

Effects of Procurement Regulations on Efficiency of the Procurement of Foodstuffs in Public Secondary Schools in Kenya - A Survey of Nyaribari Chache Constituency

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Abstract- The study was to investigate the effect of procurement regulations on the efficiency of procurement food in public secondary schools in Kenya. The quality of foodstuffs characterized procurement of food in this study. The research study aimed to establish the effects of procurement regulations on quality of foodstuffs in public secondary schools in Kenya. From 2006, all public institutions were required to adhere to the Public Procurement and Disposal Regulations which details the procedures to be followed. How this affected the procurement of foodstuffs in schools was not clear and this is what this study sought to find out. The study was conducted through descriptive research design. Purposive sampling was used to select the sample which consisted of a population of public secondary schools. The data was collected in the month of November 2013 using questionnaires. The respondents were 74 with each school producing 2 respondents; the principal and school accounts officer. The data was analyzed through descriptive statistics and presented using percentages, and tables. The research revealed that procurement regulations have significantly raised the quality of food delivered in schools. The research recommends that every attempt should be made in implementing the procurement regulations especially in areas that enable schools cut out unwarranted costs in purchasing of foods and in tapping the opportunities available in the market without compromising the standards of foodstuffs.

Index Terms- Food, Foodstuffs, Procurement, Public, Quality, Regulations, Schools, Secondary.

Abbreviations: D.E.O District Education Office
L.P.O Local Purchase Order
M.O.E Ministry Of Education

I. INTRODUCTION

F1.0 Background of the study

Food supply began to be a global crisis in 2006-2007. This is when United States and Europe, and Brazil began to support biofuels usage. US largely used maize while Brazil used sugar cane based ethanol (World Bank, 2008). This resulted in increased food prices as farmers preferred maize for biofuel. In addition, maize for biofuel was subsidized by the government of US. The World Agricultural land for food therefore declined significantly. The federal government also imposed export bans on grains. To ensure that food remains available for their

domestic population and to combat dramatic price inflation, major rice exporters as China, Brazil, India, Indonesia, Vietnam Cambodia and Egypt also imposed strict export ban on rice. Ukraine, Russia and Serbia also large producers have imposed high tariffs or banned export of wheat and other food staff hence causing rise in prices for net importing nations (Carl, 2008). The food prices therefore rose from 70 to 75 per cent. The study also noted that US used 81 million tons of maize for ethanol in 2007-2008 against the world production of 2000 million tones of maize. The report adds that the overall food import bills rose by estimated 25% for developing countries in 2007. Between 2006 and 2007, the World Bank policy paper indicated that the average price of rice rose by 217%, for wheat 136%, for Maize rose by 125% and that of soya beans by 107%.

A report by the Kenya Food Security Steering Group (January 2008) indicated that rise in food prices was likely to induce borrowing from non-food expenditure which would lead to compromise in education health and transport. The report adds that 'Diet changes were evident with reduction in frequency and composition of meals which could lead to malnutrition and susceptibility to diseases. Imprint (2009), notes in their human right report, that the national feeding program was a great motivator for many children attending schools. The program was however affected by rising food prices leading to increase in school dropouts.

As the schools opened in January 2009, the schools heads' defied Ministry fees guidelines for public schools and vowed to increase levies as the cost of food rose. (DEO, 2013). It was established that the cost of essential foodstuffs used in schools such as maize flour, sugar, cooking fat, maize and beans had risen sharply. These had not only increased in price but they had become scarce. The suppliers were delivering maize for sh 2,200 and that of beans at 5,500, 50 kg of sugar for sh. 3,600 up from less than sh. 2,000. This situation forced the head teachers to have a crisis meeting where they proposed to ask the government to let public schools buy grains from National Cereals and Produce Board and also the government to increase its allocation per student to sh. 13,739 up from sh. 10,265 drawn the previous year by the task force led by educationist Eddah Gachukia.

Wango (2009) observes that impulse purchases or purchases that depend on whims and winds will get school into the risk of interrupting learning as a result of depletion of its financial resources, getting into debts, payment delays for suppliers and rise in school fees. According to Public Procurement and Disposal Regulations (2006), all government institutions were required to adhere to laid down procedures in purchasing their

goods or services. The purpose of the Public Procurement Oversight Authority was to streamline procurement activities in terms of economy, efficiency, effectiveness, openness and fairness. The procurement of food in a challenging market environment calls for a serious considerations of the government regulations in order to achieve given set of procurement objectives.

1.2 Statement of the Problem

In Kenya, public secondary schools provide food to their students for nine months in the year. Foodstuffs constitute a very large chunk of budget allocation in public secondary schools. For this reason, food supply is an area that can be focused to make the highest savings through cost-cutting. Foodstuffs are critical items that can affect the running of any public institutions if not given proper consideration in terms of procurement procedures (Wango, 2009). As the issues of price volatility remain, one thing is clear, the government will continue regulating fees structures of schools despite the prevailing market conditions. The schools also have to deal with suppliers that want to get the most out of these contractual relationships with schools. Stable prices and availability of food in season and out of season is not a guarantee. Public organizations have to adhere to the procurement rules and regulations in order to secure their food supplies and survive in difficult economic times without overburdening the parents.

The school managers also have to grapple with the risks involved in the procurement of foodstuffs. This includes maintaining their supply base, upholding quality supplies and ensuring timely deliveries. Therefore cost effective purchasing, quality and quantity of food, timely deliveries and viable sources of supply will not only avert riots but will as well lower the cost of education hence make it affordable to many families. From 2006, all public institutions were required to adhere to the Public Procurement and Disposal Regulations which details the procedures to be followed. How this affected the procurement of foodstuffs in schools is not clear and this is what this study sought to find out.

1.3 Objectives Of The Study

The general objective of the study was to investigate the effects of Public Procurement Regulations on the efficiency of procurement of foodstuffs in public secondary schools in Kenya.

The specific objectives are to:

1. To determine the effects of Procurement Regulations on prices of foodstuffs in public secondary schools.
2. To establish the effects of Procurement Regulations on quality of foodstuffs in public secondary schools.

1.4 Research Questions

1. To what extent does the Procurement Regulations affect prices of foodstuffs in public secondary schools?
2. What effects do Procurement Regulations have on quality of foodstuffs in public secondary schools?

1.5 Significance of the study.

The study is useful in the area of food supply in public secondary schools. It is one of the studies that have focused on

Procurement Regulations in public schools' food supply in Nyaribari Chache. As such, it is expected to provide knowledge on this subject. It should therefore form a useful material for researchers, educationist, policy makers and readers in general. The study made recommendations on prices of foodstuffs, quality and right quantities of foodstuffs, timely deliveries and sources of foodstuffs. These recommendations were originated through valid research data and as such they will inform procurement system in public schools.

The study should influence management of public secondary schools in Kenya. In an attempt to deal with issues of procurement of foodstuffs, the management will focus on specific issues of food supply. Therefore their decisions should be based on the product of such research that is relevant to them. This will lower the cost of education in our country.

1.6 Scope of the study

The study was conducted between November 2013 and December 2013 through descriptive research. The study was conducted in 37 public secondary schools in Nyaribari Chache constituency in Kenya. The data was collected by the researcher using questionnaires. The study sought to determine the effect of Procurement Regulations on efficiency of procurement of food in public secondary schools in Kenya.

1.7 Limitations of the study

The subject of public procurement is a very sensitive one. For this reason, the respondents may give incorrect responses or even fail to give any. The researcher therefore sought an introductory letter from the university. This is in addition to the researcher making an assurance at the beginning of the questionnaire that the purpose of seeking their responses was to carry out a research and that it would be strictly confidential.

The study also considered respondents with limited knowledge in procurement. This was done by using simple language and brief explanation to questions thought to be unclear.

II. LITERATURE REVIEW

2.1 Introduction

This chapter consists of the theoretical framework, empirical review, conceptual framework and explanation of the relationships between the variables which are procurement regulations, prices of foodstuffs, quality of foodstuffs and finally concludes with the research gaps in the study. The secondary sources of information in this chapter were obtained from relevant ministries, libraries and internet and the researcher consulted relevant journals, books, papers, and print press media.

2.2 Conceptual Framework

The conceptual framework seeks to show the relationship between the independent variables that is; prices of foodstuffs, quality of foodstuffs, timely deliveries quantities of foodstuffs and sources of supply with dependent variable, which is food supply. The study acknowledges the existence of intervening variable, which is the procurement regulation (2006).

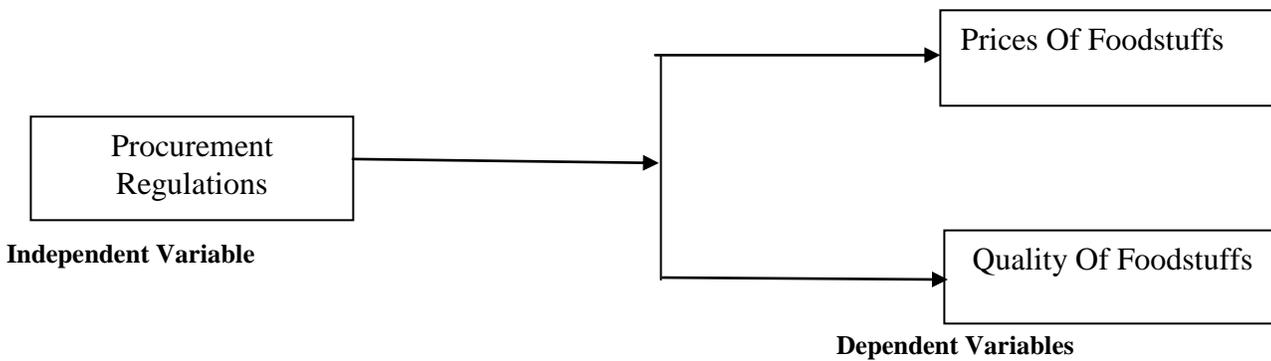


Figure 2.1 Conceptual Framework

2.3 Theoretical Review

The cost of education particularly for secondary schools needs to be addressed. This is considering that this factor alone accounts for 30% of out-of-school youth (Republic of Kenya, 2006). The Strategic Plan by MOE has introduced measures to strengthen capacity for procurement activities by developing guidelines to guide procurement activities in schools, colleges and polytechnics in an effort to enhance efficiency which will in turn lower the cost of schooling. One of the core pillars of public procurement is competitive environment. In a competitive environment, public schools can get the best value for money and at minimum cost while making it possible for the suppliers/contractors to fully benefit from doing business within a regulated environment that safeguards against favoritism and profiteering (Ogot, 2009). According to his findings, the other key issues to be considered in public procurement are efficiency, open and effective competition, legal framework and professionalism. Efficiency encompasses the performance of the procurement process as cost effectively as possible and in a timely manner while open and effective competition provide ample and equal opportunities for participation by interested and qualified suppliers of goods, works or services. The legal framework, consist of the Public Procurement and Disposal Act (2005), Public Procurement and Disposal Regulations (2006 and 2009), Supplies Practitioners Management Act (2007) which are currently being used.

2.3.1 Price of foodstuffs

Leenders (2006) notes that bid price is confidential information. He argues that despite this, there are buyers who have deliberately played one bidder against another while some seek to secure lower prices by relating imaginary bids to prospective suppliers. Firm bidding is a policy where buyer organizations notify suppliers that original bids will be final and that revision will not be permitted under any circumstances. This according to Leenders (2006) is one way of stressing quality and service as opposed to price factor. This removes temptation by suppliers to use inferior goods once their bids have been accepted. In Canada for instance, pricing legislation prohibits certain pricing practices in an attempt to maintain competition. The law states that suppliers or buyers may not “Conspire, combine, agree or arrange with another person to raise prices unreasonably or to otherwise restrain competition.

Open tender system (competitive bidding) is where tenders are advertised on public notices. The interested bidders collect tender document and return prepared bids which are then opened in the presence of the candidates and thereafter evaluation is carried out using a prescribed selection criteria. The suppliers are then notified (both the winners and losers). The signing of contract follows and implementation is done. (Republic of Kenya, 2005), Part (V). This method is bureaucratic and inflexible and the prices can be very high to cater for fluctuations in prices of products. Baily *et al* (2008) indicate that many buyers today believe that unnecessary costs can be driven out of price if buyers and suppliers work in partnership.

According to procurement Act (2005), section 66(4), the successful tender shall be the tender with the lowest evaluated price. Price is therefore used as one of the criterion for evaluation of tenders for foodstuffs in public schools. The Act emphasizes that the price, or the basis of determining price and a summary of the principal terms and conditions of tender, proposal or quotations shall be kept for each procurement as a record for at least six years.

Under section 42a of the Act on collusion, the law states that no person shall collude or attempt to with any other person make any proposed price higher than otherwise as have been the case. Any public official involved in transaction in which standard goods, service or works are procured at unreasonably inflated prices shall be required to pay the procuring entity for the loss resulting from their actions. In addition, section 30 (40) Section 47b states that any contract variation based on the prescribed price and quantity for goods, services or works and shall be within the period of the contract. Without sufficient market survey, a public school cannot arrive at favorable prices. Market survey is possible when open and fair competition is adopted in open tendering.

2.3.2 Acceptable Price

A public procurement official must decide on the price he or she is willing to pay for the commodity or service (Rhodd, 2007). Therefore he or she must respond to these questions: Is the acceptable price that which is paid by the general public (the commercial price) for the product? Is there a published price list and is this list updated by the seller regularly, or is price the result of negotiation between the buyer and seller? Furthermore, the public procurement official, according to Rhodd, needs to know whether prices are discriminatory, that is, whether larger

buyers receive lower price through discounts than smaller buyers. And even with the above, the public procurement official must recognize that in addition to market conditions in which supply, demand, technology, and product design change, prices are also determined by geographic location and government unique requirements. Public procurement officials are aware that there are laws that restrict the ability of firms to charge customers different prices unless the seller can justify the price through cost. There are also legal constraints that drive the firm's choice of pricing policies and public procurement officials must ensure that sellers are abiding by the rule of law. Even with the research conducted by the procurement official, there are still many risk involved in purchasing a commodity: quality as it relates to price, and supply conditions that can change because of external factors. It has been suggested that public procurement officials "should start by estimating a 'should-pay' price when they begin acquisition planning, and that they should continue to refine their estimate as information is collected throughout the acquisition process" (Department of Defense, 2007). The should-pay price is generally the reasonable price for the commodity based on historical cost, price changes, and other factors in the market. This price is also the highest price the public procurement official is willing to accept based on the information available. With this strategy, there is less possibility of overcharging.

2.3.3 Quality of foodstuffs

Lindsay (2011) notes that when it comes to quality in public sector, growth and momentum has not been achieved as compared to the private sector. He adds that the quality concepts and principals are universal and can be applied in all types of organizations. He states that the difficulty comes in developing an infrastructure to make it happen and discipline to sustain efforts over time. Leenders (2006) argues that it is not realistic to insist that suppliers supply quality goods without ensuring that the buying organizations' own quality performance is beyond reproach. He adds that this applies to procurement organizations, its people, policies systems and procedures and that quality improvement is a continuing challenge for both the buyers and the sellers. Fawcett *et al* (2007) states that quality is whether or not a product or service lives up to customers' expectation. This is because quality drives consumer behavior, some analyst have called it the most important factor in achieving long term success. Deming (1993) stated that "A product or service possesses quality if it helps somebody and enjoys a good and sustainable market" His theory on chain reaction argues that improvement in quality leads to lower costs because they results in less rework, fewer mistakes, fewer delays and better use of time and materials. He noted that top management must assume the overriding responsibility for quality improvement. Quality is the fitness of purpose of a given item. It's the buyer who determines the quality of the goods by setting the specifications. Goods are of quality if they meet all the specifications set in the contract. According to section 34a of the Act, the procurement entity shall prepare specific requirements relating to the goods, services and works being procured that are clear, that give a correct and complete description of what is to be procured and allow for fair and open competition among those who, may wish to participate in the procurement proceedings. The technical

requirement shall not refer to particular trade mark, patent design, type producer or service provider or a specific origin unless there is no other sufficiently precise intelligible way of describing the requirements and that the specific requirement allow for equivalents to what is referred to.

The section 17 of Regulations (2006) requires that schools establish inspection and acceptance committee. The committee is mandated to inspect (or test) and review the goods, works and services in order to ensure compliance with the terms and specifications of the contract. The committee shall immediately after delivery of goods accept or reject goods on behalf of the procurement entity. The committee is therefore required by the law to deal with the issues of quality.

2.3.4 Specifications

According to Thai (2007), a good specification contains the following elements: It identifies a minimum requirement; It allows for maximum competition (competitive bids); It identifies the test methods to be used to verify compliance with the requirement; It contributes to obtaining best value at the lowest possible cost using a fair, equitable, and transparent (easy for the public to see and understand) contract award process. This should therefore form the basis for determining the quality of food delivered to schools.

2.4 Research Gap

The researcher has thoroughly examined limited materials on procurement regulations for foodstuffs in public secondary schools. He read books, periodicals and magazines about public purchases and especially in schools and how this can be done to avoid conflicts between suppliers and school management and students and also between schools management and parents.

Arani (2012) did a study on the role of procurement practices on internal customers' satisfaction in public secondary schools. Odhiambo (2012) researched on the influence of procurement planning on management of public schools in Kenya. They both agree that the role of procurement regulations in public schools cannot be ignored. The effect of procurement law on food procured in public schools has however been ignored. This is what the study sought to find out. It's expected that the knowledge generated will help public schools develop procurement policy on procurement of foodstuffs on the face of security and rising food prices.

III. METHODOLOGY

3.1 Introduction

This chapter describes the procedures that the researcher used to carry out the study. It consists of the research design, target population, sampling procedure, sample size, data collection procedures, pilot study and data analysis. These enabled the researcher to obtain information to answer the research questions.

3.2 Research Design

This study was conducted through descriptive field survey. Descriptive research design is a process of collecting data in order to test hypothesis or to answer questions concerning the current status of the subjects in the study (Mugenda & Mugenda

,2002). They argue that descriptive research design is suitable for studies where one wants to describe current status of subjects such as possible behavior, attitudes, values and characteristics. The study therefore assessed the effect of Procurement Act (2005) on procurement of food in public secondary schools in Nyaribari Chache Constituency. This study therefore determined and reported things the way they were. The data was both qualitative and quantitative.

3.3 Target Population

The target population consisted of 37 public secondary schools in Nyaribari Chache Constituencies (DEO, 2012). The study collected data from the school principals, who are the head of procurement unit and the school bursar who is a member of tender committee. These made a total of 74 respondents whom the researcher felt have crucial information on school food supply.

Public secondary schools, both boarding and day schools provide food to their every growing populations. The researcher argues that food supplies will be secure if the schools comply with the public procurement Act and regulations (2005). The effectiveness and efficiency of procurement unit of the school will determine the food supply on the face of rising prices and scarcity. The researchers therefore felt that the respondents were best placed to provide an insight into the critical issue of public schools food supply.

3.4 Sampling Technique

This study employed purposive sampling to select the sample. Purposive sampling is where the sampling units of the sample are identified from the population selectively which prevents the inclusion of other sampling units in the sample (Panneerselvan,2010).

3.5 Sample size

The sample consisted of 37 public secondary schools which represents 100 percent of the 37 registered schools in the Nyaribari Chache constituency. This is more than 10% of the acceptable population (Mugenda & Mugenda, 2003). In each school, the research got responses from the school Principals and Accounts Clerks/Bursars. This made 74 respondents in the study. The Principal is the head of the school procurement unit (Republic of Kenya, 2005), the financial officer is the vice chairperson to the tender committee and is the one who confirms availability of funds before a purchase order is raised.

Table 3.1 Target population

Title	Target Population	Sample Size
Principal	37	37
Bursar/Accounts Clerk	37	37
Total	74	74

3.6 Data Collection Procedure.

The primary data was collected using self-administered questionnaires. Sekaran and Bougie (2010) argue that questionnaires can collect responses within a short period of time, that the researcher has the opportunity to introduce the research topic and also motivate respondents to offer their frank

answers. The questionnaire made use of both structured and semi-structured questions. The questionnaire had two parts; part A that deals with the data on demographic information such as level of education and designation in the school. Part B consisted of sections which intended to measure the effects of procurement regulations in the food supply in public schools.

Likert scale with the range of 1-4 was used. This is because responses over a number of items tapping a particular concept or variable can be analysed item by item and also it is possible to calculate a total or summated score for each respondent by summing across items (Sekaran and Bougie,2010). Open ended questions were used to give more information on the respondent's opinion about the subject matter.

The researcher conducted a pilot study in order to achieve the instrument validity .The pilot study used 4 schools out of the 37 public schools. This exposed to the instrument before the actual study and the respondents were not being included in the actual data collection. The feedback were used to identify ambiguous items and rectified appropriately. The data was both qualitative and quantitative.

3.7 Pilot Test

Pilot test was carried out in four public secondary schools in Nyaribari Chache constituency. The questionnaire was given to experts in procurement field to ascertain whether the instrument measures the variables under study. This ascertained the validity of the instrument as argued by Kothari (2009) who states that validity deal with the relationship of data obtained to the nature of the variables under study. Eight questionnaires were given to 8 respondents in the pilot schools after administering the questionnaires; the researcher analyzed the data to ascertain whether the instruments were reliable. Mugenda and Mugenda (2003) define test re-test as a method of administering the same instrument twice to the same group of subjects. A time lapse of one to four weeks was observed between the first and the second test. This helped identify the flaws in the contents and aided to make corrections to enhance reliability.

3.8 Data Analysis and Presentation

Once the data was obtained, the researcher carried out coding of data. Descriptive statistics in data analysis was used. Descriptive statistics enabled the researcher analyze data by using frequencies and percentages which was used to arrange the data in a clear form for easy understanding by the reader. This helped to make conclusion and recommendations from the study. Oso and Onen (2009) write that data analysis deals with the organization, interpretation and presentation of collected data.

IV. RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the results of data analysis and findings of the research. It begins with the background information, results of the findings on how procurement regulations affect prices of food and how the regulations affect quality of foodstuffs.

4.2.0 Background information

4.2.1 Response rate

Table 4.1 Response Rate

Response	Frequency	Percentage
Actual response	64	86.5
Non-response	10	13.5
Total	74	100

A total of 74 questionnaires were distributed to the respondents whereby 64 respondents managed to provide the information and return. This is 86.5% and is adequate for carrying out a study according to Mugenda and Mugenda (2003) who argues that a response rate of 50% and above is adequate enough to represent a phenomenon under study.

The principals of schools where the research was carried out formed 61.67% while the school bursars/accountants were 45%.

4.2.2 Respondent's age group

According to the research findings, the respondents with the age 40 years and above were 55%, between 30-40years were 30% and those between 20 to 30 yrs was 15%. It therefore means that most of the respondents are in their productive age.

Table 4.2 Respondent's age group

Age group	Frequency	Percentage
Below 20years	0	0
20 years – 30 yrs	9	14
31yrs – 40yrs	10	30
40yrs and above	36	56
Total	64	100

4.2.3 Respondents' level of academic qualification

The respondents who have attained a post-graduate certificate were 15.6%, a bachelors degree were 40.6%, a diploma level were 29.7% and those in certificate level was 14%. The research thus shows that most of the respondents had attained a university degree in their respective area of study and therefore has adequate knowledge.

4.2.4 Respondents' duration in current position

The respondents that had worked for one year and below were 12.1%, between two year to five years there were 44.8%, between six to ten years there were 22.4% and 10 years and above there were 20.3%. Six respondents did not give this information. A majority 44.8% of respondents has been involved in procurement process for a period of between 2 to 5 years and therefore requisite skills and knowledge may be lacking.

Table 4.3 Respondents' duration in current position

Duration in current position	Frequency	Percentage
Below 1years	7	12.1
2 years – 5 years	26	44.8
6years – 10years	13	22.4
11 years and above	12	20.7
Total	58	100

4.2.5 Respondents' training

The research revealed that 39.1% of the respondents have undergone training in purchasing and supplies while 60.9% have not gone through it. For those who have gone for training, 13 respondents out of 25 have attended short courses that last for at most 2 weeks. Only 4 out of 25 respondents who have gone for training have attended 2 year course in purchasing and supplies. It therefore shows that the people handling procurement in our public schools lack sufficient training.

Table 4.4 Respondent's Duration of Training

Duration of Training	Frequency	Percentage
1-2 weeks	13	20.3
1-3 months	4	6.3
6-8 months	4	6.3
2years	4	6.3
No Training	39	60.9
Total	64	100

Concerning the respondents who had undergone training in purchase and supplies the study found that 50% of the 26 respondents had attended a 1 – 2 week course, 15% had attended a course of 1 -3 months, 15% a course of 6-8 months while 4% of the respondents had take a 2 yr course. The research determined that half the people handling procurement in schools lacked procurement skills while majority have only taken short courses lasting for 2 or less weeks.

4.2.6 Respondents' status of school

The status of public secondary schools was found to be 59.3% day schools, 26.6% day and boarding and 14.1% boarding. This shows that the area of study consisted of a majority of day school which normally provided lunch to their students. This means that the schools are surrounded by rich agricultural areas and most suppliers are local people and that the parents are best placed to supply their schools with some foodstuffs. This explains why there is a minimal delay in delivery of foodstuffs.

4.5 Rating on Status of schools

Status of school	Frequency	Percentage
Day Schools	19	53.3
Day and Boarding Schools	9	26.6
Boarding Schools	5	14.1
Total	33	100

4.3.0 Prices of foodstuff

4.3.1 Response on effect of procurement regulation on food prices

The question sought to find out if the respondents agreed with various statements on effects of procurement regulations on prices of foodstuffs. Majority of the respondents, 50% agreed that schools use opportunity available in the market to purchase foodstuffs, 17% strongly agreed. Eleven percent strongly disagreed while 21.9% disagreed. As to whether prices of foodstuffs have reduced, 34.4% strongly disagreed, 39.1% disagreed while 10.9% strongly agreed and 15.6% agreed. Majority of respondents, 39.6% agreed that schools minimize collusion of suppliers before bid opening, 32.8% strongly agreed, 13.8% disagreed while 13.8% of them disagreed. In regard to fair competition in procurement process, the study found that 59.6% agreed, 32.2% strongly agreed, 3.2% disagreed while 4.8% strongly disagreed. Sixty one percent of the respondents agreed that schools obtained foodstuffs at prevailing market prices, 23.8% strongly agreed, 9.5% disagreed while 4.7% strongly disagreed. This agrees with Erridge *et al* (1999) who argues that supplier competition creates lengthy tendering procedures, increased transaction costs and forecast risks.

4.3.2 Responses on Negotiation of food prices

The research showed that 50% public secondary school negotiate prices of foodstuff immediately after supplier selection process, 6.7% when food prices fall, 28% when food prices rises while 8.3% do negotiations of prices in other instances like using the quoted prices in the tenders and abiding by them. Prices are also arrived at when need for food arises or funds are available especially in cases where parents supply food to schools. Some public schools (6.3%) carry out negotiation of prices depending on the circumstances for instance when prices fall, or when prices rise. This applies to those who use direct procurement.

4.4.0 Quality of foodstuffs

4.4.1 Responses on quality of foodstuffs

The study sought to determine the effect procurement regulations on quality of foodstuffs in public schools. A majority of 44.4% of respondents agreed, that schools use opportunity available in the market to purchase fresh foodstuff, 17.5 strongly agreed, 31.7 disagreed while 6.3% strongly disagreed. The finding concerning whether schools have an active inspection and acceptance committee, 48.4% agreed, 18.8% strongly agreed, 26.6% disagreed while 6.3% strongly disagreed. Most of the respondents, 51.6%, agreed that their schools have at one time rejected food delivered to them because of poor quality, 23.4% strongly agreed, 20.3% disagreed and 4.7% strongly disagreed.

4.4.2 Status of stocks

The study revealed that 15.2% of public schools experience overstocking of foodstuffs, 30.5% have under stocking taking place, 3.2% have deterioration of foodstuffs and 22% have their foodstuffs running out of stock. The public schools that had more than one case of stock status staking place was 28.8%. Overstocking was as a result of bumper harvest at a time when schools have funds available. Under stocking occurred especially where the particular food items were unavailable.

The factors that affected foodstuff deterioration were; poor timing of demand, poor storage among others. Stock –out was experienced where food suppliers less quantities of foodstuffs as a result of financial inability.

4.4.3 Complains of poor quality food

Public secondary schools that had experienced complain of poor quality of foodstuff by either students or a teacher were 70.3% while 29.7% of school had not experienced it. This means that most of the inspection and receive committee in public schools are acti

V. SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter covers summary, conclusions and recommendation. It first gives a summary from the data analysis, considering the five variables which are prices of foodstuffs and their quality.

5.2 Summary of findings

The general research objective was to establish the effect of procurement regulations on efficiency of procurement of foodstuffs in public secondary schools in Kenya. The study used acceptable response rate of 86.5%. The respondents' highest academic qualification in purchasing and supplies was a diploma with majority of them having worked for less than five years in procurement related area. It therefore suffices to say that the time taken in procurement work is not sufficient enough to gain enough experience especially in procurement of foodstuffs in public institutions.

The first objective was to find out the effect of procurement regulations on the prices of foodstuffs. It was determined that procurement regulations have not helped reduce the prices that public schools pay to procure foodstuffs. This is contrary to the purpose of the public procurement Act 2005 which says that one of the purposes of the act was to promote competition and ensure that competitors are treated fairly. (PPOA, 2005). Instead, the food suppliers in public schools quote higher prices to cushion themselves from uncertainties in payments which is partly caused by delays in government disbursement of funds to schools. However, the study revealed that most schools (50%) use opportunity available in the market to buy food, a majority 39.6% minimize collusion of suppliers before bid opening, 59.6% ensured fair competition in regard to purchase of foodstuffs and majority of schools, 61.9% buy foodstuffs at prevailing market prices. In line with this, Baily *et al* (2008) points out those high prices may be quoted as a polite alternative

to refusing to make any offer by sellers with full order books. He suggests that buyers should not write off such suppliers as too expensive, since next time they could well submit the lowest bid if conditions have changed.

Secondly, the research sought to find out the effect of procurement regulations on quality of foodstuffs delivered in public schools in Nyaribari Chache constituency. The research showed that procurement regulations have caused the school to receive foodstuffs that are of good quality in comparison to the time before the implementation of the procurement laws. Most respondents, 44.4% agreed that they use the opportunity available in the market to purchase food especially one which is fresh from harvesting. This is in line with the procurement regulation which allows the principals of public schools to use more than one method of procurement, that is open tendering and direct procurement. This is in agreement with Ogot *et al* (2009) argument on *special* procurement. In their report entitled zero draft, they note that firms whose prices of inputs change sharply over a short period of time should be able to use direct procurement methods whenever this is to the advantage of the company. This research found that 48.4% of public schools have an active inspection and acceptance committee. This ensures that the parameters set in food supply contracts are adhered to. It was also discovered that 51.5% of public schools have at any one time rejected food deliveries on account of poor quality. A majority of public schools 30.5% experiences under stocking of foodstuffs. A small percentage of public schools 3.3% have their foodstuff deteriorated, and equally a substantial percentage of schools 22% experiences stock outs of foodstuff. A sizeable number of public schools experience under stocking and stock out and this may be attributed to availability of funds and poor management of food resources. Muller (2003) indicates that the concept of concept of the right item, in the right quantity, and at the right time which was first introduced by Joseph Orlicky in 1975 cannot be understated.

On the other hand, overstocking occurs as a result of raising L.P.O without consulting with the stores to find out whether there is enough space. Overstocking may occur also when parents supply food as payment for fees especially when these deliveries are not controlled. Deterioration is also attributed to poor storage such as lack of ventilation, where a pesticide together with moisture precipitates into food poisoning. This may also occur when new stock is put under old stock. Factors that affect quality foodstuffs therefore are: storage, inspection mechanism, quantities delivered, supplier relationship and availability of foodstuffs. Rushton *et al* (2010) underscores the importance that good quality goods are purchased in that sub-standard supplies cause wastes and a variety of problems such as storage, transaction costs, undermining the confidence of suppliers and supply process itself.

5.3 Conclusion

5.3.1 Prices of foodstuffs

The study concluded on the research questions identified in chapter one. Question one; to what extent does the procurement regulations affect prices of foodstuffs in public secondary schools? From the research findings, it was established that procurement regulations have not helped public schools obtain food at reduced prices. This is because majority 39.1% of the

respondents disagreed that prices of foodstuffs have reduced as a result of implementing the procurement regulation. The issue that has led to this result is lengthy bureaucratic procurement procedures and uncertainties of financial resources coming to schools which make food suppliers raise prices to cushion themselves.

5.3.2 Quality of foodstuffs.

The research question two: How does the procurement regulation affect quality of foodstuffs in public secondary schools? Based on the findings, it was concluded that procurement regulations have enhanced food quality checks, with 51.6% of respondents agreeing to have rejected food delivery at any one time. However, 70.3% of respondents agreed to have received complaints of poor quality foods from either teachers or students. Issues that are attributed to poor food quality are poor storage, poor relationships with schools as a result of delayed payments hence suppliers do not supply best quality to some particular schools. Also when schools' principals do not consult the stores before raising L.P.O, storage problems may arise.

5.4 Recommendation

Based on the establishment of effects of procurement regulations on food supply, the researcher came up with the following recommendations:

The public schools should exploit the opportunities available to them in terms of better prices of foodstuffs from parents of the school. This is in addition to putting in place an enhanced information sourcing mechanism to enable schools buy foods through direct procurement especially when prices of food fall.

For quality foodstuffs, the officers handling procurement of foodstuffs should undergo regular training to enhance their skills in planning and execution of their procurement duties. The school procurement unit should address the issues of proper storage and supplier relationships which deteriorate as a result of delayed payments hence suppliers do not supply best quality to some particular schools.

The supplier selection method used by school procurement committee should always target to enlist qualified and responsive suppliers of foods. Qualified suppliers with higher prices of foodstuffs should also receive orders to make them abide and supply in time of shortages or difficult times. Therefore better buyer-seller relationship should be cultivated at whatever the cost. Schools should also make use of parents to supply food before raising massive L.O.P's for foodstuffs.

Teachers of agriculture and biology should be trained in basic food inspection and included in inspection and receive committee of the school. This will ensure that public health services in schools are not taken for granted.

5.5 Suggestion for further research

The study was conducted on schools in Nyabari chache constituency which is a small area in the country. The research proposes similar researches to be done covering other areas especially urban area which have distinct characteristics such as population, distant suppliers and the higher number of boarding schools. This will ascertain the effects of procurement regulations on food supply in public schools.

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