# THE RELATIONSHIP BETWEEN QUALITY TRAINING PRACTICES AND INTERNAL CUSTOMER SATISFACTION: AN EMPIRICAL STUDY IN MALAYSIAN LOCAL AUTHORITIES

Khairul Anuar bin Mohd Ali Program Peningkatan Kualiti dan Produktiviti Pusat Pengajian Sains Matematik, Fakulti Sains dan Teknologi Universiti Kebangsaan Malaysia, 43600 Bangi, Selangor kabma@pkrisc.cc.ukm.my

Abstract: This study examines the relationship between quality training practices and the internal customer satisfaction of the local authorities in Peninsular Malaysia. Three hundred twenty managers from eighty organizations participated in this study. Disproportionate stratified random sampling was used as the sampling technique from the population frame and the data were gathered through self-administered structured questionnaires. Employing regression analysis, the results revealed that quality training practices has positive association with the internal customer satisfaction. Thus, in order to achieve superior level of internal customer satisfaction, the local authorities need to address correspondingly to the issue.

Keywords: Quality, Training, Local authorities, Internal customer, Satisfaction

# INTRODUCTION

An educated and well-trained work force is considered to be essential to the maintenance of a business firm's competitive advantage in a global economy (Huang, 2001) [11]. It is also believed that training can and should be a powerful agent to facilitate a firm's expansion and the development of its capabilities, thus enhancing profitability (Cosh *et al.*, 1998) [4]. The globalization and liberation of the world economic system have brought us to an era where global competition is highly intense. The introduction of new technology and systems have greatly affected the performance of organizations. Quality practices are widely recognized as one of the important disciplines and strategies for competitiveness, since training is one of the main factor in the quality principles, thus it should be given proper attention.

The Local Governments, being a service provider to the public, should not be immune from pressure that drives an organization to be successful with quality services that satisfy the customers and stakeholders. According to Randall and Senior (1994), public sector services are experiencing pressures as a result of financial constraints, legislative changes, criticism of standards and political tension. Together with internal pressure, the desire for improved quality of service has become a major concern in the era of global competition. Thus, quality has become the important force leading to organizational success in national and international market (Feigenbaum, 1991) [6].

There are two types of customers to public services such as in local government according to Donelly *et al.* (1995) [5]. They are the recipients or users of services which make either little or no financial contribution towards their provision; or those who have to pay for a particular public service but do not experience its benefit through direct use. Whoever their customers are, service quality initiatives in the local authorities need to focus and contribute to social good as well as discharge public accountability.

In Malaysia, there are a total of 145 local authorities (Ministry of Housing and Local Government, 2003) [13]. A total of nincty-nine local authorities serve in West Malaysia and forty-six in East Malaysia. Since local authorities are much involved in the development of a district, so they have become one of the most important agencies in term of development in the local districts. Hence, their efficiency and effectiveness of resources utilization that being funded through budget allocation resources will greatly effect the economic growth of the country at macro level. Having neted that, this study investigates the relationship between quality training practices and internal customer satisfaction among local authorities in West Malaysia

The rest of the paper is organized as follows. The background of the study and the research model are presented in the next section, followed by research methodology. The fourth section provides the analyses and findings. The implication and conclusion of the study are presented in the final section.

# Background of the study

Quality products and services can be delivered best when all of the organization's systems are efficient, effective and focused on the same target (Beechner and Koch, 1997) [2]. However, when there is a collection of 'ad hoc' systems by piecemeal approach of system development, efficiency and effectiveness is at stake; misperceptions and confusions often occur. Thus, establishment and maintenance of a total system approach is required, in turn will best eliminate potential confusion and sub-optimization from the outset (Beechner and Koch, 1997) [2]. Given that, there is a growing recognition in the business world that old management approach are no longer appropriate or effective. The sum of the common beliefs held by a majority of managers today comprises what is called the traditional management paradigm. Paradigm shifts, when the old paradigm no "onger works (Raynor, 1992) [16]. Among others, is the development of an integrated approach to management, that is, total quality management (TQM).

Owing to significant shifts in competitive edge, the need for continuous improvement and breakthrough on quality management practices are immense. The initiatives of employing quality methodologies in the form of strategic quality management or TQM and implementing quality assurance practices are therefore crucial.

Quality must be viewed as a moving target. Higher and higher performance standard must be set for everyone in an organization to provide sense of working towards common goal. Consistent and committed top management leadership is the catalyst for moving the organizational culture towards espirit de corps in which all individuals, regardless of rank or position, are obliged to discharge their accountability. Such an attitude should permeate everything an organization does including supplier relation, marketing, research and development, product design, information processing as well as quality training. Management can effectively induced change in its organizational quality practices by providing a conducive environment in which employees know the organization cares and is responsive to their needs and will appreciate and rewards excellence results. This knowledge goes a long way towards making the employees feel trusted, respected and comfortable. Such employees are more likely to treat customers in a similar manner.

An organization must empower employees to participate fully in the quest for excellence in quality by providing the means by which employees gain pride, satisfaction, and substantive involvement. Encouragement, job enrichment, proper working environment and training especially in quality principles and tools are what managers must provide. Employees should be recognized with praise and reward for their effective involvement in group problem solving, contributing of ideas for improvement, acting as monitors of their own work, and sharing their knowledge and enthusiastic attitudes with their colleagues.

There are many studies conducted towards gaining an understanding of quality programs and practices employed by organizations that are aimed at improving organizational performance and gaining competitive superiority in global market place. In this respect, Saraph *et al.* (1989) [18] and Flynn *et al.* (1994) [7] have proposed empirically validated scales of measures for integrated quality management aimed at providing better understanding of quality management practices in relation to organization's quality environment and quality performance. Researchers have used such measure to better understand quality management practices and models that relate the critical factors of quality management to internal customer satisfaction.

Benefits from employing quality practices including quality training are documented well in quality literatures. Among others, Powel (1995) [15] investigated the possibility of incorporating TQM practices to gain and sustain competitive advantage. Drawing on the resource approach, his study examined TQM as a potential source of sustainable competitiveness. He found organizations that put TQM practices in place outperform their competitors, among others, the finding suggested that financial performance was positively associated with quality management practices. Others have indicated that the importance of customers satisfaction on financial performance (Kotler, 1994 [12]; Ronen and Pass, 1994 [17]; Garvin, 1984, 1988 [9] [10]).

Some claimed that successful implementation of TQM could generate improved products and services, reduces costs, more satisfied customers and employees, and improved financial performance (Walton, 1986 [20]; Garvin, 1983, 1984, 1988 [8][9][10]). In this respect, internal customer satisfaction is the function of quality training practices.

Given the benefits from successful implementation of quality management initiatives cited in the preceding paragraphs, this study investigates the phenomenon of quality training practices in relation with internal customer satisfaction in local authorities in West Malaysia. Thus, the model used in this study expressed in the form of regression model as follows:

 $ICS = a + b_1 QT + C$  ICS = Internal Customer Satisfaction QT = Quality TrainingC = Error

## MATERIALS AND METHODS

#### Study Design

This study employed a field survey method and data obtained from head department of each local authorities through self-administered personal interview aided by structured questionnaires. As this study goes beyond merely describing the variables in a situation to understand the relationships among factors of interest between the dependent variable (internal customer satisfaction) and independent variable (quality training practices), the nature of investigation of this study was correlational (analytical and predictive).

Variables of study neither be manipulated nor controlled, and no artificial setting was created for the study, therefore this study was conducted in a non-contrived setting. As the data for this study was collected at a single point in time (Sekaran, 2000) [19], this study was a cross-sectional in time horizon.

### Sampling Frame

The population of this study consists of all local authorities in West Malaysia. The list of local authorities was retrieved from the Handbook of the Ministry of Housing and Local Government, Government of Malaysia Year 2003. According to the list, there are ninety-nine local authorities serving West Malaysia. All local authorities in West Malaysia were invited to participate in this study. However, eighty organizations were willing to participate.

As a general rule, Roscoe (1975) as cited by Sekaran (2000) [19], proposed that the appropriate sample size for most research should be larger than thirty and less than 500. While for the multivariate study, the sample size should be several times, preferably ten times or more, as large as the number of variables understudy. Thus, eighty organizations as sample to represent the population were sufficient, as well as meeting the statistical requirement for the regression analysis.

#### **Operationalization of Variables**

Sekaran (1999) defined that operationalizing a concept and to render it measurable, is done by looking at the behavioral dimensions, facets, or properties denoted by the concept. These are then translated into observable and measurable elements so as to form an index of measurement of the concept. Thus, the variables understudy were operationalized and presented in the following paragraphs.

## Independent Variable

The independent variable of this study is quality training practices. This construct was operationalized in term of training in quality principles, problem solving skills and group dynamic; as well as statistical techniques. A five-point Likert-type scale was used to measure the extent of organization institutionalized the quality training, ranging from 1 (strongly disagree) indicating low concentration in quality training, to 5 (strongly agree) indicating high practices in quality training. The Cronbach- $\alpha$  of 0.77 for the scale in the study indicated an acceptable level of internal reliability.

Dependent Variable – Internal Customer Satisfaction. This construct was measured using five dimensions. The dimensions were (a) reliability, (b) tangibles, (c) responsiveness, (d) assurance, and (e) empathy. For all the dimensions, they were measured using a twenty six-items instrument, and were anchored on a five-point Likert-type scale with the scheme ranging from 1 (strongly disagree) indicating low internal customer satisfaction, to 5 (strongly agree) for high internal customer satisfaction.

In order to obtain the score for the level of internal customer satisfaction in an organization under investigation, the average score of responses to various items of measurement to the dimension were calculated. The Cronbach- $\alpha$  of 0.94 obtained for the scale in the study indicated a high internal reliability.

## **RESULTS AND DISCUSSIONS**

This section presents the results of the study. The descriptive statistics means, standard deviations, minimum and maximum scores for the variables in the study are reported in Table 1.

Table 1: Descriptive Statistics for the Variable in the Study (n = 80)

Variables	Mean	S.D.	Min.	Max.	Theoretical Range	
Quality Training (QT) Internal Customer	3.39	0.72	1.40	5.00	1.00 - 5.00	
Satisfaction (ICS)	3.66	0.37	2.73	4.56	1.00 - 5.00	

The result of regression analysis which contained the standardized Beta and unstandardized coefficient B, standard error estimates and the t-test value and its significance for the variable in the regression. Table 2 also showed the coefficient of determination ( $R^2$ ) for the regression model, its F-test value, and the level of significance. Overall, analysis of the goodness and fit for the regression equation showed that the coefficient of determination,  $R^2 = 0.176$ , signifying that seventeen per cents of the variation in the level of internal customer satisfaction was statistically explained by the regression equation.

Table 2: Regression Result with Internal Customer Satisfaction as Dependent Variable (n = 80)

Variables	Coefficient	Std Error	Beta	t-Stat	Significance
Intercept	2.904	0.181		16.017	0.000 <sup>a</sup>
Quality Training (QT)	0.222	0.052	0.432	4.234	0.000

R= 0.432;  $R^2 = 0.187$ ; Adjusted  $R^2 = 0.176$ ; F-ratio = 17.930 Level of Significance: a) p < 0.01

Given the results in Table 2, the general expression in the form of regression equation can be stated as follows:

ICS = 2.904 + 0.222 QT + C

As Table 2 demonstrates, the predictor variable was found that to has statistically significant associated with the perceived level of internal customer satisfaction. Thus, the result indicated that the perceived level in internal customer satisfaction was positively associated with quality training. The result suggest that the local authorities that give high (low) institutionalization of quality training will experience high (low) internal customer satisfaction. The result support previous research that quality training practices promote positive internal customer satisfaction.

The utility of result of this regression is in part dependent upon the violation of the assumption of regression analysis (Cohen and Cohen, 1983 [3]; Neter *et al.*, 1990 [14]). In order to evaluate the homogeneity of variance of the residuals, the standardized residuals were plotted against the fitted dependent variable (internal customer satisfaction). Given the absence of any systematic feature in the plot, there was no evidence to suggest that the assumption of homoscedasticity have been violated. The plots of the residuals against each predictor revealed that the data points all fall within a horizontal band of uniform width about a zero mid-point, suggesting that a linear relationship adequately represents the effect of each predictor. Finally, in order to test the normality of residuals, they were plotted against their normal scores. The normal probability plot suggested that there was no departure from normality, since the points in the plot appeared in a straight line. Furthermore, the histogram of standardized residuals revealed that the distribution does not depart dramatically from normal distribution.

# **IMPLICATION AND CONCLUSION**

The result identified that there are positive association between quality training practices and internal customer satisfaction. The results bear implications for the management of the local authorities. Quality training practices such as seven tools of quality, team work, quality control circle, kaizen, and other quality training will increase organization productivity and result in positive outcome, specifically if the organization aimed at improving the internal customer satisfaction. Giving due attention to employees training such in basic quality tools will encourage involvement and participation, hence will improve employees' motivation as well as the level of organizational commitment. Consequently, the employees in turn portray their acceptance of organizational goals and their willingness to exert effort on behalf of the organization. The resultants of this exercise give rise to increase in organization productivity, and thus improve internal customer satisfaction.

This study is subject to several limitations. First, the results should be interpreted within the usual limitations of survey research. Several types of responses biases were considered in the survey research to assure that thoughtful responses were obtained from the respondents. These were extremity, content-related, initiation, fatigue, and routine biases (Alreck and Settle, 1995) [1]. The results of analyses did not indicate any response bias with respect to the measures used in this study. Second, the results of this study were based on cross-sectional data, no statement of causation could be made. Third, participation in the survey was voluntary. It was possible that the respondents who declined to participated and/or treated as dropped-out were different from those who participated.

# REFERENCES

- 1. Alreck, P. L. dan Settle, R.B. 1995. The Survey Research Handbook (2<sup>nd</sup> ed), Boston: Irwin.
- 2. Berry, W. D. dan Feldman, S. 1985. *Multiple Regression in Practicess*, Sage Sage University Paper 50, Beverly Hills, CA.
- 3. Cohen, J. dan Cohen, P. 1983. Applied Multiple Regression/Correlational Analysis for the Behavioral Sciences (2<sup>nd</sup> ed.), Hillsdale, NJ: Lawrence Erlbaum.

- 4. Cosh, A. Duncan, J. dan Hughes, A. 1998. Investing in Training and Small Firm Growth and Survival: An Empirical Analysis for the UK 1987-97, DfEE Research Report RR36, HMSO. London.
- 5. Donnelly, M., Wisniewski, M., Dalrymple, J. F. dan Curry, A. C. 1995. Measuring Service Quality in Local Government: the Servqual Approach, *International Journal of Public Sector Management*, 8, pp. 15-20.
- 6. Feigenbaum, A. V. 1991. Total Quality Control (3rd ed.), Baskerville: McGraw-Hill.
- 7. Flynn, B. B., Schroeder, R.G., dan Sakakibara, S. 1994. A Framework for quality management research and associated measurement instrument. *Journal of Operation Management*. 11(1), pp. 339-366.
- 8. Garvin, D.A. 1983. Quality On Line, Harvard Business Review, Sept/Oct., pp. 65-75.
- 9. Garvin, D.A. 1984. What Does Product Quality Really Mean? *Sloan Management Review*, 26, pp. 25-43.
- 10. Garvin, D.A. 1988. Managing Quality: The Strategic and Competitive Edge, New York: Free Press.
- 11. Hair, J.F., Anderson, R. E., Tatham, R. L. dan Black, W. C. 1995. *Multivariate Data Analysis* (4<sup>th</sup> ed.), Eaglewood Cliffs, New Jersey: Prentice Hall.
- 12. Kotler, P., 1994. Marketing Management Analysis, Planning, Implementation and Control, (8<sup>th</sup> ed.), New Jersey: Prentice Hall.
- 13. Ministry of Housing and Local Government., 2003. Local Authority Department Report, Ministry of Housing and Local Government, Kuala Lumpur, Malaysia.
- 14. Neter, J., Wasserman, W. dan Kutner, M.H. 1990. Applied Linear Statistical Models (3<sup>rd</sup> ed.), Homewood, IL.: Irwin.
- 15. Powell, T. C., 1995. Total quality management as competitive advantage: A Review and Empirical Study. *Strategic Management Journal*. 16 (1), pp. 15-37.
- 16. Raynor, M. E., 1992. Quality as a Strategic Weapon, Journal of Business Strategy, 13, pp. 3-9.
- 17. Ronen, B. dan Pass, S. 1994. Focused Management: A business-oriented approach to total quality management. *Industrial Management*. May/June, pp. 9-12.
- 18. Saraph, J.V., Benson, G.P., dan Schroeder, R. G. 1989. An Instrument for measuring the critical factors of quality management. *Decision Sciences*, Fall, 20: pp.810-820.
- 19. Sekaran, U. 2000. *Research Methods for Business: A Skill Building Approach* (3<sup>rd</sup> ed.), New York: John Wiley and Sons.
- 20. Walton, M. 1986. The Deming Management Method. New York: Pedigree.