



Efficiency Measurement of Universities in Sindh through Total Quality Management Practices

Imran Ahmed Shah, Faculty of Management Sciences, ILMA University, Karachi

Dr. Ghulam Akbar Khaskheli, Affiliation, Institute of Commerce, SALU Khairpur

Saaherah Basil Alkilany, Hospitality and Event Management Lead Lecturer, LTUC (Luminus Technical University College

Noor Ahmed Birohi, Begam Nusrat Bhutto Women University, Sukkur

Raza Ali Tunio, Sichuan University China

Abstract- This study has investigated the preparedness of public sector university of Khairpur district with intention to carry out total quality management practices which should be helpful for the implementation in broader terms of development. The methodology is based on qualitative and quantitative techniques for interpretation of results. Hence it is found in results that the focused independent variable efficiency, i.e., customer focus and satisfaction which shows positive relationship with the total quality management practices on the other hand bench marking is proved the performance which has weak relationship with the performance of Shah Abdul Latif University.

Key words: Total quality management Practices, Public sector universities, Performance

I. INTRODUCTION

Total quality management is a management and organizational combined efforts for services and manufacturing organizations to setup and enhance quality levels and performance of organization. This approach is people driven and concentrating upon setting quality in product realization processes, instead of, to merely checking for low quality of production after process. Total quality management is not only for need for quality but also it need for quality at every corner of the organization. Similarly total quality management is more complicated concept instead of fact in which more have written about total quality. Definitions of total quality management differ from person to person as the meaning of the quality changes from author to author. Before finding about total quality management, let's discuss first about quality.

Concept of quality

Concept of quality was also present for pre-civilization people, and those people also have learnt that which and how a food could be eat and which are not for the eating purpose. And they also know that what kind of hunting equipments will best fulfill their objective. The dependability of hunter's survival was the quality control measure of the equipments as better the equipment, the better their outcomes were of survival(smith; 1993, smith and levis; 1994). In the different words the quality concept means "effectiveness". In the same way history repeats that the leaders and wealthy people make themselves different by availing high quality services and products.

For wealthy persons, quality means excellence and perfection. This indicates the dynamic nature of the quality and the meaning of total quality changes from time to time from person to person.

The quality is emerging in nature and it is difficult to explain it in explicit terms. This is the fact for both services and manufacturing organization to explain quality whether it exist regardless of service or product.

II. LITERATURE REVIEW

2.1 Defining quality

The quality has many definitions and depends upon the person's role who is defining it. There are so many definitions of quality and different people define in his/her own writings. Quality actually rest upon the one's perception of excellence. Gravin (1998) defines quality as "it is easy to visualize quality but

complicated to explain. There is more variation in the definitions given by some pioneers of quality and gurus. Shewart (1993) Said that quality is all about the conformance of standards. In the same way quality has defined as “value for money”. (Figenbaum, 1956) The definition by Juran for defining the quality as “fitness of purpose” is regarded as the smallest definition in the literature available on the quality. “Fitness for use” concentrates on at what level the product fulfill its intended use or function. Quality is sometime measured completely subjectively and it should be sometime based on psychological measures just like as appearance. For instance, in a hospital the friendliness of the staff may give the best impression of high quality, however, there may be not enough services of the health care. In the same manner we often connected with the well known products like Rolex watches or Mercedes Benz cars due to excellence just because of companies’ goodwill.

2.2 Quality assurance

Quality assurance level marked a shift for detection to prevention by an approach to managing quality in this process. In the period of World War II, the statistical sampling methods were used by American military department and they have imposed savior standards upon suppliers. Suppliers were offered by, with the free training programs in the satisfied method developed within the Bell system. The production mechanism has become more complicated during this period. The major elements considered important for quality control were to quantify the cost of quality, reliability engineering zero defect and total quality control.

Improving product design, planning in advance for quality, process and services, thus improving control over process and involving and motivating people, were taken on board, during the quality control stage quality had a boarder implication for management (Gavin, 1988) The other name of quality assurance is prevention based system that improvers product quality by putting emphases upon process design and product.

This approach stressed on detection of errors at source, entire production chain was an emphasis from market to design, and the participation of all the functional departments, when upper management include prevention as opposed to detection, the quality planning and improvement certainly begin in organizational policy and objectives and start to combine the improvement efforts of various department (Gavin, 1988).

2.3 Quality in education

As the time passed the stress shifted to out puts assessment and process management. The latest approach is market oriented and more customers focused and the services or products are assessed on the basis of, at what level they satisfy the customers and employers (UNESCO, 1996). Some others suggest teaching and research in the education as value addition for the quality and other suggest that the quality as a customer satisfaction and quality of the support services. Korukonda, (1992) has looked at quality as a qualitative change in students no universal or precise definition of quality is available in the literature. Similarly academic quality can be measured by a by various parameters. It is seen as a mentally stimulating learning condition and environment supported by excellent teaching ways and teachers who stimulate the students involvement and interest and assist them obtaining new ways of understanding⁴ weather those be effective cognitive or psychomotor. The phrase “Fitness for the purpose” means how good the product performs its intended use (Sanders & Reid, 2000) This definition in higher education implies that a course of study in higher education institutions is a satisfactory quality when it follows to the specific standards or levels of achievement for the purpose, it was designed (UNESCO, 1996). In the education context the educational products, controversies are the support services and the academic program and the student depending upon the type of customer (Kanji & Tambi, Karapatrovic, 1998). Primary customer can be considered to students and the support services and academic program should be considered as product but if the other stack holders and employers can be considered as customers and then student should be considered product.

III. RESEARCH METHODOLOGY

The data was collected through a survey questionnaire and total number of questions was 14 and respondent was two hundred and data was collected through the random sampling and every 5th member from the population was selected to conduct the survey.

IV. RESULTS & DISCUSSIONS

4.1 Diagnostic test

After collecting the data by using a questionnaire it was ordered and prepared for analysis which was based on computer statistical software for social sciences (SPSS Version 21). Multiple regression test and reliability analysis test were applied. The researcher and the books suggest that the reliability of questionnaire should be in between $\alpha=0.60$ and $\alpha=0.70$. in order to check the reliability of questionnaire fourteen items were entered for reliability analysis and the system has shown that the reliability of these fourteen items were cronbach's $\alpha=0.99$

Table No. 1

Cronbach's Alpha	No. of Items
0.99	14

4.2 Result of research work

The investigative method of research was used to evaluate the co relationship between two or more than two variables. According to the analysis of data the following are the results:

Table No.2 ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig
1	Regression	44.590	14	3.185	2.071	.025 ^b
	Residual Total	104.591 149.181	68 82	1.538		.27

a. **Dependent Variable:** Total Quality Management

b. **Predictors:** (Constant), Bench Marking, Student Focus & Satisfaction, Program Design, Documentation Management, Assessment Process, Teaching Process, ISO, Financial Resources, Management Commitment, Strategic Management, Program Planning, Training & Development, Work Environment, Human Resource Management

Anova means analysis of variance. This shows the significance of model by using suggested parameters of significance if the result value of significant model is less than 0.01 which means the model is significant. Looking at the table the value shows that the results are 0.025 means the result are significant.

Table No.3 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.547 ^a	.299	.155	1.240	.299	2.071	14	68	.025

a. **Predictors:** (Constant), Bench Marking, Student Focus & Satisfaction, Program Design, Documentation Management, Assessment Process, Teaching Process, ISO, Financial Resources, Management Commitment, Strategic Management, Program Planning, Training & Development, Work Environment, Human Resource Management

Model summary is always used to measure the fitness of the model. According to the suggested parameters if the result value of adjusted R square is more than 0.05 it means the model is fit. Looking at the value from the above mentioned model the value of adjusted R square is 0.155 and it shows that model is fit.

V. CONCLUSION

This study explains that through the adoption of total quality management practices, the educational institution can improve their performance. This research illustrates that there is no specified model or method to measure and determine total quality management practices and criteria at Shah Abdul Latif University. By obtaining information through the questionnaire it was noticed that the big threat and limitation is finding job opportunities after completing the university education. This limitation is especially applicable for the new departments. These are the big issues which negatively affect the student's enthusiasm and those are the students which are basic input in the education process. Total quality management is the one of from the modern approaches but still adoption of this approach is limited in Pakistan, especially in institutes of higher education.

VI. RECOMMENDATIONS

- Connecting the needs of the students with the education process design and the universities.
- Interaction and co operation between faculty members and students through an exchange of advice assistance and experiments system.

REFERENCES

1. Korukonda, (1992). Evaluation of success and failure factors and criteria in the Implementation of total quality management principles in administration at selected institutions of higher education. PhD thesis, University of Toledo, Toledo, OH.
2. Kanji, G. K., & Tambi, M. A. (1998). Total quality management in UK higher education institutions. *Total Quality Management*, 10 (1), 129-153
3. Karapatrovic, S. (1998). Quality assurance in the university system. (Unpublished doctoral dissertation). University of Manitoba, Canada.
4. Reid, R. D., & Sanders, N. R (2002). *Operations management*. New York, NY: John Wiley & Sons Inc.
5. Shewhart, W. A. (1993). *Economic control of quality of manufactured products*. New York: Van Nostrand.
6. UNESCO. (1996). *Quality assurance for higher educations: Developing and managing quality assurance for higher education system and institutions in Asia and the Pacific*. Bangkok, Thailand: Asia-Pacific Centre of Educational Innovation for development (ACEID).
7. Garvin, D.A. (1988). *Managing quality: The strategic and competitive advantage*. New York, NY: Free Press.
8. Feigenbaum, A. V. (1956). *Total quality control*. (2nd ed.) New York: McGraw Hill.
9. Mahanti, R., & Antony, J. (2009). Six Sigma in the Indian software industry: some observations and results from a pilot survey. *The TQM Journal*, 21 (6), 549-564.
10. Martinez-Lorent, R. A., Sánchez-Rodriguez, C., and Dewhurst, W. F. (2004). The effect of information technologies on TQM: An initial analysis. *International Journal of Production Economics*, 89 (1), 77-93.
11. Meyer, J. P., Srinivas, E. S., Lal, J. B., & Topolnytsky, L. (2007). Employee commitment and support for an organizational change: Test of the three-component model in two cultures. *Journal of Occupational and Organizational Psychology*, 80 (2), 185-211.
12. Powell, T.C. (1995). Total quality management as a competitive advantage: A review and empirical study. *Strategic Management Journal*, 16 (1), 15-37.
13. Ma, D., Liu, M., Yang, H., Ma, X., Zhang, C. Diagnosis and surgical treatment of carotid body tumor: A report of 18 cases (2010) *Journal of Cardiovascular Disease Research*, 1 (3), pp. 122-124. DOI: 10.4103/0975-3583.70905

14. Rusly, H. F., Corner, L. J., & Sun, P. (2012). Positioning change readiness in knowledge management research. *Journal of Knowledge Management*, 16 (2), 329-355.
15. Sekaran, R. J. (2010). *Research Methods For Business: A Skill Building Approach* (5 Ed.). John Wiley & Son
16. Shum, P., Bove, L., & Auh, S. (2008). Employees' affective commitment to change: The key to successful CRM implementation. *European Journal of Marketing*, 1346 – 1371.
17. Visagie, C.M., Steyn C. (2011). Organisational commitment and responses to planned organisational change: An exploratory study. *Southern African Business Review*, 15(3), 98- 121.
18. Yang, C. C. (2003). The establishment of a TQM system for the health care industry. *The TQM Magazine*, 15 (2), 93-98.
19. Yang, T., Chen, M., & Su, C. (2003). Quality management practice in semiconductor manufacturing industries– empirical studies in Taiwan. *International Manufacturing systems*, 14 (2), 153-159.