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ASSESSMENT OF THE MANAGEMENT SYSTEMS EMPLOYED BY KENYAN UNIVERSITIES IN PROMOTING QUALITY EDUCATION THAT MEETS THE NEEDS OF STUDENTS

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Abstract:
Quality Management Systems (QMS) refer to a framework of organized structures, methods, techniques, policies, procedures, processes, and resources established by organizations to ensure that responsibilities, schedules, relationships, contracts, and agreements are carried out as required to help them run effectively. Designing and implementing a quality management system in an organization is critical in meeting the customer's requirements and expectations as well as instilling confidence in the organization, which in turn leads to more customers, more sales, and more repeat business. It further help to meet the organization's requirements, which ensures compliance with regulations and provision of products and services in effective and efficient manner, creating room for expansion, growth, and profit. A QMS also helps an organization to communicate to all staff a readiness to produce consistent results, prevent mistakes, reduce costs, ensure that processes are defined and controlled, and continually improve the organization's services. In a university, the focus of QMA activities is the achievement of relevant quality education. This study reviews literature on the QMS established by universities in Kenya to enhance quality improvement with a view to making recommendations on how the institutions could employ QMS to ensure that they offer relevant quality education that is responsive to the needs of students.

Keywords: quality, quality management systems, customer satisfaction, personal and professional needs

1. Introduction

The history of quality dates back to centuries when craftsmen organized unions/guilds. Later, management systems were used as standards that controlled product and process outcomes during the Industrial Revolution. Further, as numbers of people working together to produce results and production quantities grew, best practices were needed

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to ensure quality results. This led to establishment and documentation of best practices for controlling product and process outcomes which turned into standard practices for QMS. Quality became critical during the Second World War as it became necessary for military to ascertain that bullets made in one state had to work with rifles made in another. This entailed inspection of every unit of product using quality techniques of sampling for inspection (The Beginner's Guide to Quality Management Systems).

Deming revolutionized the quality of the Japanese companies after the War using his 14 point quality standard system to communicate to managers how to increase quality within an organization. He used statistical process control (SPC) and problem-solving techniques to help organizations produce high quality products and services. This shifted organizations' focus of QMS from inspection to improving all organization processes through the people who used them. The shift reflects a participatory approach to quality management (QM) which should be embraced by organizations to optimize productivity. Specifically, improving quality management processes entails that all people involved understand their crucial roles in QM in order to help them own the process.

Deming's system focused on two concepts: 1) common systemic causes of errors (caused or shared by numerous personnel, machines, or products) such as poor product or service design, unsuitable materials, poor physical conditions; and 2) special causes of errors (caused by individual employees, products or equipment), such as lack of proper skill or training, poor materials and out of order equipment. Duran also developed a QMS that focused on the quality of a product for its entire life cycle, from design to the end consumer. He believed that, by dissecting each part and process of quality, companies could create a product that consumers could rely on one hundred percent of the time (The Beginner's Guide to Quality Management Systems).

The common systemic causes of error could be alleviated by educating and training all people involved on quality management and putting in place strong risk management strategies. On the other hand, special causes of error could be reduced by providing regular professional development to employees to enhance their motivation and productivity and by providing the resources needed and servicing equipment regularly to enhance efficiency in performance.

Notably, Japanese market dominated the manufacturing industry in the 1970s due to placing focus on quality and the satisfaction of their consumers. However, in the 1980s, American companies embraced QMS and this transformed their organization into a quality-oriented business which enabled them to survive against their Japanese competitors. QMS gave birth to total quality management (TQM) whose emphasis was quality in all aspects of an organization, a key success factor in satisfying the needs of the customer. TQM also enhances credibility and sustainability of the service (The Beginner's Guide to Quality Management Systems). Universities should borrow from the Japanese and American experience in QMS to enhance competitive standards of education in order to enhance continuous improvement of quality in education. In addition, they should place focus on the student as their customer and also shift their

quality management from inspection to improving all organization processes for the same reason.

QMS in the late 20th century preferred the term "Quality Management System'' (QMS) to "Total Quality Management" (TQM) while the beginning of the 21st century merged QMS with sustainability and transparency themes which were aimed at enhancing consumer satisfaction. ISO 9001:2015 became the most recognized and implemented quality management system standard in the world. The standard specifies the requirements for a QMS that organizations can use to develop their own programmes. (What is Quality Management System/ ASQ?).

2. Quality Management System: The Concept

"Quality" and "quality management systems" are popular terms in the business world which are different in focus although closely related. A brief definition of each term is presented below.

2.1 Quality

Quality in business focuses on the savings and additional revenue that organizations can realize if they eliminate errors throughout their operations and produce products and services at the optimal level of quality desired by their customers (What is Quality ManagementSystem/ASQ?*asq.org/learn-about-quality/quality-management-system/*).
However, quality is a subjective concept that is directly related to the perceptions of each individual. Several factors such as culture, mental models, type of product or service, needs, and expectations influence the definition (Mendes, Quality Management Systems- Springer). Mendes further asserts that people evaluate the quality of a product by its appearance, its price or the material it is made of. He maintains that the only objective and measurable aspect of quality is the "process," and adds that based on the process, an organization can employ international methodologies and requirements disseminated by certifiable standards such as ISO to evaluate the quality of a product.

Juran defined quality as "fitness for use," meaning that the users of products or services should be able to rely on that product or service 100 percent of the time without any worry of defects. He further observes that the quality of a product or service is only as good as its design and intention. This shows the need to integrate quality issues in the design process, and to also have in mind during the design phase the difficulties one might have in replicating the product or service with the intended quality level. Juran emphasized that an organization should dissect all processes and procedures from a quality perspective and analyse for a "fitness for use" and then use results to make changes based on the "fitness for use" model (Quality Management Systems).

Universities should embrace process approach to quality management in order to entrench quality in all the steps of curriculum process namely curriculum design, development, implementation, evaluation, and review. This entails that the goals, objectives, resource and learning activities of the programme design and development align with the implementation and evaluation stages of the curriculum process.

2.2 Quality Management System (QMS)

QMS 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. This is however achieved when the purposes of the QMS are clearly outlined for employees. In this regard, a QMS should establish a vision, set standards and goals for the employees, build motivation within the organization, fight the resistance to change within the organization, and direct the corporate culture (Quality Management Systems. www.abahe.co.uk/business-administration/Quality-Management-Systems.pdf).

University management should for instance, outline job descriptions for various categories of staff and set standards, goals, objectives and targets for various cadres and constantly influence their actions to complete the tasks according to specifications. In addition, standards and specifications of students' performance, criteria for assessment, discipline and examination procedures and requirements should be clearly articulated and communicated to all students and follow up by teachers made consistently to enhance quality improvement. Further, the management should devise appropriate methods of motivating and acknowledging staff and students for good performance or remarkable performance progress for the same purpose.

2.3 Developing and Implementing a Quality Management Plan (QMP)

A QMP should have clear and measurable goals; financial resources; and consistency of quality plan with the organization's vision and values, all in the context of an organization. The plan should also incorporate flexible staff empowerment to enable employees at all levels to participate and give their input for the success of the quality systems. Mendes (in Quality Management Systems) proposes eight necessary steps for developing and implementing QMS as follows: Determine needs and expectations of customers and others; establish a quality policy and quality objectives for the organization; determine processes and responsibilities to achieve the quality objectives; identify and provide necessary resources to achieve the quality objectives; establish methods to measure the effectiveness and efficiency of each process; apply these measurements to determine the effectiveness and efficiency of each process; determine means to prevent nonconformities and eliminate their causes; and establish and implement a process for continuous improvement of the QMS.

The processes represent a very systematic approach to QMS which an organization should employ in order to create confidence in their processes and quality of their products and also provide the basis for continuous improvement and consequent increase in customer satisfaction. Notably, however, although most universities have established a Quality Assurance Department, research shows they still operate in a centralized manner where just a few people holding leadership responsibilities are involved (Martin, 2018). This means that the QMS are not effectively serving their purpose. It is imperative that universities invest in training the staff working in the Quality Assurance Departments so that they can empower them with knowledge and skills needed to direct a QMS.

A QMS should further include the organization's quality policy and quality objectives; quality manual; procedures, instructions, and records; data management; internal processes; customer satisfaction from product quality; improvement opportunities and quality analysis. Each element should be designed and executed in context to serve a purpose toward the overall goals of meeting the customers' and organization's requirements (International Organization for Standardization. Iso.org). QMS are governed by Quality management principles (QMP)-a set of beliefs, norms, rules and values used to guide an organization's performance improvement. The following section discusses QMP.

2.4 Quality Management Principles (QMP)

ISO outlines seven QMP as follows: Customer focus, leadership, engagement of people, process approach, continuous improvement, evidence-based decision making and relationship management (ISO Quality Management Systems). The principles are described below.

2.4.1 Customer Focus

The primary focus of quality management is to meet customer requirements beyond expectations. This is crucial because an organization which attracts and retains the confidence of customers and other interested parties achieves sustained success. This demands an organization to understand current and future needs of customers and other interested parties. Customer focus should be emphasized because of its benefits such as increased customer value and satisfaction, improved customer loyalty and enhanced repeat business, enhanced reputation of the organization, expanded customer base and increased revenue and market share (ISO Quality Management Systems).

The status of universities in Kenya and other countries in Africa unfortunately raises concerns on whether they are satisfying the needs of students as their customers. For instance, the British Council (2014) cited in the IUCEA (2015) reports that expansion of universities in many countries in Africa has not matched the available facilities and resources, the high student-teacher ratios has outstretched the meagre resources, and the number of teaching staff is also inadequate among other challenges. These changes require redressing to ensure that quality management is enhanced at this level of learning. Evidently, high student-teacher ratios cannot attract individualized instruction. This is a major setback in today's education because individualizing education is a critical factor in accelerating sustainable development as it ensures that all learners have an opportunity to unleash their potential in education, thus enabling them to contribute to the economic development of the society. It also helps teachers to focus their attention on individual students in order to meet their needs.

Further, universities should enforce the Commission for University Education (CUE) policies and guidelines on facilities and resources, student-teacher ratio and load allocation of the teaching staff per programme if they are to deliver quality education that is globally competitive. In addition, CUE should be more vigilant and firm in its regulation of quality in universities through its quality management processes

(including programme evaluation, programme accreditation and quality audit) if quality and standards in university education are to be effectively enhanced.

Achieving customer focus further requires an organization to recognize direct and indirect customers as those who receive value from the organization; understand customers' current and future needs and expectations; link the organization's objectives to customer needs and expectations; communicate customer needs and expectations throughout the organization; plan, design, develop, produce, deliver and support goods and services to meet customer needs and expectations; measure and monitor customer satisfaction and take appropriate actions; determine and take actions on interested parties' needs and expectations that can affect customer satisfaction; and actively manage relationships with customers to achieve sustained success (ISO Quality Management Systems). Universities in Kenya are yet to achieve customer focus due the challenges highlighted above. In addition, although most universities measure and monitor student satisfaction through student evaluation and student programme surveys, they rarely take appropriate actions on teachers who are not performing well (Martin, 2018)).

2.4.2 Leadership

Leaders have an obligation to establish unity of purpose and direction, and create conditions in which people are engaged in achieving the organization's quality objectives. This enables an organization to align its strategies, policies, processes and resources to achieve its objectives. Positive influence by leaders in the stated roles leads to increased effectiveness and efficiency in meeting the organization's quality objectives; better coordination of the organization's processes; improved communication between levels and functions of the organization; development and improvement of the capability of the organization and its people to deliver desired results. Influencing the organization in quality management requires leadership commitment and understanding of the significance of quality management system (QMS) in the success and survival of an organization and its roles in entrenching a culture of quality in every sector of the organization. This demands that leaders and all other employees are offered training in QMS on a regular basis to keep them abreast with new developments in research in the area.

For instance, the leadership should be empowered to understand how to effectively play their roles and responsibilities including communicating the organization's mission, vision, strategy, policies and processes to all employees; creating and sustaining shared values, fairness and ethical models for behaviour at all levels of the organization; establishing a culture of trust and integrity; encouraging an organization-wide commitment to quality; ensuring that leaders at all levels are positive examples to people in the organization; providing people with the required resources, training and authority to act with accountability; and inspiring, encouraging and recognizing people's contribution (ISO Quality Management Systems).

Interestingly, however, most people are assigned leadership positions in universities such as Deputy Vice-Chancellor, Dean of a school, Head of department,

Director of a college and other senior positions without prior training on their roles regarding quality management in their docket. This means they have no capacity to provide leadership in quality management. It is crucial that officers holding senior positions are provided with training in quality management prior to assuming the responsibility or otherwise offered training on the job if they are to offer guidance on the same to the staff working under them. This is critical because, Deming (in Quality Management Systems) asserts that 85 percent of all quality problems are the fault of management. Further Deming maintains that in order to improve, management has to take the lead and put in place the necessary resources and systems as consistent quality in incoming materials may not be expected when buyers are not given the necessary tools to understand quality requirements of those products and services.

2.4.3 Engagement of People

An organization should engage competent people in quality management at all levels in order to enhance its capability to create and deliver value and to also manage it effectively and efficiently. Achievement of the organization's quality objectives also requires recognition and respect of individuals, empowerment and enhancement of competence. Engagement of employees has benefits which include improved understanding of the organization's quality objectives and increased motivation to achieve them; enhanced involvement in improvement of activities; enhanced personal development, initiatives and creativity; enhanced satisfaction; enhanced trust and collaboration throughout the organization; increased attention to shared values and culture throughout the organization. It also facilitates open discussion and sharing of knowledge and experience; empowers people to determine constraints to performance and to take initiatives without fear; recognizes and acknowledges people's contribution, learning and improvement; enables self-evaluation of performance against personal objectives; helps to conduct surveys to assess people's satisfaction, communicate the results, and take appropriate actions. In all, the success of the implementation and management of a quality system involves many different aspects that must be addressed on a continuous basis. It is critical that all stakeholders are empowered on the significance of quality management systems so that they understand and play their roles effectively to contribute to the achievement of quality in the organization.

In a university for instance, quality management system should involve staff, students, parents and other stakeholders because participation of all stakeholders is critical if they are to effectively implement and manage quality processes. Inclusivity encourages stakeholders' participation within their context even as they align with the central system that is embedded with the university mission. Surprisingly, however, as noted above, research indicates that only a limited number of actors in certain positions in universities such as Deans of Schools, Heads of Departments, Librarians and Principles are involved in key quality issues including the design and revision of quality assurance tools (Martin, 2018). This implies that quality systems do not enhance an all-inclusive participation by employees, yet this is a key success factor in creating an

organization quality culture. Reforms are needed to ensure that QMS are institutionalize in order to shift from centralized to decentralized QMS.

2.4.4 Process Approach

Process approach requires that activities of a quality management system are understood and managed as interrelated processes that function as a coherent system in order to effectively and efficiently achieve consistent and predictable results. This enables an organization to optimize the system and its performance. Interrelationship of activities in a learning institution is illustrated by teaching documents including record of work, lesson plan, scheme of work, and syllabus. Record of work draws from the lesson plan while the lesson plan draws from the scheme of work while the scheme of work draws from the syllabus. This interdependence is also illustrated by the elements of a lesson plan (including learning outcomes, content, resources, learning activities and application exercises) which work in an interrelated manner to achieve the end result-quality education.

Interdependence of activities in a university is also illustrated in the stages of curriculum development process (curriculum design and development, curriculum implementation and curriculum evaluation. CUE Curriculum Standards Guidelines for instance require that in designing and developing a curriculum programme, various sections including the goals of the programme; course title, purpose, expected learning outcomes, content, mode of delivery, assessment procedure, and textbooks and journals should demonstrate a harmonious relationship and interdependence (Commission for University Education, Curriculum Standards Guidelines, 2014). In addition, curriculum implementation and Evaluation should be synchronized with the outlined sections of the programme. However, lecturers are not offered training on the principles of curriculum design and development. Thus, the quality of programmes they design and develop lack the harmony needed in various sections and this affects the quality of education at the implementation and evaluation stages. A university should set up a quality management team to facilitate such training.

Organizations should tap from the benefits of quality management such as enhanced ability to focus effort on key processes and opportunities for improvement; consistent and predictable outcomes through a system of aligned processes; optimized performance through effective process management, efficient use of resources, reduced cross-functional barriers and provision of confidence to interested parties as to its consistency, effectiveness and efficiency (ISO Quality Management Systems). University management should influence all departments and stakeholders to understand that all activities in the institution are geared towards achieving the vision and mission of the university as each department plays its unique roles effectively. This is crucial because, research indicates that university stakeholders operate on the assumption that achievement of the vision and mission of the university and quality management is confined to teaching and learning (Martin, 2018).

However, achieving results through process approach requires an organization to define the objectives of the system and processes necessary to achieve them; establish

authority, responsibility and accountability for managing processes; understand the organization's capabilities and determine resource constraints prior to action; determine process interdependencies and analyze the effect of modifications to individual processes on the system as a whole; manage processes and their interrelations as a system to achieve the organization's quality objectives effectively and efficiently; ensure the necessary information is available to operate and improve the processes and to monitor, analyse and evaluate the performance of the overall system; and manage risks that can affect outputs of the processes and overall outcomes of the quality management system.

In addition, formulation of a well-defined vision and value statement is critical in establishing the significance of the quality system and building motivation for the changes that need to take place. The vision and values should be articulated and known by all involved to enhance the desired organization culture. Vision and value statement also set the agenda for all other processes used to manage the quality system (Quality Management Systems). However, as Tam (2001) reiterates, quality assurance structures and mechanisms should be established in the context of the vision and mission of the institution to enhance unity of purpose for quality improvement. (ISO Quality Management Systems).

Mendes (in Quality Management Systems- Springer) maintains that for an organization to function effectively, it must determine and manage various interconnected activities and processes. He also notes that defining what quality means enables an organization to assess whether the set of processes and sub-processes are structured and aimed to achieving quality. An organization is expected to develop quality assessment tools to enable it to evaluate various stakeholders on quality in key aspects of their performance and ensure that the feedback data is utilized relevantly to enhance improvement. For instance, universities have developed tools for evaluating teaching and learning effectiveness, development of graduate employability skills and effectiveness in other leadership/administration operations.

The tools include student evaluation and student programme survey; graduate tracer study and employer survey. They also employ international standards, mainly ISO 900:2015 (Martin, 2018). However, the tools should be supplemented with qualitative data to encompass information that cannot be captured by the quantitative data gathered with the outlined tools. This shows there is need for universities to develop innovative tools for collecting information to evaluate different aspects of performance including student referral data, class representative qualitative data on lecturer performance in and out of class. In addition, feedback from the evaluation data should be facilitated to the relevant stakeholders without delay for quality improvement. This notwithstanding, however, research shows that universities do not give the feedback of the data obtained to stakeholders. Also, public universities may not have evaluation as a priority, given the high student-teacher ratios and lack of adequate teaching staff and facilities as noted above. In addition, Martin (2018) observes that universities do not conduct student evaluations on regular and systematic basis and that they do not also facilitate timely feedback when they conduct evaluations. This

means the process is not adequately serving the purpose of enhancing quality improvement.

2.4.6 Continuous Quality Improvement

Continuous quality improvement (CQI) principle entails that an organization works towards improving quality continually and this helps it to maintain the current levels of performance, to enable it react to changes in internal and external conditions and to create new opportunities (Quality Management Systems; Commission for Higher Education, 2008). CQI focuses on creating a corporate quality culture and also attempts to develop a quality system that strives for constant innovation to improve work processes and systems continually. It also seeks to reduce time-consuming and low value-added activities to ensure that time and resource savings are devoted to planning and coordination.

Universities should borrow from the benefits of CQI to enhance innovation and improvement of education. The benefits include improved process performance, organizational capabilities and customer satisfaction; enhanced focus on root-cause investigation and determination which enables prevention and corrective actions; enhanced ability to anticipate and react to internal and external risks and opportunities; enhanced consideration of both incremental and breakthrough improvement; improved use of learning for improvement; and enhanced drive for innovation. These measures help in eliminating risks that could impede quality and failure to satisfy customers (Quality Management Systems).

CQI requires an organization to establish strategies for improving its objectives at all levels. The strategies include educating and training people how to apply basic tools and methodologies to achieve improvement objectives; empowering people to successfully promote and complete improvement projects competently; developing and deploying processes to implement improvement projects throughout the organization; tracking, reviewing and auditing the planning, implementation, completion and results of improvement projects; integrating improvement considerations into the development of new or modified goods, services and processes; recognizing and acknowledging improvement (Quality Management Systems). Organizations should employ these strategies for their growth. For instance, universities should regularly and systematically conduct tracer studies to track their graduates and use the feedback to help them align their programmes with labour market needs. They should also provide staff with regular professional development in quality management to help them to effectively participate in quality management.

In addition, effective employment of CQI) requires an organization to adjust to the changes of the society. It also requires using quality evaluation data to rectify systemic or special errors, or intervene where necessary to enhance improvement. While systematic errors are caused by personnel, machines, or products (including poor product/service design, materials not suited for their use, and poor physical conditions), special errors are caused by individual employees or equipment such as lack of training or skill, poor incoming materials, or equipment out of order. Managing the two types of

errors is a continuous process that requires an organization to be alert in identifying where the needs are and responding to them appropriately, in order to improve quality (Deming, in Quality Management Systems). It further requires that putting in place effective risk management strategies to curb the errors.

2.4.7 Evidence-Based Decision Making

This refers to decision making that is based on data. Decisions in an organization should be based on the analysis and evaluation of data. This is crucial because decision making is a complex process which involves some uncertainty and multiple types and sources of inputs and interpretations that can be subjective. Thus, facts, evidence and data analysis should be used for objectivity and confidence in decision making. This enhances improved decision-making processes; improved assessment of process performance and ability to achieve objectives; improved operational effectiveness and efficiency; increased ability to review, challenge and change opinions and decisions; and increased ability to demonstrate the effectiveness of past decisions. However, evidence-based decision making requires an organization to determine, measure and monitor key indicators to determine the organization's performance; make all data needed available to the relevant people; ensure that data are sufficiently accurate, reliable and secure; analyze and evaluate data and information using suitable methods; ensure people are competent to analyze and evaluate data as needed; make decisions and take actions based on evidence, balanced with experience and intuition.

As noted earlier, it is critical that all staff involved in monitoring performance are well trained so that they can use suitable methods of collecting and interpreting quality management data to avoid flaws that could lead to making wrong decisions. In a university for instance, the methods used in collecting student evaluation data, and students' programme survey should ensure that the environment does not allow students to discuss their responses to the evaluation questions. The data should also be correctly interpreted and feedback data effectively used for improvement and decision making on deployment where applicable. Also, graduate tracer surveys and employer programme surveys should be correctly interpreted and feedback data effectively used for improvement. Feedback could for example be used for reviewing or overhauling a programme. However, as earlier noted, the unmanageable student-teacher ratios and lack of teaching staff and resources and other challenges does not enable public universities to carry out quality evaluations. In addition, although private universities carry out the evaluations, they are not done on regular basis and the feedback rarely gets to the people concerned as noted above. These shortcomings impact evidence-based decision making in Kenyan universities negatively.

2.4.8 Relationship Management and Partner Networks

This principle refers to an organization's relationship and networks with like-minded parties and institutions. An organization is for instance expected to manage its relationships with interested parties, such as suppliers for its sustained success and optimization of performance. Further, relationship management with an organization's

supplier and partner networks has benefits which include enhanced performance of the organization and its interested parties through responding to the opportunities and constraints related to each interested party; common understanding of goals and values among the parties; increased capability to create value for the parties by sharing resources and competence and managing quality-related risks; and a well-managed supply chain that provides a stable flow of goods and services.

Organizations should tap into these benefits to enhance quality improvement in performance. For instance, universities should manage relationships and networks locally and internationally to enable them benchmark with reputable like-minded institutions to enhance continuous quality improvement in education. International networks have the advantage of helping an institution to establish whether it is equipping its learners with skills for the global economy. In addition, international cooperation and collaboration can help universities participate in building a global learning network that can ensure that learning in universities across the globe is adequately preparing students with skills and competences that enable them to confront the numerous challenges of today's dynamic world and also compete for international jobs (Quality Management Systems).

3. Conclusion

As discussed in this paper, organizations need to enhance their QMS in order to meet the needs of the customer and those of the organization. Enhanced QMS are also crucial in enhancing a culture of quality in the entire organization and this plays a significant role in ensuring that the organization's performance is to the required standards and that it also seeks to enhance continuous improvement of the standards. Universities should prioritize on establishing and implementing effective QMS if they are to offer quality education that meets the needs and expectations of their customers-students. They should however understand that management support is critical in the success of QMS as its commitment to the quality management agenda influences all other sections to be involved in quality management. Thus, it should effectively communicate and create awareness of quality to all employees, provide rewards and acknowledgement on quality and develop quality system design in order to motivate employees to engage and own quality management processes.

4. Recommendations

The study recommends the following:

4.1 Customer Focus in QMS

Universities should continually seek to understand students' needs and meet them in order to enhance their satisfaction and retention and also attract new students through referrals. This is critical for their financial stability and survival.

4.2 Enforce Policy on Facilities, Resources and Student-teacher ratios

Universities should enforce CUE policies on facilities and resources, student-teacher ratio and the number of teaching staff are critical if universities in Kenya are to offer quality education with a global perspective to enable graduates compete for international jobs across the globe.

4.3 Educate and Train Leaders and Employees in Quality Management Systems (QMS)

All employees should be offered training on how quality programmes affect their jobs on a daily basis, the tools to use in order to ensure outputs and how their roles add to the overall quality goals of the organization. Further, QMS should be linked with staff development. For instance, feedback from student evaluation of courses should be used to improve young teachers' performance by involving top-performing teachers to provide 'mentoring' for them.

4.4 Audit Quality Management Systems (QMS)

Universities should audit their QMS to help all the people involved determine if they are working correctly and if the goals and objectives are being reached. Audit reports should be used relevantly to motivate employees through rewards, acknowledgment and compensation. Other forms of organization should employ an auditing process that fit their unique systems.

4.5 Align the quality management system with the university's Strategic Plan

Quality management vision, value statements and related documents should be embedded with the university's strategic plan to ensure that all staff and students are aware of them and are also implementing quality. This entails mainstreaming quality management systems and instruments with the other components of the university management system namely strategic plan, the operationalization of strategic goals through the development of plans and programmes, target agreements, and management control.

4.6 Align Resources with programme Goals

Universities should ensure efficiency and resources adequacy, responsiveness to academic and corporate needs and alignment with external requirements. For example, teaching infrastructure facilities and resources should be aligned to programme goals in order to enhance effectiveness in teaching and learning.

4.7 Enhance Communication Flow of Quality Management

The management should communicate quality policy and manual, the objectives of the university's academic project, the role of quality management system in relation to it, and the tools and policies supporting it from executive to all levels to ensure effective implementation of the contents of quality in the manuals. Also, feedback from

qualitative and quantitative quality management tools should be integrated to avoid an information overload.

4.8 Devise innovative Quality Management Tools and Ensure they function as a System

Universities should come up with innovative cost-effective quality management tools and processes that are well articulated between each other and also function together as a system. The tools should be integrated with planning, management, and resource allocation. They should also be aligned with the university vision and values as well as the context of different stakeholders in various sections of the organization. This is crucial in enhancing systematic collection of different stakeholders' perceptions data as well as effective utilization of the feedback from the data for improvement of quality in education.

4.9 Network with other Universities and the Industry

Universities should network locally and internationally to enable them benchmark with like-minded institutions for continuous quality improvement and to help them equip students with skills for the global economy as well as participate in building a global learning network that help to prepare students with 21st century skills. Networking with the industry ensures that professionals are involved in the initial development of a programme, its implementation and periodic reviews in order to reflect market needs, provide career counselling services and other student support services (including mentorship and coaching by professionals from the industry on labour market skills, innovation and entrepreneurship). They should also continually carry out graduate tracer studies, employer satisfaction surveys, and job market analyses to increase the relevance of its programmes to the job market.

4.10 Collaborate with Education Partners and Stakeholder

Universities should promote participation and collaboration with all learners, teachers, parents, community, education partners and stakeholders. This makes the parties involved to offer support to learners, have a sense of belongingness and ownership of the institution as well as its improvement.

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