procurement activities.

By using Pareto format of sorting and identifying common items it can be one of the standardization techniques. Standardization on the most common materials, even if they are a higher grade or tolerance; the total cost savings in material overhead and purchasing leverage should compensate for any perceived cost increase. New Products should be designed around these standard materials while existing designs could be converted for any better than substitutions.

#### **4.3.7 Lack of Specification and Standardization Manual**

Lack of specification and standardization manual to be used as guidance was also a cause in problem of specification and standardization not to be effective at KEC. This manual can help in specification writing and in standardization. Standardization manual will help in ensuring that products and services to be provided by KEC are safe, reliable and good for quality. In production, this manual can be strategic tools that reduce costs by minimizing waste and errors and increasing productivity.

#### **4.3.8 Lack of Stock Levels**

There are different stock levels which will assist the storekeepers to know what to order, when to order and how much to order. The stock levels are Minimum stock level, Maximum stock level, Re order level and Buffer stock. This level assist the storekeepers to make ordering, store ring and issuing of stored goods to become easier

and avoiding stock out leading to proper management of stores activities that will help in overall running of the services provision to the community and centre in general.

When it happens that the level are not known and fixed it will leads in rush ordering hence poor specification and standardization of these requirements. Keeping inventory levels will also help in minimizing risks, uncertainties to provide a hedge against shortages and ensure rapid replenishments

For example, there were shortages of 14 varieties of pharmaceuticals and medical supplies were found out of stock as shown in the table 3.

**Table 4.3: Different Types of Pharmaceuticals and Medical Supplies (Out of Stock)**

| S/N | Description                        | Usage Qty/<br>Year | % of Qty | Usage Value /Year | % of Value |
|-----|------------------------------------|--------------------|----------|-------------------|------------|
| 1   | Quinine tablets, 1000P             | 36 Tins            | 0.07     | 3,024,000         | 3.50       |
| 2   | Frusumide 100P                     | 56 Tins            | 0.11     | 621,600           | 0.72       |
| 3   | Hydralazine injection<br>3200 amp  | 250 Btl            | 0.46     | 800,000           | 0.93       |
| 4   | Gentimicyne injection,<br>1x10amp  | 18,000 Btl         | 32.48    | 6,480,000         | 7.51       |
| 5   | Metronidazole<br>injection vial    | 10,000 Btl         | 18.05    | 5,500,000         | 6.37       |
| 6   | Manito injection vial              | 100 Btl            | 0.18     | 460,000           | 0.54       |
| 7   | Prednisolone tablets<br>1000P      | 24 Tins            | 0.05     | 432,000           | 0.50       |
| 8   | Brufen tablets 1000P               | 10 Tins            | 0.02     | 60,000            | 0.07       |
| 9   | Amoxiline +<br>Clavulanic Acid 20p | 300 Tins           | 0.55     | 3,600,000         | 4.17       |
| 10  | Atenolol 100P                      | 6000 Pkts          | 10.83    | 18,000,000        | 20.84      |
| 11  | IV Giving set                      | 20,000 Pcs         | 36.09    | 6,000,000         | 6.95       |
| 12  | HB Strips 50 P                     | 300 Btl            | 0.55     | 18,000,000        | 20.84      |
| 13  | Glucose strip 25p                  | 300 Btl            | 0.55     | 21,000,000        | 24.32      |
| 14  | Formalin 1x5lts                    | 48 Gallon          | 0.09     | 2,400,000         | 2.78       |
|     | <b>Total</b>                       | <b>55,424</b>      |          | <b>86,377,600</b> |            |

**Source: Researcher 2013**

From Table 4.3 above, all the showed pharmaceuticals were out of stock. The pharmacist said that, many pharmaceuticals and medical equipment are procured from Medical Stores Department but it takes six months to get the needed materials. This shows that there was a poor stock replenishment system due to the lack of stock control methods. In most cases orders are replenished on rush orders basis because the pharmacist raises order to MSD when the pharmaceuticals are out of stock. This can lead in rush preparations of specification which can be unclear or proper.

#### **4.4 To Examine the Policy that Support Standardization and Specification in the Public Organizations**

A specification can be defined as an explicit set of requirements to be satisfied by a materials, product, or service. Specification is a description of the physical or functional characteristics, or of the nature of a supply, service, or construction item; the requirements to be satisfied by a product, material, or process indicating, if appropriate, the procedures to determine whether the requirements are satisfied.

Standardization is the process of developing and implementing technical standards. Standardization can also be defined as best technical application consensual wisdom inclusive of processes for selection in making appropriate choices for ratification coupled with consistent decision for maintaining obtained standards.

A policy is a statement that describes in very general terms an intended course of action. After the fundamental objectives of an activity are established, policies are developed to save as general guidelines in making operating decision that channel actions towards achievement of objectives.

It was found that there is no guideline to assist user department who submits there requirements to storekeepers. Therefore, it becomes difficult for the storekeepers in preparing and writing specification. There is no proper communication between user department and PMU on preparation of the technical specification.

The researcher issued three different type of questioner to user departments, PMU and storekeepers and to accounts section.

Respondents responded promptly and their responses are presented in the table 4 below.

**Table 4.4: Responses for Research Question Two**

| Sections                      | Number    | Yes       | No        | Yes %     | No%       |
|-------------------------------|-----------|-----------|-----------|-----------|-----------|
| Education Service             | 8         | 5         | 3         | 10.0      | 06.0      |
| Human Resource Administration | 7         | 4         | 3         | 08.0      | 06.0      |
| Health Services               | 7         | 3         | 4         | 06.0      | 08.0      |
| Community Development         | 6         | 3         | 3         | 06.0      | 06.0      |
| Planning and Economics        | 4         | 3         | 1         | 06.0      | 02.0      |
| Finance &Accounts             | 6         | 3         | 3         | 06.0      | 06.0      |
| PMU, Stores & Estates         | 12        | 5         | 7         | 10.0      | 14.0      |
| <b>Total</b>                  | <b>50</b> | <b>26</b> | <b>24</b> | <b>52</b> | <b>48</b> |

**Source: Researcher Analysis 2013**

Basing on the table above, it seems that most of employees they are conversant with specification but the problem arises on preparing and writing them. 52% among respondents commented and evidenced that specifications and standardization of goods and services is applied at KEC but not in a proper way to procurements activities.

The storekeepers who were given questionnaires merely know specification but they relay directly to the specification written down by user whether the requirement are well specified or not they simply represent them as they are. Other Storekeeper from Estate section responded that he believed on what the user inform him to write because the user in his section have got appropriate level of education. Other storekeepers from other departments responded that they know specification of common goods prior specified in contract but it become difficult to them to specify new and complex items.

Other respondents from several user departments and from PMU responded that though they know what specification and standardization is but there is no a known policy or guidelines which guide them to present them in procurement activities. They said that

they simply mention their requirement in a simple manner that it is a responsibility of storekeepers to analyze and write these requirements but contrary to that most of storekeepers doesn't make any changes or analyses to what have been required there it become difficult to PMU on sourcing these requirements. It also becomes difficult to suppliers in quoting right prices and some other suppliers fails to quote and comply with these requirements.

Therefore, the problem of specification and standardization is vivid at KEC leading to poor performance in procurement activities. This situation made the researcher to emphasis that there must be close communication between user departments, stores and the PMU in preparation of these specifications at Kibaha Education Centre.

#### **4.5 To Examine the Knowledge and Skills of the Staff at Kibaha Education Centre**

The purpose of this objective that makes the question was to reveal to the researcher the knowledge and skills of the staff specifically Storekeepers who prepare and write specification. In addition, to establish the level of general knowledge of storekeepers which regard to stores activities and application of standard specification guidelines.

Due to the lack awareness, despite the fact that the researcher tried to give them knowledge and skills to the responded, five respondents from Procurement Management Unit section and seven respondents from user departments who were given questionnaires about knowledge of the personnel who prepares and write specifications the they said that, the skillful of personnel about the specification are not knowledgeable in procurement activities. However, this situation can result into poor procurement system of different goods or materials and services leading to the procurement activities not to be effective at the KEC.

The researcher also observed that, the four departments (Central Administration, Health Service. Education Service and Community Development) and each department have its own storekeeper. The dominant knowledge was at the level of certificate which was

outdated. This has an implication to performance that why it has been noticed that the general performance in specification preparation and writing is poor.

According to KEC policy, all of the stores must have storekeepers who are responsible for requisition preparation that is preparation and writing of specification, receiving, keeping, and issuing material and goods. However the researcher found that, five of them has no right qualifications according to PSPTB as it is presented in the table 5 below. This implies that KEC receiving personnel are not competent enough in preparing, writing and presenting clear and right specification.

**Table 4.5: Qualification of Storekeepers**

| Departments      | Total | Qualification |         |            |        |               |            |
|------------------|-------|---------------|---------|------------|--------|---------------|------------|
|                  |       | Certificate   | Diploma | A/ Diploma | Degree | Post Graduate | Experience |
| C/ADMN & Estates | 02    | ✓             |         |            |        |               | ✓          |
| Health service   | 02    | ✓             |         |            |        |               | ✓          |
| Education        | 01    | ✓             |         |            |        |               | ✓          |
| CDD & PE         | 02    | ✓             |         |            |        |               | ✓          |
| Total            | 07    |               |         |            |        |               | ✓          |

**Source; Researcher field Analysis 2013**

From the table above, four of the storekeeper have certificate but does not possess professional materials qualifications and all of them done their work through experience. This results into poor performance for materials management and procurement activities. However, at this situation the researcher has faced difficulties because most of the respondents failed to discover as to why such disqualification have been planted to potential performance.

Among the respondents, three storekeeper and two department managers said that, this situation might be the result of historical background of the organization whereby

employment were made without care of education qualifications and argued that, there were no specific strategies before which were set to ensure development approach to each employee at his or her work vein.

Another respondent said that, now days KEC has set their strategy to ensure the development of the organization, but he also said that, through this unqualified storekeeper, how development can be achieved. According to one respondent from user department and researcher participation it was also found that, most of the specification writing process was carried out by unqualified personnel. Therefore, researcher found that specification preparation is carried through experience and not in knowledge and skills of materials management professionalism.

Two respondents said that, organization should introduce short courses, seminars and workshop to employees (storekeepers, pharmacists, members from user departments), in order to improve in specification writing and standardization of requirements.

Despite the fact that, the funds is the major problem which hinders the effective training but KEC should think the possibility of setting aside the funds so that many staff should sent for training.

Generally, the researcher concludes that, the unqualified personnel are not very conversant of specification and standardization, which leads to poor performance of procurement activities at Kibaha Education Centre.

#### **4.6 Discussion of Findings**

According to the responses the researcher received from respondents who were given the research questions discussing the consequences of poor specification and standardization in procurements of goods and services in public organization it was revealed that application of these is in low level compared to what is learnt in empirical studies. In some other part of the study, it was revealed that application of specification and standardization is similar to that stipulated in most of previous studies made by other researchers.

It was found that similarities in specification and standardization is only found in standard documents like tendering documents for goods, works and services but when it comes to the application of these in contract management it differs to what have been prior specified and standardized.

The researcher also noted that the similarities and differences in research findings with the other researcher is due to methodology used by these researcher and the one that was used in this research. Changes in technology in collecting data differ from time to time leading in differences in other researcher's findings on the topic of specification and standardization. The nature of Organization where the study were conducted which is the service provider and not profit oriented brings the differences with other scholar who performed the research in profit oriented organization.

#### **4.7 Research Hypothesis Testing**

The following were research hypotheses;

- (i) Improper or not well-specified requirements by user departments lead to procuring low quality goods, services and works hence failure to gain value for money.
- (ii) Standardization of goods, services and works will help the organization to make a proper supply chain management and achievement of the value for money. Also proper standardization will lead to achievement of variety reduction goals.
- (iii) Training of staff in user departments, storekeepers, head of departments and empowering them will assist in better specification of their requirements hence achievements of objectives of specification and standardization.

In testing the above hypotheses the following methods were applied;

##### **Deduction approach**

Under this approach, it involves the development of a theory that is subjected to a rigorous test. As such, it is the dominant research approach in the natural sciences, where laws present the basis of explanation, allow the anticipation of phenomena, predict their occurrence and therefore permit them to be controlled (Collins and Hussey, (2003) as cited by Saunders et al (2009).

### **Induction Approach**

Under this approach the researcher, need to interview the sampled staff in the organization. Saunders et al (2009) pointed out that the purpose here is would be to get a feel of what was going on, so as to understand the nature of the problem. The researcher's task was to make sense of the interview data collected by analyzing those data. The results of this analysis were used in formulation of a theory.

Saunders et al (2009) also pointed out that research using an inductive approach is likely to be particularly concerned with the context in which such events were taking place. Therefore, the study of a small sample of subjects might be more appropriate than a large number as with deductive approach.

A mechanism that used to test these hypotheses was a Null hypothesis where the researcher proved that all hypothesis statement was correct throughout the research analysis. There were also significance relationship between dependent and independent variables.

### **4.8 Summary of the Major Research Findings**

The focus of the study was to assess and evaluate the consequences of poor specification and standardization in public organization in procuring goods, services and works. Kibaha Education centre aims at providing to the public the best quality service that aim at enhancing quality o life and social well-being by eliminating poverty, ignorance and diseases. For the centre to achieve her vision and mission, it must work in era of competition by creating good working environment in providing different kinds of services needed by the community at a reasonable cost, increases internally generated income and attracts local and foreign donors. Since more than 70% of the funds is set aside for procuring of goods, services and works it is therefore important to emphasis on good practices in procurement to achieve value for money.

It was found improper specification of materials and services at Kibaha Education Centre is due to lack of specification policy such as variety reduction policy,

standardization policy, designs and specification guidelines, ABC analysis policy, national master specification systems and international standards.

Lack of knowledge from staff who prepares specification and poor communication among user departments and PMU leads to unclear specification and standardization. The problem of unclear specification could be solved by availability of specification and standardization manual, but KEC has no such manual.

The management of time when ordering was another problem causing poor specification. Lack of stores levels make storekeepers to make rush orders of their requirements because it happens stock out of some requirements. Lack of clear annual procurement plan was another problem contributing to poor specification and standardization. Annual procurement plan is in line with the availability of funds, when the funds becomes available the user department tends to request new items which were prior not specified in their annual procurement plans hence lacking right specification.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATION**

#### **5.1 Introduction**

This chapter presents summary of the whole study, conclusion and researcher's recommendations on what organization can do to minimize the problems found in chapter four and revealed in the researcher's study.

#### **5.2 Summary**

The purpose of this field study was to examine consequences of poor specification and standardization at Kibaha Education Centre. It aimed at examining how a well-determined specification of requirements can add economic value to the performance of procurement of goods and services at KEC. The study aimed to reveal the policy that support standardization and specification and examine if there is any application of the specification policy for improving of procurement activities at KEC.

Researcher in his findings has revealed that the there is a problem in specification writing for goods and services and poor standardization of these requirements at Kibaha Education Centre. It was realized that poor specification and standardization are due to problem of communication between user department storekeepers, PMU, suppliers and other stakeholders, lack of stores manual to be used as a guidance and which can help in preparing and writing specification, lack of sound and effective procurement policy, lack of procurement manual with guidance on how to prepare and write specification and how to standardize the goods, lack of well formulate annual procurement plan covering at least 80% of annual right requirements, timely availability of funds and presence of unqualified personnel in most of KEC's stores and in user department.

Therefore, from this point of view which the researcher found in his studies, he concludes by writing down some recommendations which once they are put as basis of supplies performance could bring about effectiveness in specification and

standardization of goods and service which will necessitate the procurement activities hence achievements of organizational goal.

### **5.3 Conclusion**

Kibaha Education Centre is one of the organization, which procure goods and services worth millions of shillings from different source of supply even though it faces great problems of procuring right goods and services from right sources, at right price and time so as to meet user intended needs hence gaining values for money leading to achievement of Organization goals. Specification and standardization is one among the important procedures of materials management professional. Specification and standardization is also important for the organization for the best performance in supply chain management. Therefore, the proper specification and standardization enables the organization to yield high quality product, high service level, and lastly bring about goodwill with her /his suppliers and customers. The researcher in his study of consequences of poor specification and standardization revealed the problems that caused existence of poor specification and standardization leading ineffectiveness in procurement activities.

There is poor communication between user department, storekeepers, procurement management unit, suppliers and other stakeholders that make specification and standardization of goods and services to become difficult.

### **5.4: Recommendations**

Basing on the findings, the researcher recommends the following point of view.

#### **5.4.1: Recruitment**

Kibaha Education Centre should recruit personnel with appropriate academic and professional qualifications coupled with adequate experience.

#### **5.4.2: Training**

Kibaha Education Centre should recruit new storekeepers who are knowledgeable and who could have enough experience concerned the store, as the way of employing

personnel who lacked the proper experience. They also need to establish good system of training its storekeepers in particular and organize them to attend professional seminars, workshops that are normally conducted by PSPTB and PPRA in order to improve work performance. Training is also one among the employee motivation.

#### **5.4.3 Communication Flow**

There should be good and proper information flow from one department to another so that to reduce the error in specification writing or stock out so as to avoid rush order and to make the work easier to storekeeper. All managers and other staff from different departments should understand and relay to the procurement Act to make storekeepers to utilize their professionalism. For example storekeepers to have a power of rejecting unclear specification from user that will lead to proper communication hence preparation of right specification of requirements. Therefore, it is advised that all incoming goods/materials should be accompanied with complete set of documents which is comprised with Local Purchase Order, Delivery Note, Packing list and Tax Invoice which will help in inspection and receiving of right specified materials/goods and services.

#### **5.4.4 Procurement Policy**

It is hereby strongly recommended that there must be a sound and a well internal published procurement policy at KEC. For this policy to be effective KEC Board Members must approve it after its formulation for its commitment in persuasions of excellence and recognizes the importance of goods purchasing practice in obtaining value for money and in ensuring that the funds are best optimized.

The Procurement policy will cover the management and control of all procurements activities for goods and services reflecting the KEC organization Structure aiming at benefiting all departments on utilizing the budgeted and planned purchases.

The main objective is to ensure that all funds committed to purchase goods and services obtain optimum quality, service, and value for money including delivery, customer service, and overall supplier performance. The objective will be fulfilled by:

- (i) Informing and guiding all personnel and user department on procedures for the purchasing of goods and services.
- (ii) Developing and implementing a value for money consciousness throughout the purchasing processes.
- (iii) Develop and implementing the means by which KEC may measure and improve procurement performance.
- (iv) Pursuing and developing co-operation between PMU, user departments, suppliers and other stakeholders in supply chain management.

#### **5.4.5 Application of ABC Analysis**

ABC Analysis is one of the methods of inventory control system. This system can helps an organization to identify use quantities and use values of items and classify them into groups A, B, and C, and from that, this method rearranges the items with high value in group A, middle value in group B and low value in group C.

Application of this method can help in identifying the items and their value that will lead in variety reduction hence gaining value for money by reducing holding stock cost and ordering cost.

#### **5.4.6 Seeking Advice from TBS and Application of GPSA Manuals**

One of the functions of TBS is to promote standardization and quality assurance services in industry and commerce. In order to do this, TBS trains personnel in company standardization, quality assurance, and quality improvement and laboratory techniques. It is therefore recommended that KEC may seek advice from TBS regarding the need of specification and standardization.

GPSA have got standards manual with well specified varieties of items for frame work contract it therefore recommended to be useful by KEC in formulation of specification.

#### **5.4.7 Recommendation on Future Research Focus.**

After passing through my research study I noted some other areas which need further investigation on the field of specification and standardization of goods and service such

analyzing the best methods that can be used to generate proper specification on common goods. How the relationship between suppliers and buy can improves specification of requirements leading to the improvements in procurement activities. Also the question of quality of goods and services of to be procured depends on the proper and clear specification must be agreed between user department, procurement management unit and the suppliers so as to gain value for money. Another area which is recommended is to identify the best principles of specification for better performance and management of frame work contracts.

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## APPENDICES

### Appendix I: Questionnaire Type-1

#### TO PROCUREMENT MANAGEMENT UNIT AND SUPPLIES SECTION

Dear respondents,

I am Jones Josephat one of the candidates of Mzumbe University, and in accordance of the Mzumbe University requirement for the partial fulfillment for the award of Masters of Science in Procurement and Supply Chain Management (PSCM), am required to submit Procurement and Supply related Dissertation.

The aim of this questionnaire is to help the researcher to collect relevant information that will be used to identify the consequences of poor specification and standardizations at Kibaha Education Centre.

The researcher ensures you that data obtained will be used for Academic purpose only and care shall be taken to maintain anonymity and confidentiality, therefore your cooperation is essential and will highly valued and appreciated.

Please respond to the questions below;

#### General Questions

**Please put a tick (✓) where appropriate.**

1. What is your gender?

(i) Male ( )

(ii) Female ( )

2. What is your current designation?

.....  
.....

3. How long have you been working in this organization? - ( ) Years

4. What is your academic qualification?
- (i) Certificate ( )
- (ii) Diploma ( )
- (iii) Advance Diploma/Degree ( )
- (iv) Post graduate ( )
- (v) Masters ( )

5. What is your professional qualification?

.....

.....

.....

6. What is your working experience in your field?

Year/s ( )

#### **Specific Question**

7. Do you know specification?

- (i) Yes ( )
- (ii) No ( )

If yes, mention types of specifications you know

.....

.....

.....

If no, how do you assist in specification writing in your organization?

.....

.....

8. What is the level of standardization in your organization?

- (i) High ( )
- (ii) Moderate ( )
- (iii) Low ( )

9. Is there any records on user requirements specification changes

.....  
.....  
.....

10. Is there any control measure established on specification and standardization?

- (i) Yes ( )
- (ii) No ( )

11. Do you think better specifications and standardization in your organization is beneficial?

- (i) Yes ( )
- (ii) No ( )

If yes, to what extent.....

12. (a) Do you know about variety reduction Analysis?

- (i) Yes ( )
- (ii) No ( )

(b) Does your organization apply this practice?

- (i) Yes ( )
- (ii) No ( )

(c) Which level of variety reductions in your organization?

.....  
.....

13. (a) Do you have Specification and standardization manual in your Organization

- (i) Yes ( )
- (ii) No ( )

- (b) If yes, do you think all instructions and systems in the Manual are being followed?

.....  
.....

- (c) If no, how does the specification and standardization being carried out?

.....  
.....

14. (a) Is there any person(s) responsible for specification and standardization of goods and services?

(i) Yes ( )

(ii) No ( )

- (b) If yes, is the number of qualified personnel adequate?

.....  
.....

- (c) If no, does the specification comply with the right requirements?

.....  
.....

15. What is the policy of your organization on the specification and standardization?

.....  
.....

16. (a) Do you receive non conformance/poor quality goods/ services?

(i) Yes ( )

(ii) No ( )

- (b) If no, who prepares the report on this?

.....  
.....

17. What is the qualification of the storekeepers who prepares specifications in your organization?

.....  
.....

18. Do you have indentified User Department in your Organization?

(i) Yes ( )

(ii) No ( )

19. Are you satisfied with the specifications provided?

(i) Yes ( )

(ii) No ( )

20. Does your company sometimes run out of stock?

(i) Yes ( )

(ii) No ( )

21. Are you involved in the receiving activities of incoming goods/materials at your department?

(i) Yes ( )

(ii) No ( )

22. Do you always receive goods or services right quality and quantity as per specification?

.....  
.....

23. Is there any shortage of material in your section?

(i) Yes ( )

(ii) No ( )

If yes, what happen if shortage of materials occurs?

.....  
.....

24. Are there any goods which are overstocked in your Department?

(i) Yes ( )

(ii) No ( )

25. Is there any document used when materials/goods are received on your Organization?

(i) Yes ( )

(ii) No ( )

If yes, mention the document you know?

.....  
.....

26. Have you ever received any complaints from users regarded received materials?

(i) Yes ( )

(ii) No ( )

If yes, give examples

.....

## **Appendix 2: Questionnaire Type – 2**

### **TO ACCOUNTS SECTION**

Dear respondents,

The aim of this questionnaire is to help the researcher to collect relevant information that will be used to identify the consequences of poor specification and standardizations at Kibaha Education Centre.

The researcher ensures you that data obtained will be used for Academic purpose only and care shall be taken to maintain anonymity and confidentiality, therefore your cooperation is essential and will highly valued and appreciated

Please respond to the questions below;

#### **General Questions**

**Please put a tick (✓) where appropriate.**

1. What is your gender?  
(i) Male ( )  
(ii) Female ( )
  
2. What is your current designation?  
.....  
.....
  
3. How long you have been working in this organization? - ( ) Years

4. What is your academic qualification?
- (i) Certificate ( )
- (ii) Diploma ( )
- (iii) Advance Diploma/Degree ( )
- (iv) Masters ( )

5. What is your professional qualification?

.....

.....

6. What is your working experience in your field?

Year/s ( )

### **Specific Question**

7. Do you specification and standardization?

(i) Yes ( )

(ii) No ( )

8. Do you receive full documents for preparing payments?

(i) Yes ( )

(ii) No ( )

If, yes do you think all documents are written clearly?

.....

.....

If no what happen when you receive partial documents?

.....

.....

9. Do you think the time of receiving the document is enough for making payments at due date?

(i) Yes ( )

(ii) No ( )

10. (a) Is there any problem that you face when receiving the documents from receiving section?

(i) Yes ( )

(ii) No ( )

(b) If yes, what is the problem you may face?

.....  
.....

### **Appendix 3: Questionnaire Type – 3**

#### **TO USER DEPARTMENTS**

Dear respondents,

The aim of this questionnaire is to help the researcher to collect relevant information that will be used to identify the consequences of poor specification and standardizations at Kibaha Education Centre.

The researcher ensures you that data obtained will be used for Academic purpose only and care shall be taken to maintain anonymity and confidentiality, therefore your cooperation is essential and will highly valued and appreciated

Please respond to the questions below;

#### **General Questions**

**Please put a tick (✓) where appropriate.**

1. What is your gender?
  - (i) Male ( )
  - (ii) Female ( )
  
2. What is your current designation?  
.....  
.....
  
3. How long you have been working in this organization? - ( ) Years

4. What is your academic qualification?
- (i) Certificate ( )
  - (ii) Diploma ( )
  - (iii) Advance Diploma/Degree ( )
  - (iv) Masters ( )

5. What is your professional qualification?

.....  
 .....

6. What is your working experience in your field?  
 Year/s ( )

**Specific Question**

7. Do you know Specification?
- (i) Yes ( )
  - (ii) No ( )

If yes, mention types of specification you may know

.....  
 .....

If no, how are you assisted in specification writing in your organization?

.....  
 .....

8. What is the level of variety reduction in your organization?
- (i) High ( )
  - (ii) Moderate ( )
  - (iii) Low ( )

- 9 Who keeps the records of specifications changes in your organization  
.....  
.....
10. Is there any specification and standardization measures established?  
(i) Yes ( )  
(ii) No ( )
11. Do you think specification and standardization is beneficial in your organization?  
(i) Yes ( )  
(ii) No ( )  
If yes, to what extent  
.....  
.....
- (a) Do you know about variety reduction analysis?  
(i) Yes ( )  
(ii) No ( )
- (b) Does your organization use this analysis?  
(i) Yes ( )  
(ii) No ( )
- (c) Which level of variety reduction in your Organization?  
.....  
.....
12. (a) Do you have specification and standardization manual in your organization  
(i) Yes ( )  
(ii) No ( )  
(b) If yes, do you think all instructions and systems in the Manual are being followed?

.....  
.....

(c) If no, what are the bases of specifications?

.....  
.....

16. (a) Is there any person(s) responsible for specification and standardization goods?

(i) Yes ( )

(ii) No ( )

(b) If yes, is the number of qualified personnel adequate?

.....  
.....

(c) If no, who is responsible for specification and standardization?

.....  
.....

17. What is the policy of your on specification and standardization goods or materials?

.....  
.....

18. (a) Do you prepare the report on non conformance of un specified goods or services?

(i) Yes ( )

(ii) No ( )

If no, who prepares the report?

.....  
.....

19. What is the qualification of the storekeeper prepare and write specifications in your organization.

.....  
.....

20. Do you have Supplies Department in your Organization?

- (i) Yes (     )
- (ii) No (     )

21. Are you satisfied with specification and standardization systems?

- (i) Yes (     )
- (ii) No (     )

22. Does your Department sometimes failure to specify her requirements?

- (i) Yes (     )
- (ii) No (     )

23. Are you involved in the receiving activities of incoming goods/materials at your Department?

- (i) Yes (     )
- (ii) No (     )

24. Do you always receive materials of the required quality and quantity?

- (i) Yes (     )
- (ii) No (     )

If no, what happen if material required doesn't meet specification?

.....  
.....

25. Is there any low quality of goods or services in your section?

- (i) Yes (     )
- (ii) No (     )

If yes, what happen if the low quality goods or services are received?

.....  
.....

26. Are there any goods that have discrepancies in performance in your Department?

(i) Yes ( )

(ii) No ( )

27. Are there any goods that were received below standards in your Department?

(i) Yes ( )

(ii) No ( )

28. Is there any document used when materials/goods are received on your organization?

(i) Yes ( )

(ii) No ( )

If yes, mention the document you know?

.....  
.....