

INFLUENCE OF ISO 9001:2008 QUALITY MANAGEMENT SYSTEM ON THE TANGIBILITY OF SERVICES OFFERED IN PUBLIC UNIVERSITIES IN KENYA

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ABSTRACT

Universities in Kenya sought ISO 9001: 2008 Quality Management Systems to guarantee adherence to the University's processes and procedures, to ensure excellence in the pursuit of their objectives and to meet customer's requirements on quality service delivery. The purpose of this study was to determine the influence of ISO 9001:2008 Quality management systems on the tangibility of services offered in Kenyan Universities. The study adopted a descriptive research design. The study population comprised of 305, 214 members of academic staff, administrative staff and students from 30 public universities in Kenya chartered by 2016. Simple random sampling was used to select 9 public universities from 30 public universities. From the selected 9 public universities, proportionate sampling was used to select 72 members of academic staff, 90 members of administrative staff and 222 students. The study established that tangibility of service is to a great extent influenced by adoption of ISO 9001:2008 QMS in public universities. The study recommends that public universities should investigate the possibility of a gap between service quality requirements in standard operating procedures of ISO 9001:2008 QMS on tangibles of work to minimize role uncertainty which requires that the correct facilities be provided to all staff enabling them to offer quality service.

Keywords: ISO 9001:2008 QMS, tangibility of services, public universities.

INTRODUCTION

ISO 9001:2008 QMS is widely acknowledged as an effective system for ensuring clear and more apparent working procedures and responsibilities in an organization as well as ensuring that products and services consistently meet or exceed customer requirements or expectations (Bell, 2010). A quality product or service conforms to the customer requirement by design, purpose and the manner in which it is presented (Wilcox, 2004). The objective of ISO 9001:2008 QMS is to facilitate production of quality products and services hence the ISO 9001:2008 QMS is aimed at achieving customer satisfaction with the product or service by preventing nonconformity to the customer's requirements. Any ISO 9001:2008 certified organization is said to have an effective quality system and achieves maximum customer satisfaction, employee motivation and minimum rejection of the goods and services (Adolfas, 2010).

The ISO 9001:2008 QMS focuses on the management of the processes needed for an organization to be able to demonstrate its ability to satisfy customer needs and expectations on a constant basis (Mahour, 2006). However, concerns have been expressed in the developing economies on whether accredited certification to ISO 9001:2008 has been achieving the desired outcomes and whether excessive attention to obtaining ISO 9001: 2008 certification has shifted the focus away from the quality of services offered by organizations (United Nations Industrial Development Organization, 2012).

The work of Mola (2007) on the implementation of ISO 9001: 2001 in the libraries of ISO certified higher learning institutions found that ISO 9001:2008 implementations is not capable of promoting dynamic continual improvement with clear responsibilities, standardization of work procedures and renewal of the documentation process and enhanced efficiency of the library. In a study conducted by Goran (2014) on the analysis of the service quality perception in higher education in the University of Sarajevo in Bosnia, it was established that the highest overall gap between the expected service and service delivered to students is on tangibles. The study showed that school of economics and business of Sarajevo has to do improvements in the field of tangibles especially on up-to-date equipment, facilities that are visually appealing and ensure well dressed neat employees.

In an empirical study conducted by Cheruyot, and Malu (2013) on service quality of public universities in East Africa found that the tangibility and reliability of service in public universities in Kenya Uganda and Tanzania was not satisfactory to the students. The findings imply that issues of human resource management system and continuous improvement of processes, people and systems needed improvement to satisfy the students.

The Kenyan government has continually emphasized quality of service in public universities with notable reforms like Results Based Management, Performance Contracting and the ISO 9001:2008 QMS as the basic approach to governance and management. Despite these measures to improve quality of services in public universities, concerns have been raised on the tangibles that facilitate quality service delivery. An explanation of the raised concerns would be in appropriate without a conducting systematic study. The current study investigated the influence of ISO 9001:2008 QMS on the tangibility of services offered in public university in Kenya.

RESEARCH QUESTION

The following research question was formulated to guide the study:

To what extent does ISO 9001:2008 Quality Management System influence the tangibility of service offered in public universities in Kenya?

LITERATURE REVIEW

Organizations that are certified to the ISO 9001 QMS are escalating, but it does not necessarily indicate that the significance and importance of an effective QMS is clearly understood (Low & Omar, 1997). The QMS must be constantly dynamic in order to improve the quality of both the company's internal and external services. Also as a consequence of the competition existing in the market, Victor and Frank (2005) observed that only firms with favorable position from the core capabilities that differentiates them from the competitors survive in the global market competition. Organizations inspired by the intense market competition are profoundly concentrating on adoption of quality management practices as a part of their strategic planning to achieve quality services and products to the customers (Wechsler & Clay, 2000). The above observations shows the essence offering quality services to customers

Tangibility relates to the physical aspects or evidence of a service specifically physical facilities, equipment, and appearance of personnel. Physical aspects of service include appearance of equipment and furniture, physical facilities, materials associated with the service, appearance of personnel and communication materials, convenience of physical facilities and layouts. In addition to the appearance of the facilities, it also takes into account the convenience offered to the customer by the layout of physical facilities (Ananth, Ramesh & Prabakaran, 2011). Angur, Madhukar, Nataraajan, Rajan and Jahera (1999) found that

business premises should have a high standard of decoration and a nice environment to positively influence service quality which consequently lead to customer loyalty. The physical service setting is a very important tangible factor that influences service quality perceptions. Bonn and Mathews (2007) also found substantial evidence that the design of the physical setting and its associated sensory attributes can have a significant effect on customer satisfaction and on a customer's re patronage decisions.

In an empirical study conducted by Gamboa and Melao (2012) on five ISO 9001:2000 private vocational educational institutions in Portugal to establish the advantages and disadvantages associated with the adoption of ISO 9001:2000, found that one of the benefits of ISO 9001:2000 certification is more interest with cleanliness and state of conservation of the facilities and equipment. This was facilitated by proper record records keeping and adherence to the requirements of the standard as per the maintenance procedures of the facilities. This was supported by Brady and Cronin (2001) who found that consumers react not only to products, but also to the features that accompany the product.

The adequacy of personnel and facilities are also aspects of tangibility that influence service quality perceptions. They affect the time taken by the business to deliver the service. Waiting time is a part of many service encounters and can influence service quality perceptions (Brady & Cronin, 2001). Owino (2010) found that in extended service transactions, where customers interact with service providers over long periods of time, emotions are of paramount importance and emotions generated at one stage in the service experience may influence customers' perceptions of later stages of the process. When customers perceive waiting time as favorable, they perceive the service quality to be higher (Brady & Cronin, 2001). A study by Reimer and Kuehn (2005) concurred with the finding by Brady and Cronin (2001) that when customers perceive waiting time as favorable, they perceive the service quality to be higher. All elements of the interior environment, including the physical setting and ambient conditions, function as service clues that give customers an indication of the quality of the service to be received and become important in determining customer loyalty (Reimer & Kuehn, 2005).

An empirical study conducted by Mokamba, Oloko and Letting (2014) sought for the influence of QMS on the relationships between administrative systems on the performance of Public Universities in Kenya. The study adopted descriptive and exploratory research design and used questionnaires as data collecting instruments. The study established that that all public universities demonstrated that QMS played a huge influential role between administrative systems and the performance noted on well-established and equipped libraries for information and knowledge; laboratories and workshop centers for carrying out innovative experiments; adequate and well-furnished lecture halls to meet the needs of all the students; adequate accommodation facilities to cater for all the students and thus motivate them to concentrate of their studies. Adopting the QMS significantly enhanced performance of the Kenyan public universities. The study however did not show the extent to which the QMS influenced the infrastructure development in the universities. The findings by Mokamba, Oloko and Letting (2014) were collaborated by Okibo & Kimani (2013) in a study on seven public universities in Kenya on effectiveness ISO 901:2008 on service delivery that found that ISO certification influenced curricular development, teaching facilities improvement, streamlining of processes and adaptability to changing market needs. The current study was conducted on similar setting but with keen interest to establish the extent to which the ISO 9001:2008 QMS influence the tangibility of service in the public universities.

RESEARCH DESIGN

The study adopted descriptive research design to establish the influence of ISO 9001: 2008 Quality Management Systems on the tangibility of services offered in public universities. The choice of the design was suitable for the study based on the fact that the researcher did a descriptive analysis of the variables of the study without manipulations to estimate the influence of ISO 900:2008QMS on the tangibility of services offered in public universities.

POPULATION AND SAMPLE

The study population comprised of 305 214 members of academic staff, administrative staff and students from 30 public universities in Kenya chartered by 2016. It was an homogenous in terms of the responsibilities of the respondents and the quality standards as prescribed by the Commission for University Education of Kenya. The 305 214 members of the population were scattered all over the 30 public universities in Kenya but the study randomly picked on 9 universities that were studied. Using the formula generated by Krejcie and Morgan (1970), the researcher selected 384 respondents for the study which comprised of 72 members of academic staff, 90 members of administrative staff and 222 students picked using proportionate sampling.

DATA ANALYSIS

After data collection the researcher systematically organized the questionnaires and carried out data cleaning. The other items from the questionnaires were arranged, grouped, coded and entered into Statistical Package for Social Sciences computer software which assisted in computing descriptive statistical analysis, presented in tables and discussed. The five point likert scale used to estimate various constructs used to measure the extent to which ISO 9001:2008 influences tangibility of service were interpreted using the Table 1.

Table 1 :Interpretation of Five Point Likert Scale Mean Scores

<i>Mean score range</i>	<i>Interpretation</i>
0 .00 ≤ MS ≤ 1.79	Very small extent
1.80 ≤ MS ≤ 2.59	Small extent
2.60 ≤ MS ≤ 3.39	Zero extent
3.40 ≤ MS ≤ 4.19	Large extent
4.20 ≤ MS ≤ 5.00	Very large extent

RESULTS AND DISCUSSION

The study was aimed at answering the research question that sought to investigate the influence of ISO 9001:2008 Quality Management Systems on the tangibility of service offered in public universities in Kenya. The ISO 9001:2008 QMS prescribes the requirements of the standard that the institution implements which are bound to properly developed and coordinated tangibles of the institution.

To establish how the respondents felt about the tangibility of services, the researcher conducted descriptive analysis of the rating of the influence of ISO 9001:2008 on the tangibility of services on five point likert scale from the three categories of the respondents. The findings are presented in Table 2.

Table 2. Tangibility of Services Rating in ISO 9001:2008 Certified Universities

<i>Category of respondents</i>	<i>Teaching staff</i>			<i>Admin staff</i>			<i>Students</i>		
	<i>n</i>	<i>Mean</i>	<i>SD</i>	<i>n</i>	<i>Mean</i>	<i>SD</i>	<i>n</i>	<i>Mean</i>	<i>SD</i>
ISO 9001:2008QMS has ensured working facilities are always available for quality service delivery.	71	3.76	0.97	89	3.93	0.75	220	3.24	1.20
ISO 9001:2008QMS ensures that every staff member has decent working place	70	3.75	1.02	89	3.94	0.71	221	3.33	1.14
ISO 9001:2008QMS has ensured that the library is neat and well stocked to promotes learning	69	4.03	0.58	88	3.89	0.79	222	3.18	1.27
ISO 9001:2008QMS has ensured customers are well taken care of eg lecture hall with chairs, offices, waiting bay with entertainment etc.	69	3.86	0.97	87	3.74	0.94	221	3.04	1.28
ISO 9001:2008QMS has ensured computerized library with sufficient facilities that use of modern equipment's in teaching like projectors, video, e-learning platform amongst others	69	3.88	0.99	89	3.67	0.85	219	2.99	1.36
ISO 9001:2008QMS has ensured appearance of the compound, lecture halls, physical facilities, equipment, personnel and communication materials is good.	68	3.57	0.99	89	3.88	0.82	218	3.28	1.21
ISO 9001:2008QMS has ensured presentable ways of giving output/ results/ communication to clients eg. Print outs, communication memos etc	70	3.54	0.93	89	3.82	0.71	221	3.42	1.21
Mean score		3.77			3.84			3.21	

The findings in Table 2 shows that the average mean score of the influence of ISO 9001:2008 QMS on the tangibility of services in the certified universities is 3.77, 3.84 and 3.21 for teaching staffs', administrative staffs' and students respectively. This implies that the teaching staff and administrative staff respondents felt that the ISO 9001:2008 QMS influences the tangibility of services in public universities to large extent since the mean scores were ($3.40 \leq MS \leq 4.19$) while the students' respondents felt that the influence of ISO 9001:2008 QMS on the tangibility of service dimension is to a zero extent since the mean score was ($2.60 \leq MS \leq 3.39$). The students' respondents had no comments on the tangibility aspects due to the satisfaction implied in the existing structures or the earlier experiences in

learning institutions. Most of the universities have relatively improved tangibles as compared to the secondary schools in Kenya. The teaching staff and the administrative staff raised concern on possible improvement because the tangibles directly influenced the endeavor to offer quality services.

The researcher further requested the administrative staffs' respondents to rate the possible improvements that should be addressed in the tangibility of services offered in ISO 9001:2008 certified public universities. The responses were requested on a five scale likert ranging from very small extent (1) and very large extent (5). The findings are presented in Table 3.

Table 3. Administrative Staffs' Responses Improving Tangibility of Services

	<i>n</i>	<i>Mean</i>	<i>SD</i>
The university should have new and updated facilities and equipments (library, health services, projector)	78	4.15	1.21
The university Facilities should apparently be attractive (building, classes, resting place, recreation facilities etc)	77	4.12	1.09
The university staff members should be formally dressed	79	4.09	1.61
The university should have pleasant atmosphere for learning.	78	3.98	1.09
The university should have ambient atmosphere for learning	78	3.87	1.19
The university should have an ideal location with excellent campus appearance and layout .	79	4.13	1.15
Mean score		4.06	

Form the findings in Table 3, most of the administrators felt that there is need to improve the tangibility dimension of quality in ISO 9001:2008 certified universities with the average score 4.06. This implied that the respondents felt that to large extent, there is need to improve on tangibility of services since the mean score was between ($3.40 \leq MS \leq 4.19$). The suggestion that the university should have new and updated facilities and equipment had the highest mean score of 4.15 while the suggestion that the university should have ambient atmosphere for learning had the lowest mean score of 3.87.

The findings in the study on tangibility of service collaborate with the Bonn and Mathews (2007) findings where they established substantial evidence that the design of the physical setting and its associated sensory attributes can have a significant effect tangibility of service. They added that professional appearance of staff is an important means of tangibilizing the service the can be represented by the physical appearance of employees and other physical infrastructures.

A study by Reimer and Kuehn (2005) also agrees with the finding of the study on tangibility of service where they found that customers look for indications of quality to form pre-purchase evaluations of the service which include the interior environment, the physical setting and ambient conditions, which add to the tangibility of service. Also Okibo and Kimani (2013) agreed with the findings of the current study in a study conducted on seven public universities in Kenya on effectiveness ISO 901:2008 QMS on service delivery which found that ISO9001:2008 certification influenced curricular development, teaching facilities improvement, streamlining of processes and adaptability to changing market needs.

CONCLUSION

The study concludes that tangibility of service is influenced by ISO 9001:2008 QMS in public universities. Adoption of ISO 9001:2008 QMS has enabled tangibles of the service to be development in the public universities. This is entrenched in the clear outline of the standard operating procedures of ISO 9001:2008 QMS which is implied and the necessity of certain facilities to expedite some processes and tasks.

RECOMMENDATIONS

The management of the universities should investigate the possibility of a gap between service quality requirements in standard operating procedures of ISO 9001:2008 QMS on tangibles of work at the various institutions to minimize role uncertainty which requires that the correct facilities be provided to all staff enabling them to handle customers' requests effectively and therefore contributing to quality service.

REFERENCES

- [1] Adolfas, K. (2010). The implementation of quality management systems in service organizations. *Public Policy and Administration*, 34, 71–82.
- [2] Ananth, A., Ramesh, R., & Prabakaran, B. (2011). Service quality GAP analysis in private sector banks: A customer perspective. *Internationally Indexed Journal*, II(1), 245-252.
- [3] Angur, L., Madhukar G., Natarajan, K., Rajan, P., & Jahera, J. S. (1999). Service quality in the banking industry: An assessment in a developing economy. *International Journal of Bank Marketing*, 17 (3), 116-123.
- [4] Bell, M. A. (2010). Determinants of success in ISO 9000 implementation. USA: Open Access Dissertations.
- [5] Bonn, M. A., & Mathews, J. S. M. (2007). Heritage/cultural attraction atmospherics: Creating the right environment for the heritage/cultural visitor. *Journal of Travel Research*, 45(3), 345- 354.
- [6] Brady, M. K., & Cronin, J. J. (2001). Some new thoughts on conceptualizing perceived service quality: A hierarchical approach. *Journal of Marketing*, 65, 34-49.
- [7] Cheruyot, T. K., & Malu, L. C. (2013). Service quality and relative performance of public universities in East Africa. *The TQM Journal*, 25 (5), 533 – 546.
- [8] Gamboa, A. J., & Melao, N. F. (2012). The impacts and success factors of ISO 9001 in education: Experiences from Portuguese vocational schools. *International Journal of Quality & Reliability Management*, 29 (4), 384-401.
- [9] Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30, 607-610.
- [10] Low, S. P., & Omar, H. F. (1997). The effective maintenance of quality management systems in the construction industry. *International Journal of Quality & Reliability Management*, 14 (8), 768.
- [11] Mahour, M. P. (2006). *The effect of quality management practices on operational and business results in the petroleum industry in Iran*. USA: University of Nebraska.
- [12] Mokamba, J., Oloko, M., & Letting, N. (2014). Influence of quality management systems on the relationship between infrastructure systems and performance of

- Kenyan public universities. *Journal of Business Administration and Management*, 4(8), 1563-1574.
- [13] Mola, N. B. (2007). *The use of ISO 9001 quality standard in higher education institution libraries*. Barcelona: Universitat de Barcelona.
- [14] Okibo, B. W., & Kimani, A. W. (2013). Effectiveness of ISO 9001:2008 certification on service delivery of public universities in Kenya. *European Journal of Business and Management*, 5 (13), 232-242.
- [15] Owino, A. O. (2010). The relationship between ISO 9001 certification status and operational performance of government agencies in Kenya. Kenya: University of Nairobi.
- [16] Reimer, A., & Kuehn, R. (2005). The impact of service scape on quality perception. *European Journal of Marketing*, 39(7/8), 785-808.
- [17] UNIDO. (2012). ISO 9001 - Its relevance and impact in Asian developing economies: *A survey covering quality management system development, certification, accreditation and economic benefits*. Retrieved from www.unido.org/fileadmin/user_media/Publications/Pub_free/ISO%209001%20Impact%20Survey-eBook_ver2.pdf.
- [18] Victor, E. S., & Frank, K. F. (2005). There is more to quality than continuous improvement: Listing to Plato. *Quality Management Journal*, 12 (1), 8-20.
- [19] Wechsler, B., & Clary, B. (2000). Implementing performance government. *Public Productivity and Management Review*, 23 (3), 264-266.
- [20] Wilcox, M. (2004). Prediction and pragmatism of Shehart's theory of statistical control. *Management Decision*, 42(1), 152- 165.