

FACTORS AFFECTING MANAGEMENT OF PROCUREMENT FUNCTIONS AMONG PUBLIC SECONDARY SCHOOLS IN TINDERET SUB-COUNTY, NANDI COUNTY

¹KOECH KIRWA OBADIA, ²DR. MIKE IRAVO (PhD)

¹Jomo Kenyatta University of Agriculture & Technology (Msc)

²Jomo Kenyatta University of Agriculture & Technology (PhD)

Abstract: In the public sector factors such as corruption and bribery among others has affected management of procurement function. The main purpose for the research was to look into factors influencing procurement functions in public secondary schools in Tinderet Sub-County, Kenya. The study sought to find out effects of training, professional ethics practices, monitoring and evaluation capacity in the procurement function; and the effect ICT use proficiency on procurement function. The study used a cross sectional survey research design. Data was collected from a sample of 57 schools out of 134 schools. The respondents were 56 Principals, and 167 teachers who are committee members. Likert scale questionnaire contained closed ended questions whereas the open ended questions solicited more answers from the respondents. Data analysis was done using Statistical Package for Social Sciences (SPSS). Descriptive analysis was used as well as inferential statistics which included Pearson's correlation coefficient and ANOVA. Data which was categorical was presented as frequencies with their corresponding percentage. This study has described a number of topical issues related to procurement of goods, services and work in public secondary schools in Tinderet Sub-County. The results are outlined below. In summary, the first objective revealed that tender committees of public schools within Tinderet Sub-County have inadequate training on procurement regulations and procedures. The tender committee members highlighted that rigorous training be conducted on procurement procedures. For the second objective, the findings showed that professional ethical practices ought to be entrenched among members of the tender committee. From the findings the respondents agreed that this would go a milestone in combating such vices as partiality, conflict of interest as well as accepting gifts/bribes to influence tender processes. On the third objective, the researcher concludes, based on research findings, that even though ICT use has never been fully adopted for procurement in public schools, its implementation would lead to proper functioning of procurement functions and speeds up procurement activities and hence bring efficiency and integrity. On the fourth objective the findings indicated that, while adopting Monitoring and Evaluation frameworks for procurement functions in schools, the Ministry of education should ensure that the procurement functions are monitored and evaluated frequently and appropriately. The Procurement Committee in Secondary Schools should establish a procurement committee in accordance to the Regulations mentioned above. The Ministry of Education, Science and Technology, should avail training opportunities for procurement committee members to enable them acquire knowledge and skills so as to be effective in procurement functions. Education should also emphasize to the schools the need to avail code of conduct and ethics to all procurement committee and teachers so as to reduce malpractices in procurement function. It is also recommended that the Ministry of Education, Science and Technology, should regularly on quarterly or yearly basis monitor and audit the procurement process by the secondary schools so as to take action in controlling any anomaly caused.

Keywords: Compliance, Monitoring & Evaluation, Public Procurement, Professional Ethics, Technology & Training.

1. INTRODUCTION

Prior to reforms, procurement and tendering activities in public institutions, inclusive of secondary schools in Kenya was carried out under unclear legal frameworks, which failed to check irregularities arising from the process. When the National Rainbow Coalition (NARC) government came into power, they enacted the Anti-corruption and Economic Crimes Act (ACECA) and Public Ethics Act (POEA) in May 2003, aimed at fighting graft in public offices. Other reforms formed were Financial Management Act, 2004, and the Public Procurement and Disposal Act 2005. The main aim was to ensure that procurement process was more transparent, ensure accountability and to reduce wastage of public resources among others.

According to Odhiambo & Kamau (2003) and Aketch (2005), procurement procedures that fail are due to lack of a well-defined legal framework, and hence lead to inflation of prices and lack of confidentiality amongst others. The procurement regulation according to public procurement and Disposal Act, 2005, recommend that organizations should advertise tenders, comply with the set procurement procedural processes and treat all suppliers without discrimination. Mutahi (2003), says that the reforms in secondary school were introduced in 2002, where all schools were issued with circulars which gave direction in order to maintain transparency and accountability in the management of school funds.

In a study conducted by Transparency International (2010), noted that Kenya Education sector had accountability concerns which emerge from the manner in which schools manage resources allocated from the Ministry of Education or those generated internally and from the Donors. The study pointed out that procurement of goods, services and works is a key area prone to risks, an area attributed to limited knowledge of procurement guidelines and con-compliance to such guidelines where they are fully understood. Further, the schools audit Directorate of the Ministry of Education, Science and Technology, in 2013, sampled five sub-counties within Kenya for Special Audit. The results indicated that, most of the school tendering committees did not comply with procurement regulations. The tendering regulations were distorted in order to restrict participation of interested suppliers in procurement (MOEST, 2013). The issues of accountability, transparency and integrity are concerns facing the procurement committees in Kenya today and therefore it is noted that lack of accountability creates loopholes for corruption.

The efficiency and effectiveness of management activities should always comply with procurement procedures and regulations in order to manage resources well (Knight, Harland, Telgen, Thai, Calendar, and McKen, 2007). Studies carried out by the World Bank in 1986 and 1987 as reported by Rambo (2012), revealed serious shortcomings in the procurement system, which led to loss of public funds through malpractices such as selective invitation of preferred bidders, designing tender documents to favor particular bidders and inflating the value of contracts. Prior empirical studies show a myriad of factors such as corruption and bribery among others that influence effective management of the procurement function ranging from financial accountability, internal control systems, ICT use and project financing among others. This study focused on aspects of training, professional ethics and practices, monitoring and evaluation capacity in procurement processes among secondary school Principals in Tinderet Sub-County. These variables have scanty research as far as their impact on procurement management is concerned, and therefore there exist a research gap which needs to be investigated. There is also an issue about efficiency of procurement processes in Tinderet Sub-County based on audit reports from public secondary schools in Tinderet Sub-County. It is with these sentiments that this study set out to investigate the effect of the stated factors on procurement management processes.

Study Research Objectives:

The purpose of this study was to investigate the factors that affect management of procurement functions in Public Secondary Schools, in Tinderet Sub-County, Kenya.

The study was guided by the following specific objectives:

- i) To evaluate the effect of training on management of procurement function in Public Secondary Schools in Tinderet Sub-County.

- ii) To determine the effect of professional ethics practices on management of procurement function in Public Secondary Schools in Tinderet Sub-County.
- iii) To evaluate the effect of monitoring and evaluation capacity on management of functions in Public Secondary Schools in Tinderet Sub-County.
- iv) To investigate the effect of ICT use proficiency on management of procurement function in Public Secondary Schools in Tinderet Sub-County.

2. LITERATURE REVIEW

Theoretical Framework:

This study was guided by The Agency Theory as initially put across by Jensen and Meckling (1976), and later expounded on by Sarens and Abdolmohammadi (2010), as reported in Borr (2014). The Agency Theory in its modern form originates from the work of Mitnick and Ross (1973), and embraces the areas of political science and economics which broadens its application beyond simple contract relations. The Agency Theory was subsequently adapted and used in a variety of other disciplines such as sociology and management. The Principal Agent Theory is an agency model developed by economists that deals with situations in which the Principal is in position to induce the agent, to perform some task in the Principal's interest, but not necessarily the agents (Health and Norman, 2004; Donahne, 1989). In the context of this study, procurement committee in the public entities plays their role of the agent whereas the Government is the Principal. The government exercises its Principals' authority through the Public Procurement Authority (PPOA). The primary role of PPOA is to ensure that all the public procuring entities adhere to the laid down regulations in procurement and disposal activities. These conditions are therefore developing the agency problems in which agents engage in behaviour pursuant to their own goals and in consequence negatively affect the principal. Moreover, to foster the principal agent relationship there is need to efficiently manage the agency problems such as information acquisition (or communication) preference mismatch (or conflict of interest), effort (or moral hazard) and capability (or adverse selection) mainly associated in the agent (Eisenhardt, 1989; Zajac and Westphal, 1994, Rebecca and David, 2011).

In organizational management, accountability requires a specification of who is supposed to be accountable to whom. This is a core ingredient of Principal Agent theory. In Principal Agency, an agent undertakes an action on behalf of the Principal. The Principal makes decisions that affect the incentives of the agent to take any of its various possible actions. The decisions made by the Principal that enable the agent to take various actions constitute a contract. Finally, to safeguard the school interests on effective management of procurement function, the Ministry of Education (principal), should put more effort on monitoring and auditing of public procurement entities (agents) who are mainly the procurement committees of schools.

Conceptual Framework:

The conceptual framework is a summary in diagrammatic manner of all variables that a researcher is interested to investigate in a systematic way (Oseno, 2012). Similarly Mugenda and Mugenda (2003), explain that Conceptual framework is about relationship between variables in the study used to show constructs that the researcher is investigating. Oso and Onen (2009), say that conceptual framework is a scheme of concepts (variables) which the researcher operationalized in order to achieve set objectives.

The study variables were conceptualized as follows: The variables of interest were: training on procurement function, professional ethics practices, monitoring and evaluation capacity and ICT use proficiency. On the other hand the intervening variables were school procurement policies, and government procurement policies which are factors which may have effects on the independent and dependent variables. The school procurement function exists to achieve objectives through the collective efforts of variables which included; training, professional ethics practices and monitoring and evaluation capacity. Effective procurement function can be explained as a product of these variables within the education system.

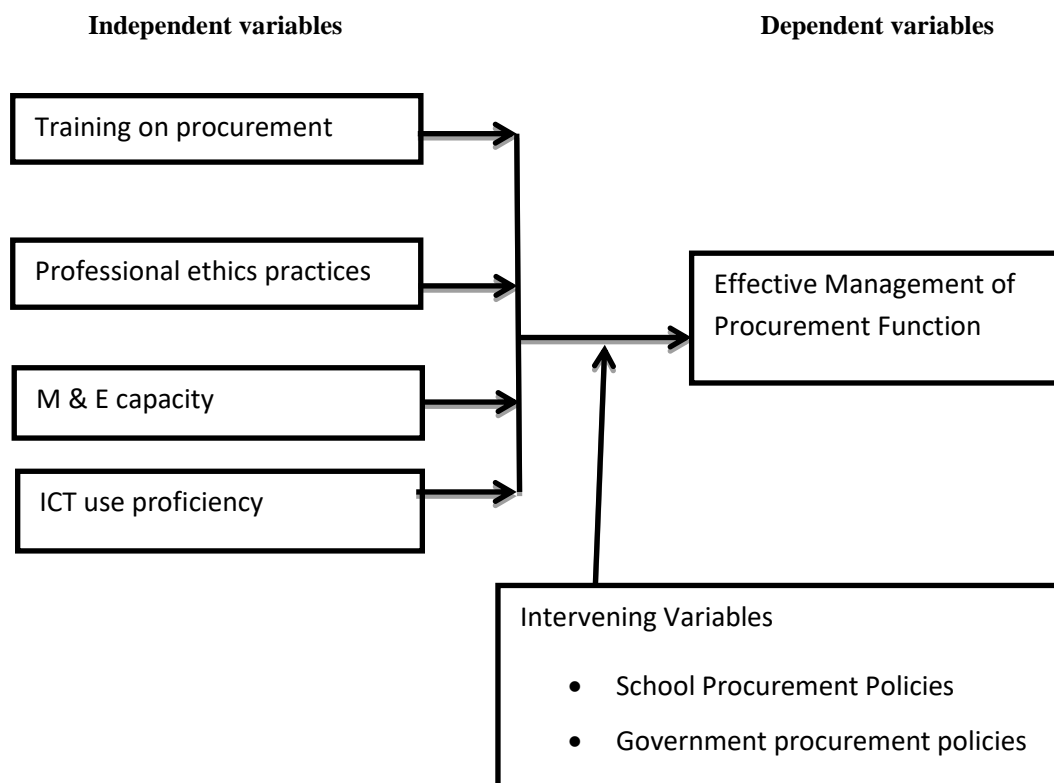


Figure 1: Conceptual Framework

The effect of Procurement Training on Management Function:

The public procurement Regulations in Kenya were meant to ensure that efficient training had been offered to professionals to serve in procurement. However, PPOA (2007), investigations revealed that the available expertise at the procurement units did not meet the need for specialized procurement knowledge despite there being steps towards developing a professional procurement workforce. Mulwa (2013), asserts that training influence success of any public institution. Similarly Makori (2008), noted that training is a vital feature in implementation of new methods that require different skills. Thus, proper orientation and training of all those officers responsible for implementation of goods and services in a public institution.

In public secondary schools in Kenya implementation of procurement activities is determined by the experience and training of the Principals and other committee members. As observed by Eshiwani (1987), secondary schools Principals are appointed without any form of procurement of goods and services skills. It was also noted that school principals are deployed to managerial positions without induction (Education Reports Kakamega,1988). Maleavy and Hencley (1970) observed that in secondary schools there was inadequate knowledge and lack of necessary skills in procurement of goods and services. According to Olivero (1982), as cited in Morubasi (1982), Principals need refresher courses as well as new sound managerial skills to help them to be more effective in their daily duties as the custodian of the school duties. If provided with relevant skills, such as training in procurement function will however ensure compliance to the procurement procedures, hence a realization of proper implementation of proper procurement regulations as observed by Wambui (2013). Lack of training may lead to malpractices in the implementation of secondary schools procurement regulations.

As stipulated in the reports of the Republic of Kenya (1988), in-service training and support services in Kenya are offered by Kenya Management Institute (KEMI), however the County Education boards have authority in consultation with the Kenya Secondary Heads Association to organize induction courses to the Boards of Management. Eshiwani (1993), observes that lack of induction affects performance of Principals in school administration and management. Induction provides training so that it facilitates effective management and this concurs with Mullins (2008), who noted that training and retraining are important aspects of compliance in implementation when an organization adopts new operating

methods which require different skills, managerial approaches. Thus, proper induction and training of the tender committee members on public procurement regulations is likely to enhance implementation of public procurement function, in compliance on regulation and hence, lack of induction of tender committee members may adversely influence implementation of public procurement functions.

According to Bohnstedt (2008) and Bashina (2013), successful public procurement officers need to exercise high levels of professionalism when making procurement decisions and this also applies to the managers of schools in dealing with procurement function. Barney (2001), is of the opinion that all management functions should be carried out by officers with proper skills, knowledge and attitudes. Similarly, Bianchire (2010), emphasizes that all procurement functions should attract highly qualified and motivated staff. Bohnstedt (2008) and POA (2007), recommend that governments especially in developing countries where cases of public procurement irregularities are common should introduce an effective public sector career path structure which would increase the proportion of staff with procurement skills appropriate to their level of responsibility.

According to Ngugi (2013), adequate procurement skills and knowledge lead to improved procurement performance. When schools and other organizations identify and rectify skills gaps, greater consistency of approach across public sector resulting in improved equality of opportunity for staff to training and development. Similarly, Huson, Malatesta and Parino (2004), recommend that training on procurement related skills within public institutions leads to efficiency in procurement activities. According to Bohnstedt (2008), points out that the government in developing countries, where cases of procurement irregularities are common should adopt an effective public sector career path structure that increase staff efficiency in procurement activities. Bohnstedt (2008) and POA (2007) stressed that training and skills acquisition provides a career path for the staff in procurement functions. Ngugi (2013), explains that adequate procurement skills and knowledge lead to improved procurement performance and this could be applied in secondary schools and other educational institution in Kenya.

Professional Ethics Practices on Procurement Management:

A study done by Grierson and Needham (2006), found out that responsibility and transparency reduces unethical behavior and malpractices and therefore creates confidence among the stakeholders. Similarly procurement committees in secondary schools are expected to be accountable in their procurement functions in order to command confidence among all school stakeholders. Wee (2002), indicated that procurement should be guided by the professional ethical practices in procurement of goods and services. All public secondary schools in Kenya, receive funds from the government in form of tuition, activity, and grants, whereas parents and other donor partners contribute towards infrastructure facilities and assets like buses. All these funds must be accounted for by the Principals and the Board of management. During the end of the year general annual meeting the Principals are expected to table before the parents the expenditure schedule which is approved before parents are asked to donate more money.

According to Otieno (2004), malpractices in secondary schools are as a result of unethical procurement activities. Furthermore, it is noted that in most secondary schools, annual audit of finance indicates mismanagement of school funds and this is an indication of unethical behaviours by school management. Wee (2002), suggests that fraud, theft and other unethical practices could be eliminated by acting ethically. Borr (2014), points out that the procurement committee members need training in areas like procurement methods in order to improve professional practices. Peterson and Van Fleet (2004), noted that recruiting people of integrity to serve in procurement activities is not always possible. This is exactly what happens to Auditors and Accounts clerks in Kenyan Secondary Schools, whom after gaining skills leave the school for well-paying organizations.

According to De Boer and Telgen (1998), revealed that non-adherence to procurement function is due to the lack of ethical behaviour. It was further ascertained in the PPDA & Audit Report (2008), that lack of professionalism was high amongst public management officers in Uganda and this was attributed the recent development of procurement reforms in Uganda. Both Basheka and Mugabira (2008) in their studies attributed the level of professionalism in public procurement as low or not existing at all. In Dobler and Burt (1996), professionalism requires training to obtain skills in order to achieve high standards in procurement performance.

Monitoring and Evaluation:

According to Hayes (2005), effective control of procurement function could be done by having seminars and workshops to improve the capacity of the procurement officials and enable them follow procurement procedures. By using purchasing audit, which is a tool of management, the achievement of objectives could be ascertained since the resources being used are limited (Weele, 2006). The resources need to be utilized effectively in order to achieve objectives in any organization. Proper planning and budgeting lead to effective performance in procurement activities. When internal controls are put in place, then effective procurement processes become cost effective. According to Seminega (2012), developing countries, guidelines should be availed to procurement staff which must be adhered to in procurement functions. He further stresses that malpractices in public procurement functions could be prevented if there is a sound internal control mechanism. In Kenya, there is a gap, regarding the part played by information communication systems in the ability of public procurement function in Kenya.

According Tan, Chong and Vehenna (2009), report that procurement activities have been affected by corruption and management malpractices, yet the fund available is limited. This has therefore affected greatly in achieving of objectives for national development in the developing countries (Tan, 2009). Waymer and Regan (2005), cite the illegal disclosure of confidential information by an employee that could expose tender contracts or the methods of award of tenders. By accepting bribes, public officials could compromise their moral and ethical behaviour in procurement functions. Thomson and Jackson (2007), warn that the procurement officials should avoid conflict of interest and remain above suspicion while dealing with any commercial enterprise.

Information, Communication & Technology use Proficiency in procurement Management:

As per Davila, Gupta and Palmer (2003), IT is a term that covers all types of technology used to exchange store and use of information in its various forms. ICT is designed to facilitate the procurement of goods that the school needs over the Internet. As per Mburu, & Njeru (2014), manual systems have been a source of major ineptitudes in the regulation and operations of the procurement function. In view of this there is need to adopt ICT in order to ensure proper functioning of the procurement system in schools. Most of the public institutions in Kenya are turning to ICT to improve the services for suppliers and other customers in order to lower operating costs and improving performance. Mburu, & Njeru, (2014) also noted that online tender advertising and computerized tendering process has an effect on performance of the procurement function in public sector. It offers faster process flow, effective distribution of information, devolution of tasks and decisions, increased transparency and better control of the procurement functions.

According to Kirungu (2011), procurement practices are inefficient due to a failure to adhere to procurement procedures and regulations. The use of ICT is seen to be an effective method to reduce corrupt use of funds. Procurement officers are expected to practice the best ethics and integrity in order to be transparent and accountable in the procurement functions and therefore attract good reputation from the stakeholders. Unless the procurement officers are well trained on the procurement functions, they may not use the scarce resources allocated to them effectively and efficiently. Schapper (2008), recommends that instead of manual practice in procurement processes, e-procurement should be adopted by organizations. Similarly, the secondary schools management in Kenya should also emulate the same in applying ICT use in procurement function in order to be transparent and accountable. ICT use enhances procurement activities by improving efficiency especially in reduction of costs and increase productivity (Abouzeedan and Busler, 2002).

As per Passey, Forsyth, Hutchison, Scott, and Steadman, (2000) most recently the implication for management in terms of personnel needs, financial needs, and procurement needs have been studied and reported. It is becoming clear that from their findings that as ICT use pervades to greater extents, so the range of roles and responsibilities shifts and the importance of managing finance and procurement becomes all the greater. It has been also noted that Berger and Humphrey (2007) opined that use of technology has not been fully embraced in the practice of undertaking procurement activities in Kenya. They observed that while there are up to date systems such as reverse auction for undertaking bidding process in procurement, in most private and public sector the process is still being undertaken manually giving room for manipulation and corruption. Manual process also takes longer thus thereby affecting procurement activities. On the other hand Rusek, (2006), indicated that the success of E-Procurement systems mostly depends on the increases in number of bidders (suppliers) that participate to procurement auctions in public sector. Some of the restrictions in the implementation of E-Procurement includes; technology adoption and usage of E-Procurement systems by suppliers.

Research Gap:

A number of empirical studies have been done on procurement activities in various organizations and educational institutions in various countries as well as in Kenya.

Ngwili & Were (2014) carried a study on Factors affecting efficiency of the procurement function at the public institutions in Kenya a case of supplies branch in Nairobi. Arbe (2013), did a study on the factors Affecting Effective Management of the procurement Function at Nakuru North Sub-County. Studies that have been done are mainly in commercial enterprises and sparingly in educational institutions. In Kenyan secondary schools little or scanty literature is available in management especially in Tinderet Sub-County. Therefore there is a research gap on the factors affecting management of procurement function which the researcher intends to investigate in Public Secondary Schools

3. RESEARCH METHODOLOGY**Research Design:**

The study used cross-sectional descriptive survey design. A descriptive study was undertaken in order to ascertain and be able to describe the characteristics of the variables of interest in a situation. The design also enabled the research to gather information on the respondents' opinions, ideas, perception and attitudes (Sekaran & Bougie, 2010). Kothari (2008), explains that descriptive studies may include present facts, existing conditions concerning the nature of persons, a number of class of events and may entail procedures of enumeration, indication analysis, classification details and measurement. Kothari (2008), states that descriptive studies may include present facts, existing conditions concerning the nature of persons, a number of class of events and may entail procedures of enumeration, indication analysis, classification details and measurement.

Target Population:

Target population refers to the total number of subjects, or the total environment of interest to the researcher (Oso, 2009). Kombo and Tromp (2013), defines population as a group of individuals, objects or items from which samples are taken for measurement. Population refers to an entire group of persons or elements that have at least one thing in common. The target sub-county will be chosen purposively. The target population was 134 secondary schools in Tinderet Sub-county and from each school 3 procurement committee was selected totaling up to 402 respondents. Therefore, the total respondents from the sampled public secondary school were 536.

Sample Frame:

Sampling is the procedure a researcher uses to gather people, places or things to study (Kombo and Tromp, 2013). This is a description of the strategies which the researcher used to select representative respondents from the target or accessible population (Oso, 2009). This study used simple random sampling to select the schools into the sample after computation of the desired sample size. The simple random sampling method gives every member of the population an equal opportunity of being included in the study.

Sample size was computed using the finite population method since the sampling frame (total number of secondary schools) is known. The finite population method is presented as; to determine the sample size n for the target population N , the study used a formula simplified by Yamane (as cited by Israel 1992) as shown below.

$$n = \frac{N}{[1 + N(e)^2]}$$

Where,

n = sample size

N = population size (134)

e = accepted margin of error (5%)

Substituting the values in the formula yields;

$$n = \frac{134}{[1 + 134(0.05)^2]} = 100, \text{ schools}$$

Since the calculated proportion is larger than 5% ($n/N > 0.05$) of the target population (schools) the sample size will further be adjusted using the finite population correction (FPC) formula indicated below (Naing et al. 2006);-

$$nf = \frac{n}{1 + \frac{n}{N}}$$

Where;

nf = desired sample size with finite population correction.

n = 384.16

N = target population

$$nf = \frac{100}{1 + \frac{100}{134}} = 57$$

Therefore, the desired sample size will be 57 secondary schools.

Simple random sampling was used to pick the 57 schools out of the 134 schools in total. Each school had an equal opportunity of being picked into the sample. The sample comprised of 57 Principals from each the school, while the procurement committee members who are Heads of Department are three in each school, totaling up to 171 respondents. Therefore, the total respondents from the sampled public secondary school are 228.

Sample and sampling technique:

For the sampling procedure, each of 134 schools was allocated a number from 1 to 134. The numbers corresponding to the schools were written on pieces of papers, then rolled into balls and put into a container. The researcher then picks each piece of paper at a time and records it. The practice is continued until the last 57 paper is picked. The 57 papers then form a sample for study. Sekaran (2010), advises that the probability of any of each of the element chosen is one in the number of population, and each single element in the container has the same or equal probability of being chosen. Sekaran further adds that, simple random sampling has the least bias and offers the most generalizability. Table 3.1 shows present the sample size

Table 3.1: Sample Size Sector

Strata	Frequency	%
Number of schools	57	42.5
Number of procurement members	(57*3)=171	42.5
Total	228	100

Data Collection Instruments and Analysis:

The tools to be used in this study were questionnaires. There are two questionnaires; one for Principals and one for procurement committee members who are heads of departments in their respective schools. The questionnaire consisted of closed ended and open ended questions. Closed ended questions gave the respondent a set of choice or options. Open ended questions are free response type questions. They allow the respondent to answer in their own words (Kombo and Tromp, 2013).

The questionnaire was prepared thematically on the basis of the research questions and divided into six sections. The first section A measured demographic characteristic of the respondents, Section B - measured the variable on training on

procurement, Section C- measured variable professional ethics practice, Section D- captured variables on use of Information Communication Technology proficiency, Section E –captured information on variables on effects of procurement management function and Section F –consisted of dependent variables on the effective management of procurement functions in Tinderet Sub-County.

The researcher sought permission to carry out the research from the National Council for Research and Technology before undertaking the research. Afterwards, the researcher visited the various schools to get permission from principals and procurement committee members. At the same time, the researcher also made appointments for questionnaire with selected schools. The period for filling was agreed upon between the researcher and the participants. The researcher collected the filled questionnaires physically on the agreed date. The researcher made notes that was later organized and analyzed.

To ensure the effectiveness of questionnaires, a pre-test was carried out. The questionnaire was tested in two schools in the neighboring county of Uasin Gishu in order to refine it so that respondents do not encounter any difficulty in answering the questions. Piloting ensured the clarity of wording and eliminated any research bias.

According to Kombo and Tromp, (2013), data analysis refers to examining what has been collected in a survey and making deductions and inferences. According to Oso (2009), data analysis entails separation of data into constituent elements, and examination of the data to distinguish its component parts or elements separately and in relation to the whole. The presentation of data refers to ways of arranging data to make it clearly understood. Data analysis was done with the help of Statistical Package for Social Sciences (SPSS). Descriptive statistics was used and included the use of frequency and percentages. Data, which was mainly categorical, was presented as frequencies with their corresponding frequencies. Both the qualitative and the quantitative data were analyzed by obtaining information from the questionnaires. The study also used inferential statistics which included correlation analysis; to test the relationship between the independent variable and the dependent variable as well as ANOVA to test the hypotheses of the study.

4. RESEARCH FINDINGS AND DISCUSSIONS

Response Level:

The study anticipated a response rate of 100% since it was dealing with the Principals of secondary schools to ensure that all the questionnaires were duly filled and returned within the expected duration of time. All questionnaires were, however out of 171 procurement committee members 167 of them answered the questions fully giving a response rate of 97.6%. On the other hand out of the 57 Principals initial sampled 56 appropriately filled the questionnaires therefore the response rate was 98.2%. Therefore the overall return rate of questionnaires used in the study was 97.8% which were therefore adequate enough to avail the information on the subject matter. Table 4.1 shows the projected response rate and the actual response rate

Table 4.1: Questionnaire Returned

Respondents	Target Population	Sample size	Returned	Percentage
Procurement committee members	171	171	167	97.6
Principals	134	57	56	98.2
Total	305	228	223	97.8

Upon receiving the questionnaires, data cleaning was carried out where the completeness of all questionnaires was assessed. The main sections of the questionnaires, i.e., variables on socio-demographic and variables on the objectives were duly filled. However, 5% of the questionnaires had some of the open-ended questions filled. Nonetheless this didn't affect the overall analysis as well as analysis on the specific objectives.

Socio-Demographic Characteristics:

The study sought to find out socio-demographic characteristics of the selected respondents. The findings based on the response of procurement committee members and Principals are summarized in table 4.2

Table 4.2: Socio-Demographic Characteristics of the respondents

Characteristics	Procurement committee members		Principals	
	Frequency	Frequency (%)	Frequency	Percent
Age (years)				
26-35	32	19%	15	26.7
36-45	77	46%	21	37.5
≥ 46	58	35%	20	35.7
Gender				
Female	67	40%	22	40%
Male	100	60%	34	60%
Job title				
Principals	42	25%	-	-
Teachers	125	75%	-	-
Education				
Diploma	25	15%	6	10
Degree	112	67%	38	68
Masters	30	18%	12	22
Experience (years)				
<5	100	60%	2	4
5-10	42	25%	31	55
>10	25	15%	22	41
Procurement professional qualification				
No	142	85%	49	87
Yes	25	15%	7	13

Most of the procurement committee members 81% were post-youthful age (>35 years), this implies that the procurement committee members have substantive years of experience at their work place. On the other hand 37.5% Principals were post-youthful age (>35 year), few were aged between 26-35 years old therefore it can be seen from the finding that most of the Principals had basic years in school management and have been in the procurement environment for quite some time.

Of the respondents, 60% as shown in table 4.2 were male, indicating that a sixth of those in tender committees are male. In terms of gender composition, 40% constituted female Principals while 60% were male Principals. This indicates that more male Principals participated in the study. The school management is recommended to include more of female to participate in procurement function.

As shown in table 4.2, two-thirds of the procurement committee members 67% had attained an undergraduate degree, pointing to the fact that two-thirds of those in the tender committees have substantive education level that ought to translate to better understanding of procurement procedures and functions.

In request the Principals indicated their educational background. According to the findings, 68% of the respondents had Bachelor of Education degrees, 22% had Master Degree and 10% had Diploma in Education qualification. According to the findings, we can deduce that majority of the Principals were graduate teachers and therefore would be in great need of incentives in their careers which they had taken time to nurture and therefore understand the content of the questionnaires and gave reliable information.

Of the 167 teachers from procurement department 60% of them had less than five years of experience in procurement, 25% had between while the rest 15% teachers had >10 years. On the other hand 87 Principals indicated that they have no procurement professional qualification while only 13 of them indicated that they have no procurement professional qualification. Despite the majority of the procurement committee members and Principals having adequate education level and being in the teaching profession for quite some time, the fact that they had less procurement experience may impact on procurement functions within the county. Most of the respondents had not obtained any skills on procurement therefore may affect the procurement function management negatively.

Findings based on objectives:

Effect of procurement training on Management of Procurement Function:

The study sought to investigate the effect of procurement training on Management of Procurement Function. The responses of the Principals are summarized in table 4.3

Effects of procurement training on managing procurement functions

Factors	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Training conducted on procurement Act, 2005	6(11%)	11(19%)	9 (16%)	22(39%)	8(14%)
Need to sensitize the school tender committee on procurement regulations	42(75%)	14(25%)	0(0%)	0(0%)	0(0%)
Ministry to train tender committee upon appointment	27(48%)	9(16%)	3(5%)	6(11%)	11(20%)
Training on key areas of procurement procedures	53(95%)	3(5%)	0(0%)	0(0%)	0(0%)

Among the 57 Principals given the questionnaire to fill; only 56 answered the questions fully. Out this more than half 55% are of the opinion that there hasn't been sufficient training on the procurement Act of 2005. Nonetheless, all of them either agree or strongly agreed that there is need to sensitize the school tender committee on procurement regulations and need for training on key areas of procurement procedures. Equally, a majority 75% are of the opinion that, the Ministry of Education should embark on training the tender committee once they are appointed. Also out of the 56 Principals 64% of them agreed that ministry of education, science and technology to train tender committees upon appointment while 31% disagreed. The findings also showed that 95% Principals strongly agreed that they have been trained on key areas of procurement procedures whereas 5% disagreed.

On the other hand the study sought information from the procurement committee, table 4.4 summarizes their response.

Table 4.4 Procurement committee response on factors that affect management of procurement function

Factor	n (%)
Training before appointment as committee member	
No	115(69%)
Yes	52(31%)
Public procurement procedures strictly followed	
No	28 (17%)
Yes	139 (83%)
What to be done to improve procurement in schools	
Training	102 (61%)
Follow procurement laws	53 (32%)
Incorporate ICT	12 (7%)
Other knowledge required by procurement committee members	
ICT integration	22 (13%)

Procurement procedures	77 (46%)
Knowledge on legal matters (Proc. Act)	53 (32%)
Knowledge on market rates	15 (9%)
Challenges faced in procurement	
Few or no applicants	35 (21%)
Delays	42 (25%)
Undue influence & conflict of interest	18 (11%)
Lack of knowledge on procurement procedures	42 (25%)
Price fluctuations	18 (11%)
Poor quality goods and services supplied	10 (6%)

Among the 167 members of procurement committee interviewed (non-Principals), 69% alluded that training on procurement process was not carried out before being appointed as a committee member. Even so, 83% confirmed that public procurement procedures and regulations were strictly followed in tendering procedures. A sixth of members of the procurement committee cited training as important issue that needs to be addressed to improve procurement of goods, services and works in the school. Knowledge on procurement procedures and knowledge on legal matters governing procurement were mentioned mostly as knowledge required by the committee members to perform their work effectively (46% and 32% respectively). The most challenges faced in the procurement of goods, services and work were delays in procurement (25%), lack of knowledge on procurement procedures (25%), and few or no applicants (21%). All these results are shown in table 4.4

The study went further and carried out the correlation analysis with the aid of SPSS version 20 the statistics. Counts from principal were combined to form four attributes that were used to run correlation analysis. The strength of the correlation was based on the distance from +1 or -1, the closer the value, the stronger the correlation (Archambault, 2002). Using Spearman's rho correlation analysis of the four factors and procurement function revealed the magnitude and direction of the association between the variables that are on an interval or ratio scale (Archambault, 2002). The correlation matrix of the results is presented in Appendix IV

Table 4.5 Correlation between Training on management and procurement functions

		Procurement functions
Training on management	Pearson Correlation	-0.095
	<i>p</i> -value	0.487
	N	56

During the study a Pearson's product-moment correlation was performed to look into the relationship between training on management and procurement functions. There was a weak negative correlation between training on management and procurement functions, $r(54) = -0.01$, $p > 0.05$, with training on management explaining (r^2) 1% of the variation in procurement functions.

One-way ANOVA analysis was carried out to test the study hypotheses. The first null hypothesis was stated as: there is no significant relationship between management training and procurement function in Public Secondary Schools in Tinderet Sub-County, Kenya. Table 4.6 summarizes ANOVA statistics.

Table 4.6 ANOVA on Training on management and procurement function

Procurement function (Dependent variable)					
	Sum of Squares	Df	Mean Square	F	<i>p</i> -value.
Between Groups	.007	1	.007	.004	.948
Within Groups	95.350	54	1.766		
Total	95.357	55			

Table 4.6 shows the output of the one-way ANOVA analysis which was used to test whether there is a statistically significant difference between our group means. We can see that the significance level is 0.948 ($p = 0.948$), which is above 0.05, and, therefore null hypothesis is accepted that there is no significant relationship between management training and procurement function in Public Secondary Schools in Tinderet Sub-County, Kenya

Information on Professional Ethics Practices in procurement in public secondary schools in Tinderet Sub-County.

The study further sought to find out information on professional ethics practices in procurement in public secondary schools in Tinderet Sub-County from the Principals. Their responses are summarized in table 4.7:

Table 4.7: Information on Professional Ethics Practices in procurement in public secondary schools

Factors	Strongly agreed	Agreed	Neutral	Disagree	Strongly disagree
Members face conflicts between opportunities for personal financial gains	8(5%)	42(25%)	18(11%)	58(35%)	42(25%)
Partiality towards the suppliers preferred by top management	6(11%)	14(25%)	6 (11%)	6 (11%)	25 (44%)
Suppliers offer gifts/bribes to tender/procurement committee members	0 (0%)	6 (11%)	20 (35%)	14(25%)	17 (30%)
Members reveal confidential bids to suppliers	3 (5%)	5 (9%)	20 (35%)	9 (16%)	20 (35%)
Ethical behaviors can reduce the cost of managing risks of improper behavior	42 (75%)	11 (19%)	0 (0%)	0 (0%)	3 (5%)

Most of the Principals 60% strongly disagreed that members of the tender committee face conflicts between opportunities for personal financial gains. A few Principals agreed 11%, that Suppliers offer gifts/bribes to tender/procurement committee members to influence the tender process. Equally, 14% either agreed or strongly agreed that tender committee members reveal confidential bids to suppliers. Three-quarters 42 strongly agreed that ethical behavior can reduce the cost of managing risks associated with fraud, theft, corruption and other improper behavior and enhance confidence in the public administration.

On the other hand the study sought information on Professional Ethics Practices in procurement in public secondary schools from procurement committee. Their findings are summarized in table 4.8

Table 4.8: Effects of Professional ethics practice in procurement management function

Factor	F (%)
Compliance to ethical practices as enshrined in the constitution	
No	23(14%)
Yes	144 (86%)
Suppliers offer gifts/bribes to tender/procurement committee members	
No	115 (69%)
Yes	52 (31%)
Management tends to influence award of tenders to some specific suppliers	
No	134 (80%)
Yes	33 (20%)

Among the members of procurement committee, (86%) confirmed that ethical practices as enshrined in chapter 6 of the constitution of Kenya was complied. On the other hand a third (31%) of the respondent indicated that some suppliers of goods and services tend to offer gifts and bribes to be considered for tender award.

On the second objective the correlation analysis matrix was presented in table 4.9

Table 4.9 Correlation between Professional ethics and procurement functions

	Procurement functions	
Professional ethics	Pearson Correlation	0.010
	p-value	0.940
	N	56

The Pearson's product-moment correlation was performed to look into the relationship between Professional ethics and procurement functions. There was a weak positive correlation between professional ethics and procurement functions, $r=0.01$, $p > 0.05$, with training on management explaining (r^2)=0.01% of the variation in procurement functions.

The study also in effort to test the second null hypothesis which was stated; as there is no significant relationship between professional ethics practice and management of procurement function in Public Secondary Schools Tinderet Sub-County, Kenya, the ANOVA was performed. The statistics are summarized in table 4.10

Table 4.10 ANOVA on Training on management and procurement function

Procurement function (Dependent variable)					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	0.134	4	.034	.125	.973
Within Groups	13.705	51	.269		
Total	13.839	55			

Table 4.10 shows that the significance level is 0.973 ($p=0.973$), which is above $\alpha=0.05$, and, therefore null hypothesis is accepted that there no significant relationship between professional ethics practice and management of procurement function in Public Secondary Schools Tinderet Sub-County, Kenya

Monitoring and Evaluation capacity in Procurement Management function:

The Principals were asked to state how monitoring and evaluation capacity influence procurement management function. The responses are summarized in table 4.11.

Table 4.11 Monitoring and Evaluation capacity in Procurement Management

Factors	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Procurement procedures are well monitored and evaluated by the ministry	9 (16%)	30 (53%)	6 (11%)	9 (16%)	3 (5%)
Audit of books of Accounts regularly monitored and evaluated	18 (32%)	33 (58%)	0 (0%)	6 (11%)	0 (0%)
Tender committee members exposed to seminars and workshops	6 (11%)	12 (21%)	9 (16%)	18 (32%)	12 (21%)
Procurement procedures are time consuming	6 (11%)	15 (26%)	15 (26%)	12 (21%)	9 (16%)
Proper planning and budgeting by proper controls to facilitate effective performance	38 (67%)	10 (18%)	6 (11%)	3 (5%)	0 (0%)
Procurement function is cost effective when there are effective internal controls	39 (68%)	15 (26%)	0 (0%)	0 (0%)	3 (5%)

It was agreed by the Principals that Procurement procedures are well monitored and evaluated by the Ministry of Education, Science and Technology (69%). Majority of the Principals (90%) agreed or strongly agreed that audit of books of accounts are regularly monitored and evaluated by the county schools Audit office. When asked on whether tender committee members are exposed to seminars and workshops to enhance the capacity on procurement function as well as whether procurement procedures are time consuming, the Principals couldn't out rightly agreed or disagreed. The findings are summarized in figure 4.1

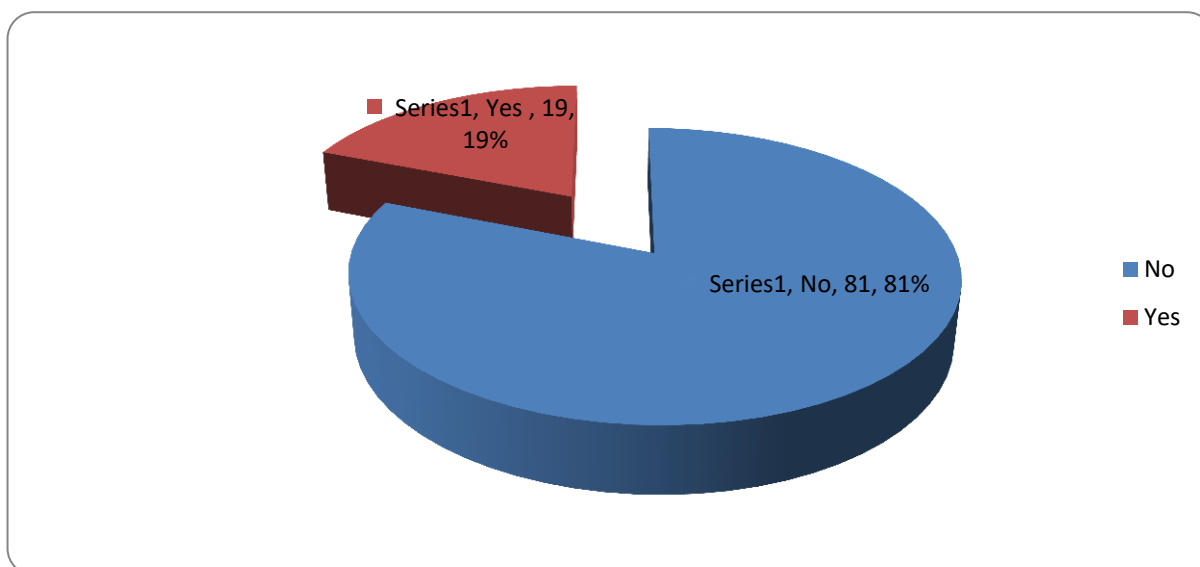


Figure 4.1 Effective internal controls to manage monitoring and evaluation in procurement

Among the members of procurement committee, 81% opined that there are internal controls in place in their school to manage monitoring and evaluation of procurement functions (results shown in figure 4.3). Slightly more than half 54%, revealed that monitoring and evaluation of procurement activities were done more than once per term (results are shown in figure 4.3). Since, about a third of the respondents, reported that monitoring and evaluation of procurement functions were either not done at all or just done yearly, the researcher argues that the frequency needs to be routine or rather at least twice per term.

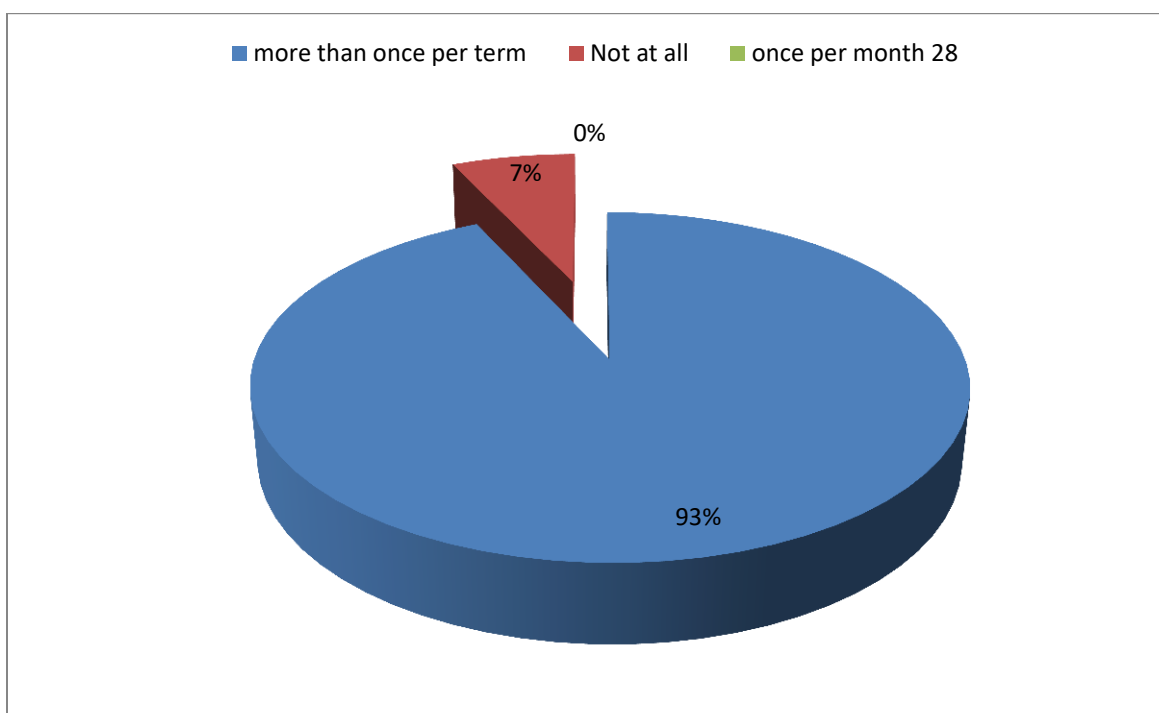


Figure 4.2 Frequency of monitoring and evaluation of procurement functions

From the Responses of the procurement committee members 54% of them indicated that they monitor and evaluate procurement functions more than once per term, 4% said that they don't, 14% said that they do evaluate and monitor once per month while the rest 28% said that they evaluate and monitor and evaluate procurement function yearly. The findings are illustrated in figure 4.2 below

Table 4.12 Correlation between Monitoring and Evaluation capacity and Procurement Management function

		Procurement functions
Monitoring and Evaluation capacity	Pearson Correlation	.037
	<i>p</i> -value	.786
	N	56

As shown in table 4.12 there was a weak positive correlation between monitoring and evaluation capacity and procurement functions, $r=0.037$, $p > 0.05$, with monitoring and evaluation capacity (r^2)=0.16% of the variation in procurement functions.

The study also in bid to test the third null hypothesis which was stated as, there is no significance relationship between monitoring and evaluation capacity and management of procurement function in Public Secondary Schools Tinderet Sub-County, Kenya. The statistics are summarized in table 4.13.

Table 4.13 ANOVA test on Monitoring and Evaluation capacity and Procurement Management function

Procurement functions (dependent variable)					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.721	4	.180	.701	.595
Within Groups	13.118	51	.257		
Total	13.839	55			

Table 4.13 shows that the significance level is 0.595 ($p=0.595$), which is above $\alpha=0.05$, therefore null hypothesis is accepted that there is no significance relationship between monitoring and evaluation capacity and management of procurement function in secondary Schools in Tinderet Sub-County, Kenya. This means that monitoring and evaluation capacity on management of procurement function is inadequate among the selected secondary schools in Tinderet Sub-County

Information on ICT use Proficiency in Procurement management Function:

An item was included in the questionnaire which sought information on the role of information on ICT use proficiency in procurement management function form the Principals. Their responses are summarized in table 4.6

Table 4.10 Information on ICT use Proficiency in Procurement management Function in public secondary schools in Tinderet Sub-County

Factors	Strongly agreed	Agree	Neutral	Disagree	Strongly disagree
ICT reduces the likelihood of unethical behavior in school procurement	35 (61%)	6 (11%)	6 (11%)	6 (11%)	4 (7%)
ICT promotes accountability, transparency and integrity	34 (60%)	20 (35%)	3 (5%)	0 (0%)	0 (0%)
ICT is more reliable compared to manual process	23 (40%)	23 (40%)	8 (14%)	0 (0%)	3 (5%)
ICT minimizes instances of misplaced records in the school	48 (84%)	9 (16%)	0 (0%)	0 (0%)	0 (0%)

Among the Principals, 72% either agreed or strongly agreed that ICT reduces the likelihood of unethical behavior in the school procurement function and 95% either agreed or strongly agreed that ICT promotes accountability, transparency and integrity. All of them either agreed or strongly agreed that ICT minimizes instances whereby records are misplaced in the school whereas 80% either agreed or strongly agreed that ICT in procurement function is more reliable compared to the manual procurement process.

The responses from the procurement committee showed that out of 72% of procurement committee thought that the use if ICT will reduce procurement malpractices e.g., corruption, bribery, fraud etc (results shown in Figure 4.3).

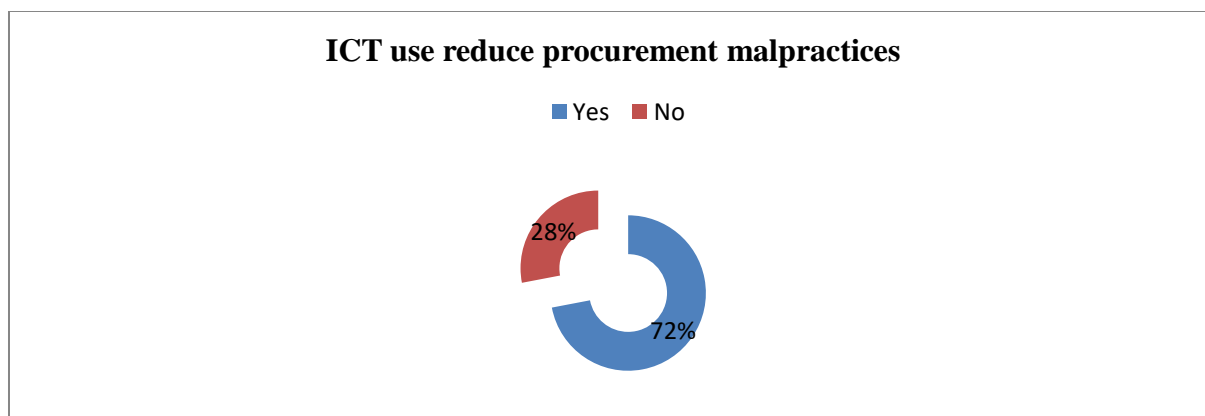


Figure 4.3 ICT use reduce procurement malpractices

From the 72% percent procurement committee members who indicated that ICT will reduce procurement malpractices indicated that ICT will ensure that those who will apply for tender will be able to get those awarded tender online. This will therefore reduce malpractices like corruption and fraud in secondary schools in Tinderet Sub-County.

Similarly, 80% consider that ICT in procurement will reduce costs and time taken for procurement process (results are shown in Figure 4.4). It is evident that the view point of non-Principals on ICT use in procurement functions agrees with those of the Principals.

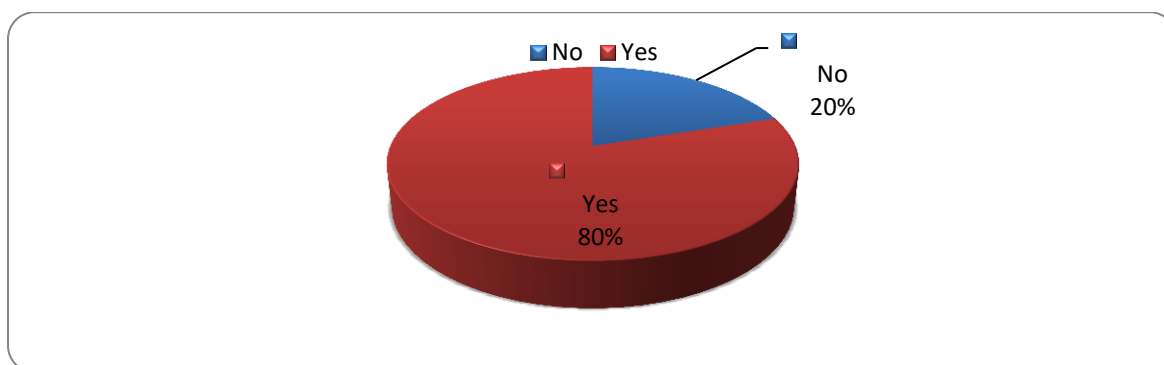


Figure 4.4: ICT use reduce costs and time taken for procurement processes

The reason as to why ICT has reduced cost is that most of the quotations will be online and can be downloaded at any time without the cost of travelling and purchases of forms.

A Pearson product-moment correlation was run to determine the relationship between ICT use proficiency and procurement function. The correlation matrix is presented in table 4.14

Table 4.14 Correlation between ICT use proficiency and Procurement functions

		Procurement functions
ICT use proficiency	Pearson Correlation	0.085
	<i>p</i> -value	0.534
	N	56

It was noted that there was a weak, positive correlation between ICT use proficiency and Procurement functions which was not statistically significant ($r = 0.085$, $n = 56$, $p > 0.05$). From the coefficient of determination r^2 it was noted that 0.7%, which means that 0.7% of the variation in procurement functions is explained by ICT use proficiency.

The study also carried out one-way ANOVA in order to test fourth null hypothesis which was stated as there is no significant relationship between use of ICT proficiency and management of procurement function in Public Secondary Schools Tinderet Sub-County, Kenya. The statistics are summarized in table 4.15

Table 4.15 ANOVA on ICT use proficiency and Procurement functions

Procurement functions (Dependent Variable)					
	Sum of Squares	df	Mean Square	F	<i>p</i> -value.
Between Groups	0.939	4	0.235	0.928	0.455
Within Groups	12.900	51	.253		
Total	13.839	55			

Table 4.15 shows that the significance level is 0.455 ($p=0.455$), which is above $\alpha=0.05$, therefore null hypothesis is accepted that there is no significant relationship between use of ICT proficiency and management of procurement function in Public Secondary Schools Tinderet Sub-County, Kenya.

5. DISCUSSIONS

On the first objective of the study it was noted that most of the procurement committee members strongly agreed that there is need to sensitize the school tender committee on procurement regulations in secondary schools. This will ensure that the teachers at the procurement committee are aware of the current issues concerning procurement. It was also noted that teachers need to be trained on key areas of procurement procedures. This finding is in conformity of what Gopal (1995), indicated that, highly educated and experienced procurement officers are likely and retention in public sector by implementing creative and improved career development opportunities and strategies that encourages junior procurement officers to stick around. Similarly, Malatesta and Parino (2004), posits, training on procurement skills that have related skills within public institutions leads to easier staff movement, reduced staff training costs and greater access to procurement professionals.

Still on the first objective based on the response of the principal noted that despite the fact that teachers are not offered any training upon their appointment as tender committee members, they try as much as possible to strictly follow the procurement procedures and regulations. They also point out to delays in procurement as the most challenge faced in the process of procurement. The researcher is of the opinion that, training be done as soon as tender committees are appointed and the bottle-necks leading to delays in procurement processes be minimized to ensure timely decisions in adjudicating procurement functions. This is in agreement with Amos and Weathington, (2008), who stated that the effective way to maintain ethics awareness in organizations is to provide training for employees. Ethics training and seminars can be provided along with training in more specific areas, such as procurement procedures, record keeping, records management and accountability.

On the second objective it was noted that most of the teachers disagreed that members in the procurement committee face conflicts between opportunities for personal financial gains. This shows that most of them agreed that they had not mixed their personal interest and that of school conflicts. It was also noted that most of the teachers in the procurement committee strongly disagreed that favoritism towards the suppliers is preferred by top management in the school. This shows that some of the top management committee in the school favors some of the tenderers. This has been common trend in most of the public institutions in Kenya. However it was noted that most of the teachers strongly agreed that principled behaviors among the procurement committee can reduce the cost of managing risks of improper behavior among the committee. Similarly, Amos and Weathington (2008), elaborates that an important and effective way to maintain ethics awareness in organizations is to provide training for employees. Ethical behaviour is important in Public Procurement as it involves the expenditure of public money, and is subject to public scrutiny. Evidently from these findings, the respondents seem to adhere to professional ethics practices in procurement. However, the relevant stakeholders should inculcate the principles of professional ethics practices in procurement among secondary schools tender committee in the county. This is in agreement with Grieson and Needham (2006), who argued that demonstrated accountability and transparency reduces the likelihood of unethical behaviour, and instill integrity of decisions.

The response from the principal showed that majority of those who said yes indicated that those suppliers offer gifts/bribes to tender/procurement committee members are blacklisted and never awarded any tender in any public

institution. Moreover only a fifth agreed that some members of the board of management prefer some specific suppliers and therefore tend to influence tendering process. The action taken here is to decline to award to the said person giving valid reasons why. Similarly as noted by Otieno (2004), there is malpractices in secondary schools are as a result of unethical procurement activities. Furthermore, it is noted that in most secondary schools, annual audit of finance indicates mismanagement of school funds and this is an indication of unethical behaviours by school management.

The findings based on the third objective indicated that majority of the teachers in the procurement strongly agreed that proper planning and budgeting by proper controls facilitate effective performance and procurement function is cost effective when there are effective internal controls in place. This is in accordance to Hayes (2005), who suggests that effective control of procurement function could be done by having seminars and workshops to improve the capacity of the procurement officials and enable them follow procurement procedures.

Similarly the procurement committee members were asked to state the effects of monitoring and evaluation on procurement function in public secondary schools in Tinderet Sub-County. Most of them agreed how often monitoring and evaluation of procurement activities is done, most of them said that they do monitoring and evaluation every month while a few of them said that they do monitoring and evaluation every year. Furthermore the Principals were asked if there are any internal controls in place in their school to manage monitoring and evaluation most of them said that they didn't have monitoring and evaluation in their school. On the same note Seeming (2012), recommended that in developing countries like Kenya, guidelines should be given to procurement staff including procurement which must be adhered to in procurement functions. He further stresses that malpractices in public procurement functions could be prevented if there is a sound internal control mechanism.

The findings on the third showed that most of the Principals were of the view that auditing of books of accounts are regularly monitored and evaluated by the county schools Audit office. However they were undecided when asked on whether tender committee members are exposed to seminars and workshops to enhance the capacity on procurement function. The importance of seminars and workshops was noted by Hayes (2005) who suggested that effective control of procurement function could be done by having seminars and workshops to improve the capacity of the procurement officials and enable them follow procurement procedures. Also Weele (2006), acknowledged the importance of audit, and pointed out that by using purchasing audit, which is a tool of management, the achievement of objectives could be ascertained since the resources being used are limited.

Based on the response from members of procurement committee majority of them agreed that there were internal controls in place in their school which has enabled the school to manage monitoring and evaluation of procurement functions. On a similar note Seminega (2012), recommends that in developing countries, guidelines should be given to procurement staff which must be adhered to in procurement functions. It was also noted over half of the committee members agreed that their school monitor and evaluate procurement functions more than once per term.

Majority of the Principals agreed that ICT use in procurement functions; has reduced the likelihood of unethical behavior in school procurement, it has promoted accountability, transparency and integrity. It has minimized instances of misplaced records in the school. These findings are in agreement with Hagen and Zeed (2005), who postulate that in order to meet challenges in procurement functions, firms have adopted ICT to enhance the services and to improve effectiveness by lowering costs and increasing productivity. This is also in support of the view held by Kirungu (2011), who argues that manual systems are a source of major inefficiencies in procurement regulation and operations of the function.

Similarly majority of the procurement committee members indicated that ICT has reduced procurement malpractices and ensured that tender application is done online which will reduce malpractices like corruption and fraud in secondary schools in Tinderet Sub-County. This is in agreement with Schapper (2008), who recommended that instead of manual practice in procurement processes, e-procurement should be adopted by organizations. Also the findings showed that most of procurement committee agreed that ICT in procurement will reduce costs and time taken for procurement process.

6. SUMMARY CONCLUSIONS AND RECOMMENDATIONS

Effect of procurement training on Management Procurement Function:

In as far as the first objective is concerned; the results suggest that there is need to conduct training to sensitize the school tender committee on procurement regulations and on legal matters pertaining to tendering processes. In particular, it becomes evident from the results that training on the Procurement ACT (2015), still remains a mirage among tender committee. Equally, sensitization on procurement procedures and regulations should be prioritized considering the results showed that most of the committee members had less years of experience in procurement. From ANOVA it was noted that there is no significant relationship between management training and procurement function in Public Secondary Schools in Tinderet Sub-County, Kenya ($p>0.05$).

Effect of professional ethics practices on management of procurement function:

For the second objective, the study reveals that professional ethical practices ought to be entrenched among members of the tender committee. This, in essence, will be able to combat such vices as partiality, conflict of interest as well as accepting gifts/bribes to influence tender processes. With procurement ethics made a culture among tender committees in schools, the findings suggest that, members will refrain from revealing confidential bids to suppliers and equally, ethical behaviors will reduce the cost of managing risks of improper behavior. Test of hypothesis showed that there was no significant relationship between professional ethics practice and management of procurement function in Public Secondary Schools Tinderet Sub-County, Kenya ($p>0.05$).

Effect of monitoring and evaluation capacity on management of functions:

From the third objective, it became clear from the respondents, that ICT use, if adopted and enhanced, would promote accountability, transparency and integrity in procurement processes. In addition, ICT is reliable and reduces the likelihood of unethical behavior in the school procurement functions. This is a clarion call to the Ministry of Education, Science and Technology and all the stakeholders to ensure that ICT is fully entrenched in procurement in Kenyan schools. The researcher agrees with Bashuna (2013), Kenya Government Ministries should adopt ICT in procurement function to enhance the process of tendering through advertising, sourcing, cost savings and provision of excellent service in an effective and transparent manner. It was also noted there is no significance relationship between monitoring and evaluation capacity and management of procurement function in secondary Schools in Tinderet Sub-County, Kenya ($p>0.05$).

The effect of ICT use proficiency on management of procurement function:

Lastly, from the fourth objective, it was evident, that there is need for routine audit of books of accounts by ministry of education. The ministry of education through the relevant department should ensure that procurement functions within schools are monitored and evaluated frequently and appropriately. The ministry should, as well, amicably address all the challenges faced in procurement if the standards and best practices in procurement are to be realized in public schools. It was noted that there was no significant relationship between use of ICT proficiency and management of procurement function in Public Secondary Schools Tinderet Sub-County, Kenya ($p>0.05$).

Conclusions:

This study has described a number of topical issues related to procurement of goods, services and work in public secondary schools in Tinderet Sub-County. The results are outlined below.

In summary, the first objective revealed that tender committees of public schools within Tinderet Sub-County have inadequate training on procurement regulations and procedures. The tender committee members highlighted that rigorous training be conducted on procurement procedures.

For the second objective, the findings showed that professional ethical practices ought to be entrenched among members of the tender committee. From the findings the respondents agreed that this would go a milestone in combating such vices as partiality, conflict of interest as well as accepting gifts/bribes to influence tender processes

On the third objective, the researcher concludes, based on research findings, that even though ICT use has never been fully adopted for procurement in public schools, its implementation would lead to proper functioning of procurement functions and speeds up procurement activities and hence bring efficiency and integrity.

On the fourth objective the findings indicated that, while adopting Monitoring and Evaluation frameworks for procurement functions in schools, the Ministry of education should ensure that the procurement functions are monitored and evaluated frequently and appropriately.

Recommendations:

The Principals of Secondary Schools and other educational Institutions should comply with the procurement policy documents specifically, public procurement and disposal Act, 2015 and the Public Procurement and Disposal Regulations of 2009. Therefore, the Procurement Committee in Secondary Schools should establish a procurement committee in accordance to the Regulations mentioned above. In addition, the Ministry of Education, Science and Technology, should regularly ensure that the school Procurement Committee comply with the Public Procurement Act and Regulations as they discharge their duties on regular basis.

Secondly, the Ministry of Education, Science and Technology, should avail training opportunities for procurement committee members to enable them acquire knowledge and skills so as to be effective in procurement functions. The study indicated that a higher percentage of respondents have little or no skills or knowledge in procurement functions. Thirdly, the Ministry of Education, Science and Technology, should sensitize the Procurement committee on professional ethics as they perform their duties. Adequate controls should be put in place to reduce opportunities for corruption and other malpractices. Performance incentives need to be offered to employees to reward good performance.

Education should also emphasize to the schools the need to avail code of conduct and ethics to all procurement committee and teachers so as to reduce malpractices in procurement function. Ethical behaviour encompasses the concept of honesty, integrity, probity, fairness, trust, respect and consistency in procurement function. Ethical behaviour supports openness and accountability in a procurement process and gives suppliers confidence to participate in the supply of goods and services. Furthermore, ethics training and seminars should be provided periodically to improve procurement activities.

It is also recommended that the Ministry of Education, Science and Technology, should regularly on quarterly or yearly basis monitor and audit the procurement process by the secondary schools so as to take action in controlling any anomaly caused. From the study, it was noted that, by adopting the use of ICT in procurement enhances the process of effective tendering, potential for cost saving and reduction in corruption activities compared to manual processes. Similarly, by adopting ICT shall contribute to professionalism, accountability and efficient procurement systems.

Finally, it will be of interest to conduct a similar study in other counties so as to compare the results. The study examined empirically the opinion of tender committee members on the training needs on procurement procedures, monitoring and evaluation and ICT adoption for procurement functions in public secondary schools in Tinderet Sub-County.

Suggestion for Further Studies

Even so as we give recommendation for further research, it is equally important to outline a few limitations encountered while doing this study. The study only focused on procurement of goods, services and work in public secondary schools in Tinderet Sub-County. It will be of interest to conduct a similar study among private secondary schools in Tinderet Sub-County and compare the results. This study examined empirically the opinion of tender committee members on the training needs on procurement procedures, monitoring and evaluation and ICT adoption for procurement functions in public secondary schools in Tinderet Sub-County.

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