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Total Quality Management and Organizational Learning in Service Organizations

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Abstract		Original Research Article

The purpose of the study is to investigate the role of Total Quality Management on Organizational learning in service organizations. The focus was on the examination of organizations with both successful and unsuccessful learning attributes to identify service organization total quality management systems that discriminate service organizations at either end of the success continuum. Data was collected through a survey sent to Ugandan service organizations certified to quality standard ISO9000. The findings suggest that service organizations that have a total quality management program that has exceeded expectations have been able to develop and encourage the attributes necessary for organization learning. It would appear that learning has been an important aspect for these service organizations to succeed in the quality endeavors. The findings of this study provides further empirical evidence of the role total quality management has in improving organizational outcomes especially in relation to organizational learning.
Keywords: total quality management, organizational learning, service organizations.

INTRODUCTION

The environments in which service organizations develop their activities have changed substantially. Globalization of industries, the presence of new commercial powers, and greater sophistication of customers, deregulation and technological advances are some of the causes that require organizations to develop their activities in much more competitive and dynamic environments than in the past. To adapt to these new realities and lead transformation in their competitive environments, service organizations must thoroughly revise their learning practices. This requires revising their learning practices but adaption to environments is stressed in service organizations, due to the intangibility, heterogeneity, and perishable character of their products and to the inseparability of consumption from production. The simultaneous provision and consumption of services bring employees and customers physically, organizationally, and psychologically close, distorting the boundary between employees and consumers and enabling each to influence the other's perceptions and expectations. With intangible services, it is also difficult for customers to express precisely what they expect from the service [8]. We, therefore, propose that service firms should implement certain practices to create the future they desire.

One of the practices that service organizations can use is to embrace organizational learning. [4, 6, 3, 1, 5] state that organizational learning has strategic significance to the sustainable competitive position of a firm. Thus organizational learning is seen as a complex process that includes the acquisition, sharing and use of knowledge, representing a true challenge for any firm, even more so for those working in the service perspective. Unlike manufacturing firms, which can rely on patented technologies or unique products, service firms gain their competitive advantage primarily through their ability to make use of their proprietary knowledge [7].

Firms can respond to this challenge by embracing a broad view of total quality management [13]. Total quality management is seen as a concerted way of thinking about organizational management, as an alternative for continuous improvement and as a paradigm for change [10]. Although most of the exponents of total quality management explicitly claim that total quality management is transferable to services, the precepts and practices have been derived from the experience of consultants and practitioners in manufacturing [11]. The gurus focus their work primarily on manufacturers, giving the application of total quality management in services secondary attention [12, 9, 7, 2]. This finding is not unexpected, as it reflects the historical origins of total quality

management in the manufacturing environment. Without a throughput-oriented setting, the traditional quality inspection activities are more difficult to apply in the services industry, and these beliefs and values appear to have been brought forward into the contemporary practice of total quality management. [4] found that, of companies that have been practicing total quality management for more than five years, the majority come from the manufacturing sector.

Conversely, many of the newcomers to total quality management have come from the service sector. In the implementation of total quality management, the differences between the sectors were also clear. Manufacturing companies seemed to dominate the use of many total quality management practices, namely; collaboration with suppliers in quality efforts and cross-functional problem-solving teams. However, with the need to maintain a healthy financial structure, service organizations are also compelled to address quality issues [5]. Although the service companies have lagged some distance behind the manufacturing sector, the total quality philosophy is slowly being adopted in this sector.

If analysis of organizations that implement quality is done, it is observed that quality stimulates change, continuous improvement, and organizational learning. Total quality can thus be considered to be a management practice that enables the improvement of other organizational practices [1, 11, 3], such as organizational learning [7]. The purpose of this study is to analyze the relation between total quality management and organizational learning. In contrast to other studies in the literature, we focus on service firms, since it is common knowledge that manufacturing and service firms differ in their production, consumption and evolution.

Total quality management has three core elements: meeting customers' expectations, continuous improvement of organizational processes, and accessing and using employee skills and knowledge [4-6]. It can be seen to operationalize through continuous improvement of business activities and thereby enables organizations to respond to changing demands from the business and operational environment [8, 2]. Therefore, Total Quality Management is a key capability for developing and sustaining a competitive advantage [1]. As there is no universal definition of total quality management, an organization will need to develop its own working definition [5] which will evolve from an organization establishing its quality philosophy, which will be sourced from the organization's view [4, 6, 10, 3, 6]. Prior studies have shown that 60% - 80% of attempted total quality management implementations failed to meet the organizations' objectives [11]. It is suggested that total quality management success influences the organizations' ability to learn, to absorb, to adapt and to apply conceptual changes and integrate

these throughout the organization [1, 7]. Perhaps the underlying reason behind the lack of success of some total quality management programs is that the processes put in place lack the necessary cues for quality learning. The proposition put forth is that an organization having a quality philosophy of continuous improvement will be more likely to raise its competitive position by improving upon their learning capabilities thus enhancing service performance. Organizational learning will be the link that will enable the organization to both sustain and improve its competitive position by helping to avoid repeating mistakes; building sensitivity to the business environment so that the organization can better adapt; and improving operations by understanding weaknesses and then looking at how best to correct them [6]. Therefore, learning may involve correcting error, which, through reflection, should allow improved practices in the future, with learning seen to have occurred when an organization performs in changed and better ways [12]. This empirical research further contributed to an understanding of how total quality management programs supported organizational learning. The focus was on the examination of both successful and unsuccessful quality programs to identify organizational learning attributes that differentiate the two groups. Obviously this leads to the question of how success is to be measured. This study is based on a subjective assessment made by individual respondents about how their organization has fared in its quality endeavors, as each organization will have different criteria against which to measure success. The response given will reflect each respondent's assessment of their organizations' achievement against the predetermined target.

METHODOLOGY
The aim of this study was to evaluate service organizations adopting a quality approach to operations and to identify the learning attributes of each service organization. Further this research looked at service organizations at either end of the quality success continuum to find out whether the learning attributes differentiates these service organizations. In order to meet these objectives it was considered necessary to explore more than one service organization as a larger number of responses would allow conclusions to be drawn with greater confidence. For this reason the decision was made to use the survey method, utilizing a self-administered postal questionnaire. As the focus of the research is on how learning attributes support continuous improvement it was considered necessary to survey organizations that have undertaken a commitment to a quality approach to operations. An independent third-party assessment was used to guide the selection of the service organizations in the sample. As such service organizations that have achieved ISO 9000 certification were selected since such service organizations have implemented a quality approach to its operations, at least in terms of the requirements of the quality standard; and the use of such service

organizations is seen in the research of others [9, 13, 1]. A random sample, from each district of Uganda, was selected comprising 500 service organizations. Questionnaires were posted to 1000 managers with a follow-up second mail out. In all, 303 responses were received representing a 30.6% response rate, and of these 277 represented usable responses, resulting in a usable response rate of 28.2%. A usable survey was deemed to be one in which the respondent answered all but a few questions. To test for non-response bias an independent sample t-test was conducted comparing early and late respondents. The null hypothesis was posed that the samples came from the same population and for all characteristics, except gender; the null hypothesis is not rejected at the 0.05% level of confidence. Further examination of this result shows that in the second mail sent out, fewer males responded. However, this was not considered significant because of the high percentage of female responses overall.

RESULTS

A profile of respondents shows that 84.1% have more than 10 years' experience in business; and 77.1% have post-secondary education. Such personal and work characteristics would enable the respondents to assess their organization against the issues explored by the survey. To ascertain the size of respondents' in organizations, the number of employees was used as a proxy. The findings indicate that the size ranged from: small to medium sized service organizations (under 100 employees) (49.5%); medium sized service organizations (101—500 employees) (31.5%); and large organizations (over 500 employees) (18.9%). For the majority of respondents' service organizations (97.7%) the operating environment is considered competitive with 59.2% of respondents rating the operating environment as very competitive. When asked to

compare their organization to competitors, only 57.7% of respondents rated their organization's product/service to have superior quality to competitors, and a further 41.2% rated the product/service as similar to competitors. These findings suggest an opportunity for the majority of organizations to improve their position in the market by focusing on continuous improvement of business processes in order to provide a product/service that meets customers' expectations. To understand more about the motivation of adopting a total quality management approach to operations, respondents were asked to identify the importance of a number of motivating factors, and the findings are summarized in Table 1 below. The responses suggest that total quality management related factors are considered the most important in assisting the service organization in gaining a competitive advantage (96.3% respondents). This is shown by reference to the highest rated factor in each category: customer satisfaction (mean 4.5); gaining a competitive advantage (mean 4.21); and to achieve higher levels of performance (mean 4.15). As mentioned earlier the majority of respondents (97.7%) note that their service organizations are operating in a competitive environment and the responses suggest that the two key motivating factors are customer satisfaction and process improvement. Overall, the responses suggest that continuous improvement is considered to be an important enabler for service organizations to gain a competitive advantage over competitors. However, the success of the total quality management program in respondent service organizations has been mixed with 16.1% of respondents stating that the program has exceeded expectations; 77.4% met expectations; and 5.1% fell short of expectations, with 4 respondents unable to rate at the time.

Table-1: Factors motivating a quality approach to operations

Factors	Extremely Important	Important	Not Important	Mean	Responses
Panel A: Customer-related					
To increase customer satisfaction	55.1%	44.9%	-	4.50	n=276
To reduce customer complaints	43.3%	56.0%	0.7%		n=275
To satisfy customer contractual requirements	42.4%	57.2%	0.04%	4.30	n=276
				4.22	
Panel B: Strategy-related					
To gain a competitive	39.4%	58.7%	1.8%	4.21%	n=274

advantage					
For business to survive	48.2%	48.6%	2.2%	4.15%	n=274
To increase organization's profits	34.6%	63.2%	2.2%	4.11%	n=272
To increase organization's profits	26.1%	70.3%	3.6%	3.99%	n=276
To be innovative in product design/service delivery	27.2%	71.7%	1.1%	3.94	n=275
ISO9000 certification	32.2%	67.1%	0.7%	3.92%	n=276
To increase market share	26.5%	69.1%	4.4%	3.81%	n=275
To promote brand loyalty	24.6%	67.7%	7.7%	3.66%	n=272
Panel C: Process-improvement related					
To achieve higher standards of performance	28.8%	70.8%	0.4%	4.15	n=274
To minimize costs	34.5%	64.7%	0.7%	4.05	n=275
To improve internal processes	22.1%	67.6%	0.4%	4.02	n=276

It is important for management to encourage the attributes of a learning organization by building a shared vision within the organization, that is, to give everyone a common purpose. An organizational culture embedding learning and continuous improvement is important to guide employees [5]. This can be achieved by the direction given in the organization's mission statement and the performance goals selected to guide activities. By examining an organization's learning orientation, that is, its values and practices, enables an assessment of whether the organizational environment encourages learning. To explore these factors respondents were asked about the organizational values (espoused theories) in their organization. For the majority of respondents (93.5%) continuous improvement is an important goal for their organization. This finding is supported by the 86.5% of respondents who agree that continuous improvement is important in the development of the strategic plan. As noted earlier, continuous improvement should imply a learning focus in the organization, and this is supported as 87.0% of respondents note the value of continuous learning in their organization, and 82.7% of respondents agree that their organization is committed to building in-house expertise. Being able to respond and adapt to the changing business environment is noted by 93.4% of respondents. In the majority of respondents'

organizations employees review both current work practices (84.5%) and operating standards (80.2%). Employees are encouraged to explore alternatives (74.2%) and are given the responsibility to deal with problems relating to their specific work activities (70.7%). The ability of the organization to be more adaptable to the environment and improve operating performance, is strengthened as the majority of respondents agree that employees in their organization are encouraged to work smarter not harder (85%), to question current work practices and to find improved methods (84.5%). Also respondents (74.2%) note that managers do not punish mistakes but encourage employees to explore alternatives with systematic problem solving as opposed to short-term quick fixes (68.4%).

Sharing of knowledge and information in the work environment is encouraged in the majority of respondents' organizations (86.2%). This finding is supported by responses to other questions which show that 72.6% of respondents agree that employees share information and 80.3% of respondents who agree that learning from experience is shared. The majority of respondents (90.3%) agree that customers provide feedback on quality and delivery performance, which would enable corrective action to be focused within the

organization. To support this sharing of information the majority of respondents (80.6%) agree that regular team meetings are the preferred method for information dissemination. As noted earlier 82.7% of respondents note the importance of their organization's commitment to building in-house expertise. This is achieved by employees being encouraged to work smarter not harder (85%) and, through training activities (93.2%). Training is an important investment that will encourage the acquisition and development of new knowledge and skills and lend employees to be open to new ideas [2]. For the majority of respondents (70.7%) employees in their organization are empowered through decision-making responsibilities in relation to their own specific work related tasks. The training and working smarter approach will enable employees to attain the necessary skills and knowledge to take on roles with higher responsibility. However, despite 82.7% of respondents noting their organization's commitment to building in-house expertise a number of factors were highlighted that could be barriers to learning in some of the respondents' organizations. Only 57.9% of respondents note that their organization rewards employees for learning new skills. Similar response rates were noted for employee training in teamwork (58.9%); employee training in problem solving (55.2% of respondents); use of cross-training within the organization (56.9%); and use of mentoring schemes (49.1%). For learning to be achieved it must be encouraged by management [3]. The performance measurement system is an important control system within the organization to encourage improvement [7]. The majority of respondents (80.0%) agree that all employees in their organization are made aware of the performance measurements which will enable employees to link their own actions with their organization's strategies. To address the second research question further analysis of the findings was undertaken to examine organizations at either extreme of the success continuum to identify any attributes which may discriminate between the two groups.

Further analysis of the findings was undertaken to examine if attributes of a learning organization are more evident in organizations that have a quality program that has exceeded expectations than those organizations where the quality program fell short of expectations. The reason to focus on these groups was that if any differences exist, they are more likely to be found by comparing each extreme. This approach is in line with other studies [6, 5]. An ANOVA analysis was undertaken to identify significant difference in means between the two groups and this was then used to determine the best predictors of whether a respondent would perceive their organization's quality initiative to be either successful (exceeded expectations) or unsuccessful (fell short of expectations). Discriminant analysis was then undertaken to identify variables which discriminate between the two groups with the emphasis on the identification of the characteristics/practices of the organization that have the greatest power of predicting to which group a respondent will belong [3]. Variables with a correlation coefficient of less than 0.50 are not interpreted, as a loading below this would suggest low or negligible correlation [8]. The null hypothesis posed in this analysis is that there is no statistically significant difference in the scores between the two groups on the discriminant function. If the null hypothesis is rejected it indicates that the variable is a discriminating variable between the two groups. A series of discriminant analyses were undertaken due to the independence of the different aspects of business operations explored in the study. For example, an organization may have shown little regard to employee education, yet have a strong performance measurement system. Table 2 provides a summary of the best predictor variables for each discriminant function. A review of the predictor variables suggests that the more successful organizations are able to create an environment that encourages learning. Many of the predictor variables relate to the organization's philosophy and practice rather than the processes themselves.

Table-2: Summary of best predictor variables (canonical discriminant function coefficients)

Predictor Variables	Loading
Organizational Attributes	
Employees believe that quality is their responsibility	0.863
Management ensure that employees are aware of what quality means to the organization	0.721
Top management is committed to the quality program	
The organization environment is such that what gets said gets done	0.686
Quality embedded in organization culture	0.523
	0.515
Learning Attributes	
Standard Operating procedures are reviewed regularly	0.746
Employees are focused on improving existing capabilities	0.703
Employees are encouraged to work smarter not harder	0.547
Managers support staff not by punishing mistakes but by encouraging staff to learn	0.509
Employee Development	
Employee teams tackle problems	0.642
Employees are trained in problem solving	0.580
Employees are rewarded for learning new skills	0.540

Performance Measurement	
Feedback gained from assessing performance against target enables the instigation of rapid corrective action	0.600
Customer satisfaction as key performance indicator	0.594
Clear and consistent goals	0.544
Employee involvement in goal setting is important	0.525
Employees receive regular appraisal and feedback about their work performance	0.503
Knowledge Management	
Regular briefings are held to enable management and employees to share experiences and progress on projects, best practices, success and failures	0.648
Learning from experience is shared	0.626
The organization structure encourages ease of communication	0.519

The findings suggest that the more successful organizations have been able to embed both a learning culture and a quality culture into the operations. This has been accomplished by management ensuring that all employees are aware of what quality means to the organization and with management showing their own commitment to quality by ensuring that "what gets said gets done". Employees are more focused on improving existing capabilities to support continuous improvement. Both single-loop and double-loop learning are supported by standard operating procedures being reviewed regularly together with employees being trained in problem solving techniques. Employees are encouraged to learn by working smarter not harder and not being "punished for mistakes".

Performance measures are clear and consistent and support the strategic objectives. The learning environment is supported by performance goals which should encourage continuous improvement and learning. The relevance of the performance goals is strengthened by employee involvement in the goal setting process. Performance goals play an important role in assessing operational activities and employee performance. Sharing of information is encouraged in those organizations where the outcomes of the quality program exceeded expectations. To encourage communication between employees, successful companies are more likely to have a supportive organizational structure, coupled with regular meetings to disseminate information where employees discuss experiences and progress on projects, best practice, together with successes and failures.

Variables that discriminate the groups were aligned with [13] twelve "building blocks" of the learning organization and linked with the "mandatory elements" identified by [12] and the "pre-requisites" noted by [4] It can be seen that the variables that discriminate the more successful organizations are those attributes that facilitate learning and which have contributed to superior performance. These attributes assist in explaining why more success is being achieved and why higher-level learning outcomes will be possible for these organizations.

Table-4: Variables that discriminate successful organizations with the attributes of the learning organization

Systems Thinking and Building a shared vision	
Leadership	□ Top management commitment to quality program □ espoused theories equal the theories in use – that is "what gets said gets done" □ all within the organization knows what quality means □ quality is embedded in organizational culture □ employees receive regular appraisal and feedback about their work performance □ employees are rewarded for learning new skills □ managers support staff not by punishing mistakes but by encouraging staff to learn
Planning	□ employee involvement in goal setting □ performance measurement system linked to strategic plan □ clear and consistent performance goals
Mental models, Personal Mastery & Team Learning	
Information dissemination	□ Learning from experience is shared □ Regular briefings are held to enable management and employees to share experiences and progress on projects, best practices, success and failures
Innovation	□ Problem solving by employee teams

	☐ Feedback gained from assessing performance against target enables the instigation of rapid and corrective action ☐ Standard operating procedures are reviewed regularly ☐ Employees are focused on improving existing capabilities ☐ Employees are encouraged to work smarter not harder
Implementation	☐ The organization structure encourages ease of communication

Therefore, respondents who perceive their organization's quality program as "exceeded expectations" consider that their organization has a culture that encourages both continuous improvement and learning. It could be argued that such organizations have become, or are moving towards becoming, a learning organization.

CONCLUSION

This research was motivated by the desire to learn more about service organizations that have adopted a total quality management approach to operations, and in particular to investigate the role of total quality management in contributing to the success of organizational learning endeavors. The findings suggest that organizations that have a total quality management program that has exceeded expectations have been able to develop and encourage the attributes necessary for organizational learning. The findings will be of interest to practitioners as it provides further empirical evidence of the need to have the "right" environment to enhance and maximize learning to enable continuous improvement of operations. To achieve this success it is important for management to provide clear direction and motivation to all within the organization. Such an environment will then allow employees to work together to achieve the goals set. As with any research there are a number of limitations to this study that need to be noted. The study also relies on data collected from only the management level of the organization and therefore the findings are based on their perceptions rather than available objective data. To reduce the self-reporting bias future research should focus on multiple responses from the same organization, as seen in the work of [11].

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