Effect of Implementation of Quality Management System through Customer Training on Customer Satisfaction in Higher Learning Institutions: A Case of Zetech University, Kenya

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Abstract

World over, higher learning institutions have had difficulties in developing and implementing best practices that are based on their customers' requirements. Quality Management System (QMS) has emerged as an alternative way to fill this gap. However, the overall impact of implementing it in relation to customer satisfaction and the role plays needs to be ascertained. This study aimed to establish the effect of implementation of quality management systems through customer training on customer satisfaction in higher learning institutions. The study is guided by systems theory. A descriptive research design was adopted. The target population was approximately 7000 people with a sample size of 378 persons. The study established that training greatly influenced customer satisfaction. The study concluded that indeed implementing QMS has a direct influence on the satisfaction of customers. The study recommends that Zetech university should inculcate a culture of customer satisfaction in all its employees. Any newer employees should be inducted accordingly in key areas that directly or indirectly influence customer satisfaction.

*Keywords***:** *Quality management system, customer training, customer satisfaction*

1.0 Introduction

A Quality Management System (QMS) has emerged as an important management method adopted by organizations in communicating to its workers the expected and desired products and services based on established standard criteria (Reichheld, 1990). However, the full implication is yet to be understood. This accepted mode of operation influences employee action to complete their tasks based on product and service specifications. The ISO 9000 standards guides various organization on quality requirements and principles applicable to their setup. Thus, firms only need to adapt and customize the requirements of such standards in their processes. ISO 9001:2015 guides the operations of learning institutions by focusing its attention on the customer. The idea of QMS is to have organizations continually improve on their undertaking by utilizing collected available, accessible, and accurate data to make relevant decisions.

Worldwide, organizations operate within changing environments and dynamic markets due to increased competition, changing customer expectations, and increasing risks with diminishing opportunities. Decision-making, therefore, should aim to improve functions and outputs

irrespective of the operational areas, size, and success strategies. Quality Management System (QMS) advocates for the identification of the organization's current position with aspirations of continuous improvements. QMS is of three types: Quality planning (QP), Quality assurance (QA), and quality control (QC). QMS works towards the development of a reference point framework to ensure that whatever processes and practices are undertaken in line with the information, skills, and methods of control agreed upon and applied consistently.

There was a dilemma on methods to approach educational reforms in Texas (Cole, 2002). Education experts were under pressure in achieving performance expectations against financial accountability. Those who sought to generate alternatives to public learning were tasked to come up with workable methods. The leaders were therefore seen as change agents to bring productivity, effectiveness, and efficiency to humanity. Implementation of QMS helped identify tools and methods, and establishment of processes and systems that aligned product with improvement. The transformation brought forth equity in learning by redirecting goals and procedures to ensure student success. Resource deployment with change outcome in mind improved governance and accountability in public schools.

In Europe, there was a problem among higher learning institutions with better ways to measure quality and improvement (Maria, 2012). The modes of accreditation, performance indicators, institutional, and program assessment were unknown. This generated a debate on the application of QMS principles, methods, and tools to revamp the education sector. The dissenting opinions opined that higher education was not an industry and thus TQM approaches were not applicable. The Bologna declaration of 1999 on higher education forced institutions to develop internal quality assurance systems based on their goals, mission, vision, and strategies based on European Standards and Guidelines (ESG). This is when QMS practices, frameworks, and tools came into place to address customer needs and requirements.

The Republic of Albania had no framework for measuring and evaluating higher education (Bruçaj, 2018). In fact, by 2015 no public university had been accredited to quality standards. A focus on private universities' lacking performance measures in teaching, research, and other activities. Management had a difficult time setting strategies to address the increased demand for higher education. Establishing and implementing QMS helped identify existing problems and made recommendations for continuous improvement. Globalization and competition with the need to attract international customers, reduction of operational costs, and efficient service delivery created a need for development and implementation of acceptable global standards.

The African levels of education have had challenges after colonialism and had been rated as poor quality (Materu, 2010). Employers have posited about having half-baked graduates who cannot fit into the industry. The quality of knowledge dispensed is reflected in the competency of graduates in the labor market. There is no acceptable regional standard of education in Africa. An increasing student population, deteriorating infrastructure, shrunk manpower, and poor sites of universities lower the quality (Idowu, 2007). The SADC protocol (1997) of education and training recommended the establishment of procedures and processes in line with the objectives of learning institutions. Universities councils were tasked to develop mechanisms for continual improvement, evaluations, monitoring, and review of teaching. Feedback collection from students and other stakeholders on the effectiveness of the processes was to be established. QMS played a key role in providing an acceptable standard applicable across the board.

In South Africa, there existed numerous paradoxes in the quality of higher education (Souldien, 2007). There was neither description of mandatory initiatives to bring transformation in higher

education processes nor matters of quality and equity. The role of the state was not clear in ensuring quality of learning. There was no blueprint guiding the nature and kind of graduate universities were expected to produce. There was no framework to control processes in the access and delivery of quality learning. The incorporation of QMS assisted in the development of policies with a reflection on future improvements. Quality assurance practices guided regulation that shaped academic progress in this country.

In Kenya, the University of Nairobi had challenges in maintaining and serving customers (Magutu, 2010). Record keeping, feedback acquisition, and customer service were big challenges. The status quo and rigid protocol were a hindrance to serving clients. Coordination and communication were inflexible and tedious. Seen as the oldest public university in Kenya, these actions painted a negative picture of them. The embrace of QMS practices helped in the development and accreditation of programs, stakeholder assessments, certifications, and customer experience. Continuous performance reviews have made it easier for customers especially students to access services. Though there was resistance during implementation, the results seen are positive. The identification of the needs and requirements of stakeholders has brought great transformation in service to humanity at the institution.

A comparative approach to the effects of implementing QMS on the performance of Kenyan universities based on operational environments (Wanza, 2017). Public universities have been for long accused of mishandling resources and customer properties. This, however, still touches on private ones. The lack of accountability framework attached to strategic direction on core services made it easy to have embezzlement of funds. Areas of research and community service were widely ignored. The increase in student enrolment with reduced funding breeds out-of-date teaching methodologies, poor governance, and staff turnover. The poor quality of educational output has raised eyebrows on the commitment, adoption, and implementation of QMS to improve performance (Osumba, 2014). Although QMS prescribes documentation of processes and procedures with a follow-up action brings good performance if adhered to.

Problem Statement

QMS is an area where scholars are still discovering the implications of its implementation. This study intended to contribute to the growing body of knowledge. Most studies so far seem to focus on Total Quality Management (TQM) which is rather an old-waned approach. This is due to its lack of a standardized approach to quality, and its inability to conduct continuous audit sessions which makes it difficult to attain other relevant quality standards. In this study, the main objective was to establish the influence of implementing a quality management system on customer satisfaction at higher learning institutions.

Quality assurance requires continual checking of what has been prescribed against what is being done and recommending any areas requiring attention. Learning institutions focuses on curriculum design and development, training, examining, grading, and graduating of their key account customers as their output. QMS is a newer area of study that is generating massive academic attention. This study intends to expound on the magnitude of implementing it and the consequences thereof on customer satisfaction. The development of systems and processes applicable to learning and the role of communication was traced down to customer satisfaction. The study aimed to establish the effect of implementation of quality management systems through customer training on customer satisfaction in higher learning institutions.

2.0 Literature Review

Theoretical Review

The systems theory is one of the earliest theories of management (Bertalanffy, 1940) which was later refined by (Ashby, 1956). It was noted that an organization should have a true framework that encourages cooperation, considers the environment, and ensures continuous organizational advancement (Bertalanffy, 1940). Therefore, the organization must understand its operating environment and how it impacts its performance. This coincides with the view that a system is an interrelationship of parts with a reason for creating associations (Schermerhorn, 1986).

Furthermore, a firm must generate an association of accommodating people's commitments based on agreed objectives. The administrators of an organization play a key role in establishing the administrative roles with attached goals with focused associations for performance. Therefore, an organization is considered smaller parts that work together to enable adequacy in performance. The arrangement and autonomy of varied parts breed synergy amongst their divisions. The cooperation of people makes it easy to achieve objectives and vision. As such, there will be continuous adjustments and upgrading of the work frames to ensure maximum benefit to the customers. The aspect of training and development brings efficiency to the working of a system.

This theory advocates for alternative approaches to managing a firm by suggesting that business is a body made of subsystems that must work in harmony for a common goal and optimal functionality. Aspects of interdependence, synergy, and interrelations make the success of the subsystems. The role of employees as individuals or groups is essential in the collaboration of varied programmes for success. This theory, therefore, is essential for this study because it looks at the university as an autonomous framework made of varied systems which work in relation and are being lubricated by QMS to improve their efficiency and effectiveness in operations and enhance customer satisfaction.

Empirical Review

For any successful implementation of QMS programmes, staff training is mandatory. An Asian study on the roles of training on customer satisfaction among tourism employees in Klang valley, Malaysia (Chaichi, 2019). It was noted that people and processes at any level of organization is crucial for the overall services offered to customers. For proper performance, people must be trained on how to work. However, the study did not provide the relevant areas of training but left it open for companies to determine. It also relied on tangibility, reliability, empathy, assurance, and responsiveness of trainers. There was a focus on the role of employee training in customer satisfaction in Iran (Nahid Teimourpour, 2013). It was noted that for training, the learning should be customer-centered, proper communication must be done and employees should answer pertinent customer questions. It was also noted that customer satisfaction is the overall future referrals from present-day customers based on their happiness. The study was too shallow and basic having in mind various techniques that can be employed to measure customer satisfaction rather than referrals.

A study in Egypt was done on the impact of training activities on quality service, customer satisfaction, and behavioral intentions in the hospitality industry (Abdelhamied, 2019). It was noted that for quality customer service, training and work procedures are mandatory. Competition, globalization, technology, and customer preferences are quickly changing thus employees need to relearn what they do. However, the scope of this study was too wide, and

data was collected from both customers and staff. Both gave mixed reactions to the need for further training at the workplace.

In South Africa, a study was done on the need for implementing QMS in the construction industry (Rwelamila, 2020). It was revealed that people are different and thus cannot perform a similar role in the same way. Although contractors were working on different projects, there was no common and standardized system for measuring their work. QMS was thus seen as a way to bring synergy at work through observation of occupational standards and health practices. However, the study fell short of addressing specific contractors of specified industries. It swept across all construction sectors. It was noted that a lack of education, training and documented processes led to poor performance.

3.0 Methodology

This study employed a descriptive survey to enable the researcher to describe the journey of the university in implementing QMS to date. The target population was approximately 7000 people with a sample size of 378 persons. Proportionate random sampling was used to study how QMS measured by training has translated to customer retention. Data was collected using structured questionnaires, analyzed using Stata, and presented in tables only for clarity. The sample frame was strictly within Zetech University.

4.0 Results and Discussion

Descriptive analysis of Customer training

This section contained varied questions to test the level and efficiency of customer training as a result of implementing QMS in the institution.

Adequacy of teaching workforce

The respondents were asked to acknowledge whether the university has adequate and well-trained lecturers and instructors to handle all the course requirements irrespective of the level of learning. There is a dire need to engage well-trained and competent staff for a learning institution to manage the changing customer dynamics and market trends if indeed satisfaction ought to be achieved (Amadi, 2014). The findings were as tabulated in table 1.

Table 1: Adequacy of teaching staff

Teaching workforce is adequate	Frequency	Percentage (%)	Cumulative percentage (%)
Yes	267	96.74	96.74
No	9	3.26	100
Total	**276**	**100**	

Competency of lecturers

The respondents were expected in their own opinion to determine whether the lecturers and instructors handling them in various learning areas were competent, knowledgeable, and up to the task to meet their training needs. The competency of service providers is crucial for the image of the organization and customer satisfaction to a greater extent in managing learners' behaviors (Ming, 2013). The findings were as shown in table 2.

Table 2: Competency of lecturers and instructors

Lecturers are competent	Frequency	Percentage (%)	Cumulative percentage (%)
Yes	259	93.84	93.84
No	17	6.16	100
Total	**276**	**100**	

Modes of learning

The respondents were required to point out whether teaching and learning is done both physically and virtually in their institution. Those in leadership and managerial positions play a crucial role in ensuring that learning materials of various modes are adequately and timely acquired to enhance quality of service delivered (Pantouvakis, 2016). The findings were as in table 3.

Table 3: Modes of learning

Different modes of learning	Frequency	Percentage (%)	Cumulative percentage (%)
Yes	272	98.55	98.55
No	4	1.45	1.45
Total	**276**	**100**	

Adequacy of class sizes

Each respondent was required to evaluate and opine on the adequacy of class sizes as to whether they are big enough to accommodate them and enable effective learning. The findings were as shown in table 4.

Table 4: Adequacy of class sizes to learning

Classes are big enough	Frequency	Percentage (%)	Cumulative percentage (%)
Yes	264	95.65	95.65
No	12	4.35	100
Total	**276**	**100**	

Adequacy of Covid-19 virus response to learning

Furthermore, the respondents were expected to establish whether the institution adequately and effectively responded to challenges posed by Covid-19 to enable smooth learning. The findings were as shown in table 5.

Table 5: Response to Covid-19 virus

Adequate response to Covid-19 virus	Frequency	Percentage (%)	Cumulative percentage (%)
Yes	260	94.55	94.55
No	16	5.45	100
Total	**276**	**100**	

Acquisition of online learning tools

On the other hand, each respondent was required to establish whether the university had acquired online learning tools like Zoom, Kennet, and Microsoft teams among many others. A whopping 94.20% agreed that indeed the university had done its best in acquiring a variety of

online learning tools to enable students to learn with ease irrespective of distance away from school. The findings were as shown in table 6.

Table 6: Acquisition of online learning tools

Presence of online learning tools	Frequency	Percentage (%)	Cumulative percentage (%)
Yes	261	94.57	94.57
No	15	5.43	100
Total	**276**	**100**	

Training on online learning

Each student was expected to determine whether the university had done adequate training for both students and staff with respect to usage of online learning tools acquired. The findings were as shown in table 7.

Table 7: Training on usage of online learning tools

Training on usage of online learning tools	Frequency	Percentage (%)	Cumulative percentage (%)
Yes	251	90.94	90.94
No	25	9.06	100
Total	**276**	**100**	

Frequency of training on online learning

On the hand, the respondents were expected to show whether the university conducted regular training for both students and staff with regard to the usage of online learning tools and point out any emerging areas of concern for continuous improvement. This is meant to boost the effectiveness and efficiency of using such tools to learn. It is paramount to continuously improve your service deliveries and customers alike to boost performance and expected revenues (Mohammed, 2017). The findings were as shown in table 8.

Table 8: Regularity of conducting training on usage of online learning tools

Conducting regular training on online learning	Frequency	Percentage (%)	Cumulative percentage (%)
Yes	241	87.32	87.32
No	35	12.68	100
Total	**276**	**100**	

Online administration of teaching and examinations

Furthermore, every respondent was expected to show whether it was possible to administer both technical and arithmetic units online. This was due to the varied online learning tools acquired to enable learning after the Covid-19 virus pandemic struck the world. The findings were as shown in table 9. Administration of exams and teaching online.

Table 9: Administration of teaching and examinations online

Online administration of teaching and examinations	Frequency	Percentage (%)	Cumulative percentage (%)
Yes	243	88.04	88.04
No	33	11.96	11.96
Total	**276**	**100**	

Credibility and reliability of online examinations

And lastly, the respondents were expected to show whether the exams offered online were credible and reliable as compared to those offered before the entry of the pandemic. The findings were as shown in table 10.

Table 10: Credibility and reliability of online exams

Credibility and reliability of online examinations	Frequency	Percentage (%)	Cumulative percentage (%)
Yes	242	87.68	87.68
No	34	12.32	100
Total	**276**	**100**	

After conducting individual component analysis, an overall analysis was done on all components to test their mean and standard deviation as shown in table 4.16. There was an average mean of approximately 0.93 and a standard deviation of 0.24. this shows that indeed the respondents were satisfied with the matters addressed in the question statements. On the issue of adequacy of teaching workforce, the students agreed that indeed the university has enough lecturers and tutors who are well-trained and versed in their disciplines. It was noted that a competitive and thorough recruitment process is in place to ensure that they tap the best of the talents available in the job market. It was also noted that any newly recruited lecturer is always asked to demonstrate his/her ability to teach before being offered an employment opportunity.

Teaching and research being the core areas of concern to the university, all lecturers are engaged in a performance appraisal program where various aspects touching on customer satisfaction are tested. Customer satisfaction covers over 60% of the total possible marks one can score at any given appraisal session. The records and student management areas are of key concern thus it is ensured that everyone has adequately kept all the requisite documentation with possible backup at all times. Customer data management and privacy is taken too seriously and thus should be available anytime it is requested.

During the Covid-19 pandemic, the institution broadened its online learning platform and was able to accommodate all the students for online learning within three working days. With the easing of containment measures, the university resolved to blended learning where they partly do online and physical class sessions. However, there are those students who are purely online and only appear on the university premises for exam-related matters. This move has helped in decongesting the university as one is required at the site only during physical classes. University students are majorly youthful and thus prefer engaging on online platforms (Kotut, 2019). On the other hand, all the assignments and continuous assessment tests are done online thus no marking of physical scripts. They have thus acquired strong network coverage and online learning tools like Zoom and Kennet web conferencing to ensure a variety of choices for both students and tutors.

On the matter of adequacy of class sizes, the institution has rented space in Nairobi central business district, Ruiru, and an emerging one in Juja area. This will offer students a variety of choices to choose where exactly they would wish to learn from based on their accessibility and convenience. This is also in response to the containment measures for Covid-19 on sitting arrangements and distance from one learner to another.

Lastly, the university has been able to administer online exams and even graduate students for the last two graduation sessions. They have developed and implemented an online exam policy

that specifies the controls to be put in place to have a credible, verifiable, and reliable examination session. Both students and lecturers have regular training on the usage of online examination tools and a hotline developed within an independent department to fully manage online learning and examination matters. Having alternative online tools to offer a wide variety of choices enhances customer satisfaction (Abdelhamied, 2019). The idea is to ensure that the output churned out to the job market meets the expectations of the probable employers and other relevant stakeholders.

Table 11: Overall analysis of Customer training

Question statement	Observation	Mean	Standard deviation
The university has adequate and well-trained instructors/lecturers to teach students	276	0.967391	0.177933
The lecturers are up to task and meet my training needs	276	0.938406	0.240854
Teaching and learning is offered in both physical and online approaches.	276	0.985507	0.119727
The university has adequate class sizes to enable effective learning	276	0.956522	0.204302
The university responded adequately to Covid-19 effects to continue with teaching and learning	276	0.945455	0.227505
The university has acquired learning tools like Zoom, Kennet, and Microsoft teams among others	276	0.945455	0.227505
Both the staff and students are adequately trained in using online learning tools	276	0.912727	0.282749
The university offers regular training on online learning tools to improve efficiency and effectiveness in their usage	276	0.891304	0.311822
It is possible to administer technical and arithmetic units in both teaching and examinations using online tools	276	0.880435	0.325042
Online exam administration provides credible and reliable results	276	0.92029	0.271336
Average		**0.934349**	**0.238877**

5.0 Conclusion

Based on the findings herein, the researcher concludes that training has a direct and positive influence on the attainment of customer satisfaction. Having competent teaching staff is crucial for skills and knowledge development due to an improved quality of delivery through mastery of content. However, having varied modes of delivering this training makes it even easier and more fun to engage learners over time. However, the institution should be ready and willing to invest in alternative learning modes, especially online ones.

6.0 Recommendations

Zetech university inculcates a culture of customer satisfaction in all its employees. Any newer employees should be inducted accordingly in key areas that directly or indirectly influence customer satisfaction. The university should focus more on external knowledge exchange programmes to promote diversity in learning and thoughts of their students. The university should devise much softer ways of implementing its policies, especially the dress code and fee payment policy.

References

Abdelhamied, H. H. (2019). The Impact of Training Activities on Quality of Service, Customer Satisfaction and Behavioral Intention.

Ashby, E. (1956). Nature. In J. McLuckie.

Bruçaj, S. (2018). Quality Management in Higher Education; Challenges of Private Universities in Albania Educational Sciences, Beder University. *European Journal of EducationVolulme 13*.

Chaichi, K. (2019). Impact of Staff Training On Customer Satisfaction in Travel Agencies in Klang Valley Malaysia.

Cole, B. R. (2002). Quality Management in Education: Building Excellence and Equity in Student Performance, Texas University. *Quality Management Journal*.

Idowu, O. S. (2007). African Universities Quality Management Challenges and Higher Education Agenda.

Lucy Wanza, J. F. (2017). Effects Of Quality Management Practices On Performance Of Kenyan Universities. *International Journal of Business and Management Review Vol.5, No.8*, 53-70.

Magutu, M. I. (2010). Quality Management Practices In Kenyan Educational Institutions: The Case Of The University Of Nairobi. *African Journal of Business Management*.

Maria R, A. A. (2012). Implementing Quality Management Systems in Higher Education Institutions Centre for Research in Higher Educational Policies. *Research gate publications*.

Materu, P. &. (2010). Quality Assurance in Sub-Saharan Africa. Research in Comparative and International Education.

Nahid Teimourpour, M. T. (2013). A study on the effect of performing quality management system on organizational productivity Management. *Science Letters 3*, 1063–1072.

Osumba, P. O. (2014). Quality management systems and quality in universities in Kenya (MBA Thesis). *Uonerepository*.

Reichheld, F. F. (1990). "Zero Deflections: Quality Comes to Services,". *Harvard Business Review*.

Rwelamila, J. J. (2020). The Need for the Implementation of Quality Management Systems in South African Construction.

Schermerhorn, J. (1986). Productivity Perspectives in Management Development. Journal Of Management Development, 5(2).

Souldien, C. (2007). Quality assurance in higher education and the management of South Africa's past: Some paradoxes Perspectives in Education · . *Research Gate Publication*.