

**QUALITY MANAGEMENT STRATEGIES AND OPERATIONAL  
PERFORMANCE OF SELECTED PUBLIC UNIVERSITIES IN KENYA**

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## **DECLARATION**

This research project is my original work and has not been presented for a degree in any other University. No part of this research project should be reproduced without authority from the author or/ and Kenyatta University

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## **DEDICATION**

This research project is dedicated to my parents who have been my key asset to success and supported me both emotionally and financially during the time of the research project. I sincerely appreciate their support and prayers that led to the completion of this research project within the stipulated timeframe.

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## **ABBREVIATIONS AND ACRONYMS**

<b>CUE</b>	Commission for University Education
<b>KBA</b>	Kenya Bureau of Statistics
<b>KU</b>	Kenyatta University
<b>ISO</b>	International standardization Organization
<b>IT</b>	Information Technology
<b>MBA</b>	Master of Business Administration
<b>QC</b>	Quality Control
<b>QM</b>	Quality Management
<b>QMS</b>	Quality management system
<b>SPSS</b>	Statistical Package of Social Sciences
<b>TQC</b>	Total Quality Control
<b>TQM</b>	Total Quality Management

## OPERATIONALIZATION OF TERMS

- Employee Motivation** Is the extent to which an organization can improve the morale of employee in order to performance effectively. The selected metrics of measuring employee motivation in the study includes employee involvement in decisions, Salary review, delegation and recognition and employee job security.
- Continuous Improvement** Are initiatives or practices embraced by organizations to enhance service delivery to customers. The selected indicators of measuring continuous improvement in the study includes new academic programs, e-library services, consumer research and e-learning.
- Employee Training:** It involves the process of developing employee skills and knowledge to enhance organization productivity. The selected metrics of measuring employee trained by the study includes employee knowledge on ISO, compliance to service charter, compliance to commission for university education policies and career development.
- Operational Performance:** Is the ability of the organization to meet its standard or prescribed indicators of effectiveness, efficiency which may involve number complaints, corporate image, student

enrollment, and implementation of Commission for University Education polices.

**Quality management strategies:** is a set of coordinated activities to direct and control an organization in order to continually improve the effectiveness and efficiency of its performance. The selected quality management strategies the study adopted includes employee motivation, continuous improvement and employee training.

## ABSTRACT

Quality has become one of the key aspects that drive global firms. Customers are becoming more enlightened with products and services that they consume due to access of information. Quality concept is perceived from different perspectives by individual consumers. For organizations to remain relevant, improving the quality of their products and services is a key determinant of success. In order to keep up with the changing consumer needs and wants, public universities in Kenya need to adopt effective quality management strategies in order to enhance their operational performance. The aim of this study was to establish quality management strategies and operational performance in selected public universities in Kenya. The specific objectives of the study were; to establish the influence of employee training, continuous improvement and employee motivation and operational performance in selected public universities in Kenya. A descriptive research design was utilized in this study. Target population included 44 respondents selected from Quality Management Departments of the 5 well established Public Universities in Kenya which included; University of Nairobi, Masinde Muliro University, Moi University, Jomo Kenyatta University of Science and Technology and Maseno University. This study employed purposive sampling technique to select the representative sample. Purposive sampling method was considered because the respondents were selected by the researcher based on their knowledge and experience with regard to the problem under investigation. The unit of analysis were public universities and unit of observation were employees from quality management department of the five selected public universities in Kenya. Primary data was collected using structured questionnaires. Questionnaires were preferred because they provided the opportunity of keeping records of the information collected, freedom of giving information without interference from researchers and the opportunity of asking sensitive questions. Secondary data was obtained from quality audit reports, related articles and minutes. A review of published materials was conducted using content analysis and key themes were selected to make conclusions of the problem that was under investigation. Data was analyzed using descriptive statistics such as means, percentages, standard deviations and inferential statistical. Quantitative data was analyzed using regression method to determine the statistical relations between variables at 95% confidence level and 5% significance level. The analyzed data was tabulated and presented using tables. The study established that there was a statistical relationship between employee training, continuous improvement and employee motivation on operational performance among selected public universities in Kenya. The study concludes that, for public universities operating in Kenya to gain competitive edge, investment in employee training, continuous improvement, research and development and employee motivation is mandatory. The study recommends that public universities in Kenya should always strive achieve stakeholder interests by focusing on developing the capacity of teaching and non-teaching staff through provision of scholarships, integrate their systems with technology such as financial systems, customer service systems and library service systems.

## **CHAPTER ONE: INTRODUCTION**

### **1.1 Background of the Study**

The concept of quality has been experiencing controversies from various scholars around the world due to changes in consumer behaviours and theories from other disciplines (Singh & Mohanty, 2012). The evolving nature of the quality concept has led to development of quality management, systems and models to address the changing consumer needs in the dynamic business environment (Yusuf, 2013). A survey conducted in Denmark by Bell and Omachonu (2011) observed that quality is perceived from different perspectives by individual consumers. Another survey in the United States of America by Evangelos and Psomas (2013) observed that service or product quality is dependent on consumer attitudes, perception and motivations.

Kagumba and Gongera (2013) noted that public organizations in Kenya and more especially public universities are driven by changing consumer needs, industry competition, globalization, technology and operational costs in adopting quality management systems. In addition, due to convergence of markets, both profit and non-profit oriented organizations are striving to adopt quality management practices as specified by International Standards Organization (ISO) in order to remain competitive in the dynamic business environment (Abdullah, Uli & Tar, 2009).

Muzaffar, Salamat and Ali (2012) argue that operational performance is regarded as the accomplishment of a given task measured against preset known standards. Overall performance determines an organizational survival. Traditionally,

performance measurements focused on financial measures like turnover, profit, debt and return on investment. Kiptum (2016) suggests that several performance measurement tools have been developed that incorporate aspects in measuring performance. They include; the balance score card, economic value add, 360 degree assessment, cleaner production.

Ismyrlis and Moschidis (2015) assert that operational performance is affected by quality management practices and principles. Core practices such as management support, employee training and employees' involvement and customer satisfaction all have significant contributions to operational performance of an organization (Javed, 2015). Effective and efficient operational systems comprise unique tools, techniques, and methods that can help an organization to reduce costs and achieve just-in-time delivery (Abdullah, Uli & Tar, 2009).

Ikey and Aslan (2011) posits that TQM has been widely regarded as a tool for improving performance through measures observed such as waste, quality of product, product of service as well as efficiency. Operational performance is attributed to increased profits and increased market share, enhanced customer satisfaction, minimal costs of operation, and corporate social responsibilities (ISO, 2016).

Quality management strategies can be regarded as a set of coordinated activities to direct and control an organization in order to continually improve the effectiveness and efficiency of its performance (Anyango, Wanjau & Mageto, 2012). The main drive of a quality management strategy is in outlining the processes, which will

result in the production of quality products and services, rather than in detecting defective products or services after they have been produced (Carlos, 1999).

Kaziliunas (2010) argues that the presence of customers in a quality program can take many diverse avenues, including the cost of losing a customer, the customer's perception of quality, and the satisfaction level of the customers. The customer portion of a quality program is going to be unique for every industry and organization, but it must capture how quality plays into the customer's value system and how quality drives the purchase decision (KBS, 2014). The implementation of quality management strategies to satisfy customers enables organizations to improve internal efficiencies, which is considered as a prerequisite to become competitive in global marketplace.

Yusuf (2013) avers that an organization is likely to benefit from establishing an effective quality management strategies. Customer attraction and retention in the changing business environment will be determined by the quality management models applied. The cornerstone of a quality organization is the concept of the customer and supplier working together for their mutual benefit. For effectiveness, the customer-supplier interfaces must extend into, and outside of, the organization (Kenneth, Anderson & Eddy, 2011).

Kenneth, Anderson & Eddy (2011) ascertain that quality management strategies enable an organization to achieve the goals and objectives set out in its policy and strategy. It provides consistency and satisfaction in terms of methods, materials, equipment and interacts with all activities of the organization, beginning with the identification of customer requirements and ending with their satisfaction, at every

transaction interface. An effective and efficient QMS will ensure that, customers' requirements and organization's requirements at the right time and place (Kyalo, 2013).

### **1.1.1 Operational Performance in Public Universities in Kenya**

UNESCO (2016) suggests that development of University education in Kenya can be traced back to 1922 when Makerere college was established a Technical college to admit students from Kenya, Uganda and Tanzania. As a result, in 1949 and 1954, Makerere College was necessitated to enter into special relations with Universities from London to enable Africans to study for degree programs. Later in 1954, Makerere College was converted to be the University College of East Africa.

In 1970, it was decided by the African Authority to split University of East Africa into three major Universities which included: Makerere University (Uganda,) University of Dar es Salaam (Tanzania), and the University of Nairobi (Kenya). Since 1970, to date, the University Education has experienced rapid growth. The number of universities offering degree programs have increased significantly thus resulting to increased number of student enrollment. Currently, Kenya has a total of 35 chartered public universities (Magutu, Mbeche, Nyaoga, Nyamwange, Ongera & Ombati, 2010).

Quality management strategies have been built on the concept of total quality management which has become a world-wide theme in the twenty-first century guiding quality management practices in private and public organizations (Kaziliunas, 2010). A quality management system is a collection of business processes focused on achieving quality policy and quality objectives to meet

customer requirements. It is expressed as the organizational structure, policies, procedures, processes and resources needed to implement quality management (Evans & Dean, 2000).

A quality management system is a management technique used to communicate to employees what is required to produce the desired quality of products and services and to influence employee actions to complete tasks according to the quality specifications (Kyalo, 2013). However, despite their continual operation, majority of the public universities operating in Kenya continued to drag behind due issues of quality management. According to Commission for University Education survey (2016), quality management strategies among public Universities in Kenya has been characterized by many challenges.

Magutu *et al.* (2010) posits that from the stakeholder perspective, issues of leadership, financial management, employee motivation, students' satisfaction are of concern in public universities in Kenya. Despite policies of Commission for University Education, issues of quality have become questionable. Increased number of student enrollment, overstrained residential facilities, lecturer to student ratio and capacity development among teaching and non-teaching staff are uncertain (CUE, 2016).

## **1.2 Statement of the Problem**

According to Commission for University Education in Kenya survey of (2016) revealed that 73% of Public Universities in Kenya have continued to experience deteriorating performance due to issues of leadership, customer management, staff development and investment in infrastructural facilities. On the other hand, a survey

conducted by UNESCO in (2016) also revealed that the quality of education in public universities in Kenya is of low standard compared to education in developed countries. Issues of system, capacity and compliance to policies are of concern. However, it is noted that the study sought to examine issues of quality across countries but failed to focus on issues of quality in public universities in Kenya.

According to KIPPRA (2014), management of quality is a dominant factor of success in all private and public organizations. Many organizations in private and public sectors strive to adopt quality management strategies in order to satisfy their customers in the local and international markets. However, it is noted that the survey did not investigate the consolidated quality management strategies of this study in the university context. Yusuf (2013) established that 68% of the customers who sought public services were unsatisfied compared to those who sought services from private organizations. It emerged that measuring customer satisfaction in public institutions was a big challenge.

However, it is noted that the study was confined to manufacturing sector and sought to examine different variables such as leadership and process engineering. ISO (2014) pointed out that 78% of public institutions and more especially public universities in Kenya are experienced technological, leadership and change implementation challenges during adoption of quality management strategies. However, it is noted that the study was confined to different variable; strategic leadership and employee teamwork.

A study conducted by Mueni (2014) established that there was a positive correlation between quality management strategies and performance of organizations. A

number of benefits associated with organizations that have implemented quality management strategies range from; customer satisfaction, reduced operational costs and wastage, expanded market share, employee empowerment and motivation. Further, it emerged that structural, resource management and leadership were aspects that determined organization performance. However, it is noted that the study was confined to higher education sector in Kenya and sought to examine different variables such as ISO policies and organization culture.

However, from the findings of previous studies, it is noted that little has been done with regard to quality management strategies and operational performance of public universities in Kenya. Therefore, it is on this premise that this study sought to establish the influence of quality management strategies and operational performance of selected public Universities in Kenya.

### **1.3 Objectives of the Study**

#### **1.3.1 General Objectives**

The general objective of the study was to establish the influence of quality management strategies and operational performance of selected public universities in Kenya.

#### **1.3.2 Specific Objectives**

The specific research objectives that guided this study were to:

- i. Establish the influence of employee training on operational performance of selected public universities in Kenya.
- ii. Determine the influence of continuous improvement on operational performance of selected public universities in Kenya.

- iii. Establish the influence of employee motivation on operational performance of selected public universities in Kenya.

#### **1.4 Research Questions**

The research questions that guided this study were:

- i. What is the influence of employee training on operational performance of selected public universities in Kenya?
- ii. What is the influence of continuous improvement on operational performance of selected public universities in Kenya?
- iii. What is the influence of employee motivation on operational performance of selected public universities in Kenya?

#### **1.5 Significance of the Study**

Firstly, the findings of the study would enable the management boards of public universities to have insights on the issues that influence operational performance and strive to minimize the challenges in order to implement quality management strategies. Secondly, employees of the public universities would benefit from the findings of this study as top management would improve their working conditions and come up with appropriate motivation approaches to influence them perform effectively with minimal resistance.

Thirdly, the findings of the study would enable the National Government understand challenges experienced by public universities during implementing quality standards or strategies and ensure that proper policies are formulated and implemented to enhance operational efficiency and effectiveness. Fourthly, the findings of this study would benefit the Ministry of Education in establishing

effective ways of implementing quality management strategies. This would enable the ministry to gain competitive advantage over other ministries.

Fifthly, the information would help university management to develop mechanisms and policies that enhance satisfaction of stakeholders including students and employee. Sixthly, the findings of the study would also be of importance to academicians and researchers in the field of strategic management. Future scholars would use this study to enrich on their literature review and establish new frameworks quality management that influence operational performance of public organizations.

### **1.6 Scope of the Study**

The study focused on 5 public universities operating in Kenya and they included: University of Nairobi, Egerton University, Maseno University, Jomo Kenyatta University of Agriculture and Technology, Moi University. The Universities were selected based on the years of operation and number of academic programmes offered. The independent variables of the study are; employee training, continuous improvement and employee motivation. The dependent variable if the study is operational performance of selected public universities in Kenya. The three variables are considered appropriate in this study because previous empirical studies conducted locally and internationally did not focus on them.

### **1.7 Limitations of the Study**

The study was conducted when public universities are facing many challenges concerning quality management thus respondents had negative perceptions with the study. This limitation was overcome by introducing the objective of the study to respondents in advance. The target populations were usually very busy and therefore they required a more time in order to fill in the questionnaires. The limitation was overcome by the study employing drop and pick-later method of collecting questionnaires. Accessing adequate information and relevant studies in the area of study was uncertain. Therefore, this limitation was overcome by conducting extensive review of literature review from related journal articles, books, reports and studies conducted locally and internationally.

### **1.8 Organization of the Study**

Chapter one outlines background of the study, operational performance in Public Universities in Kenya, statement of the problem, research objectives and questions of the study, significance of the study, scope and limitations of the study. Chapter two outlines theoretical review, empirical review, a summary of knowledge gaps and conceptual framework. Chapter three discusses research design, target population, sample technique and sample size, data collection instruments, validity and reliability of the instrument, data analysis techniques ethical considerations. Chapter four discusses research findings and discussions and finally chapter five discusses findings, conclusions, recommendation and areas for further research.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

This chapter outlines; theoretical review, empirical review, a summary of knowledge gaps and conceptual framework.

### **2.2 Theoretical Review**

The study was anchored on Total Quality Management Theory and supported by Market Relationship Theory and Open System Theory as discussed:

#### **2.2.1 Total Quality Management Theory**

The theory was established by Edwards Deming and Joseph Juran (1931). The theory was established on the foundation of customer satisfaction (Arumugam, Ooi, & Fong, 2008). Anyango *et al.* (2012) assert that quality is perceived from different perspectives by different customers. TQM theory is applied by competitive organizations in managing service quality in the dynamic business environment.

Bell and Omachonu (2011) advocates that performance is enhanced by designing products and services to meet or exceed customer expectation by empowering workers to find and eliminate all factors that undermine product or service. Evangelos and Psomas (2013) opine that TQM policies promotes organizational effectiveness through; promoting stakeholder satisfaction, pursuing continuous improvement; and fostering proactive leadership.

Ikay and Aslan (2011) ascertain that quality can only be defined by those who receive the product or service, including stakeholders. Organizational managers

should engage their staff in identifying the organization's internal and external stakeholders and by determining the criteria that each uses to judge the organization to be successful. This process suggests that the effective competitive organization is one that satisfies the expectations (Javed, 2015).

Kagumba and Gongera (2013) noted that quality is a complex phenomenon based on perception by individuals with different perspectives on products and services. These perceptions have been built up through the past experience of individuals and consumption in various contexts. Consequently, quality encapsulates time and other contextual dimensions that add to the complexity of what is essentially a subjective evaluation of the quality of good and/or service by the consumer

Karthi, Devadasan, Muruges, Screenvasa and Sivaram (2012) contend that strategies for managing quality therefore need to consider this inherent complexity, and build complexity into its models. Any single paradigm provides a too narrow view to capture complexity, and the multi-faceted nature of reality. Further, Magutu *et al.* (2010) argues that Due to factors such as intangibility and perishability managing quality in service settings is much more challenging than managing quality in product markets. The complexity of managing quality in this type of service is further increased if there is continuous change in the external environment due to intense competition and changing customer needs (Kaziliunas, 2010).

The theory is applicable in this study on the basis of shedding more light on how public universities should focus on employee training to enhance customer satisfaction. Employees with appropriate skills and knowledge are likely to perform more efficiently and effectively and vice versa.

### **2.2.2 Relationship Marketing Theory**

Relationship marketing theory is one of the theories developed by Berry (1983). It argues that organizations operating in the dynamic business environment should adopt consumer centric culture to survive. Ismyrlis and Moschidis (2015) suggest that firms should strive to adopt quality management practices to remain competitive and relevant in the changing business environment. Maintaining long term relationships with customers is the major aim of the theory. Integration of technology in the system to enhance customer service delivery is one of the methods modern firms are adopting to remain competitive (Fotopoulos, psomas & Vouzas, 2010).

Javed (2015) posits that improvement of management styles, review of business policies and continuous dedication to serve customers better is the ultimate goal of quality management systems. A key principle of relationship marketing is the retention of customers through varying means and strategic practices to ensure repeated trade from preexisting customers by satisfying requirements above those of competing companies through a mutually beneficial relationship (Kotler, 2007).

Kagumba and Gongera (2013) argues that extensive classic marketing theories center on means of attracting customers and creating transactions rather than maintaining them, the majority usage of direct marketing used in the past is now gradually being used more alongside relationship marketing as its importance becomes more recognizable. Increased profitability associated with customer retention efforts occurs because of several factors that occur once a relationship has been established with a customer (Kaziliunas, 2010).

The applicability of the theory on this study is based on the ideology of second objective of the study. It argues that customer centric culture is enhanced by continuous improvement of services and products in the organization. For Public Universities to achieve their goals, emphasize of consumer research and continuous improvement of processes is key in enhancing stakeholder satisfaction in the changing business environment.

### **2.2.3 Open System Theory**

Open system theory was initially developed by Ludwig von Bertalanffy (1956). The open systems theory proposes that firms, as open systems, lend themselves to the external environment because systems can be very dynamic (Singh, 2012). Open systems have porous boundaries through which useful feedback can readily be exchanged and understood. Closed systems, unlike open systems, have hard boundaries through which little information is exchanged. Organizations that have closed boundaries often are unhealthy (Kenneth, Anderson & Eddy, 2011).

Hyland and Boer (2006) argue that the external environment includes a wide variety of needs and influences that can affect the organization, but which the organization cannot directly control. Influences can be political, economic, ecological, societal and technological in nature. A highly effective organization is regularly exchanging feedback with its external environment. Khan *et al* (2011) argue that TQM is an externally oriented management philosophy in the modern context that helps firms to circumnavigate through the ever-changing environment in order to be efficient and effective in the long run.

Kyalo (2013) argues that organizations should align their TQM strategies with the changing needs of customers in order to survive in the dynamic business environment (Singh, 2012). Internal and external factors should be analyzed when formulating TQM policies. To cope with uncertainty during implementation of TQM strategies, firms should focus on improving their processes, structures and systems in order to become leaner, agile, flexible, and right-sized (Khanfar, 2011).

Fotopoulos *et al.* (2010) posit that to survive and thrive in today's unpredictable environment, organizations need to become actively adaptive to internal and external factors that influence strategy implementation. Zakuan, Yusof, Laosirihongthong and Shaharoun (2010) suggest that customer satisfaction culture in any organization is engrained within TQM philosophies such as product development and service improvement. Firms need to have plans and structures that align and realign the organization's values with those of the extended social environment.

They argue that firms need to understand that not only does the environment change their organization, but they themselves can also influence the environment (Pearce & Robinson, 2011). The applicability of this theory to this study is based on the ideology of the third objective of the study. Anyango, Wanjau & Mageto (2012) argue that by developing compensation policies that seek to motivate employees among public universities will enhance its operational performance in the long run. Demotivated workers are less effective and productive in any systems compared to motivated workers. Therefore, public universities should rely on information they collect from the business environment to formulate or review human resource in order to enhance their operational performance (Khan *et al.* 2011).

## **2.3 Empirical Review**

### **2.3.1 Employee Training and Operational Performance**

Bell and Omachonu (2011) established that employee education and training is considered as the process of improving the existing skills, knowledge, exposure and abilities in an individual. Fotopoulos, Psomas & Vouzas (2010) ascertain that training employee of an organization can result to efficiency and effectiveness. Moreover, it contributes to effective change implementation and creativity among workers. Lack of training among workers can result to poor corporate image and change resistance.

Mutunga (2011) established that for successful TQM implementation in organization require top management commitment, customer orientation, continuous improvement and adoption of process approach. However, the study was confined to continuous improvement on the performance of parastatals in Embu County Kenya. Mueni (2014) on the relationship between quality and performance of higher institutions of learning in Kenya established that integration of technology in the system and employees training were key determinants of quality among higher institutions of learning. The study also established that employee resistance to accept new technology was a challenge to quality of education in Kenya. However, the study focused on performance higher institutions of learning and did not focus on quality management strategies and operational performance of public universities in Kenya.

A study conducted by KIPPRA (2014) on the implementation of ISO practices and performance of public universities in Kenya identified that inadequate training and

awareness was the key challenge to the implementation of ISO practices and performance of public universities in Kenya. However, the study was limited to ISO implementation on performance of parastatals in Kenya but not public universities in Kenya.

Furthermore, it was noted that ISO compliant firms were more efficient and effective compared to firms that were non-compliant. Khan *et al.* (2011) also argue that the efficiency and effectiveness of an organization are factors in achievement of any of quality leadership, human resource development, quality strategy, information resources, quality assurance, people satisfaction, customer satisfaction, social and corporate social environmental

### **2.3.2 Continuous Improvement and Operational Performance**

Singh (2012) revealed that continuous improvement is a practice of competitive firms in the changing business environment. Service firms are to satisfy customer needs and wants in the dynamic business environment if they invest in research and development. Continuous improvement of services or products will enhance organization productivity. Developments of new products that exceed customer expectation always enhance organizational performance.

Karthi *et al.* (2012) contend that efficiency and effectiveness of the system is enhanced by continuous improvement of goods and services. Developing new products can enhance organization productivity and boost corporate image. Due to changes in the business environment, firms should emphasize in research and development activities in order to achieve their goals. However, it is noted that that study was confined to ISO certification and firm performance in India.

Kaziliunas (2010) contends that ICT integration in the system is a determinant of quality management practices. Despite the challenge of resistance culture from employees to adopt innovations, technology was the only way organizations can excel. However, the study focused on ICT as a determinant of quality management and performance of parastatals in Kenya. Magutu *et al.* (2010) contend that through continuous improvement practices, public universities in Kenya can not only achieve global recognition but regional excellence in service quality models

Kagumba and Gongera (2013) indicated that efficiency and effectiveness in service delivery is determined by technology integration that result to improved customer experience. Despite the individual perceptions to quality, organizations need to research and give customers solutions rather than unfulfilled promises. However, it was noted that study was confined to quality assurance strategy on organizational performance at Kenyatta University but failed to focus on other four universities of this study.

Chen (2011) observed that companies should conduct surveys on routine basis to know customer's priorities. To compete in today's business world organizations are monitoring the customer satisfaction level so that service quality can be improved continuously. Improved customer satisfaction can lead to customer's loyalty and referral. Employees must possess the required knowledge and skills while answering customer queries. However, it is noted that the study was limited to service quality and employee performance among technological firms in China.

Anyango, Wanjau & Mageto (2012) posit that employees can contribute to customer satisfaction when they have relevant skills and knowledge to perform. Customers evaluate service outcomes on the basis of their prior expectations and given specifications of a product. Service outcome could be positive or negative based on a comparison between actual service provided and customer's expectations. Customer's perceived value is a significant factor that influences customer satisfaction. However, it is noted that the study was limited to relationship between quality management practices and performance of manufacturing firms in Nairobi.

### **2.3.3 Employee Motivation and Operational Performance**

Chen (2011) established that employee motivation entails the ability of the organization use both financial and non-financial aspects to influence employee behaviour towards organizational objectives. Employee motivation is affected by both personal characteristics as well as workplace environment. Employee job satisfaction has positive influence on customer satisfactions in the service industry. Poorly motivated employees are likely to give poor customer service and vice versa in the dynamic service industry. However, it was noted that study was confined to a different Uganda and not Kenyan context.

Mulinge (2014) contends that service quality is correlated with satisfied employees. Employees are likely to offer differentiated services when satisfied and vice versa. It is noted that quality is an organization-wide concept that is dependent on well-motivated employees. Competent employees and motivated workers should have positive interaction with customers as it will have impact on overall evaluation of the service quality. It is suggested that interaction of frontline employees can bridge

various facets of service lapses. However, the study focused on influence technology on quality customer service delivery among Commercial Banks in Kenya.

Yusufu (2013) on the impact of quality management on performance of manufacturing firms in Kenya established that top leadership was one of the aspects that enhanced performance of manufacturing firms. Further the study identified that technology integration in the system improved efficiency and effectiveness of manufacturing firms. However, the study focused on technology and leadership but failed to examine other variables of this study. Moturi (2010) on the other hand observes that sensitivity training can make employees understand customer norms and values thus effective positioning of products. However, the study was confined to strategic practices on performance of Government Ministries.

Muzaffar *et al*, (2012) posit that employees are the most important factor in the success and failure of any organization. Employees play a vital role in shaping the perception customers carry in their minds with regard to any company through their actions and behavior. Companies spend large amounts of money to create customer loyalty but often ignore the critical aspect of enhancing employee motivation in order to achieve their financial and nonfinancial goals. In the conditions of intense competition that companies operate in today, employees can play a very important role in winning customers' hearts and minds. However, it was noted that the study was confined to firms operating in the manufacturing sector in Somalia.

Singh and Mohanty (2012) argue that a large number of companies neglect to evaluate employee's motivation level while conducting customer satisfaction surveys. In service sector excellent service quality is the core of customer

satisfaction whereas motivated employees are essential for improving the quality of service. Employees must have the ability to understand and solve specific needs of the customer in a courteous manner. Motivated employees can bring better results as compared to unsatisfied employees. Employees perform their duty efficiently when they feel satisfied from their company. However, it was noted that the study was limited to training practices and employee productivity.

Anyango, Wanjau and Mageto (2012) argue that investment in developing motivated employees is an expense for the firm which will benefit the organization in the long run as it improves employee efficiency and quality of the service. To achieve higher service quality and employee productivity organizations must develop an encouraging work environment where employee contribution in problem solving and achieving organizational goals is appreciated. However, it was noted that the study sought to assess the relationship between quality management practices and performance of manufacturing firms in Nairobi.

#### **2.3.4 Operational Performance**

Lambert and Ouedraogo (2008) assert that operational performance among firms was enhanced through total visibility of top management in quality teams, embracing customer orientation in quality issues, adoption of process approach in implementation of quality practices and ensuring existence and maintenance of continuous improvement practices for products and services was a key driver of competitive firms. However, the studies was confined to ISO 19001 on the performance of parastatals in Kenya

Muzaffar *et al.* (2012) established that creativity and innovation was enhanced among employees through education and training. To enhance internal operations, training is the most important part of human resource management function on the effective use of human resources. Yusufu (2013) further concurs that training enhances knowledge and information about a certain field and also adds advantage to networking for efficiency and performance of employees.

Ismyrlis and Moschidis (2015) pointed out that human resources are the most valuable assets in every organization, with the machines, materials and the money, absolutely nothing gets done without employees. Training is really a systematic development of the knowledge, skills and behavior required by employees to do adequately on confirmed task or job. It can take place in numerous ways, on the job or off the job; in the organization or outside organization

Javed (2015); Karthi *et al.* (2013) assert that the goal of employee training is to enhance the organization effectiveness. It also demands an influence on employee's performance, as well as in relation to organizational performance which is mediated by means of employee's performance. Training is a driver organizational development and competitiveness. In this competitive world, training is the key strategy to achieve the organizational objectives. Training benefits employees' performance and general organizational effectiveness. Attractive employee's performance is highly demanding in this competitive world (KIPPR, 2014).

**Table 2.1 Summary of Knowledge Gaps**

<b>Author</b>	<b>Focus of the Study</b>	<b>Findings</b>	<b>Knowledge Gaps</b>	<b>Focus on the Current Study</b>
Mulinge (2014)	The influence Technology on Quality Customer Service Delivery among Commercial Banks in Kenya.	Established that quality was perceived from different perspectives by customers in the market	The study focused on technology and did not focus on customer centered culture on performance of parastatals in Kenya.	To establish the influence of continuous improvement and operational performance in selected public universities in Kenya
Njuguna (2014)	The influence of brand equity on consumer choice in branded bottled water among supermarket customers in nairobi central business district, Kenya	The study established that there is correlation between brand equity and consumer choice of bottled water.	Focused on different variables like; Brand awareness, Brand loyalty, Perceived quality, Proprietary brand assets and Industry context	To establish the influence of continuous improvement and operational performance in selected public universities in Kenya
Mueni (2014)	The Relationship between Quality and Performance of Higher Institutions of Learning in Kenya.	Established that integration of technology in the system and employee training were key determinants of quality among higher intuitions of learning	The study focused on performance higher institutions of learning and did not focus on continuous improvement on the performance of parastatals in Kenya	To establish the influence of employee training and operational performance in selected public universities in Kenya
Yusufu (2013)	The Impact of Quality Management on Performance of Manufacturing firms in Kenya. MBA Thesis.	Established that top leadership was one of the aspects that enhanced performance of manufacturing firms.	The study focused on technology and leadership and did not focus on customer centered culture on the performance of parastatals in Kenya.	To establish the influence of employee motivation and operational performance in selected public universities in Kenya
KIPPRA (2014)	The implementation of ISO Practices and Performance of Public Universities in Kenya.	Identified that inadequate training and awareness was the key challenge to the implementation of ISO practices and performance of	The study focused on leadership and did not focus on continuous improvement on performance of parastatals in Kenya.	To establish the influence of employee training and operational performance in selected public universities in Kenya

		public universities in Kenya		
Mutunga (2011)	Indicators of Quality Management Practices in State Corporations within the Agriculture Sector in Kenya	Established that for successful TQM implementation an organization require top management commitment, customer orientation, continuous improvement and adoption of process approach	The study focused on strategy and did not focus on continuous improvement on the performance of parastatals in Embu County Kenya.	To establish the influence of employee training and operational performance in selected public universities in Kenya
Moturi (2010)	The Influence of Strategic Practices on the Performance of Government Ministries in Kenya.	Established that continuous improvement was one of the strategic practices that enhanced performance of government ministries.	The study focused on new product development and did not focus on internal processes and its influence on the performance of parastatals in Kenya.	To establish the influence of employee motivation and operational performance in selected public universities in Kenya
Lambert and Ouedraogo, (2008)	Empirical investigation of ISO 9001 quality management systems and their impact on organizational learning and process performances	Established that need to maintain quality was a responsibility of top management.	The studies focused on top management and organizational resources and did not address the influence of internal customer centered culture on the performance of parastatals in Kenya	To establish the influence of continuous improvement operational performance in selected public universities in Kenya
Terziovski, Sohal and Moss (1999)	Longitudinal study of Quality Management Practices in Australian organizations	Established that customers who interacted with QMS were more delighted and influenced others to experience the same.	The study focused on customer service and did not focus on internal processes and their influence on performance of parastatals in Kenya.	To establish the influence of continuous improvement operational performance in selected public universities in Kenya

**Source: (Literature Review, 2018)**



The quality of decisions formulated and flexibility to adopt to changes are determined by employee training. To meet Commission for University Education standards, employees of public Universities should be trained on ISO standards that emphasize on customer satisfaction. On the other hand, quality departments in public Universities should develop frameworks that can enhance employee learning of effectiveness of service delivery.

Continuous improvement aspects such as development of new academic programs increases the number of students enrolled in various schools. The ability to conduct internal student satisfaction surveys also promotes the spirit of improved customer service. Integration of technology in process such as accessing learning materials through online, fee payment, booking rooms, making enquiries, confirmation of marks and interaction with lecturers enhances operation performance of Public Universities.

The study found a positive relationship between employee motivation and operational performance of universities. Providing employees with conducive working environment, delegation, job rotation, job design, provision of job security, salary review, medical covers, paid holidays, participatory decision making and delegation stimulates employee morale thus enhanced operational performance.

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Introduction**

This chapter discusses the research design, target population, sampling technique and sample size, data collection instruments, pilot test of the instrument, data analysis and presentation and finally ethical considerations.

### **3.2 Research Design**

The study adopted descriptive research design to establish quality management strategies and operational performance of public universities in Kenya. Crowther, and Lancaster (2012) argue that the descriptive design is appropriate for this study because it explores and describes the relationship between variables in their natural setting without manipulating them. Further, Collis and Hussey (2014) contend that a research design is a conceptual structure within the research conducted with an intention to explore new knowledge to a recent study. The descriptive study aims at obtaining information that can be analyzed, patterns extracted and comparison made for the purpose of clarification and provision of basis for making decisions (Fisher, 2010). Therefore, qualitative and quantitative data was obtained for comparison purposes

### **3.3 Population of the Study**

Target population of this study comprised of 44 employees selected from Quality Assurance Department of the 5 public universities operating in Kenya. Respondents included quality assurance directors, managers and officers.

Collis and Hussey (2014) define a population as a complete set of individuals, cases or objects with some common observable characteristics. On the other hand, Guest (2012) observes that a population involves a group of individuals or items from which the representative of the population are selected. Generally, Novikov and Novikov, (2013) note that a population is the large group for which a researcher can draw a representative sample and obtain information about a problem under investigation.

**Table 3.1: Target Population**

<b>University</b>	<b>Total Number of Employees in Quality Assurance Department</b>
University of Nairobi	<b>09</b>
Jomo Kenyatta University of Agriculture and Technology	<b>11</b>
Maseno University	<b>09</b>
Egerton University	<b>07</b>
Moi University	<b>08</b>
<b>Total</b>	<b>44</b>

Source: Commission for University Education (2018)

### **3.4 Sampling Technique and Sample Size**

This study employed purposive sampling technique to select 44 employees from the 5 quality assurance department of public universities operating in Kenya. The 5 Universities were preferred based on the years of operation and webmetric ranking on academic excellence. According to Saunders, Lewis & Thornhill (2012), purposive sampling is a technique in which researchers rely on his or her own judgment when choosing members of population to participate in the study. It is a

non-probability sampling method and it occurs when elements selected for the sample are chosen by the judgment of the researcher. The main goal of simple random sampling will be to focus on particular characteristics of a population that are of interest, which enabled the researcher to answer the research questions (Guest, 2010).

Novikov and Novikov (2013) suggest that a representative sample more than half of the total population is justifiable to make objective recommendations on the problem under investigation. According to Mertler and Vannatta (2010), sample size should be as large as possible so as to produce the salient characteristics of the accessible population to an acceptable degree. The sample size should be in such a way that it is within plus or minus 0.05 of the population proportion with a 95 percent level of confidence.

**Table 3.2: Sample Size**

<b>University</b>	<b>Total Number of Employees in Quality Assurance Department</b>	<b>Sample Size</b>	<b>Percentage (%)</b>
University of Nairobi	11	11	23
Jomo Kenyatta University of Agriculture and Technology	09	09	20
Maseno University	09	09	20
Egerton University	07	07	16
Moi University	08	08	18
<b>Total</b>	<b>44</b>	<b>44</b>	<b>100</b>

Source: Commission for University Education (2018)

### **3.5 Data Collection and Procedure**

Primary and secondary data was used in this study. According to Mertler and Vannatta (2010) primary data is the one collected directly from respondents by the researcher for the purpose of his research. Structured questionnaires with open and closed ended questions were used to collect information from employees of quality assurance departments of 5 public universities in Kenya.

Collis and Hussey (2014) suggest that questionnaires are preferred in scientific studies due to their ability to capture respondent opinions in a structured manner and in written form for future reference, provide opportunities to respondents to answer questions freely and frankly even on sensitive issues, increases the likelihood of getting accurate information and offer uniformity in answering questions

Drop and pick later method was adopted when administering questionnaires to enhance high response rates. Follow-ups were made by researcher and research assistants through phone calls and face to face interactions with respondents. Clarity on the filled questionnaires was sought from respondents directly before coding, sorting and processing the information.

### **3.6 Pre-Testing of the Research Instrument**

The researcher conducted a pilot study to address any deficiencies in the research instruments. By conducting a pilot study, the researcher also examined the feasibility of the intended approach of the study. Fisher, (2010) argued that, the accuracy of data to be collected is largely dependent on the data collection instruments in terms

of validity and reliability which could only be established through a pilot test. 10% of the main sample size was used to conduct a pilot study.

### **3.6.1 Validity of the Research Instrument**

Validity of the instruments was tested using quality management consultants and Lecturers of Kenyatta University. Validity entails the appropriateness, meaningfulness and usefulness of inferences a researcher makes based on the data collected (Saunders, Lewis & Thornhill, 2009). An appropriate inference is one that is relevant to the purpose of the study while a meaningful inference is one which says something about the meaning of the information obtained through the use of the instruments.

Content, criterion, and construct related validity were measured using the research instrument. This helped the researcher in establishing whether the chosen measurement tools included a sufficient and indicative set of items to cover the concept under study. Consultations also assisted the researcher in making modifications to the structure of research tools as advised by experts.

### **3.6.2 Reliability of the Research Instrument**

According to Saunders, Lewis and Thornhill (2009), reliability of a research instrument is concerned with the extent to which the instrument yields the same results on repeated trials. Although unreliability is always present to a certain extent, there will generally be a good deal of consistency in the results of a quality instrument gathered at different times. Crowther and Lancaster (2012) suggest that

the reliability of each construct is examined to ensure the items collectively measured their intended constructs consistently as recommended.

Internal consistency reliability was examined by the use of Cronbach's Alpha coefficient. Cronbach's Alpha is the most widely used measure of the reliability of instruments in the social sciences. The accepted reliability coefficient that were adopted in this study attained a cut-off point of 0.7 as shown in Table 3.3.

**Table 3.3: Reliability Results**

<b>Variables</b>	<b>No. of Items</b>	<b>Cronbach Alpha</b>	<b>Comments</b>
Employee Training	2	0.942	Reliable
Continuous Improvement	2	0.824	Reliable
Employee Motivation	2	0.818	Reliable
Operational Performance	2	0.821	Reliable

Source: Research data (2017)

### **3.7 Data Analysis and Presentation**

To analyze is to search and identify meaningful patterns in data. Guest (2012) points out that, analysis means categorizing, ordering, manipulating and summarizing of data to obtain answers to research questions. The data collected in the research was edited, coded, classified on the basis of similarity and then tabulated.

Being a descriptive study, descriptive statistics such means scores, standard deviation and percentages were used to summarize and relate variables which were attained from the administered questionnaires. Descriptive statistics technique was chosen because it made it possible to show the distribution or the count of individual scores in the population for a specific variable. Multiple regression analysis was

used to determine the statistical relationship between the independent variable and dependent variable of the study. Multiple regression analysis was conducted at 95% confidence level and 5% significance level. The regression model adopted was of the form;  $OPPUK = 1.139 + 0.787X_1 + 0.752X_2 + 0.539X_3$ , Where; Y represents operational performance of public universities in Kenya,  $\beta_0$  represents Y intercept,  $\beta_1$  to  $\beta_3$  denotes regression coefficients,  $X_1$  denotes employee training,  $X_2$  denotes continuous improvement,  $X_3$  denotes employee motivation and  $\varepsilon$  represents factors not included in the model.

### **3.8 Ethical Consideration**

Before data analysis, the researcher sought permission from the management of selected public universities in Kenya and National Commission for Science, Technology and Innovation (NACOSTI) to collect data. Responsibility to the respondents included voluntary participation and informed consent prior to participation. To ensure the participants did not prejudiced, simple language and statements were used to describe the aim of the research and its procedures.

Responsibility to the profession included accuracy in analysis, presentation and reporting of the study findings. Confidentiality and anonymity of the respondents was guaranteed. Finally, the analyzed data would be published to provide information to various stakeholders for strategic decision making.

## **CHAPTER FOUR: RESEARCH FINDINGS AND DISCUSSIONS**

### **4.1 Introduction**

This chapter presents the results of the study conducted to establish the influence of quality management strategies on operational performance of selected public universities in Kenya. The chapter consists the descriptive statistics of the data and regression analysis. Further, the chapter discusses the research findings in relations to findings of other previous studies on related issues.

### **4.2 Descriptive Statistics**

### **4.3 Response Rates**

The study targeted a total of 44 respondents that comprised of quality assurance directors, managers and officers working in Quality Management Departments of selected public universities in Kenya (University of Nairobi, Jomo Kenyatta, University of Agriculture and Technology, Maseno University, Egerton University and Moi University). However, after questionnaire administration, only 31 questionnaires were returned duly filled. This contributed to 70% response rate. This response rate was adequate for data analysis and conforms to Guest (2012) who posits that a response rate of more than 50% is adequate for analysis and reporting.

### **4.4 Demographic Characterizes**

#### **4.4.1 Age of Respondents**

The respondents of the study were asked to indicate their ages and the following were the findings as shown in Table 4.1:

**Table 4.1: Age of Respondents**

<b>Years</b>	<b>Frequency</b>	<b>Percentage</b>
20-29 years	06	19
30-39 years	10	32
40-49 years	11	35
50 years and above	04	13
<b>Total</b>	<b>31</b>	<b>100</b>

Source: Research Data (2018)

As shown in Table 4.1, majority (35%) of the respondents were aged between 40-49 years, 32% of them were aged between 30-39 years, 19% were aged between 20-29 years and 13% were aged above 50 years. This implies that majority of the respondents of the study had adequate information with regard to Total Quality Management Strategies adopted by public universities in Kenya to enhance operational performance.

#### **4.4.2 Gender of Respondents**

The respondents of the study were asked to indicate their gender and the following were the findings as shown in Table 4.2:

**Table 4.2: Gender of Respondents**

<b>Gender</b>	<b>Frequency</b>	<b>Percentage</b>
Male	21	68
Female	10	22
<b>Total</b>	<b>31</b>	<b>100</b>

Source: Research Data (2018)

As shown in Table 4.2, majority (68%) of the respondents were male respondents who worked in quality management departments of the five selected public universities in Kenya while 22% of them were female respondents. This implies that most of the employees who worked in the quality management departments were men compared to women. However, it emerged that there was no policy to address gender issues when recruitment or appointments are done.

**4.4.3 Respondents Level of Education**

The respondents of the study were asked to indicate their level of education and the following were the findings as shown in Table 4.3:

**Table 4.3: Respondents Level of Education**

<b>Level</b>	<b>Frequency</b>	<b>Percentage</b>
Postgraduate	11	35
Bachelors	15	49
Diploma	05	16
Certificate	00	00
<b>Total</b>	<b>31</b>	<b>100</b>

Source: Research Data (2018)

As shown in Table 4.3, majority (49%) of the respondents indicated they were degree holders who periodically worked as quality assurance auditors among the five selected public universities, 35% were postgraduate holders with more than three degrees and other qualifications. It emerged that directors of quality assurance were appointed based on the mix of knowledge and experience in related areas.

A small portion of respondents (5%) were diploma holders who provided administrative support in the quality management departments of the public universities. This implies that majority of the respondents who worked in quality management departments were highly informed and exposed to issues of quality management among public universities in Kenya.

#### 4.4.4 Duration of Work

The respondents of the study were asked to indicate the duration they had worked in the department and the following were the findings as shown in Table 4.4:

**Table 4.4: Duration of Work**

<b>Level</b>	<b>Frequency</b>	<b>Percentage</b>
Less than 1 Year	02	6
2-5 Years	18	58
6-9 Years	04	13
10 Years and above	07	23
<b>Total</b>	<b>31</b>	<b>100</b>

Source: Research Data (2018)

As illustrated in Table 4.4, majority (58%) of the respondents had worked in the quality management department for a duration between 2-5 years, 23% had worked for a duration of more than 10 years, 13% had worked for a duration between 6-9 years and 6% of them had worked for a duration less than 1 year. This implies that most of the respondents of this study had worked for enough time to give accurate information about the problem. However, it emerged that most of the public were engaging directors on contractual terms and most of them embarked on their normal duties such as lecturing after completing their period.

## 4.5 Existence of Quality Management Policy

The respondents of the study were asked to indicate whether their universities had quality management policies and the following were the findings as shown in Table 4.5:

**Table 4.5: Existence of Quality Management Policy**

<b>Level</b>	<b>Frequency</b>	<b>Percentage</b>
Yes	31	99.5
No	00	00
<b>Total</b>	<b>31</b>	<b>100</b>

Source: Research Data (2018)

As shown in Table 4.5, majority (99%) of the respondents indicated that their public universities had quality management policies. This implies the majority of the public universities had quality management policies despite the fact that issues of service quality gaps are experienced among students. Further, it was noted that quality management was not only a collaborative role but also dedication to offer distinguished services to key stakeholders.

## 4.6 Descriptive Statistics

### 4.6.1 Employee Training and Operation Performance

The respondents of the study were asked to indicate the influence of employee training on operational performance of public universities and the following were the findings as shown in Table 4.6:

**Table 4.6: Employee Training and Operation Performance**

<b>Statements</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>T-value</b>	<b>P-values</b>
Employees have adequate knowledge on ISO standards	31	3.78	.884	53.42	0.022
Employees have excellent communication skills	31	3.61	.664	51.45	0.000
Employees are encouraged to develop their careers further	31	3.58	.587	43.34	0.000
Employees have relevant knowledge to perform their work	31	3.47	.673	33.23	0.011
Employees are multiple skills to perform other duties	31	3.33	.596	32.13	0.021
Employees have mechanisms of measuring customer satisfaction levels	31	2.10	.498	44.11	0.000
Employees understand the changing trends in the education sector	31	2.10	.491	31.21	0.000
Employees are competent to handle customer demands without delays	31	2.03	.411	24.11	0.011
<b>Overall mean score=3.665</b>					

Source: Research Data (2018)

As shown in Table 4.6, most of the respondents to a larger extent indicated that employees training had a significant effect on operational performance of public universities. For instance, they indicated that employee knowledge on ISO standards improved operation performance with a mean of 3.78, communication skills with a mean of 3.61, career development with a mean of 3.58, relevance of knowledge with a mean of 3.47.

Further, multiple skills with 3.33, mechanisms of measuring customer satisfaction with a mean of 2.10, under stability of changing sector trends with a mean of 2.10 and competence to handle consumer demands with a mean of 2.03.

The results further reveals that at one-sample t-test comparison of the employee training mean scores indicates differences that were all statistically significant. The extent of employee training on operational performance varied from one measure to another where employee knowledge on ISO standards had the highest difference (t-value = 53.42, p-value < 0.05) and employees competence to handle customer demands without delays had the lowest difference (t-value = 24.11, p-value < 0.05).

These findings implies that employee training aspects such as employee understanding of ISO standards, communication skills, career development and multiple skills results to improved operational performance among public universities. This findings corresponds with that of Kyalo (2013); Magutu, Mbeche, Nyaoga, Nyamwange, Onger & Ombati (2010) who revealed that operational performance of the firm was dependent on the skills, knowledge and experience of workers in the changing business environment.

#### **4.6.2 Continuous Improvement and Operation Performance**

The respondents of the study were asked to indicate the influence of continuous improvement on operational performance of public universities and the following were the findings as shown in Table 4.7:

**Table 4.7: Continuous Improvement and Operation Performance**

<b>Statements</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>T-value</b>	<b>P-values</b>
The university has automated systems	31	4.18	.684	44.42	0.031
The university develops new academic programmes periodically to address changing labour market dynamics	31	4.41	.644	31.45	0.011
The university conducts periodical market surveys	31	4.38	.537	33.34	0.010
Employees are dedicated to improve services	31	4.17	.473	33.23	0.000
Employees are dedicated to develop new products	31	3.83	.311	32.13	0.021
Employees are dedicated to serve customers using modern equipment	31	3.53	.316	24.11	0.000
Employees are always dedicated to discover emerging issues in the higher education sector	31	3.14	.306	11.21	0.000
Employees are ICT illiterate	31	3.08	.255	24.11	0.011
University staff are sponsored in research activities	31	3.03	.239	32.33	0.000
<b>Overall mean score=3.998</b>					

Source: Research Data (2018)

As shown in Table 4.7, most of the respondents to a larger extent indicated that continuous improvement had a significant effect on operational performance of public universities. For instance, automation of systems was said to influence operational performance of public universities with a mean of 4.18, development of new academic programs with a mean of 4.41, periodical market surveys with a mean of 4.38.

Employee dedication to improve services with a mean of 4.17, employee dedication to develop new products 3.83, employees dedication to serve customers using modern equipment with a mean of 3.53, employees dedicated to discover emerging issues in higher education sector with a mean of 3.14, illiteracy of workers on ICT skills with a mean of 3.08 and university sponsorship of workers in research activities with a mean of 3.03.

The results further reveals that at one-sample t-test comparison of continuous improvement mean scores indicates differences that were all statistically significant. The extent of continuous improvement on operational performance varied from one measure to another where university system automation had the highest difference (t-value = 44.42, p-value < 0.05) and employees dedication to discover emerging issues in the higher education sector had the lowest difference (t-value = 24.11, p-value < 0.05).

These findings implies that continuous improvement initiatives such as employee sponsorship for research, system automation, new product development, industry analysis, periodical market surveys and employee training on ICT influenced operational performance of public universities in Kenya. These findings are in line with that of Wairimu & Omondi (2014); Yusufu (2013); Singh & Mohanty (2012) who noted that the only ways public organizations can enhance their efficiency and effectiveness is through improving products and services, training workers and developing new products to attract and retain customers.

### 4.6.3 Employee Motivation and Operation Performance

The respondents of the study were asked to indicate the influence of employee motivation on operational performance of public universities and the following were the findings as shown in Table 4.8.

**Table 4.8: Employee Motivation and Operation Performance**

Statements	N	Mean	SD	T-value	P-values
Employees are paid for extended hours of work	31	4.88	.665	33.11	0.021
The university encourages team work spirit among workers	31	3.13	.654	31.00	0.000
Employees are engaged on a permanent basis	31	3.18	.623	29.42	0.011
Employee grievances are handled on a timely basis	31	3.21	.584	28.11	0.022
Employees are encouraged to advance their studies	31	3.11	.453	24.14	0.010
Employees have a conducive working environment	31	3.21	.486	13.95	0.003
Supervisors always delegate responsibilities to junior employees	31	3.02	.781	21.34	0.000
Employees have good relations among themselves	31	3.02	.744	31.01	0.000
Employees have comprehensive medical covers	31	2.28	.558	13.34	0.000
My department redesign employee jobs to minimize boredom	31	2.28	.498	14.45	0.001
<b>Overall mean score=4.933</b>					

Source: Research Data (2018)

As shown in Table 4.8, most of the respondents to a larger extent indicated that employee motivation had a significant effect on operational performance of public universities where employees being paid for extended hours of work contributed to improved performance of public universities with a mean of 4.88, teamwork with a mean of 3.13, job security with a mean of 3.18, handling of employee grievances with a mean of 3.21, employee advancement of studies with a mean of 3.11, conducive working environment with a mean of 3.21, delegation of duties to junior workers and employee relations with a mean of 3.02, comprehensive medical cover and job design with a mean of 2.28.

The results further reveals that at one-sample t-test comparison of employee motivation mean scores indicates differences that were all statistically significant. The extent of employee motivation on operational performance varied from one measure to another where employee payment for extra hours worked had the highest difference (t-value = 33.11, p-value < 0.05) and provision of comprehensive medical covers to workers had the lowest difference (t-value = 13.34, p-value < 0.05).

These findings implies that employee motivation initiatives such payment for extra time worked, team work, job security, advancement of studies, job design, delegation and comprehensive medical covers influenced operational performance of public universities in Kenya. The findings corresponds with that of Muzaffar, Salamat & Ali (2012); Mulinge (2014); KIPPRA (2014) & Kiptum (2016); Khan, Khan & Khan, (2011) who established that employee motivation was a determinant of quality service delivery in both public and private organization.

#### 4.6.4 Measurement of Operational Performance

The respondents of the study were asked to indicate parameters their universities to measure operational performance and the following were the findings as shown in Table 4.9.

**Table 4.9 Measurement of Operational Performance**

Statements	N	Mean	SD	T-value	P-values
The number of students enrolled periodically reflects performance of the University	31	4.41	.633	65.14	0.021
Customers experience reduced waiting time	31	4.41	.544	41.00	0.000
Implementation of quality management strategies improves corporate image	31	4.80	.667	39.42	0.011
Implementation of quality management strategies results to minimal complaints	31	4.10	.621	38.11	0.022
Implementation of quality management strategies leads to minimal change resistance	31	4.10	.574	24.14	0.010
Implementation of quality management strategies enhances customer loyalty	31	4.13	.654	23.95	0.003
Minimal costs are experienced in service delivery	31	4.18	.623	21.34	0.000
There is minimal human interaction	31	3.13	.544	34.11	0.000
Implementation of quality management systems has ensured effective waste reduction in operations	31	3.11	.487	29.34	0.000
Quality management systems improve operation efficiency thus reducing operation costs	31	3.80	.421	34.12	0.010
Implementation of quality management systems focuses on increased retention as a result of customer satisfaction	31	3.80	.374	22.41	0.000
<b>Overall mean score=4.238</b>					

Source: Research Data (2018)

The study sought to establish the influence of the consolidated three variables of the study on operational performance of public universities in Kenya. Table 4.9 indicates that the overall mean scores for all the 11 statements was more than 4.00, which indicates that 95% of them agreed with the statement while the rest either disagreed or were neutral. The findings implies that to a larger extent, the three variables of the study (employee training, continuous improvement on operational performance of selected universities in Kenya) has a strong positive statistical effect on the operational performance of public universities in Kenya.

The T-test results indicates that the three consolidates variables of the study had varied t-values of measurement in comparison where, the number of students enrolled periodically by the university had the highest difference (t-value = 65.14, p-value < 0.05) and implementation of quality management systems increase customer retention had the lowest difference (t-value = 22.41, p-value < 0.05).

These findings implies that operational performance of public universities was attributed to students' enrollment, costs of operation, customer satisfaction, system automation, change implementation and corporate image. The findings corresponds to that of Ismyrlis & Moschidis (2015); Ikay& Aslan, E. (2011); Anyango, Wanjau & Mageto, (2012) & Kaziliunas (2010) who noted that operational performance of the firm is measured by profits generated, customer satisfaction, minimal costs of operation and ability to improve customer experience through customized services.

#### **4.7 Qualitative Data Analysis**

The study incorporated open-ended questionnaires which were analyzed using content analysis, the questionnaire were summarized into four factors; employee training, continuous improvement and employees motivation on operation performance of public universities.

##### **4.7.1 Employee Training and Operational Performance**

The study identified that employee training to a larger extent contributed to operational performance among public universities despite that fact that employees worked in the quality management department did not possess relevant qualifications and experience. It emerged that appointments were made to fill vacant positions after expiry of the contract. Employees were not dedicated to a larger extent since they embarked on their normal lecturing duties after the duration of the contract lapsed.

##### **4.7.2 Continuous Improvement and Operational Performance**

It emerged that most public universities were did not embrace continuous improvement initiatives to a larger extent to lack of support from top management. It was noted that systems upgrade and training employees on ICT skills were rare practices. Further, it was indicated that most of the students were unsatisfied with services provided due to system failures.

##### **4.7.3 Employee Motivation and Operational Performance**

It emerged that motivation among public universities employees was not prioritized due to lack of medical covers and job security, lack salary review and job design, lack of conducive working environment and payment for extra hours worked among

non-teaching staff. However, it was indicated that motivating workers would result to significant improvement of performance among public universities in Kenya.

#### **4.7.4 Measurement Operational Performance**

Most of the respondents were of the view that operational performance among public universities in Kenya was attributed to employee satisfaction, customer satisfaction, efficiency and effectiveness of the systems, prompt services to customers and ability to adapt to changing needs such as requirements of Commission for University Education. It was pointed out that with increased student enrolment in public universities achieving operational efficiency would be a challenging task if the Government does not expand its annual budgets and provide autonomy for the universities to diversify.

### **4.8 Inferential Statistics**

#### **4.8.1 Diagnostic Tests**

Prior to subjecting the data to regression analysis, diagnostic tests which were conducted to establish conformity with requisite statistical assumptions were; normality, linearity, homogeneity and multicollinearity tests were conducted as discussed:

#### **4.8.2 Normality Test**

Normality was tested using Shapiro-Wilk test, which has the ability to detect departure from normality. Its statistic ranges from zero to one and figures  $p > 0.05$  indicates the data is normal (Hair, Black, Babin, Anderson & Tatham, 2015). Shapiro-Wilk test assesses whether data is normally distributed as shown in Table 4.10.

**Table 4.10: Normality Test**

<b>Variables</b>	<b>Statistics</b>	<b>df</b>	<b>Sig</b>
Employee Training	0.872	178	0.003
Continuous improvement	0.811	178	0.002
Employee Motivation	0.746	178	0.000

As illustrated in Table 4.10, the three research variables had figures ranging from -0.1 to +1.0 and most of them were skewed towards +1.0. Employee training had the highest value of calculated probability (=0.872), whereas employee motivation had the lowest value of calculated probability (0.746). In this case, the resulting calculated probability values for all the research variables are greater than 0.05; therefore, at 5% level of significance the sample follows a normal distribution as recommended by Crowther & Lancaster (2012). Normality was also met since there was a large number of participants (31) involved in the study.

#### **4.8.3 Linearity Test**

Linearity test was done using Pearson's moment correlation coefficient between operational performance, employee training, continuous improvement and employee motivation as shown in Table 4.11.

**Table 4.11: Linearity Test**

<b>Independent Variables</b>		<b>Operational Performance</b>
<b>Employee Training</b>	Pearson Correlation	0.556**
	Sig(2-tailed)	0.001
	N	31
<b>Continuous Improvement</b>	Pearson Correlation	0.417**
	Sig(2-tailed)	0.000
	N	31
<b>Employee Motivation</b>	Pearson Correlation	0.456**
	Sig(2-tailed)	0.002
	N	31
<b>**p&lt; 0.05</b>		

Source: Research Data (2018)

Table 4.11, indicates that there is a positive and significant linear relationship between operational performance and employee training, continuous improvement and employee motivation at 5% level of significance. The results indicate that employee training is ( $r=0.556$ ,  $p<0.05$ ), continuous improvement ( $r=0.417$ ,  $p<0.05$ ) technology ( $r=0.456$ ,  $p<0.05$ ) and employee motivation ( $r=0.456$ ,  $p<0.05$ ) thus, this indicates that all the three variables had positive effect on operational performance of public universities in Kenya.

The general implication of the results was that there was co-movement of variables, and in the same direction. However, it is critical to note that correlation does not necessarily mean that there is a causal relationship (Collis & Hussey, 2014). Thus, there was need to conduct regression analysis in order to estimate causal

relationship. Therefore, linear regression was suitable and was estimated in this study.

**4.8.4 Homogeneity Test**

Homoscedasticity was tested by the use of Levene’s Test (1960) of Homogeneity of Variances. Homogeneity of variances assumes that the dependent variable exhibits equal variance across the range of predictor variables (Novikov. & Novikov, 2013). If the variances in the two groups are different from each other, then adding the two together is not appropriate and will not yield an estimate of the common within-group variances. Therefore, the Levene Test for Homogeneity of the Variance was used to measure the equality of variances for the variables. If the test is significant (calculated probability > 0.05), the two variances are not significantly different and are thus approximately equal (Guest, 2012).

**Table 4.12: Homogeneity Test**

<b>Variables</b>	<b>Lavene Statistics</b>	<b>df</b>	<b>Sig</b>
Employee Training	8.456	1	0.789
Continuous Improvement	7.432	1	0.579
Employee Motivation	6.334	1	0.234
Operational Performance	7.324	1	0.742

Source: Research Data (2018)

As illustrated in Table 4.12, it is indicated that the calculated probability is  $p > 0.05$  for all the three variables of the study. The calculated probability values generated from this test ranged between 0.0742 for operational performance and 0.789 for employee training. The result shows that the significance level of Levene Test is greater than 0.05, indicating variance homogeneity as proposed by (Fisher, 2010).

#### 4.8.5 Multicollinearity Test

To establish whether multicollinearity would pose a problem, regression analysis was conducted.

**Table 4.13: Multicollinearity Test**

Model	Collinearity Statistics	
	Tolerance	Mean VIF
Employee Training	0.846	1.568
Continuous Improvement	0.682	1.467
Employee Motivation	0.712	1.245
Operational Performance	0.703	1.249

Source: Research Data (2018)

Table 4.13 indicates that all the VIFs of the four variables of the study were less than 10 and Tolerance greater than 0.1 respectively. VIF of greater than 10 and Tolerance less than 0.1 suggests multicollinearity (Collis & Hussey, 2014) continuous improvement yielded the least VIF at 0.682 and employee competencies generated the highest VIF at 0.846. This implies that there was no multicollinearity and thus all the predictor variables were maintained in the regression model, as this is within the threshold recommended by Crowther & Lancaster (2012) & Fisher (2010).

#### 4.9 Correlation Analysis

Pearson's product moment Correlation Analysis was conducted at 95% confidence interval and 5% confidence level 2-tailed to assess the statistical relationship between the variables while multiple regressions was used to determine the predictive power of the each independent variable on performance of Microfinance Institutions in Kenya.

**Table 4.14: Correlations Results Analysis**

	<b>Employee Training</b>	<b>Continuous Improvement</b>	<b>Employee Motivation</b>
	1		
<b>Employee Training</b>	.710 .0012	1	
<b>Continuous Improvement</b>	.693 .0017	.027 .799	
<b>Employee Motivation</b>	.434 .0027	.539 .000	.356 .001
<b>**p &lt; 0.05</b>			

Source: Research Data (2018)

Table 4.14 indicates that there was statistical correlation between the employee training (0.710), continuous improvement (0.693) and employee motivation (0.434). The positive relationship indicates that there was a correlation between the three variables of the study on operational performance.

The significance values of the three independent variables were less than 5% (0.0012, 0.0017 and 0.0027) which indicated that a unit increase of employee training, continuous improvement and employee motivation resulted to a unit increase in operational performance of public universities in Kenya.

#### 4.10 Regression Analysis

A multiple regression analysis was conducted to find out the linear relationship between all the independent variables and the dependent variable.

**Table 4.15: Regression Results Analysis**

<b>Dependent Variable</b>	<b>Independent Variables</b>	<b>Beta Value</b>	<b>T-Value</b>	<b>P-Values</b>
Operational Performance	Employee Training	0.295	3.277	0.002
Operational Performance	Continuous Improvement	0.244	3.217	0.000
Operational Performance	Employee Motivation	0.154	3.446	0.001

Source: Research Data (2018)

As shown on table 4.15, the multiple regression analysis indicated that there was a significant relationship between employee training, continuous improvement and employee motivation and operational performance of public universities in Kenya. The significance values of the three independent variables were; employee training ( $\beta=0.295$ ,  $p < 0.05$ ), continuous improvement ( $\beta=0.244$ ,  $p < 0.05$ ) and employee motivation ( $\beta=0.154$ ,  $p < 0.05$ ).

These results correspond with the view of Psomas, Fotopoulos & Kafetzopoulos (2010) & Zakuan, Yusof, Laosirihongthong & Shaharoun (2010) who revealed that there technology, process improvement and staff development can have a significant effect on performance of a firms. Further, It was revealed that there was a highly significant relationship between the three independent variables with employee training having the highest level ( $\beta=0.295$ ,  $p < 0.05$ ) and employee motivation having the lowest level ( $\beta=0.154$ ,  $p < 0.05$ ).

**Table 4.16: Correlation Coefficient**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.129	1.2235		0.930	0.000
	Employee Training	0.787	0.3132	0.152	2.512	0.000
	Continuous Improvement	0.752	0.3425	0.154	2.195	0.001
	Employee Motivation	0.539	0.1937	0.163	2.782	0.000

Source: Research Data (2018)

As illustrated in Table 4.16, coefficient of determination explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable ( Operational Performance of Public Universities in Kenya), hat is explained by all the three independent variables (employee training, continuous improvement and employee

motivation).

Multiple regression analysis was conducted to determine the relationship between Total Quality Management strategies and the operational performance public universities in Kenya. As per the SPSS generated Table (4.16) above, the equation ( $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$ ) became:

$$Y = 1.129 + 0.787X_1 + 0.752X_2 + 0.539X_3$$

According to the regression equation established, taking all factors into account (employee training, continuous improvement and employee motivation) constant at zero, operational performance will be 1.129. The data findings analyzed also shows that taking all other independent variables at zero, a unit increase in employee training will lead to a 0.787 operational performance of selected public universities in Kenya; a unit increase in continuous improvement will lead to a 0.752 and a unit increase in employee motivation will lead to a 0.593.

At 5% level of significance and 95% level of confidence, employee training had a 0.000 level of significance, continuous improvement had a 0.001 level of significance and employee motivation showed a 0.000 level of significance. Therefore, based on the results it is the study concludes that there is a positive significant relationship between independent variables (employee training, continuous improvement and employee motivation) and dependent variable (operational performance of public universities in Kenya).

#### 4.11 Model Summary

**Table 4.17: Model Summary**

<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
1	0.923	0.852	0.789	0.6273

Source: Research Data (2018)

As shown in Table 4.17, multiple regression analysis was conducted to test the influence among predictor variables. The research used statistical package for social sciences (SPSS V 22) to code, enter and compute the measurements of the multiple regressions. Adjusted R<sup>2</sup> which is termed as the coefficient of determination which tells us how effective Total Quality Management Strategies varied with employee training, continuous improvement and employee motivation. From the results in Table 4.17 the value of adjusted R<sup>2</sup> is 0.852. This implies that, there was a variation of 78.9% of effective Total Quality Management Strategies with changes in employee training, continuous improvement and employee motivation at a confidence level of 95%. R is the correlation coefficient which shows that there was a strong correlation between the study variable as shown by the correlation coefficient of 0.923.

**Table 4.18: ANOVA Test**

<b>Model</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig</b>
Regression	0.003	7	.001	3.867	001 <sup>b</sup>
Residual					
Total	0.068	77	.021		
	0.071	84			

Source: Research Data (2018)

From the ANOVA statics Table 4.18, the processed data which is the population parameters, had a significance level of 0.1% which shows that the data is ideal for making a conclusion on the population's parameter as the value of significance (p-value ) is less than 5%. The calculated value was greater than the critical value (3.867 >1.701) an indication that employee training, continuous improvement and employee motivation significantly influence operational performance of selected public universities in Kenya.

## **CHAPTER FIVE: FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

### **5.1 Introduction**

This chapter presents summaries of the study findings as per the study objectives, conclusions based on those findings and recommendations which are based on both the study findings and other relevant literature considered necessary and vital to be used in future to improve the study situation.

### **5.2 Summary of Research Findings**

#### **5.2.1 Employee Training**

The study established that employee training influenced operational performance of selected public universities in Kenya. It was noted that aspects such as training employees on ISO standards, career development, possession of a mix of knowledge and experienced and communication skills contributed to operational performance of public universities in terms of costs incurred and customer loyalty. However, despite the fact that employee training influenced operational performance of public universities, it emerged that to some extent some workers given the mandate to audit quality issues did not possess the required capabilities to perform effectively.

#### **5.2.2 Continuous Improvement**

The study established that continuous improvement aspects such as system automation, development of new academic programmes, service improvement, periodical surveys and employee training on ICT skills contributed to overall efficiency and effectiveness of public universities in Kenya. However, it emerged

that despite the fact that continuous improvement initiatives contributed to operational performance, it was observed that public universities were dragging behind in improving their services as compared to private universities in Kenya. Issues of systems improvement were a big challenge as students experienced delays in accessing their marks using online platforms and to some extent unable to ask queries through online platforms.

### **5.2.3 Employee Motivation**

The study revealed that employee motivation to a larger extent contributed to improved operational performance of public universities in Kenya. Aspects of job security, career development, sponsorships, job design, delegation, good relations, grievance handling procedure and medical covers were seen to be key contributors to operational performance of public universities in Kenya. However, it was identified that despite the fact that employee motivation influenced operational performance of public universities, it was noted to a larger extent public universities did not embrace employee motivation culture. Issue of delays salaries, non-payment for extra time worked, lack of job security, inability to redesign jobs and lack of medical covers to some workers were contributing to deteriorating operation performance of public universities.

### **5.3 Conclusion**

The study concludes that unless public universities embrace that culture of human resource development through provisions of scholarships to existing teaching and non-teaching staff, achieving operational excellence will be a big challenges.

To survive in the changing higher education sector, employees of public universities should be trained on ISO standards and change management concepts. Further, public universities to enhance efficiency and effectiveness during service delivery, automation of services, new product development, improvement of services, employee training on ICT skills is a mandatory practice in enhancing university competitiveness and also customer satisfaction.

Finally, development of a competitive compensation policy that addresses issues of career development, payment of extra time worked, job design, medical covers, job security, work environment and grievance handling procedure would contribute to enhanced operational performance and minimized services gaps.

#### **5.4 Recommendations**

The study identified that to some extent employees of public universities working in the quality management departments had qualifications which were not in line with changing trends in the higher education's sector. Therefore, this study recommends that public universities should ensure that employees appointed to be in charge of quality management department have relevant knowledge, experience and skills to add value on the existing structures of quality. The university management senates should appoint staff based on relevant knowledge and exposure in quality issues

The study identified that continuous improvement in public universities was a rare practice. Therefore, this study recommends that, top leadership of universities should initiative service quality culture through periodical meetings with workers to create awareness of ISO standards. Further, ICT departments of public universities should seek to understand system challenges by engaging staff and students thus long term

solutions. In addition, management of public universities should partner with ICT firms that are competent to develop and upgrade systems for the interest of users from time to time.

The study revealed that employee motivation among public universities was not given first priority. Therefore, this study recommends that human resource department among public universities should review their recruitment policies and engage both teaching and non-teaching staff on a permanent basis, provide medical covers to workers, redesign jobs, encourage career development and payment of extra hours worked and grievance handling procedure.

### **5.5 Areas for Further Research**

Since the study was limited to three variables which included, employee training, continuous improvement and employee motivation, the study suggests that other researchers should seek to investigate other variables in isolation or in a consolidated form and their influence on operational performance of public and private universities in Kenya or related sectors. Other studies should seek to test the moderating, intervening or mediating variables that influence operational performance of public universities in Kenya such as corporate image, service charter and commission for university regulations.

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## APPENDICES

### Appendix 1: Introductory Letter

**PAMELA CHERONO TARUS**

**D53/EMB/TP/31896/2015**

**KENYATTA UNIVERSITY,**

**KENYA.**

#### TO WHOM IT MAY CONCERN

Dear Respondent,

#### **REF: MBA RESEARCH STUDY**

I am a student pursuing a Masters degree in Business Administration (Strategic Management) at the Kenyatta University. In partial fulfillment of the requirements to the award of the Masters degree, I am required to carry out a study on *“Quality Management Strategies and Operational Performance in Selected Public Universities in Kenya”*

The choice is based on your strategic importance in the achievement of organizational goals according to vision 2030 of Kenya hence improved performance of the organization in terms of efficiency and effectiveness. I kindly request your assistance by availing time to respond to the questionnaire. A copy of the final report will be made available to you at your request. The information given will be treated with utmost confidentiality for the purpose of this study only.

**Thank you in advance.**

## Appendix 2: Kenyatta University Graduate School Data Collection Permit



### KENYATTA UNIVERSITY GRADUATE SCHOOL

E-mail: [dean-graduate@ku.ac.ke](mailto:dean-graduate@ku.ac.ke)

P.O. Box 45844, 00100  
NAIROBI, KENYA  
Tel. 8710901 Ext. 57530

Website: [www.ku.ac.ke](http://www.ku.ac.ke)

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Our Ref: D53/EMB/PT/31896/2015

DATE: 11<sup>th</sup> September 2017

Director General,  
National Commission for Science, Technology  
and Innovation  
P.O. Box 30623-00100  
NAIROBI

Dear Sir/Madam,


RE: RESEARCH AUTHORIZATION FOR PAMELA CHERONO TARUS - REG. NO. D53/EMB/PT/31896/2015.

I write to introduce Ms. Pamela Cheron Tarus who is a Postgraduate Student of this University. She is registered for M.B.A degree programme in the Department of Business Administration.

Ms. Pamela intends to conduct research for a M.B.A Project Proposal entitled, "Quality Management Strategies and Operational Performance of selected Public Universities in Kenya".

Any assistance given will be highly appreciated.

Yours faithfully,

  
MRS. LUCY N. MBAABU  
FOR: DEAN, GRADUATE SCHOOL

## Appendix 3: National Commission for Science, Technology and Innovation Data Collection Certificate



### NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: 020 480 7000,  
0713 788787/0735404245  
Fax: +254-20-318245,318249  
Email: dg@nacosti.go.ke  
Website: www.nacosti.go.ke  
When replying please quote:

NACOSTI, Upper Kabete,  
Off Watangi Way  
P.O. Box 39623-00100  
NAIROBI-KENYA

Ref No. **NACOSTI/P/17/72945/19304**

Date: **22<sup>nd</sup> September, 2017**

Pamela Cheronu Tarus  
Kenyatta University  
P.O Box 43844-00100  
**NAIROBI.**

#### **RE: RESEARCH AUTHORIZATION**

Following your application for authority to carry out research on *“Quality management strategies and operational performance of selected public universities in Kenya”* I am pleased to inform you that you have been authorized to undertake research in **Nairobi County** for the period ending **21<sup>st</sup> September, 2018**.

You are advised to report to **the County Commissioner and the County Director of Education, Nairobi County** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit a **copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.

  
**GODFREY P. KALERWA MSc., MBA, MKIM**  
**FOR: DIRECTOR-GENERAL/CEO**

Copy to:

The County Commissioner  
Nairobi County,

The County Director of Education  
Nairobi County,

THIS IS TO CERTIFY THAT:  
MISS. PAMELA CHERONO TARUS  
of KENYATTA UNIVERSITY, 19-10300  
kerugoya, has been permitted to  
conduct research in *Nairobi County*

Permit No : NACOSTI/P/17/72945/19304  
Date Of Issue : 22nd September, 2017  
Fee Received : Ksh 1000

on the topic: *QUALITY MANAGEMENT  
STRATEGIES AND OPERATIONAL  
PERFORMANCE OF SELECTED PUBLIC  
UNIVERSITIES IN KENYA*

for the period ending:  
21st September, 2018



.....  
Applicant's  
Signature

*C. Malow*  
.....  
Director General  
National Commission for Science,  
Technology & Innovation

**Appendix 4: Questionnaire for Employees in Quality Assurance Department of  
Selected Public Universities in Kenya**

**SECTION A: DEMOGRAPHIC CHARACTERISTICS**

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**1. How old are you?**

- a) 20-29
- b) 30-39
- c) 40-49
- d) 50 and above

**2. What is your Gender?**

- a) Male
- b) Female

**3. What is your level of education?**

- a) Certificate
- b) Diploma
- c) Degree
- d) Postgraduate
- e) Other

**4. How long have you worked in the University?**

- a) Less than 1 Year
- b) 2-5 Years
- c) 6- 9 Years
- d) 10 and above

**5. Does the University have Quality Management Policy?**

Yes  No

If No, briefly give reasons

.....  
.....

**SECTION B: QUALITY MANAGEMENT STRATEGIES AND OPERATIONAL PERFORMANCE OF SELECTED PUBLIC UNIVERSITIES IN KENYA**

Clearly tick the extent to which you agree with the following statements using the Likert scale of 1-5 as indicated below:

**PART A: EMPLOYEE TRAINING AND OPERATIONAL PERFORMANCE**

6. Indicate your level of agreement with the following statements relating to the effect of employee training and operational performance of your university in Kenya (scale 5= Strongly agree, 4= Agree, 3 = Moderately agree, 2= Disagree, 1 = Strongly disagree)

Statements	5	4	3	2	1
Employees have adequate knowledge on ISO standards					
Employees have excellent communication skills					
Employees are encouraged to develop their careers further					
Employees have relevant knowledge to perform their work					
Employees are multiple skills to perform other duties					
Employees have mechanisms of measuring customer satisfaction levels					
Employees understand the changing trends in the education sector					
Employees are competent to handle customer demands without delays					

7. How else does employee training influence operational performance of your universities?

.....

**PART B: CONTINUOUS IMPROVEMENT AND OPERATIONAL PERFORMANCE**

8. Indicate your level of agreement with the following statements relating to the effect of continuous improvement and operational performance of your public universities in

Kenya (scale 5= Strongly agree, 4= Agree, 3 = Moderately agree, 2= Disagree, 1 = Strongly disagree)

Statements	5	4	3	2	1
The university has automated systems					
The university develops new academic programmes periodically to address changing labour market dynamics					
The university conducts periodical market surveys					
Employees are dedicated to improve services					
Employees are dedicated to develop new products					
Employees are dedicated to serve customers using modern equipment					
Employees are always dedicated to discover emerging issues in the higher education sector					
Employees are ICT illiterate					
University staff are sponsored in research activities					

9. How else does continuous improvement influence operational performance of your universities?

.....

**PART C: EMPLOYEE MOTIVATION AND OPERATIONAL PERFORMANCE**

10. Indicate your level of agreement with the following statements relating to the effect of employee motivation and operational performance of your universities in Kenya (scale 5= Strongly agree, 4= Agree, 3 = Moderately agree, 2= Disagree, 1 = Strongly disagree)

Statements	5	4	3	2	1
Employees are paid for extended hours of work					
The university encourages team work spirit among workers					
Employees are engaged on a permanent basis					

Employee grievances are handled on a timely basis					
Employees are encouraged to advance their studies					
Employees have a conducive working environment					
Supervisors always delegate responsibilities to junior employees					
Employees have good relations among themselves					
Employees have comprehensive medical covers					
My department redesign employee jobs to minimize boredom					

11. How else does employee motivation influence and operational performance of your universities in Kenya?

.....

**PART D: QUALITY MANAGEMENT STRATEGIES AND OPERATIONAL PERFORMANCE**

12. Indicate your level of agreement with the following statements relating to the effect of quality management strategies and operational performance of your university (scale 5= Strongly agree, 4= Agree, 3 = Moderately agree, 2= Disagree, 1 = Strongly disagree)

Statements	1	2	3	4	5
The number of students enrolled periodically reflects performance of the University					
Customers experience reduced waiting time					
Implementation of quality management strategies improves corporate image					
Implementation of quality management strategies results to minimal complaints					
Implementation of quality management strategies leads to minimal change resistance					

Implementation of quality management strategies enhances customer loyalty					
Minimal costs are experienced in service delivery					
There is minimal human interaction					
Implementation of quality management systems has ensured effective waste reduction in operations					
Quality management systems improve operation efficiency thus reducing operation costs					
Implementation of quality management systems focuses on increased retention as a result of customer satisfaction					

**13.** Indicate other aspects that are used by your University to measure operational performance?

.....  
.....

**Thank you for your Cooperation**

### **Appendix 5: List of Selected Public Universities in Kenya**

1. University of Nairobi
2. Jomo Kenyatta University of Agriculture and Technology
3. Maseno University
4. Egerton University
5. Moi University

**Source: Commission for University Education (2018)**