THE IMPACT OF SUPPLIES QUALITY ON UNIVERSITIES PERFORMANCE: A CASE STUDY OF MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY

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ABSTRACT: *The role of Quality supplies in the performance of universities cannot be under estimated. Quality is the driving force in university performance. However its role is greatly affected by having quality systems in the universities. This research sought to assess the impact of quality of supplies on university performance using four indicators; cost reduction, effectiveness, efficiency and customer satisfaction. The study utilized a descriptive study using a survey method and targeted the MMUST population. A sample of 25 students and 25 staffs were administered with questionnaires that had both open and closed questions. 23 students (92%) and 19 staffs (82.6%) responded. The study results using the Chi-squire revealed that quality of supplies impact positively to university performance. The research further recommends that universities should ensure quality of its supplies in order to realize good performance.*

KEYWORDS: Quality, Performance, Chi-square, University

INTRODUCTION

This section discusses various aspects of the study including; background of the study which gives an in-depth review of the historical development of the research problem globally, regionally, and locally, statement of the problem that tries to give a picture of the real situation and the ideal situation and establishes the gap that the research has to fill, study objectives, significance of the study, scope of the study, hypothesis and also general objectives of the study.

Background of the Study

Quality of supplies has had little considerations among the institutions and this has resulted to poor quality of supplies (Kuei *et al*, 2001). A failure to recognize quality problems and too much emphasis on price has been the main cause of poor quality of supplies in the universities (Johnson & Leenders, 2011). Lysons (2006) said that poor quality of products and services costs about 20%of the revenue a cost that can be avoided by using good practices. He pushed for zero defects. His "absolutes" are that; quality is defined as conformance to requirements not goodness, the system for achieving quality is prevention not appraisal. The philosophical leaders of quality,(Juran, Crosby and Deming) all had a general message, "to achieve outstanding quality requires quality leadership from senior

management, a customer focus, total involvement of the workforce and continuous improvement based upon vigorous analysis of processes.

The world have come to the realization of the need to establish a standard measure of quality to ensure supplies being consumed within the country and those that are exported are of good quality. Africa being one of them has come up with quality control bodies and policies to regulate the quality of supplies being produced in the organisations and also imports coming to the country from outside. In Kenya, the government has come up with various policies and bodies that control quality standards. Kenya Bureau of Standards (KEBS) responsible for quality controlling, standards and inspection of products, testing and certification of products. National Quality Institute(NQI) ensure advancement of quality management practices to enhance the competitiveness of Kenyan goods and services in the world market and to manage key quality awards in order to promote excellence of Kenyan industries.Another body established by the government of Kenya to oversee quality issues is, Kenya Plant Health Inspectorate Services (KEPHIS). This is a regulatory body for agricultural imports and produce in Kenya. As a result of realizing the need for procuring of quality supplies, the government has established, Public Procurement Oversight Authority (PPOA) that oversees all procurement activities and procedures in the country and that all firms should observe the regulations of this body in relation to procurement matters.

Human resource departments have also been established on the forefront to providing quality and qualified staff who understands better matters relating to quality and how to work towards achieving the desired quality in the university. On the other hand performance is also pegged on the quality of services offered by the university. Quality of services offered is dependent on the quality of inputs provided. This has seen many public universities put quality of supplies a priority in ensuring quality.

Statement of the Problem
Supplies quality is a key determinant of an organisational performance since it ensures the end products of the organisation are acceptable to the consumers(Saleemi, 2001) Organisations should therefore purchase quality supplies for this to be attainable.
In Kenyan Universities however, complains have been observed on the poor quality of output as a result of poor quality inputs, for example graduate of medicine from Moi University are viewed as unqualified. Poor workmanship and substandard buildings have been cited example of the Nyamakima building in Nairobi which collapsed due to poor quality. This can be attributed to lack of careful consideration of supplies quality which in turn affects the end product quality. This research study therefore seeks to establish the effect of supplies quality on organisational performance in Universities in Kenya.

Research Objectives
General Objective
To examine the impact of quality of supplies on University performance in Kenya.

Specific Objectives
1. To determine the impact of supplies serviceability on cost reduction.
2. To examine the effect of supplies durability on university efficiency.
3. To explain the impact of aesthetics on university image.
4. To determine the impact of conformance on customer satisfaction.

Research Questions
1. What is the impact of supplies serviceability on cost reduction?
2. How does supplies durability affect University efficiency?
3. What is the impact of aesthetics on the University image?
4. How does conformance impact on customer satisfaction?

Hypothesis
1. HO1: There is no significant difference in supplies quality and organizational performance.
   HA1: There is significance difference in supplies quality and organizational performance.
2. H01: There is no significance difference in supplies quality and University efficiency.
   HA1: There is significant difference in supplies quality and university efficiency.

Significance of the Study

This study aimed at helping the Universities management to cut down costs associated with quality of supplies such as, reworks, scrap and return of supplies where distance involved is too high.

The study also may be of significance to students to capitalise on these data as well as adopt new research methods to demonstrate to organisations decision makers that supplies quality may contribute to customer satisfaction, good image and increase in efficiency in operations. They also examines in broader details other factors that affect supplies quality on University performance and discover more dimensions and approaches to quality that the organisation can employ to improve its operations.

The study is to help the Government to come up with legal policies and procedures governing procurement of supplies. This ensured that all purchases made by the organisations conform to the right quality. This helps the government to control piracy.

Finally the research will be of significance to the citizens of the nation for they will be sensitised on the effects of poor quality of supplies hence enabling them to make the right decisions as to quality when making purchases.

Scope of The Study

The study is basically concerned with the impact of supplies quality on university performance in Kenya. Masinde Muliro University of science and Technology was chosen as the case study.

Limitations of The Study
   1. **Financial constraints**

Financial limitation for research expenses such as transport to the field, airtime, stationary and printing.

Financial limitation was a major constraint for us to carry out research in other universities and institutions. This research called for us to have adequate funds to cater for research expenses such as transport to the field, airtime, stationary and printing. This limitation was dealt with by reducing unnecessary expenses and sourcing for more funds from our private forces.
   2. **Limited time**

This research was conducted for a period of four months (one semester) at the same time running con-currently with our studies. This period of time was not sufficient to carry out the

study comprehensively. The researchers overcome this by creating extra time out of a busy schedule of lecture program including meeting after lectures, weekends and evenings.

3. Non response from respondents

Most respondents were not willing to give information due to their busy schedule and fear of giving information. This was overcome by assuring them that the information was going to be confidential and that it will be secretive. We would also get free rime to visit them.

4. Limited resource material

Since this area of study is new in the market, it was not easy to get required information. Also the case i.e. area of study is a young university which is not fully developed in terms of procurement, quality issues and performance.

LITERATURE REVIEW

Empirical quality management (QM) research has evolved over the last 20 years. Empirical research has defined and measured QM practices. Numerous studies have investigated the relationships among QM practices and various aspects of a firm's performance. As competition moves beyond a single firm into the supply network of multi firms, focus is shifting from management of internal practices alone to the management of external firms. Quality managers must integrate their firms' practices with those of customers and suppliers. Integrating QM and supply chain management (SCM) will be important for future competitiveness.

Quality assurance in supplies management related to different kinds of goods and services have been researched by (Sroufe and Curkovic, 2008) in order to align the supply chain with quality assurance to derive the models which can be adopted by the organizations to assure the quality.

The Supply chain performance measurement Bongsug Chae, (2009) Verma et al., 2008; Rick Hoole, Khan et al., 2009; Hong et al., 2010; Theeranuphattana and Tang, 2008; Sun et al., 2009; Chris Morgan, Yeung, 2008; Fantazy et al., 2009; Hervani et al., 2005; Soo Wook Kim, 2006) models, methods and frameworks related to supply chain partnership (kim et al., 2010), supply chain integration (Flynn et al., 2010), supply chain interaction (Salvador et al., Salvador), Supplier relations(Ou et al., 2010; Simpson and Power; 2009; Sezen, 2008), supplier selection and Quality improvement ; Cagnazzo et al., 2010; Supply chain effectiveness ,Supply chain collaboration (Papakiriakopoulos and Pramatari, (2010); Wiengarten et al., 2010) for different types of goods and services such as FMCG, perishable goods, services etc. have been researched for increasing the performance of supply chain at different cross sections of it to derive the profit as well as sustained market position and growth for organizations.

Supply chain quality management has been explored by researchers where six hypotheses related to Supply chain quality management developed through literature review and tested using survey data from US manufacturing companies. Relationship between supplies quality management practices and organizational performance have been researched and it was found that organizational performance could be enhanced through improved supply chain quality management . the concept of supplies quality management as the formal coordination and integration of business processes involving all partner organizations in the supply channel to measure, analyze and continually improve products, services, and processes in order to create

value and achieve satisfaction of intermediate and final customers in the marketplace. They also found out its relevance to academic and industrial practice and proposed a Quality-SCM framework. (Taticchi and Brun, 2010) identified role of performance measurement systems to support quality improvement initiatives at supply chain level. (Gionata Carmignani, 2009) modified interpretation of ISO 9001:2000 norm and introduced a research to determine a standard to implement a management system for a whole supply chain through the identification of the main supply chain processes and drivers. (Vanichchinchai and Igel, 2009) found that TQM and Supplies Management have same ultimate goal which is customer satisfaction. TQM emphasizes internal (employee) participation and Supplies Management focuses on external (business partners) partnerships but there is a need to emphasize both internal and external partnerships to further strengthen the emphasis on "total" TQM and the entire supplies management. The service quality and total quality management as a business strategy designed to add value to customers. In managing quality effectively in supplies, there are ten critical factors for describing a Supply Quality Management system. These factors could be clustered into three major groups namely supplier selection, supplier development and supplier integration. This study has not covered the relationship among supply quality management, supplier quality and buyer quality, the effect of increased emphasis on supply chain management on the practice of quality management.

This research reviewed current research in quality management and identified common themes found in the literature. Key quality management content variables identified are customer focus, quality practices, supplier relations, business results, and safety. Based on these variables we proposed areas for future research in the field of supply chain quality management. Kaynak and Hartley, (2008) found that the inclusion of customer focus and supplier quality management in the QM model supports the importance of internal and external integration for quality performance. Improving the quality of all supplies results in reduced costs, improved resource utilization, and improved process efficiency. The study found that majority of studies on service quality has focused on service industries, not supply chain as a whole. On finding that there are certain service quality domains that have not been investigated sufficiently, we propose a model for assessing the quality of service at various interfaces of supply chain using 3PL.

(Mowat and Collins, 2006) worked on consumer behavior and fruit quality and found in their survey that 124 consumers revealed that 46 percent ranked price as the most important attribute influencing the purchase decision, followed by taste (25 percent), size (13 percent) and skin color (3 percent). Taste was the attribute most frequently associated with disappointment (84 percent of responses), followed by price (10 percent) and texture (6 percent). Supply chains in new and emerging agricultural industries typically lack information linking product quality with consumer behavior. (Ramudhin et al., 2008) worked on incorporating cost of quality in supply chain network design to ensure the lowest overall cost, because it reduces the probability of defects and hence the probability of additional cost which might be due to corrective action but further research could model cost of quality (COQ) at both supplier and plants simultaneously. In industries such as the aerospace industry, the variable production cost is high; hence producing extra parts to compensate for defectives would be a costly option. Sengupta, (2010) worked on placing a quality-oriented coordination process between the supply and receiving partners by following the mathematical model which supports the development of an effective supply chain network that maximizes profit. (Romano and Vinelli, (2001) worked towards understanding how

quality can be managed using a supply chain which reports a case study conducted on Marzotto, an important Italian textile and Apparel Company, and its supply chain relationships. The study compares the quality practices in the two different kinds of supply network of which Marzotto is the focal firm. One is managed using a traditional customer-supplier approach and the other a broader and more coordinated perspective. In the latter case, it was found that the whole supply network could improve its ability to meet the expectations of the final consumer in terms of quality through the joint definition and co-management of quality practices/procedures. Yang et al., (2007) carried out a case study in Samsung, where they found that the effort and investment in synthesizing SCM and six sigma, and developing a unique six-sigma-based methodology to improve its SCM operation, have turned out to be fruitful. The Black Belt program has produced highly qualified and talented SCM specialists, who are currently training the methodology to members in their organizations and leading SCM projects. Braglia and Petroni, (2010) describes a multiple attribute utility theory based on the use of data envelopment analysis (DEA), aimed at helping purchasing managers to formulate viable sourcing strategies in the changing market place. DEA has proved to be capable of handling multiple conflicting attributes inherent in supplier selection while simultaneously trading-off key supplier selection criteria.

Burgess and et al. (2006) found that the supply chain field is a relatively "new" one; several disciplines claim ownership of the field; consensus is lacking on the definition of the term; contextual focus is mostly on the manufacturing industry; predominantly "process" conceptual framing prevails; research methods employed are mostly analytical conceptual, empirical surveys or case studies; the positivist research paradigmatic stance is prevalent; and theories related to transaction cost economics and competitive advantage dominate. Das et al., 2008) found that with a few notable exceptions, there is no guidance in the literature for operations managers trying to understand the role that employee safety at their own or a supplier could play in quality outcomes. Empirical tests of these propositions provide initial evidence that safety does indeed

Definition of Organisational Performance
Most organizations view performance in terms of effectiveness in achieving their mission, purpose or goals. Most would tend to link the large notion of organization performance to the results of their particular programs to improve performance.
Performance therefore can be defined as a state of competitiveness of the organization received through a level of efficiency and producing which ensures a sustainable presence 658 hence we conclude that a performing organization is efficient, competitive and productive.
 P. Drucker states that to be effective means "to do plan things well" by efficiency we meant the extent to which objectives were achieved.
 Having known what performance is or means, we can define organizational performance, and it comprises the actual output or results of an organization as measured against its int6ended output or goals and objectives. According to Richard *et al* (2009) organizational performance encompasses three specific areas of firm outcomes.
   a) Financial performance which involves profits, returns on assets, return on investments among others.
   b) Product market performance which involves sales and market share.
   c) Shareholders returns which involves total shareholder returns and economic value added.

Richard *et al* (2009) also added that dimensions of organizational performance may include financial performance, customer service, social responsibility and employee stewardship.

Relationship between Supplies Quality And Organizational Performance

The effective management of technology and quality is the key to increased quality and enhanced competitive position in today's global environment (Kuei *et al*, 2002)

(Bowersex *et al* 2002) noted the quality and operational efficiency are known as the greatest supply chain challenges. To make high quality supply chains a reality, those challenges must be resolved. Madu *et al* (1905) found a causal significant relationship between the quality acclimation (customer satisfaction, employee satisfaction and employee service quality)and organization performance (Wang et al, 1999) found out that factors such as cooperation , trust and long term relationship enhance quality in the supply chain members.

Quality management practices and supplier participation are significant correlated (Tracey, 2001) urged that supplier involvement relate to customer satisfaction level and firms performance that is the supplier participation separate good performing organization and not good performing organization.

The level or supplier participation practices influence their degree of organization performance that is suppliers should be selected based on their areas of quality practices hence the supplier selection is one of the critical factors in managing supply chain quality. Therefore quality management issues and supplier selection are significantly correlated (Tanetal 1998) contended that supplier evaluation practices relates to performance of firms.

As a result the level of supplier selection practice positioning influences the degree of the organizational performance (Tanet 1998) noted a relationship between the firm's operational quality approaches and their performance. Their empirical result however shows that quality management practices and supply chain management practices must be implemented conjointly to realize superior finance business results.
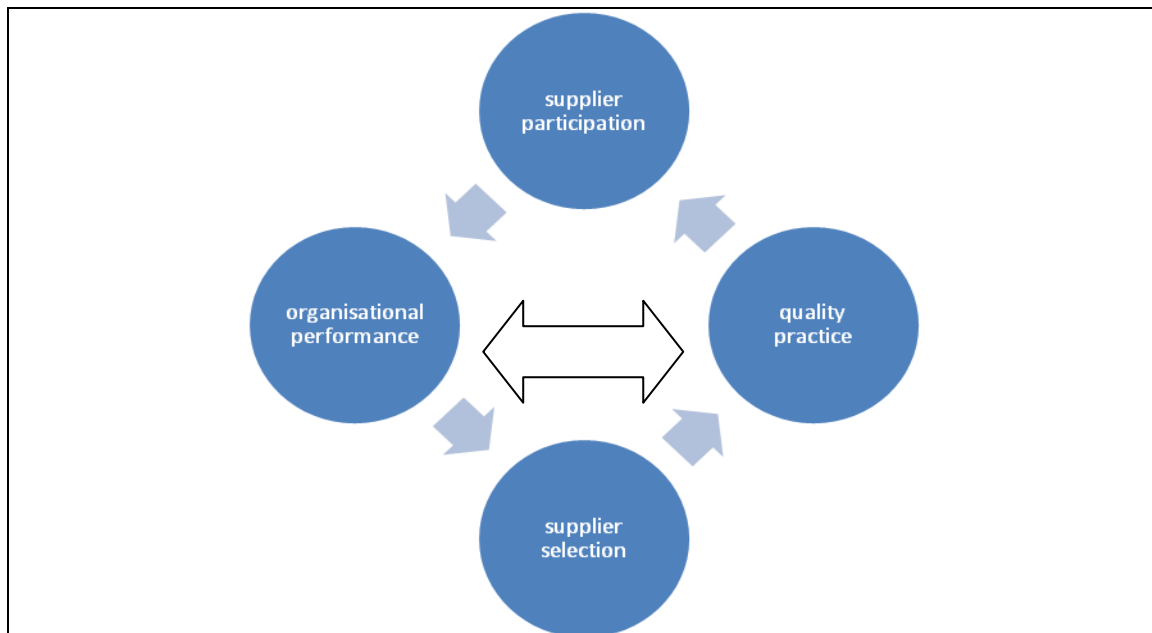
Figure 2.7.1: Multiscale of supply chain quality management

Table 2.7.1: Multiscale of supply chain quality management.

Variable	Construction	Description
Quality management	Top management leadership	Top management provide the necessary leadership in enabling condition for total quality
	Training	Job related skills total quality control concepts are emphasized
	Product/service design	Consider the design side of the product cycle, emphasize on customer needs and wants.
	Supplier quality management	Emphasize on quality not price.
	Process management	Process improved methods are used to ensure stable and capable process.
	Quality data reporting	Records about cost of quality and other indicators are kept for analysis.
	Employee retention	Empower employees' reliance on awareness and effort of all employees.
	Customer relations	Based in class satisfaction is emphasized
	Benchmarking	Benchmarking is used to improve enterprise performance
Supplier participation	Supplier participation/product design and Kaizen project	Supplier communication and work with enterprise on continuous improvement project or ownership.
Supplier selection	Quality oriented supplier selection	Suppliers are selected based on their capacity to meet the needs of the enterprise
	Cost oriented supplier evaluation	Suppliers are selected based on cost component
Organizational performance	Satisfaction level	Component items include employee satisfaction and customer satisfaction.
	Business result	Component items include; productivity, cost, performance profitability, sales growth, earning growth and market share.

Study Gap

Previous studies have concentrated on showing the relationship between quality supplies and organizational performance in various sectors including; Agricultural sector, Industrial sector, Tourism sector, Medical and Health sectors. Few studies have looked at these relationships in
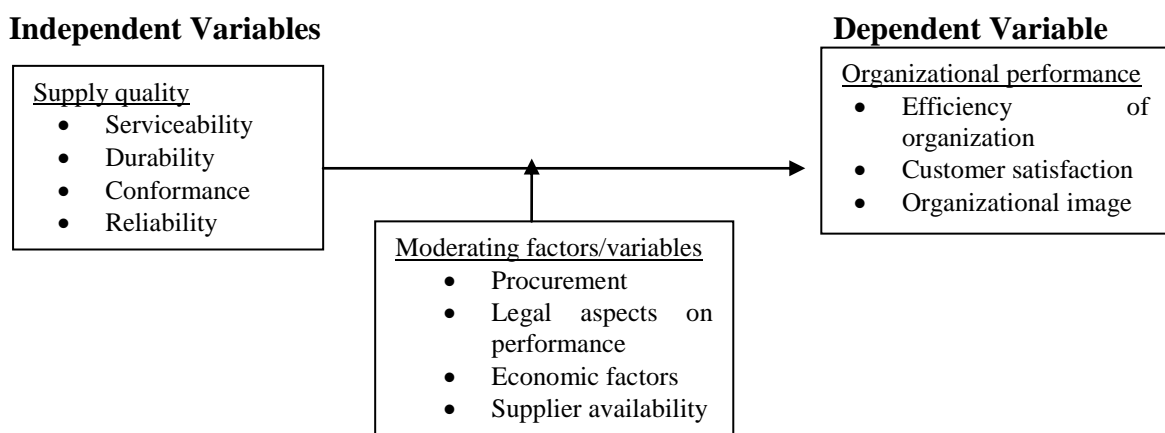
the Education Sector, specifically the Universities in Kenya. The study therefore seeks to fill this gap by examining the effects of supplies quality on Universities performance.

This study borrows aspects from Demeyers Model of 1990. The independent variable, supplies quality was measured based on; performance, serviceability, durability, conformance and aesthetics. The dependant variable, organizational performance shall be measured based on; cost reduction, efficiency, effectiveness, customer satisfaction and University image.

CONCEPTUAL FRAMEWORK

Theory of quality Demeyer (1990) have proposed a sound cone model which states that quality is a base of all subsequent improvement in the organization. Once a base of quality is constructed, management can build other factors or areas e.g. dependability, flexibility efficiency but which doing all these quality should also be improved continuously.

Independent Variables   **Dependent Variable**

Supply quality
- Serviceability
- Durability
- Conformance
- Reliability

Moderating factors/variables
- Procurement
- Legal aspects on performance
- Economic factors
- Supplier availability

Organizational performance
- Efficiency of organization
- Customer satisfaction
- Organizational image

Figure 2.9.2: Conceptual framework

RESEARCH METHODOLOGY

This section covers the area of study, the research design, target population, sample and sampling techniques, research instruments, data collection procedure and data analysis. The study is based on both primary data and secondary data.

Study Area

MMUST is in Kakamega County in Western province. MMUST has a population density of about 7,000 hence it is among the highly populated university in Western region.

MMUST is the most convenient study area for our research; this is because it is easy to get accessed to information from the institution. This is because MMUST is a young growing university and quality issues may be a problem which needs to be addressed. MMUST is also convenient because the accessibility to researches hence did not pose problems when carrying out research.

Research Design

The descriptive study determines and reports the way things are (Sikurani, 2004). Research was guided by descriptive survey design to establish the relationship between variables especially impact of supplies quality on organizational performance. Guy (1981) defines descriptive research as a process of collecting data in order to test hypothesis or to ensure

questions concerning the correct status of the subject in the study. According to Sikurani (2004) a descriptive study is undertaken in order to ascertain and be able to describe the characteristics of variable of interest in the study. The goal of descriptive study is, hence is to offer to the researcher a profile or is to describe relevant aspects of the phenomenon of interest from an individual organizational industry oriented or other perspective. The study was of a case study nature.

This research is the most commonly used and the basic reason for carrying out descriptive research is to identify the cause of some happening. However if the research is to retain useful result however is conducting the research must comply with strict research requirement in order to obtain the most accurate figure or results possible (D.S.S Research limited).

Target Population
Kombo and Tromp (2006) population is a group of individuals, objects or items from which samples are taken for study. The study was conducted in MMUST with a population of about 7,000 people which include students, staffs, subordinates e.tc. The research was in MMUST departments which are many but a sample of the departments shall be researched on.

Sample Size
The study chose a sample of fifty respondents composed of students, lecturers and non-teaching staff of the university. Random sampling was be used to choose the respondents after they had been selected through stratified sampling which selected the department.

Data Collection Instruments
This refers to tools used for data collection and how they were developed (Kombo and Tromp 2006). This study employed questionnaires of the primary instruments of data collection. The structured (closed ended) and unstructured (open ended) questionnaires were used. In structured questionnaires the questionnaires are accompanied by a list of all possible alternatives from which the key respondents selected the answer that describe their situation (Mugenda 1999). The advantage of using this type of data collection instrument is ease with which they afford the researcher when analyzing data. Moreover they are easy to administer and economical to use in terms of time and resources.

Open ended questions are included in the instrument for the advantage of giving insight into the motivation of the respondents. It also makes it possible to analyse qualitative open ended questions.

Observation
As a method of data collection, it involves eye contact. This is according to Folerit, BS and G. Dunn (1983). Here visit the departments were visited and their operations observed. We also observed the students behaviour in attending lectures and lecturers when delivering their lectures.

Interview
This is where we held a conversation with the respondents that is the interviewer and the interviewee. It is a method of data collection as advanced by Everrit B.S (1983). Emphasis shall be put on research topic during the conversation.

This method was reliable because feedback was obtained immediately. This saves time as there were no delays (Stigler S.M, 1986).

Validity And Reliability Of The Research Instrument

This section tests the validity and reliability of research instruments that were used when collecting and analyzing data.

Validity

Any instrument used in research has to uphold validity. This means accurate, concrete and meaningful of the instrument. Validity is the external to which the instrument measures according to the researcher's subjective assessment.

(Nachiams 158) Best and Kaln (1989) Suggested that the validity of the instrument is asking the right question framed from the least ambiguous way. To ensure the content validity of the questionnaires the operational definitions of the proposed research were developed after an intensive review of the relevant literature. Freaenekel (1993) posts that the instrument should be given to the individual who can be expected to vender an intelligent judgement about the adequacy of the instruments. The instrument was then amended according to the expert comments and recommendations before being administered. For the validation of the instruments the researcher should consult supervisors and experts. The aim is to determine whether the items are adequate in content and logically arranged.

Reliability

This research refers to how consistent a research produce or an instrument is i.e. the degree of consistency demonstrated in a study. (Furnum *et al* 1989). Researchers of this study ensured that there was reliability in the study.

To test reliability of instruments the questionnaire was piloted using one of the user departments for example production engineering. One production major and the staff in production department. After about a week the questionnaire was readministered to the same group. The data was then analysed and the results corrected to determine the reliability and coefficient. Best and Kaln (1989) suggested that Pearson product moment correlation is most often used because of its precision with p value of 0.5, both reliability and validity should be high to be desirable (Fraenkel *et al* 1993).

Data Analysis Techniques

Saunders *et al* (2003) asserts that data analysis may be defined as a process of data collection and analysis of qualitative data that involves three concurrent sub processes of data reduction, data display, drawing and verifying conclusions. In most cases it is usually the use of qualitative methods in a descriptive study.

It involves theoretical method of data collection, as elaborated by Tufte ER (1983).les, figures, percentages and charts. The researcher also used Qualitative methods when coming up with tables, charts and diagrams for data analysis. All completed instruments were assembled and information organized. Quantitative as already mentioned was analysed using descriptive results, summarized and presented in tables.

## DATA ANALYSIS, PRESENTATION AND FINDINGS.

The research involved three enumerators who collected data from twenty five students and twenty five staff members of Masinde Muliro University of Science and Technology. Of the fifty respondents targeted, fourty two respondent representing 85%. This indicates that most respondents were able to fill the questionnaire and return it.

Departments Response
Table 4.1. 2: department's response

Departments researched on	Frequency	Percentage (%)
Centre for disaster(CIDMA)	4	9.5
Procurement	3	7.1
Education Science	10	23.8
Business Management	5	11.9
Catering	2	4.8
Engineering	4	9.5
Criminology	1	2.4
Health	1	2.4
Quality assurance	1	2.4
Library	5	11.9
Finance	2	4.8
Registrar	1	2.4
Estates	1	2.4
Students affairs	2	4.8

Gender Distribution
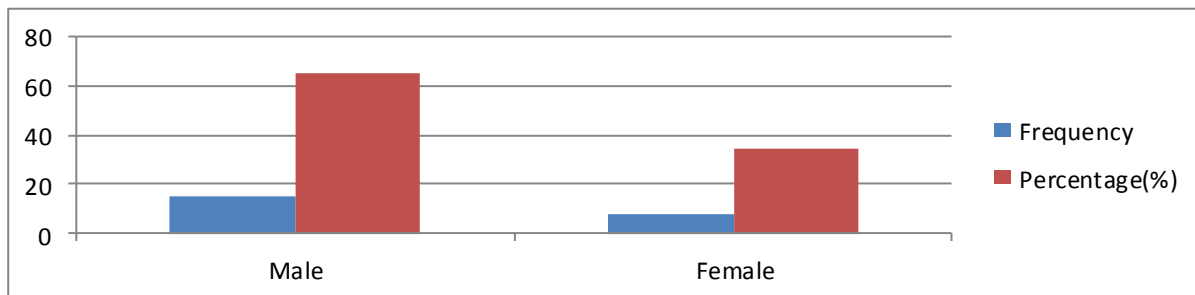
Figure 4.2. 3: Students respondents.

The students were required to indicate their gender; this was to establish the main gender group of the student respondents. The biggest percentages of 65.2% were male while 34.8% were female. This shows that there is gender imbalance in the university student's population; therefore the university should admit more female students than male students.
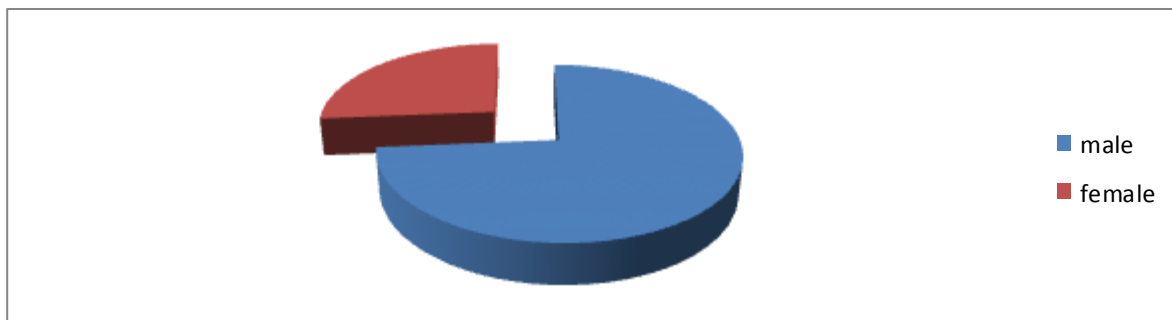
Figure4.2. 4: Staff respondent

The staffs were required to indicate their ages; this was to establish the main age group of the staff respondents. The biggest percentages of 73.6% were male, while 26.3% were female. This shows that most staff respondents were male. This means that the university should employ more female staff.

Age Distribution among the Respondents
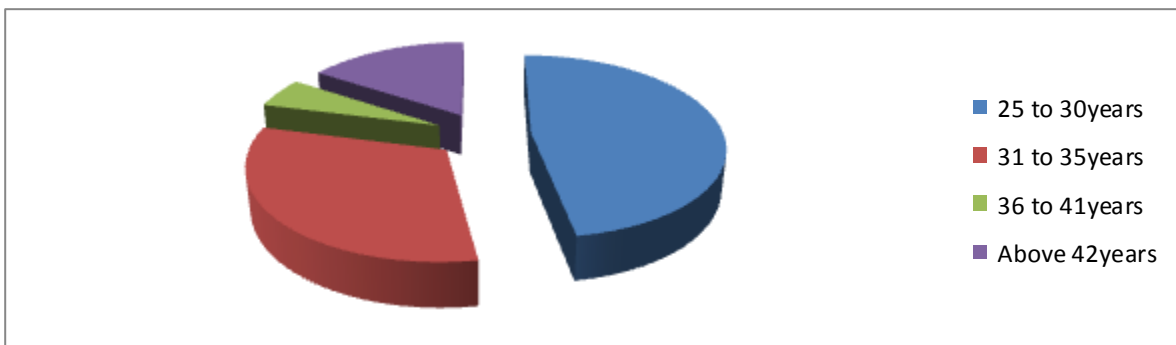**Students**
The students were required to indicate their ages; this was to establish the main age group of the student respondents. The biggest percentages of 73.9% were between 21 to 24 years, 17.4% were between 25 to 30 years, 8.7%were above 30years. This shows that most student respondents are mature students having joined university after completing their O-level studies.
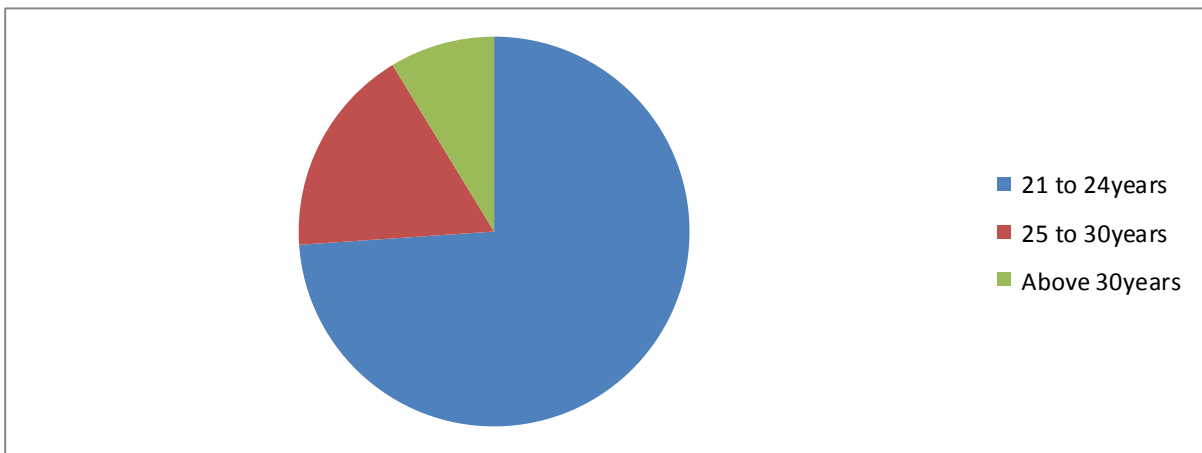

Figure4.3. 5: Students

Staffs
The members of staff were also requested to indicate their ages. This sought to establish the main age bracket of the staffs. The largest percentage 47.4% representing nine respondents were between ages of 25 to 30years, 31.6% representing six respondents were between 31 to 35 years, 5.3% representing one was between 36 to 41 years, and 15.8% representing three respondents were above 42years. This implies that most of the staff members were still young hence can accept change and can understand quality issues well.


Figure 4.3. 6: Staff

Year of Study

The study also sought to establish the year of study of the student's who responded to the questionnaires. It was reported that 26.1% representing six students were first years, 17.4% four respondents were third years, and 56.5% representing thirteen were fourth years. This shows that most students have been in collage for long hence they can give relevant information about quality supplies.
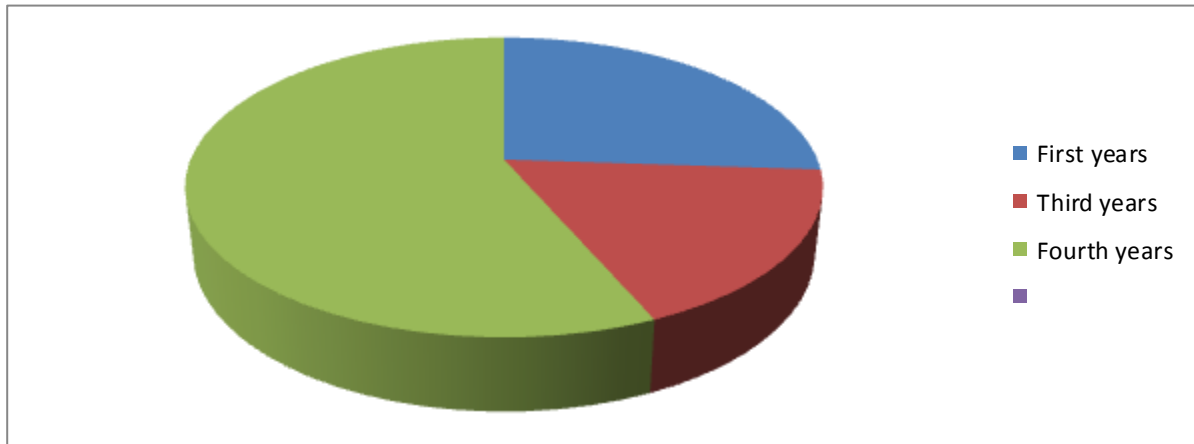

Figure 4.4. 7: Year of Study

Job Status

The staff's respondents were required to indicate their job status in order to find out what positions they hold. It was reported that 5.6% representing one respondent was lecturer, 47.4% representing nine were clerks, 21% representing four staffs were heads of sections and 26.3% representing five were supervisors. This shows that most of the staff respondents were clerks, meaning that they are directly involved with most of the supplies hence they can be able to give the right information about   quality of supplies.
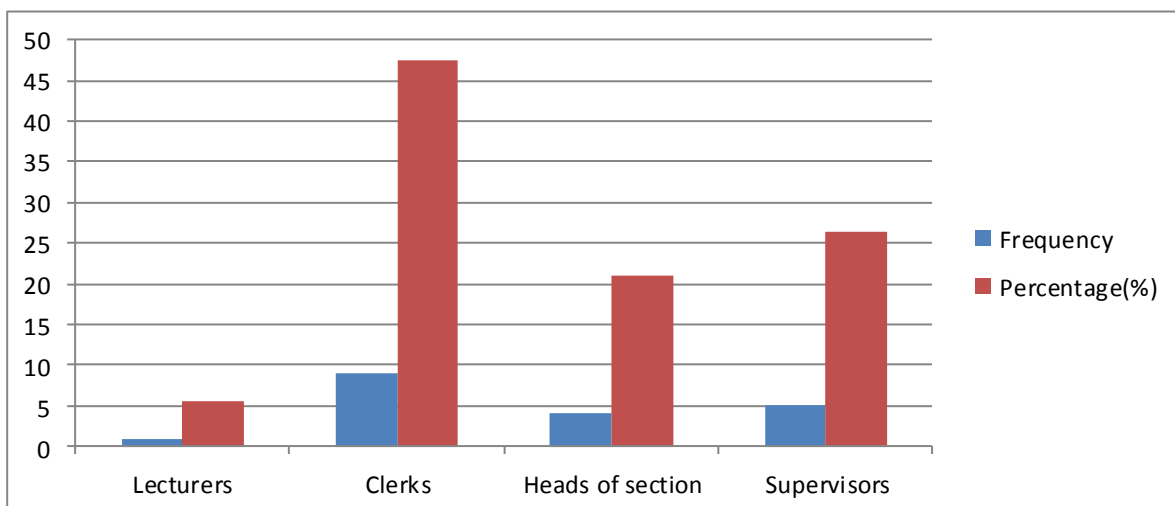
Figure 4.5. 8: Job Status

Number of Years Worked

The study also sought to establish the number of years the staff has worked in the University. It was established that 47.4% representing nine staffs have worked between 2 to 4 years, 26.3% representing five were between 5 to 7 years, 15.8% representing three were above 7 years, and 10.5% representing two were below one year of work. This means that the largest group had worked between 2 to 4 years, hence they can be able to tell quality of supplies and the operations of the university given their experience.
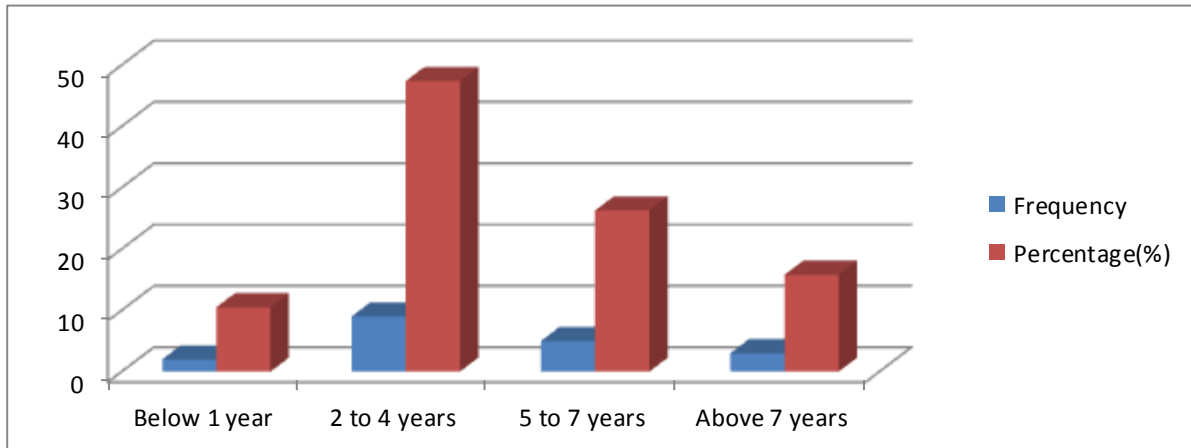

Figure 4.6. 9: Number of Years worked

Supplies Quality
Students Perspective
Quality Of Facilities Provided By The University

From the study it was established that 39.1% representing nine students agree that the facilities provided are of quality, while 60.9% representing fourteen students, and disagree. This means that most of the students are of the opinion that the facilities are not of quality
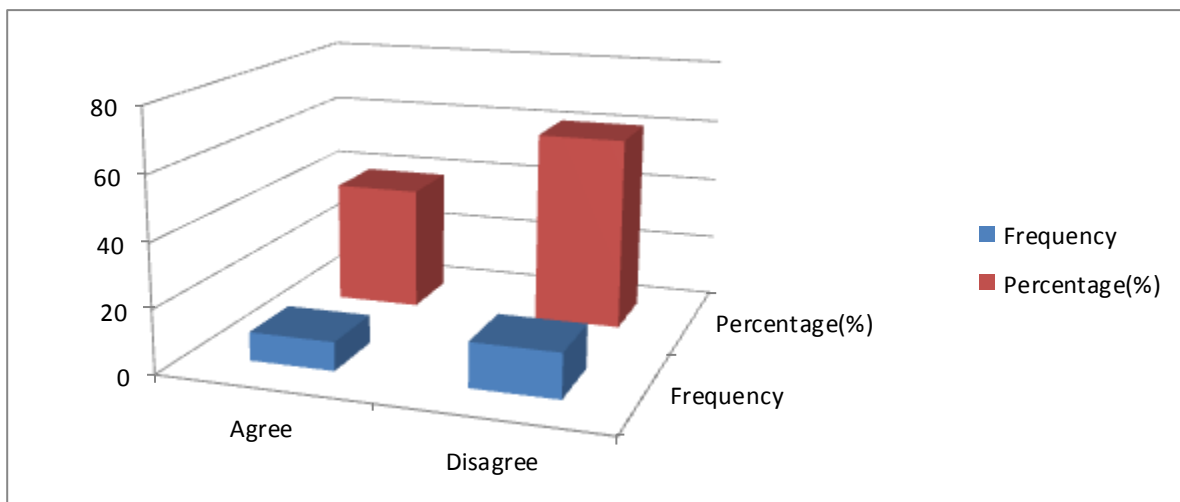

Figure 4.7.10: quality of facilities provided by the university

Staff Perspective
**Quality Of Supplies Received In The Departments**

From the research it was established that 73.7% of the staffs representing fourteen members of staff agree that they are of quality while 26.3% representing five members were not in agreement. This shows that according to staffs majority are in agreement that the supplies are of quality.
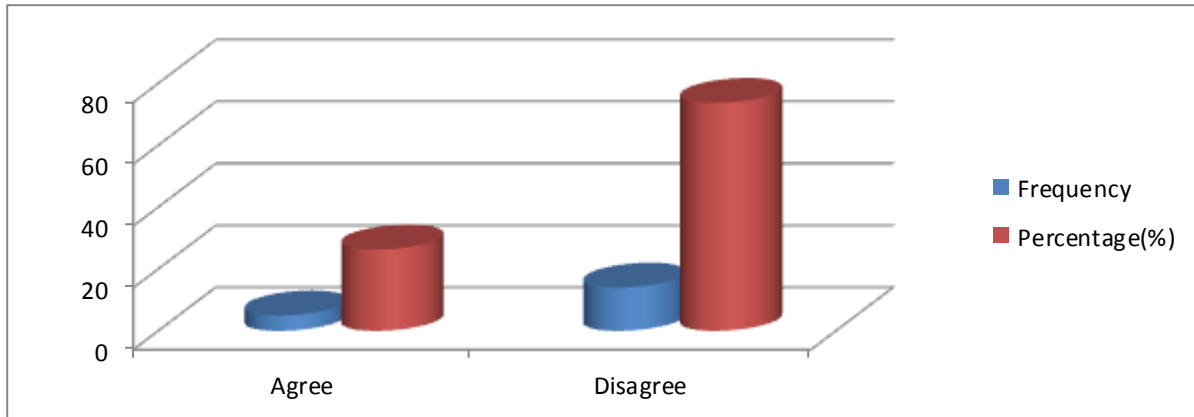
Figure 4.7. 11: Quality of supplies received in the departments

Quality Of Programmes Offered By The University
The student respondents were required to indicate their opinion as far as the quality of the programmes are concerned. From the study it was established that 82.6% representing nineteen were of the opinion that the programmes were satisfactory, 13% representing three students were not satisfied while 4.3% representing one was not able to tell. From the study it was noted that most students are satisfied with the programmes offered by the university.
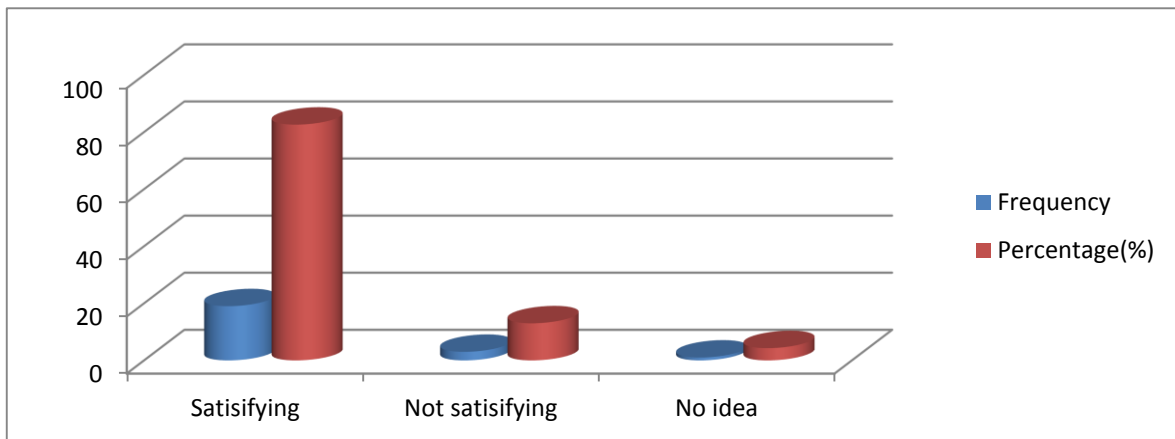

Figure 4.8. 12: Quality of programmes offered by the university

Ways Ascertaining Quality
The research sought to find out about the ways the University employ in ascertaining quality of the supplies. It was noted that 75% of the respondents representing three staffs said that inspection while 15% representing one staff says that they use other ways. From the study it shows that the university apply inspection as a method of ascertaining quality.
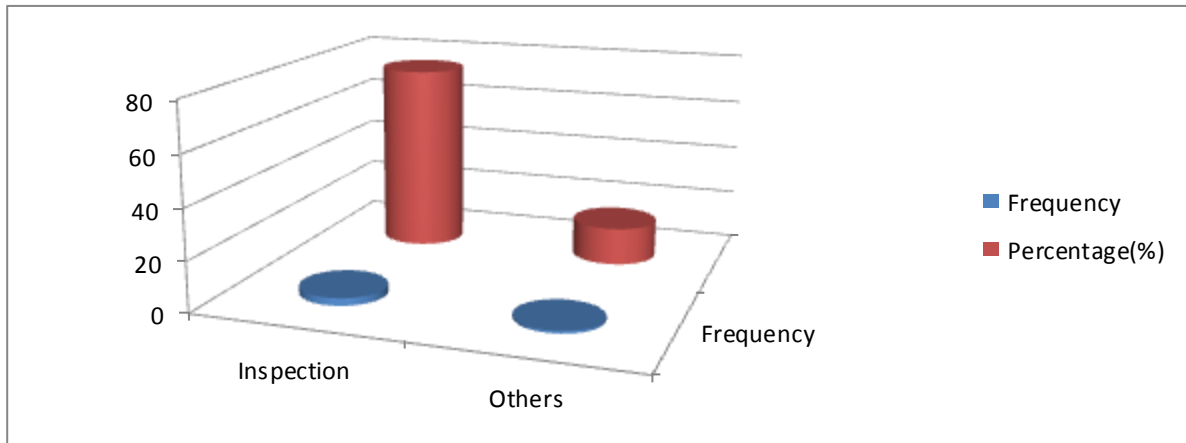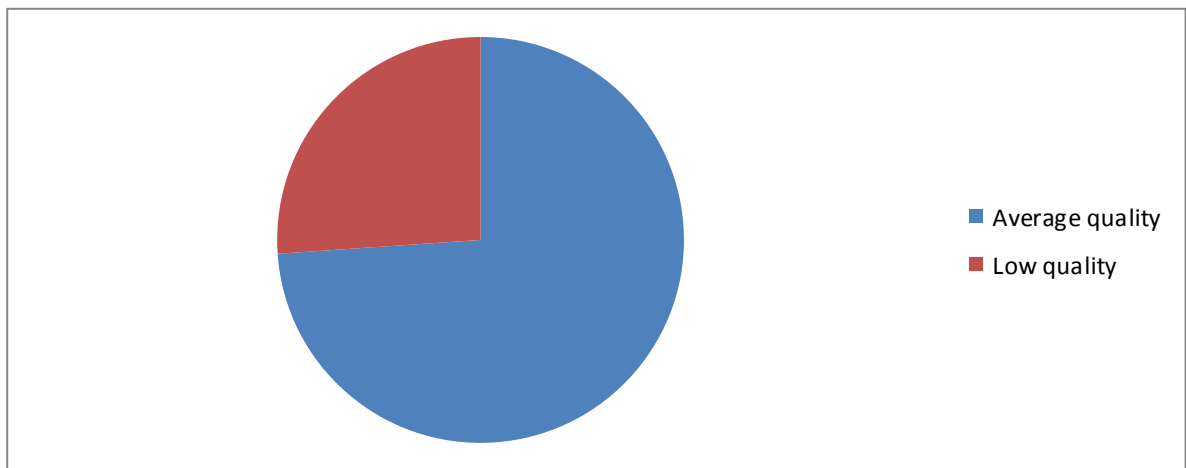
Figure 4.9.13: Ways ascertaining quality

**Quality of the Meals Offered At the Cafeteria**
The research wanted to find out the quality of the meals offered at the university cafeteria.73.9% representing seventeen were of the opinion that the meals are of average quality while 26.1%representing six were of the opinion that the meals were of low quality. This indicates that majority of the respondents do agree that the meals are of quality.

Figure 4.10. 14: Quality of the meals offered at the cafeteria

Performance Evaluation
The research sought to establish the performance of the university by requesting the respondents to indicate if evaluation was done and it was established that 63.2% representing twelve respondents says there is evaluation, 36.8% representing seven said that there was no evaluation. From these we concluded that evaluation is carried out.
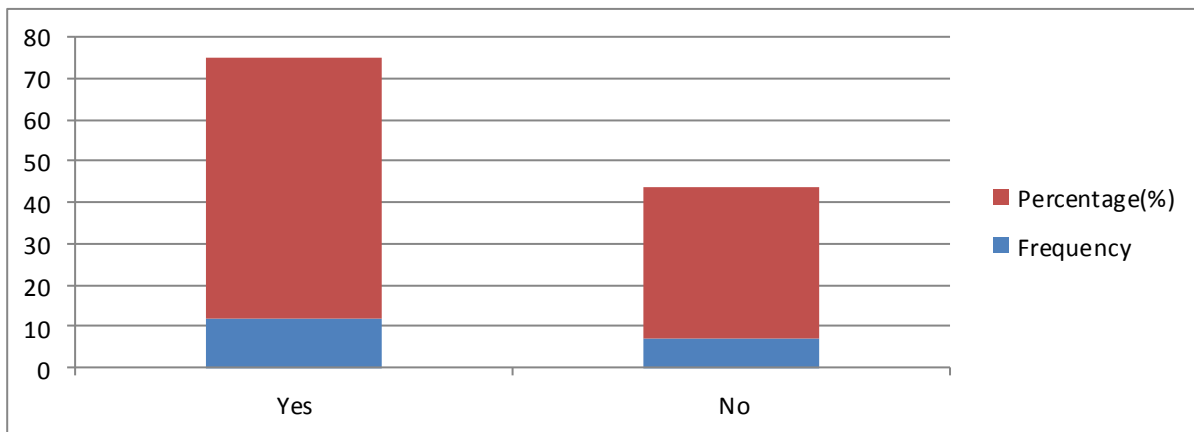
Figure 4.11. 15: Performance evaluation

Quality Of Education Contributes To University Performance.
The study wanted to find out if the quality of education offered contributes to performance. Opinions of respondents were sought to find out. From the research 13% representing three students were of the opinion that it has no contribution while 26% representing six were not able to tell, and 61% representing fourteen were of the opinion that it contributes.
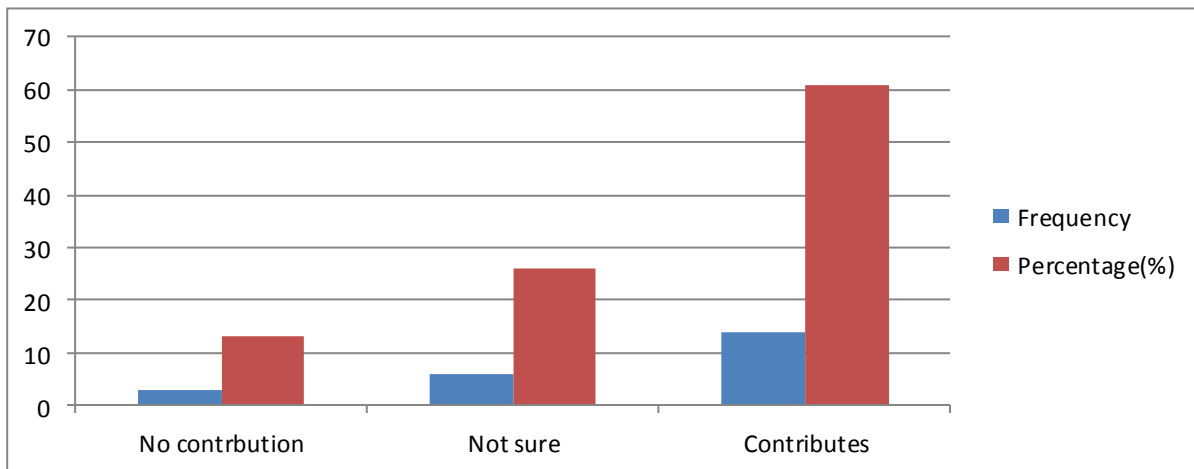
Figure 4.12. 16: Quality of education contributes to university performance

Satisfaction Levels of Respodents on Various Aspects Quality
The research sought to establish the satisfaction level of the respondents on the following issues.

Student's perspective
Teaching services
A total of twenty three students participated in these section and out of this, two students representing 8.7% were of the opinion that the services are very satisfying, fifteen students representing 65% said that it is satisfying, five respondents 21.7% were dissatisfied while

one student representing 4.3% were very dissatisfied. From these the research established that the respondents were satisfied with the teaching services offered.

Catering services

The research sought to find out about the catering services. From the research it was established that eight respondents representing 34.8% were satisfied, nine representing 39.7% were unsatisfied, and two representing 8.7% were dissatisfied while four representing 17.45% were very dissatisfied. From this it was established that respondents were unsatisfied with the services.

Facilities

The respondents were also required to indicate their opinion on facilities. It was found out that eleven respondents representing 47.8% were satisfied; ten representing 43.5% were unsatisfied while two students representing 8.7% were dissatisfied. This shows that a majority of them were in agreement that facilities were of good quality.

University image

The respondents were required to comment on the university image as a result of quality of supplies. It was noted that four respondents representing17.4% were very satisfied of the image, twelve representing 52.1% were satisfied, six representing 26% were unsatisfied while one representing4.3% was dissatisfied. This means that the image of the university is improved by quality of supplies.

Staffs perspective

The research sought to establish the various opinions of staff on the various aspects of performance in relation to quality of supplies. The following was established:

Cost reduction

It was established that 3 staffs out of 19(15.8%) agree that quality of supplies highly reduced costs, 13 staff (68.4%) were of the opinion that it leads to performance medium, while 3 staff (15.8%) say that it is contribution is low. This shows that most staff agrees that quality of supplies contributes to reduction in cost.

Effectiveness

It was established that 5 staff (26.2%) gave an opinion that the contribution of quality of staff is high, 12 staff (63.2%) says the contribution is medium, 2 staffs (10.5%) says that the contribution is low. This means that most staff are in agreement that supplies quality averagely contributes to effectiveness.

Efficiency

It was established that 6 staff (31.6%) were in agreement that supplies quality contributes highly on university efficiency, 11 staffs (57.9%) were in agreement that the quality of supplies is averagely contributing to university performance while 2 staff (10.5%) indicated that the contribution of supplies quality contributes lowly to university efficiency. This shows that majority of the staff agree that supplies quality contributes averagely to the efficiency of the university.

Customer satisfaction

It was established that 4 staff(21.1%) agree that customer satisfaction is high as a result of supplies quality, 8 staffs(42.1) says that it medium contributes to customer satisfaction, 7 staff(36.8%) says that customer satisfaction is low as a result of supplies quality. From this we can infer that most staff view that customer satisfaction is averagely contributed by supplies quality.

Observational results

The researchers were able to observe how the lecturers were carried out, how supplies were received in the procurement department, and how students attended the lectures, here we were able to note that quality is observed.

Interviews results

The researchers were able to interview the staff members and the students on various aspects of supplies quality. It was found that supplies quality in some areas was high while in some area it was not of high quality .This reinforced the earlier findings of the study elicited by questionnaires.

HYPOTHESIS TESTING

$H_{01:}$ Effects of supplies quality on organizational performance

Table 4.14. 3: Effects of supplies quality on organizational performance

	Observed N	Expected N	Residual
very dissatisfying	3	8.4	-5.4
dissatisfying	5	8.4	-3.4
undecided	2	8.4	-6.4
satisfying	14	8.4	5.6
very satisfying	18	8.4	9.6
Total	42		

Test Statistics

Table 4.14.4: Effects of supplies quality on organizational performance

	effects of supplies quality on organizational performance
Chi-Square	24.429[a]
Df	4
Asymp. Sig.	.000

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 8.4.

IF A SYMPTOTIC SIGNIFICANCE (P)<0.05 REJECT THE NULL HYPOTHESIS OTHERWISE FAIL TO REJECT H_{O1}. Since the symptotic significance (p) is less than 0.05, and then we reject the null hypothesis meaning that there is a significant relationship between quality supplies and university performance.

$H_{02:}$ Effects of supply quality on university efficiency

Table 4.14. 5: Effects of supply quality on university efficiency

	Observed N	Expected N	Residual
very dissatisfying	2	10.5	-8.5
dissatisfying	3	10.5	-7.5
undecided	6	10.5	-4.5
satisfying	31	10.5	20.5
Total	42		

Test Statistics

Table 4.14. 6: Effects of supplies quality on organizational performance

	effects of supplies quality on organizational performance
Chi-Square	24.429[a]
Df	4
Asymp. Sig.	.000

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 8.4.

IF A SYMPTOTIC SIGNIFICANCE (P)<0.05 REJECT THE NULL HYPOTHESIS OTHERWISE FAIL TO REJECT H_{O2}.Since the symptotic significance(p) is less than 0.05, then we reject the null hypothesis meaning that there is a significant relationship between quality supplies and university performance.

IMPLICATION TO RESEARCH AND PRACTICE

The impact of supplies quality on universities performance: a case study of Masinde Muliro University of science and technology acted as a benchmark to other public and private universities in gauging their performance and improving the quality of supplies. This will go a long way towards meeting the core mandates of the entire university. The current research emphasizes the significance of the procurement units in all the institutions are centres of implementing supplies quality in a bid to measure the university performance.

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This section summarizes the important elements of the research. It briefly summarizes the purpose of study, specific objectives, methodology used and major findings. The results are further discussed to provide the interpretation and compared to previous studies and the theoretical background. Conclusions have been drawn from the findings. The research also provides recommendations for improvement and further studies.

THE INTENTION OF THE STUDY

Specifically, the study sought to find out the impact of serviceability of supplies on cost reduction. The study found out that serviceability of supplies greatly affects cost reduction as was confirmed by 34 (70%) of the respondents. Further chi-square analysis on the results showed that there is a significant relationship between supplies quality and organizational performance. This therefore led the study to conclude that serviceability of supplies greatly affects the organizational performance. On the issue of how supplies durability affects organizational efficiency, the study found out that supplies durability greatly affects organizational efficiency as was confirmed by 38 (90%) of the respondents. Chi-square analysis on the results also showed that there is significant relationship between supplies quality and universities performance. This therefore led the study to conclude that supplies durability greatly affects the organizational performance.On the study of the impact of aesthetics on organizational image, according to the respondents view ,the study found out that aesthetics greatly affects organizational image as was confirmed by 36(83%) of the respondents. Concerning the impact of conformance on customer satisfaction, the study found out that conformance of supplies greatly affects customer satisfaction as was confirmed by 35(83%) of the respondents.

The research involved collection of data from a representative target population which was chosen was at random from various department of both students and staff.(procurement, engineering, Total Quality Management, catering, finance, CDHMA, education science, BBM, Criminology, health, library, registrar, estates, Students Affairs.
Questionnaires were the only data collection tool used. The results were analysed using tables, graphs and pie charts.

The study established that supplies quality contributes to university performance which was measured in terms of various dimensions of cost-reductions of cost-reduction, effectiveness, efficiency and customer satisfaction and university image. 68.4% the respondents were in agreement that there is a contribution of supplies quality to cost reduction and this contribution of supplies quality to cost reduction and this contribution is medium, 63.2% agree that performance of university in terms of effectiveness is averagely contributed to by supplies quality.57.9% of respondents says that it is supplies quality that has contributed to efficiency of the university.42.1% were in agreement that quality of supplies contributes to customer image and also 52.1% agree that university image is good as result of supplies quality. The university has a way of ascertaining quality of their supplies in terms of inspection as opposed to other ways as including supplier selection. The university has also established a total quality unit to ensure inspection.

The study also established that majority of respondents strongly agree that quality supplies contributes to university performance. In addition majority of the student's respondents agrees that quality of education contributes to university performance. From the study also it is found that university department do carry out evaluation, it was established that evaluation is done on occasional time to establish performance.Based on the above, the study concluded that supplies quality greatly affects the performance of the university.

CONCLUSION

The following conclusion can be made based on the analysis of the data in this study. First the analysis of supplies is related to the university performance. Therefore it is important to conclude that majority of the respondents agrees that supplies obtained by the university are of quality and also services offered by the university. This implies that supplies quality plays a great role in university performance. It is also important to note that from the study it is evident that procurement department plays a key role in ensuring quality of supplies received and also the quality assurance units of the university do a lot to ensure quality of all services and supplies received.

The relationship between quality of supplies and university performance is strong such that supplies quality leads to university performance. All the dimensions of quality of supplies have an impact on all dimensions of university performance.

RECOMMENDATIONS FOR FUTURE RESEARCH

From the study some recommendations were suggested for improvement or practice and for further research by scholars or readers. These suggestions for improvement are aimed at improving the effectiveness of operations of universities to impact positively on performance of the universities.

The university faces a great challenge in its operations as a result of poor quality of supplies from the suppliers of the goods and services. So the university procurement department should place strong restrictions on the suppliers to ensure they supply quality goods and services. The university quality assurance section should do thorough inspections on goods and services procured by the university.

The university recruitment department/human resource department should ensure that the staffs recruited are qualified and competent to be able to ensure quality especially procurement staff should be knowledgeable in procurement practices and requirements. The government should also put in place various quality checks in all public universities, this ensured that quality is attained. The government can come up with legal policies and practices that should be followed by all universities in the country when undertaking procurement activities.

The procurement act should be provided to the university by the government and ensure it adherence to it.

The university management should also ensure that quality is its priority in its operations. This ensured quality at every activity and stage. This means that the universities should apply the principal of total quality management so that everything can be viewed in terms of quality all round.

The department heads should ensure care when drawing up specification for supplies to the procurement department. This is because procurement department only procures what is requested for. If a wrong specification is made, it will lead to procuring of the wrong product. Hence the departments should draw specific and accurate specifications.

The university management should also pursue ISO certification of the university. The university should be ISO certified in order to ensure that all it operations are of quality.

The university should also ensure that tendering procedures for both goods and services are carried out openly and effectively to ensure quality and ensuring that contracts are awarded to qualified vendors and that they are open and genuine. This will enhance quality. There should

be no collusion between procurement staff and vendor that may amount to receiving of poor quality supplies.

The procurement department should ensure that those suppliers who are awarded the contracts are ISO certified in order to guarantee quality of supplies.

Further research should be carried out on the same topic of input of quality on university performance in Kenya and other universities like Nairobi, JKUAT and Moi which are long established and give a clear perspective of quality issues in their operations and how they affect their performance.

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