

Effects of Total Quality Management on the Operational Performance of Listed Deposit Money Bank in Nigeria.

ModuBulamaBuni, Baba Mohammed and Yusuf Abdulsalam, uthman morakinyo Ibrahim, ismail Ahmad Muhammad and Yahaya Abdullahi geidam.

. Department of Accountancy and general studies respectively, Mai Idris Aloom Polytechnic Geidam

E-mail: [Modubulamab@gmail](mailto:Modubulamab@gmail.com)

Abstract

This study examines the quantitative approach on the effects of total quality management on the operational performance of the listed money deposit banks in Nigeria. The study used ex-post facto technique, as the study involves the use of annual reports and accounts of listed money deposit banks in the Nigerian Stock Exchange (NSE). The secondary information was obtained from the banks' financial report for the period of five years from 2012 to 2016. The dependent variable is fixed assets turnover used as a substitution of operational performance while the independent variables are: outsourcing cost, training and recruitment cost and consultancy and IT cost as the substitutions of TQM. The descriptive statistics, correlation and regression statistical method of analysis were employed to test the data using Statistical Software (Stat). The result of the study showed that all the three (3) TQM practices as independent variables had an important relationship with operational performance ($P < 0.05$). Based on the findings the study recommends that there is need for top management commitment to use the TQM as a plan. The commitment infers leading by example with provision of quality services that helps teams to improved. Since TQM procedure is a system that has collaborating mechanisms as being implored in this study, commitment to one part of the system is not likely to give the desired results.

Key Words: total quality management, operational performance, deposit money bank

1.1 Introduction

The paradigm shift of modern competitive organizations around the globe operational activities is attributable to improved competition, ecological turbulence, staff variety, great costs in terms of processes, variation of customer needs and wants (Maritim, Njuguna & Kilika, 2018). Rivalry has turned into more interesting today than in the past, while consumers' hopes of service excellence are advanced than before (Kathaara, 2014). To transport greater quality of service to the consumers, business establishments are coordinating their schemes, processes, philosophy and approving policies in order to be consumers oriented. Excellence Quality has appeared to be the main constituent and serious achievement factor in many of the industrial and service establishments. So, (TQM) develop into a vital facet of organization owing to improved rivalry amongst business entities and value issues related with entity processes, because the continue existence of a corporate entity rest on to a large extent on the value related with the product.

TQM, is a technique whereby organization and staffs involved in the constant development of the manufacturing of goods and services. A mixture of quality and organizational tools intended at improving entities and minimizing losses owing to extravagant spending's (Hashmi, 2010). Therefore, TQM is a depiction of the philosophy, attitude and workers' participation to offer consumers with goods and services that enhances their wants. The philosophy needs excellence in all facets of the entity's processes, with the procedures done right in the first time and flaws and waste eliminated from operations. TQM culture commences on top, starting from the board of directors to the subordinate. TQM is a philosophy which is centered on the fulfillment of consumer's need.

1.2 Statement of the Problem

Some years back, the banking industries repeatedly being categorized by continues operational incompetence, inefficiency and poor consumer relationship, poor services, and to solve the problems of incompetence in service provision these establishments are embracing TQM to ensure that they are operative in meeting public needs (Manivannan & Premila, 2009). So, many banks excellence programs are yet in their early phases having in the past functioned in a setting where there was restricted rivalry and consumer satisfaction was not a vital entity aims. Though, many banks are often not clear in coordinating exact purposes in applying quality programs. Moreover, whatever aims might be in place, these incline to continue for some time and centered on different goals and objectives, so also, some banks are ill equipped with exact outcome metrics to recognize and record the progress and achievements of quality programs. A series of research were conducted in TQM in different organizations. According to Vasantharayalu and Surajit (2016), studied the relationship on TQM practice on effective performance in all service and industrial sectors of the economy. The research revealed that the operative performance considers Leadership, Strategic and Planning, Consumer Focus, Information and Analysis, People Organization and Quality Performance were statistically vital in all categories of industrial sector. Therefore, the implementation of TQM operation in all services and industrial sector is essential to uphold the quality of the jobs and improve the rivalry level in society. Rula (2017), investigated the impact of TQM application on an entity's progress. The research was carried out in Jordan Petroleum Refinery Company (JPRC). The findings revealed that TQM has positive impact on entity's progress and achievement. Paul (2017), examined the effect of Total Quality Management on operational performance. The

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study adopted a cross-sectional descriptive survey design. Cross-sectional study was regarded as the most suitable time horizon owing to data generation done at specific point in time for a short time period. The findings disclosed that all the five (5) TQM practices as independent variables had an important association with operational effectiveness.

Prior work tried to examine the relationship among TQM and operational effectiveness. However, there has been little empirical research on whether listed deposit money banks in Nigeria follow quality improvements reliably with a TQM viewpoint. The banking sectors were likely to practice TQM regardless of their type, size or area in which they function. The present study is designed to address this question as to what extent the listed Nigeria deposit money bank practice TQM principles. Since, practice on TQM by an organization ought to be reflected in its operational performance. In this situation the current research aims at identify the effect of TQM and operational performance using quantitative data.

1.3 Research Objectives

The aim of this research is to investigate the effects of total quality management on operational performance of listed Nigeria deposit money bank. However, the following specific objectives are to:

1. Examine the effects of subcontracting cost for the operational performance of listed Nigeria deposit money banks.
2. assess the effects of recruitment and training cost for the operational performance of listed Nigeria deposit money banks.
3. Identify the effects of consultancy and IT expenses on the operational performance of listed Nigeria deposit money banks.

1.4 Research Hypotheses

Grounded on the study's objectives, the following null hypothesis (HO) was framed

1. There are no significant positive effects of subcontracting cost on operational performance of listed Nigeria deposit money banks.
2. There are no significant positive effects of recruitment and training cost on operational performance of listed Nigeria deposit money banks.
3. There are no significant positive effects of consultancy and IT expenses on operational performance of listed Nigeria deposit money banks.

2.0 Review of Related Literature

2.1 Review of Empirical Studies

This section reviews the generated literature work from previous scholars, below are the work studied and associated with a major results drawn plus their assumptions. Reed et al. (2000), examined the strength of the assertion that a justifiable competitive benefit can be created by TQM. Grounded on the work on resource-based model of an entity, market-based model of competitive benefit, and systems model, it was established that TQM link to gathering of competitive benefit. Therefore, the research research refers that TQM is making a cost reduction, and the difficulty and tactless are inborn in the course of TQM that focus on likelihood to produce hurdles for managing which are vital for maintaining continue development.

Kamal (2012), examined on how TQM effects the competitive benefit of companies that produce pharmaceuticals in Jordan whose findings revealed a positive effect where consumer emphasis on the utmost effects on competitive benefit. Finally, TQM is tactically vital to firms in achieving a competitive benefit.

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Wachuka (2013), investigated a study on sustainability of Kaizen and operative performance of production companies in Mombasa Region. Her results presented an unstoppable development on organizational culture toil together in pursuing to attain quality via cost minimization, whereby, improved staffs' maintenance and efficiency because of doing the needful. This work was conducted in industrial company however the present is focused on commercial banks. Another, study developed a linked amid continuous improvement and organizational culture whereas the present study considers TQM and operational performance. This work does not recognize the exact ongoing improvement practices that improves performance and gets a gap which the current work intended to fill.

Olçay and Sadıkoğlu (2014), examined the effects of TQM on many measures of performance. Likewise, the work examines the limitation and essence of TQM application in Turkish. This work displayed that many operations of TQM effectively affect result of operation. The difficulties of the companies in applying TQM are absent as well as the seriousness from staffs. Finally, the company should try to advance the company's plan, awareness, and commitment of staffs on TQM.

Rawashdeh (2014), Conducted a work on TQM and its effect on bank performance in Jordan. The findings showed that TQM operation had a positive and significant effect on bank performance. Mohammed et al. (2014), investigated a study on company's development via TQM. The results show that company's performance in form of goods quality, market share, enhance confidence of staffs, profits, follow market tendencies and reducing competitive burden.

Muriithi (2014), conducted a research on TQM operation and performance amongst Kenyan banking sector. The research focused on a

sustainable improvement methods and proven that continuous development brings a standard for staffs to go on looking ways to improved services and goods to their consumer, therefore, making a positive relationship between ongoing improvement methods and operation performance within commercial banks in Kenya. Whereas this work observed an ongoing developmental method and tools of applying ongoing development, it ignored the relationship between other operation of TQM and operational performance which the present study, intends to fill.

Esin, Hilal (2014), examined the effects of TQM operation on a different performance methods and also the motives and the obstacles of the TQM operation of companies in Turkey. The researchers used a cross-sectional survey approach. Population of the study was designated from the related companies to Turkish Quality Association and the companies situated in the Kocaeli-Gebze Organized Manufacturing Zone. The researchers got 242 used questionnaires, with a suitable reply rate of 48.4 percent. The researchers carry out an investigative factor and multiple regression analysis. The research reveals that not similar TQM practices significantly affect different performance results. It also revealed that primary difficulties that the companies in Turkey experience were lack of staffs' participation, awareness and commitment of the staffs, inappropriate companies structure, and lack of the capitals.

Esam, (2015), examined the impact of TQM on innovation in service organizations. Data was generated through survey technique from service organizations which function in Malaysia in various service subsectors. Confirmatory Factor Analysis method was applied to authenticate the constructs comprised in the research model. The dimensional model was authenticated by means of Goodness of Fit guides, Standardized regression Weight, Convergent validity, Content

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validity, Discriminant validity and Multicollinearity valuation. Structural Equation Modeling by means of Analysis of Moment Structures software AMOS was applied to test the hypotheses. Hypotheses showed that practices of consumer focus and people management are the highest TQM practices that absolutely impact on development in the surveyed establishments. Similarly, Radical Procedure Innovation and Radical Service Innovation are the greatest invention types that meaningfully affects the TQM practices.

Marcel and Ayankeng (2015), examine the impact of Total Quality Management (TQM) on Organizational Performance. information was generated from industrial firms in the republic of Cameroon. Proxies for TQM were management commitment through leadership, Quality control, inspection, staffs training, consumer focus, benchmarking as the criteria for enhancing goods quality. Organizational performance was measured by Customer Satisfaction, Corporate Social responsibility, Cost Reduction, and staff Satisfaction. Researchers run a sequence of multiple regressions analysis of organizational performance variables on explanatory variables defining TQM. The findings showed that only employment training and empowerment has an important impact on financial performance and corporate social responsibility; leadership commitment, quality control and inspection have a significant impact on cost minimization. However, none of the TQM practices seem to have a significant effect on customer satisfaction. Vasantharayalu and Surajit (2016), studied the relationship of TQM practices on operational performance in both service and manufacturing sectors. The study used 300 participants from 50 service and manufacturing industries in India. The information was generated from participants by means of survey technique. The questionnaire was constructed in connection with the TQM practices on operational performance.

Questionnaire carry the following TQM factors viz. leadership, process management, staffs' management, continuous development, and customer focus. These questionnaires were circulated to 300 participants and the generated information was verified by by means of different tests like a frequency tests, descriptive, SEM analysis, correlation, multiple regression analysis tests etc. The research findings found that the operational performance regard Leadership, Strategic and Planning, Customer Focus, Information and Analysis. The presentation of TQM practices in all service and industrial sector to sustain the good work and improve the rivalry level in the society.

Rula (2017), investigated the impact of TQM application on companies' performance. The research was carried out in Jordan Petroleum Refinery Company (JPRC); the research population was (103) managers from various levels. The scholar focus on primary and secondary information. The findings revealed that TQM has positive impact on companies' performance. Paul (2017), studied the effect of Total Quality Management on operational performance. Cross-sectional descriptive survey strategy was applied. The sample of 41 commercial banks in Mombasa County was used, and Out of the 41 questionnaires, 31 participants and gave back their questionnaires which were inspected representing 76% reply rate which was regarded suitable. The findings indicated that all the five (5) TQM had a positive connection with operational performance. Yet, TQM did not straight improve the profits of these banks. Matters on quality and ongoing process improvement had been considered to a greater degree though training and education, top management commitment had been considered to a reasonable extent. Similarly, TQM practices were realized to have a significant effect on operational performance such that as TQM practice differs, the latter differs to a great degree.

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3.1 Methodology

This section utilized ex-post facto technique, because the research involves the use of the secondary information. Yearly reports and accounts of the deposit money banks in the Nigerian Stock Exchange was used. So, the non-survey strategy is conducted to realize the study aims on investigating the effect on total quality management of the operational performance. 5 banks were sampled to participate out of the 16 total population. The scholar used secondary source of information and were obtained from the bank's financial position for 5 years from 2013 to 2017 enclosed in the bank's yearly reports and account. The dependent variables are fixed assets turnover while the independent variables are the variables are: subcontracting cost (SSC), recruitment and training cost (RTC) and consultancy and IT expenses (CIT) used as the proxies of total quality management and age as control variable. Below is the model was used; the model is: $FAT_{it} = \beta_{0it} + \beta_1SSC_{it} + \beta_2RTC_{it} + \beta_3CIT_{it} + \beta_4Age_{it} + e_{it}$

Table 4.1: Descriptive Statistics of the Variables

	N	Minimum	Maximum	Mean	Std. Deviation
FAT	25	9.9060	460.6368	76.0043	140.8609
SSC	25	6.7151	7.2788	6.8706	0.1510
RTC	25	5.9882	8.8129	6.8056	1.0211
CIT	25	6.8281	8.6096	7.3277	0.7323
Age	25	1	23	13.00	6.583

Source: Author computation using STATA

Table 4.1 presents the descriptive statistics findings of the dependent and independent variables. A complete of 25 observations were documented. The Fixed asset turnover (FAT) which is dependent variable has an average of 76.0043 with a least of 9.9060 and the highest being 460.6368 with standard deviation of 140.8609 representing 100% presenting that there is much difference between the FAT of the sampled Banks. Subcontracting cost (SSC) has an

Where:

FAT_{it} = Fixed Assets Turnover of bank i in year t

SSC_{it} = Subcontracting cost of bank i in year t

RTC_{it} = Recruitment and Training cost of bank i in year t

CIT_{it} = Consultancy and IT expenses of bank i in year t

Age_{it} = Age of bank i in year t

β_{0it} = Constant (i.e. the intercept)

β_{1-5it} = Coefficient of the independent variables (i.e. the slope)

e_{it} = Error term

4.1 Findings

Based on the review of literature and the analysis of the data generated the research make the following findings;

4.1.1 Descriptive Statistics

The descriptive statistics indicated the mean and standard deviation of separately independent variable from the mean and standard deviation of the dependent variable.

average 6.8706 with a minimum 6.7151 and a highest of 7.2788 with standard deviation of 0.1510 representing above 15.10% showing that there is no much difference between the OSC of the sampled banks. Recruitment and Training cost (RTC) has an average 6.8056 with a least 5.9882 and the highest 8.8129 with standard deviation of 1.0211 representing above 100% display that there is much difference between the RTC of the sampled companies. Consultancy and IT expenses (CIT) has an average 7.3277 with a

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minimum 6.828 and a maximum 8.6096 with standard deviation of 0.7323 representing above 73.23% showing that there is much variation among the CIT of the sampled Banks. Age which is control variable has an average 13.00 with a minimum 1 years and a maximum 23 years with standard deviation of 6.583 signifying 100% display that there is much difference between the AGE of the tested Banks.

4.1.2 Correlation Result

Table 4.2: Correlation result

	FAT	SSC	RTC	CIT	Age
FAT	1.000				
SSC	0.686	1.000			
RTC	0.156	0.092	1.000		
CIT	-0.217	-0.098	0.631	1.000	
Age	-0.164	0.017	0.107	0.227	1.000

Source: Author computation using STATA

Table 4.2 presents the relationship findings of the dependent variable FAT and the independent variables SSC, RTC, CIT and AGE. The relationship between FAT and independent variable SSC is significant and strong, with a coefficient of 0.686 signifying 68.6% that is all things being equal the more sophisticated the SSC the more sophisticated the FAT. The association among FAT and independent variable RTC is significant but weak, with a coefficient of 0.156 signifying 15.6% that is, the more sophisticated the RTC the more sophisticated the FAT. The association among FAT and independent variable CIT is not significant and weak, with a coefficient of -0.217 signifying

The correlation findings indicated the association among individually independent variables and the dependent variable. The standards of the relationship coefficient range from -1 to 1. The symbol of the relationship coefficient displays the way of the association (positive or negative) the total value of the relationship coefficient displays the strength, with greater standards showing tougher connections and lesser standards showings weak associations. The relationship coefficients on the major diagonal are 1.0, as each variable has a perfect positive linear association.

21.7% that is, the more the sophisticated the CIT the lesser the FAT. The association among FAT and control variable AGE is negative and fragile, with a coefficient of -0.164 signifying 16.4% that is, the more the sophisticated the AGE the lower the FAT.

4.1.3 Regression Results

The regression findings indicated the impact of individually independent variable to the dependent variable. The regression coefficient values display the degree of the impact which range from 0% to 100%. This part also displays the F statistics, R² and adjusted R² of the model.

Table 4.3: Regression Results

Dependent Variable: FAT

Variable	Coefficient	Std. error	t-statistic	prob.t
(Constant)	-3744.918	1002.632	-3.735	0.001
SSC	584.886	140.008	4.178	0.000
RTC	43.911	26.556	1.653	0.014

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CIT	-62.614	37.849	-1.654	0.041
Age	-2.893	3.220	-0.898	0.080
R-squared	0.573			
Adj. R-squared	0.487			
F-statistic	6.699			
Prob. (F-statistic)	0.001 ^b			

Source: Author Computation using STATA

$$FAT = \beta_0 + \beta_1SSC + \beta_2QRTC + \beta_3CIT + \beta_4AGE + e$$

$$FAT = -3744.918 + 584.886OSC + 43.911RTC - 62.614CIT - 2.893AGE$$

Table 4.3 present regression findings of the model. The model comprises the dependent variable FAT and independent variables (SSC, RTC, CIT and AGE). In the model the multiple coefficient of determination R^2 is 0.573. This represent 57.3% of modification in FAT and was triggered by deviations in independent variables SSC, RTC, CIT and AGE whereas the 42.7% modification in FAT was triggered by other issues that is not in the model. The f-statistics is 6.699 with p-value of 0.001 which is below 0.05 and is positive signifying that the model is fit, since it represents the variation in the dependent variable. The impact of independent variable SSC on dependent variable FAT is significant with coefficient value of 584.886, representing that rise in the SSC whereas other variable stands constant lead to rise in FAT by 100%. The impact of independent variable RTC on dependent variable FAT is significant with coefficient value of 43.911, representing rise in the RTC whereas other variable stands constant lead to rise in FAT by 100%. The impact of independent variable CIT on dependent variable FAT is not significant with coefficient value of -62.614, representing that rise in the CIT whereas other variable stands constant lead to a reduction in FAT by 62.614%. The impact of control variable AGE on dependent variable FAT is not significant with coefficient value of -2.893, representing that rise in the AGE whereas other variable stands constant lead to a reduction in FAT by 2.893%.

4.2.0 Hypotheses

4.2.1 Subcontracting Cost on Operational Performance.

The t-test of SSC is 4.178 with p value of 0.001 lower than 0.05. So; the null hypothesis is rejected which positions that There is positive effect of subcontracting cost on operational performance of listed Nigeria money deposit banks.

4.2.2 Recruitment and Training Cost on Operational Performance.

The t-test of RTC is 1.653 with p value of 0.014 representing 0.05. So; the null hypothesis is rejected which show that There is positive effect of recruitment and training cost on operational performance of listed Nigeria money deposit banks.

4.2.3 Consultancy and IT Expenses on Operational Performance

The t-test of CIT is -1.654 with p value of 0.041 lower than 0.05. So; the null hypothesis is rejected showing effect of consultancy and IT expenses on operational performance of listed Nigeria money deposit banks.

5.1 Summary, Conclusion & Recommendation

This section of the research work brings together the findings of the work through the analyzed variables in this study. Then and there, conclusions are ready based on TQM and

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operational performance. Finally, recommendations are suggested and also possible area of additional study. Generally, the findings indicated that both three (3) TQM practices as independent variables had a positive association with operational performance ($P < 0.05$). As shown in this work, TQM is a serious management system on operational performance for development. TQM has been observed as a universal solution for different organizational difficulties comprising operational performance. The recommendation of this study is required for top management on seriousness over the TQM as a policy. The seriousness exhibited suggests showing by example with a quality services that aids teams to progress. Meanwhile TQM procedure is a scheme that has collaborating mechanisms as indicated for current research work, commitment to one portion of the scheme is not probable to provide what was needed.

Reference

- Abdullah, M., Uli, J. & Tari, J. (2009). The relationship of performance with soft factors and quality improvement. *Total Quality Management*, 20, 735-748.
- Bon, A.T., Mustafa, E.M.A. & Rakiman, U.S. (2012a). *Total Quality Management Practices in Service Organizations in Malaysia: A Review*. Paper presented at the International Conference of Technology Management, Business and Entrepreneurship 2012 (ICTMBE2012), Malacca.
- Demirbag, M., Koh, S.C.L., Tatoglu, E. & Zaim, S. (2006). TQM and market orientation's impact on SMEs' performance. *Industrial Management & Data Systems*, 106(8), 1206-1228.
- Doorewaard, H., Van Hootegeem, G. & Huys, R. (2002). Team responsibility structure and team performance. *Personnel Review*, 31(3), 356-370.
- Esam, M.A.M. (2015). Impact of Total Quality Management Practices on Innovation in Service Organizations. A thesis submitted in fulfillment of the requirement for the award of the Doctor of Philosophy in Faculty of Technology Management and Business Universiti Tun Hussein Onn Malaysia.
- Esin, S. & Hilal, O. (2014). The Effects of Total Quality Management Practices on Performance and the Reasons of and the Barriers to TQM Practices in Turkey. Hindawi Publishing Corporation Advances in Decision Sciences Volume 2014, Article ID 537605, 17 pages
- Gagnon, Marie-Eve, Smith, & Michael. (2013). The effects of a training levy on training characteristics and outcomes: The case of Quebec. *Industrial Relations Journal*, 68, 120-141.
- Hoang, D. T., Igel, B., & Laosirihongthong, T. (2010). Total quality management (TQM) strategy and organisational characteristics: Evidence from a recent WTO member. *Total Quality Management & Business Excellence*, 21(9), 931-951.
- Irani, Z., Beskese, A. & Love, P.E.D. (2004). Total quality management and corporate culture: Constructs of organizational excellence. *Technovation*, 24, 643-50.
- Lee, V.H., Ooi, K.B., Tan, B.I. & Chong, A.Y.L. (2010). A structural analysis of the relationship between TQM practices and product innovation. *Asian Journal of Technology Innovation*, 18(1), 73-96.
- Lewis, W.G., Pun, K.F. & Lalla, T.R.M. (2006). Exploring soft versus hard factors for TQM implementation in small and medium-sized enterprises. *International*

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- Journal of Productivity and Performance Management*, 55(7), 539 - 554.
- Marcel, T.N. & Ayankeng, G.N. (2015). The Impact of Total Quality Management on Firm's Organizational Performance. *American Journal of Management*, 15(4).
- Paul, M.N. (2017). Effect of Total Quality Management Practices on Operational Performance of Commercial Banks in Mombasa County, Kenya. A Research Project Report Submitted in Partial Fulfillment of the Requirements for the Award of the Degree of Master of Business Administration at the University of Nairobi, School of Business.
- Reed et al. (2000). Total quality management and sustainable competitive advantage. *Journal of Quality Management*, 5, 5-26
- Rula, A. Al-D. (2017). The impact of Total Quality Management on organizational performance Case of Jordan Oil Petroleum Company. *International Journal of Business and Social Science*, 8(1).
- Slack, N., Chambers, S. & Johnston, R. (2004). *Operations Management* (4ed.). Harlow: FT Prentice Hall.
- Soltani, E., Lai, P.-C., Javadeen, S. R. S. & Gholipour, T. H. (2008). A review of the theory and practice of managing TQM: An integrative framework. *Total Quality Management & Business Excellence*, 19(5), 461-479.
- Vasantharayalu & Surajit, P. (2016). An Empirical Study of Total Quality Management (TQM) Practices on Operational Performance of Indian Manufacturing and Service Firms. *International Journal of Management (IJM)*, ISSN Print: 0976-6502 and ISSN Online: 0976-6510, 7(6),
- Zakuan, N.M., Yusof, S.M. & Laosirihongthong, T. (2008, 21-24 Sept. 2008). *Reflective review of relationship between Total Quality Management and organizational performance*. Paper presented at the IEEE International Conference on Management of Innovation and Technology, 2008. ICMIT 2008. 4th.