Assessment of Quality Management Practices, Tools and Techniques: The Case of Learning Institutions in Kenya

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Introduction

Due to internet and browser technology and other dynamics of globalization customer awareness has risen to unprecedented level thereby raising their expectations on quality of products and services that are offered by organizations. Organizations in their endeavour to get a competitive edge are focusing their attention on excelling in quality of their operations and offerings to meet customer requirements better than competitors.

This paper examines quality management practices, tools and techniques and further investigates their level of adoption in learning institutions in Kenya with a view to making them known to the institutions management to facilitate successful quality management implementation towards achieving the holy grail of Total Quality Management in line with the expectations of the highly envisaged vision 2030 which seeks to make Kenya a middle income economy.

Quality Management

Quality management (QM) is defined as practices of organizations that implement principles such as customer focus, continuous improvement, and teamwork to improve product and service quality, Xingxing (2009).Many terms are used to describe the concept of quality management such as total quality management, total quality control, and company-wide quality control. The idea is to optimize processes, procedures, techniques and materials to come out with quality products and services to best address customer requirements. Total quality management allows firms to obtain high level of differentiation and reduce costs, Tari (2005)

Tari (2005) has identified the following core elements of QM: customer focus, leadership, quality planning, management based on facts, continuous improvement, human resource management (involvement of all members, training, work teams and communication systems), learning, process management, cooperation with suppliers and organizational awareness and concern for the social and environmental context. Prajogo and Sohal (2006), posit that behavioural or organizational issues, such as leadership, empowerment, and involvement, are more critical than technical issues such as data collection and use of QM tools and techniques in analyzing QM.

TQM concentrates on continuous improvement, meeting customers' requirements, reducing rework, long-range thinking, increased employee involvement and teamwork, process redesign, competitive benchmarking, team-based problem solving, constant measurement of results and closer relationships with suppliers Powell (1995). Das A. et al. (2000) developed and tested a framework of quality management, consisting of high involvement work practices, quality practices, quality performance, customer satisfaction and firm performance.

ISO 9000 suggests adoption of eight QM principles, ISO Publication, (2000)

1. Customer focus: Organizations should understand current and future customer needs, meet customer requirements and endeavour to surpass customer expectations.

2. Leadership: Leaders establish unity of objective and direction of the organization. They should create an atmosphere in which people can become fully involved in achieving the organization's goals and objectives.

3. Involvement of all employees: employees at all levels are the central tenet of an organization and their full involvement enables their full potential to be used for the organization's benefit.

4. Process approach: Better results are attained more efficiently when activities and associated resources are managed as a process.

1. System approach to management: Organizing and managing interrelated processes as a system leads to organization's effectiveness and efficiency in achieving its objectives.
2. Continuous improvement: Continuous improvement of the organization's overall performance should be a paramount objective of the organization.
3. Factual approach to decision making: Effective decisions arise from the analysis of facts, data and information.
4. Mutually beneficial supplier relationships

ConceptualFramework

we conceived a construct with the following seven critical QM factors that guide quality management practices in organizations: Committed leadership, customer focus, employee empowerment, quality training, quality assurance, process management and continuous improvement. These are the key areas that can be addressed to obtain quality performance and attain quality goals and objectives. The QM tools and techniques are applied in these areas of strategic focus to achieve the set goals in the best interests of customers as well as the entire organization and its legitimate stakeholders. Prime Faraday Partnership (2001) and British Standard Institution (2003) view quality tools and techniques as particular methods and skills applied to specific activities to enable improvement.

In this context, a quality tool has a specific role and a quality technique is the application of several such tools. Typical QM tools include cause and effect analysis, flow charts, graphs, Pareto analysis, histograms, tree diagrams, scatter diagrams, check sheet, control chart and brainstorming, Bunney and Dale (1997) and Tari (2005). QM techniques include SPC, benchmarking, departmental purpose analysis, design of experiments, failure mode and effects analysis, quality improvement teams, quality function deployment, quality costing, Tari (2005) and Ramos, Asan, and Majetic (2007).

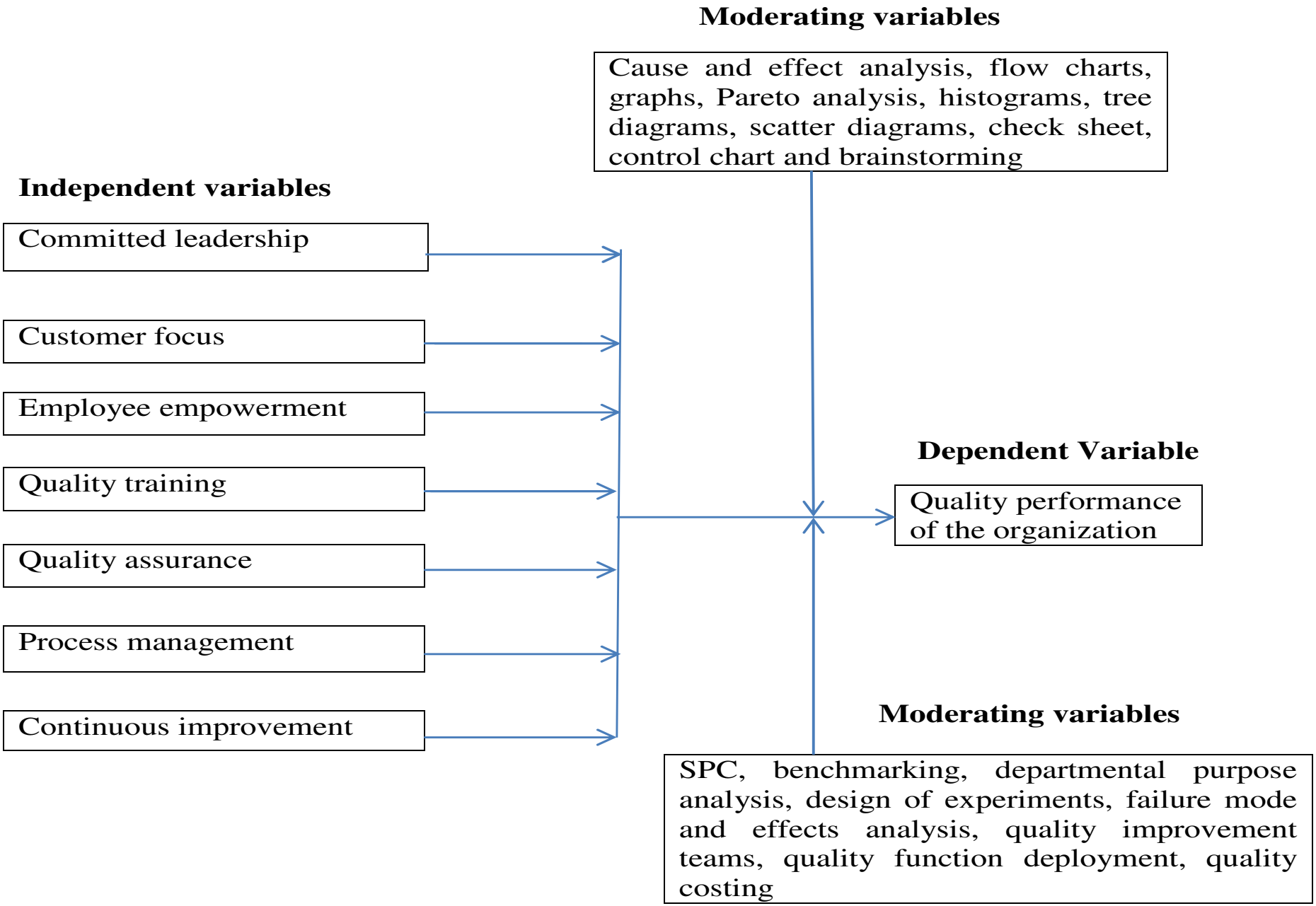

Figure1. Conceptual Framework

Data collection instruments

- The instrument used to test the stated hypotheses was a questionnaire. Both closed and open ended questions were used and a five point Likert scale (see Appendix). Part A was to identify the general information about the respondent. Part B featured the QM practices while part C, tools and techniques applied in the institution. A questionnaire based on existing measurement scale was initially drafted. This draft questionnaire was then pre-tested with lecturers from TUM to check its content validity and rectified accordingly. The rectified questionnaires were then delivered to the respondents by a research assistant to each of the institutions selected for the study to be collected later or immediately after the respondent complete providing the information.

Research findings and discussion

The data was collected from members of management from the institutions. Six out of ten questionnaires were collected from MTTI. One was from deputy principal, second from performance contract coordinator, the other four from heads of departments. Five out of eight questionnaires were collected from JKUAT Mombasa CBD campus, one from senior academic registrar, second from accountant, third from internship coordinator and the other two from chairmen of departments.

The results show that JKUAT scores high in offering customer focus for example providing channels of processing students' complaints, with respondents indicating that they use suggestion box, customer feedback form, emails ("sema na Director"), phone calls, and complaints register. In this regard 100% of the respondents confirmed that students' complaints are well addressed. 60% of the respondents indicated that JKUAT carries out customer satisfaction survey to a moderate extent with 40% showing large extent. The institution is for running parallel programme and thus does not offer bursaries. The institution fares well in providing committed leadership with about 80% of the respondents indicating that top management is evaluated for quality performance to a large and very large extent. Quality issues are fairly reviewed as well as chairmen of departments' commitment to quality performance. 80% of the respondents indicated that employees in JKUAT participate in quality decision at least to a moderate extent.

The results also show low recognition of employees that perform exceptionally. Thus employee empowerment is not well addressed. The results confirm that JKUAT does not put emphasis in giving employees quality related training. The institution pays some attention to quality assurance with 60% of the respondents indicating that they are evaluated on quality performance to at least large extent and 40% to a moderate extent. Dissemination of quality data such as students' performance records and comparative analysis of several years to the departments is not sufficiently provided showing that it is difficult to implement quality assurance measures. There is evidence of efficient Process management with most of the items tested scoring 80% and above large and very large extent except that monitoring lecturers' class attendance had low score. JKUAT did not fare well on continuous improvement programmes. The results indicated that most of the QM tools and techniques are not applied in JKUAT except brainstorming, benchmarking and quality improvement teams.

The results from MTTI also indicate good customer focus with more than 80% of the respondents confirming satisfaction to a large or very large extent in most of the items except that bursaries are not many for needy students. The respondents also added other channels of processing customer complaints such as customer care desk, customer complaint reporting template, complaints' hotline and student leaders meetings. They also indicated to carry out customer satisfaction survey every after two years. Only 50% of the respondents indicated evidence of committed leadership at least to a large and very large extent. Employee empowerment was also found wanting with 16.7% of the respondents indicating no extent of employees' recognition for quality performance.

- Employees participate in quality decisions with 50% indicating this to a large extent. Quality training at MTTI is minimal. The employees are fairly evaluated on quality performance with 50% of the respondents indicating at least to a large extent. Unlike JKUAT quality data are available in all the departments showing due commitment to quality assurance.
- Process management was found unsatisfactory with 50% of the respondents indicating that lecturers' class attendance is not well monitored. CATs, assignments and practicals are not well controlled. However MTTI has sufficient equipment for providing quality training with all members confirming it unanimously. They also have programmes with strict timelines for semester activities.
- Mechanisms for continuous improvement were hardly found in place. QM tools and techniques are not majorly applied at MTTI. Only graphs check sheets, brainstorming, benchmarking, quality improvement teams, and qualities costing were found to have sufficient application.

Conclusion

It is clear that both of the institutions studied give good attention to customer focus and have various channels of addressing customer issues. They both carry out customer satisfaction survey. The researchers are aware that JKUAT Mombasa CBD campus has attracted more students than most of the campuses established about the same time in town and this can be attributed to providing quality customer service. JKUAT offer committed leadership with evidence of evaluating top management for quality performance. MTTI need to address this issue more closely. Employee empowerment and quality training fared low in both colleges. Quality assurance practices were more profound in MTTI than JKUAT though the latter did better in Process management. Both were found wanting in applying continuous improvement programmes. The results indicate that the two institutions use QM practices in enhancing performance.

- While two institutions cannot be representative of the whole country it can be concluded with reasonable confidence that institutions that are ISO certified in Kenya apply quality management practices and thereby rejecting the first null hypothesis.
- With the exception of graphs, check sheets, brainstorming, benchmarking, quality improvement teams, and qualities costing all the other QM tools and techniques are not applied in both institutions. We tested 18 QM tools and techniques and only 6 were found to be applied. Thus the hypothesis that institutions in Kenya hardly apply QM tools and techniques was supported by our results.
- Again due to the limitation of the scope of our study it is more appropriate to conclude that institutions that don't offer serious quality training to employees hardly apply QM tools and techniques considering that most of this skills are acquired through special trainings on quality as happens to teams that are entrusted to oversee ISO certification.

Recommendations

While most of the QM practices have been applied reasonably in the institutions there are areas that need to be examined and measures put in place to improve performance. Employees need to be encouraged to perform exceptionally through rewards, promotions or any other non- monetary recognition such as giving certificate of excellence. Training on quality is very important if quality customer service is to be attained by employees. This can be accomplished through seminars both internal and external. Employees need to be regularly evaluated on quality performance and encouraged to perform better. The exercise helps to cultivate a culture of responsibility and commitment to quality performance. The institutions should put in place mechanisms of effective process management. For example in Mt. Kenya University Mombasa every lecturer is required to submit signed attendance sheet immediately after every lecture and this helps to control skiving by members of teaching staff.

It is known that in many practical oriented courses in universities students do practicals rarely even at diploma level. At times equipments are not sufficient. There should be strict monitoring of training procedure to ensure that no component of training is omitted. Training equipment should be reviewed from time to time to ensure that the workshops and laboratories are fully resourced to address emerging needs as syllabuses are adjusted to incorporate changing requirements in the labour market. Universities should not mount courses that they are not sufficiently equipped to teach, both physical and human resource capacities.

END OF PRESENTATION

Thank you.