

## **EFFECT OF TOTAL QUALITY MANAGEMENT ON ORGANIZATIONAL PERFORMANCE OF WEST AFRICAN CERAMIC COMPANY, AJAOKUTA, KOGI STATE, NIGERIA**

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### **Abstract**

*Total quality management philosophy is very important to the performance of an organization, this is as a result of the competitive nature of the business environment. This study examines the effect of total quality management on organizational performance of west African ceramic company plc., Ajaokuta. The study used descriptive research design in which a cross-sectional survey method was adopted. The method deals with quantitative data generated through questionnaire to answer the research questions and to test the hypotheses formulated. The population of the study consists of 200 employees both casual and non casual staff of west African ceramic company, Ajaokuta. while the sample size of one hundred thirty three (133) was determined using Taro Yamane (1973) sampling technique, One hundred and twenty (120) questionnaire were filled and returned. Data were collected from the returned questionnaire and were analyzed using linear multiple regression. Findings reveal that continual improvement has significant influence on organizational performance as revealed by the regression result (Beta = 0.146;  $P = 0.000 < 0.05$ ). The study also discovered that employee involvement have significant effect on organizational performance (Beta = 0.339;  $P = 0.000 < 0.05$ ). The study concluded that employee involvement in training enhances innovative idea and quality products. The study recommends that organizations should set quality standard for each department and reward employee of departments that meets such quality. More also, organizations should keep track of effective customers satisfaction.*

**Keywords:** Total quality management, continuous improvement, customer focus, organizational Performance, Product quality.

### **Introduction**

Organizations in the 21<sup>st</sup> century largely depends on the effective implementation and utilization of the philosophy of Total quality

management (TQM) which focuses on quality delivery of services and product through continuous improvement as a comprehensive approach towards satisfying customers. There is a clear focus on effective and efficient product and service delivery which can be better achieved through successful training which in turn leads to improved performance of organizational product and services. Customers are regarded as the king of the market and should be treated greatly by suppliers and producers of goods and services, the fact still remains that they are the end users of goods and services. Customer satisfaction attracts organizational recognition which in turn propels the organization to improve on quality of services. Total quality management (TQM) is a management philosophy that inculcates and focuses on the continuous improvement of product and services to employees and customers. Globalization has created stiff competition among businesses and producers of goods and services, this is manifested by the global shift in technology and innovation which has greatly influenced business activities worldwide. Organizations that practice TQM enjoy benefits such as good training, good decision making, innovation and creativity, high productivity and effective team work and team spirit.

TQM has its origin traceable to the United States of America and Japan, the adoption of TQM has led to the transformation of so many companies in South East Asia (Japan) giving rise to high quality of products and their demand in the global market. The quality management concept was recognized since ancient times in Japan in the late 1930s specifically after the World War II. After that, several firms in the manufacturing sector were focused on enhancing quality and utilizing tools that directly aim to control quality at these firms (Demirbag, 2006; Talib & Rahman, 2010).

According to Sajjad and Amjad (2012) performance of an organization involves factors such as earnings, output, competitive advantage, minimized scrap level, reduction in expenditures. Quality delivery of service involves all the processes that organization embark upon with a focus of providing quality services to customers.

TQM is applicable in all sectors of the economy including manufacturing industry, service delivery, public and private sector, hence there are no limitations in the application of TQM in any field of business. The techniques of TQM provides results in organizational performance (Shehzad, Hashim and Rashid, 2014). Companies and organizations that

want to attain good quality must integrate the culture of continuous improvement into its activities. Organizations will be better repositioned to achieve their organizational goals and objectives if top executives and CEO's of the companies adopt TQM.

### **Statement of Problem**

Employee's of an organization contributes to the overall goals of the organization, this can be achieved by empowering employees to be more involved in the philosophy of total quality management implementation. Organizational performance has been hampered in some organization due to the non adherence to the principles and implementation of TQM. Total quality management is aimed at creating an environment that expects the best from employees through customer satisfaction, career satisfaction and organizational commitment. A continuous improvement of quality of product seeks to meet customers' expectation. The philosophy of total quality management is still regarded as a difficult task to be embarked upon by some organizations and remains unpopular to some managers in their organization, less effort is put in place for training of employees. Jeremiah (2015) observed business should practice continuous improvement of product and services for it to remain competitive. Global innovation and improvement propels customers to demand for services and products that are of high quality and good features than in the past, the inadequacies of this quality services has led to poor customers satisfaction, low quality output, low market share among others. The overall consequence is that such indicators are negative signs of poor organizational performance, on this note, drastic effort should be made to ensure that total quality management is adopted in all activities of organizations.

### **Objective of Study**

The broad objective of this study is to ascertain the effect of total quality management on organizational performance.

Other specific objectives of the study are to :

- (i) Examine the influence of continual improvement on organizational performance.
- (ii) Determine the effect of employee involvement on organizational performance .

### Research Question

- (i) Does continual improvement have any influence on organizational performance ?
- (ii) Does employee involvement have any effect on organizational performance ?

### Research Hypothesis

**Ho1.** Continual improvement has no significant influence on organizational performance.

**Ho2.** Employee involvement has no significant effect on organizational performance.

### Literature Review

#### The Concept of Total Quality Management

Total quality management is a management philosophy that emphasizes on continuous improvement of product and quality services aimed at customers satisfaction. Ravi(2017) define total quality management as an approach of an organization which is centered on quality performance and employee participation aiming at a long term success through customer satisfaction and benefits to all members of the organization. Improving performance involves the combination of quality techniques into productive output. Quality management is not limited to production department alone ,it cut across other element and managerial functions like planning, controlling ,organizing, motivating .Al-Qahtani, Alsheri and Aziz (2015) opines that TQM is a strategy that essentially aimed to establish and deliver high quality products and services that covers all customers demand and achieve a high level of customers satisfaction. Soltani and Wilkinson (2010) considers total quality management as a new strategy that uses quality control approach to utilize and implement product quality. TQM reduces rates of defects as a result of the institutionalization of culture of zero defects .Total quality management requires the effort of an organization to continuously focus on customers satisfaction through continuous improvement in employee training and effective leadership qualities. TQM involves quality tools and techniques as well as numerous values and beliefs that all staff within the same organization shares (Gharakhani,Rahmati, Farrokhi, & Farahmandia, 2013). An organization adopting total quality management

needs to diagnose and address the problems and defects from the bottom rather than looking for a short term remedial action. To know the exactness of quality management, there should be measurable level of standard to achieve total quality result. Customers satisfaction is an important function for any organization that wants to attain success, this is needed to maximize profit in the organization. Total quality management is important in an organization because it takes a center stage and remains paramount in the manufacturing of quality products and services.

Talib, Rahman and Qureshi (2012) opines that the full implementation of TQM improves the overall performance of the organization. Anoop, Michael and Ying (2012) asserted that effective utilization of TQM in an organization improves the ability of performance in the organization. For organizations to perform better, there is need to implement TQM which specifies the continuous improvement of quality performance of businesses. Total quality management involves long term investment that has future result, managers must adopt strategic plan and exhibit vision in the implementation of total quality management. Total quality management does not cease to exist when the expected target is achieved rather it's a permanent and a continuous process that happens frequently. The task of total quality management is a confirmation of quality standard on every employee from top level managers, middle level managers and line managers because all employees have their various roles and contribution to play in the organization. According to Zulnaidi (2014) firms undertake TQM based on some factors which are continuous improvement, teamwork and management commitment, customers focus which if not adhered to might affect the performance of the organization.

Sila (2007) observed that TQM practices could be achieved in seven (7) areas namely leadership, strategic planning, customer focus, information and analysis, human resources management, process management and supplier management. TQM encompasses all employees of an organizations participation through improving products and services. The success of an organization can be measured through the quality of its goods and services.

### **Principles of Total Quality Management**

According to a study by North link College (2015) eight principles of Total quality management were highlighted, They are:

- (1) Customer focus: Total quality management is targeted at customers in order to satisfy them by investigating their needs and wants. TQM does not believe in second chance, it involves doing it right for the first time and every time.
- (2) Mutual beneficial suppliers relationship: customers are strengthened through mutual beneficial supplier relationship.
- (3) Involvement of people: TQM also emphasizes on involvement of people through training of employees, this is in response to the dynamism of the business environment which makes it important for organizations to update their staff so as to meet up.
- (4) Factual approach to decision making: by increasing the knowledge and skills of workers especially in the aspect of solving problem and decision making, it ensures that problems are resolved promptly.
- (5) Continual improvement: which in turn leads to cost effectiveness and cost reduction by cutting down the rate of scrap and frequency of machine breakdown.
- (6) System approach management: which tends to encourage better management employee relation and industrial harmony.
- (7) Process approach: For good total quality management to emanate, there should be good scientific facts and data especially in management information system.
- (8) Leadership driven: Good leadership quality is needed in order to motivate employee who are mostly involved in the planning and execution of their duties.

### **Organizational Performance**

According to Barney (2007) cited by Bature and Bernard (2019), organizational performance is the outcome achieved when an organization successfully formulates and implements a value creating strategy which enables customers to receive a service or product of value greater than what they are willing to pay for. Performance can be measured with criteria's like employee retention, quality of products and services, financial performance, customer retention in an organization. Masejane (2012) opines that performance is very essential to the growth and success of any organization.

Organizational performance is the analyzing of a company's performance towards achieving its goal and objectives. Organizational performance comprises of real results compared with intended outputs. Organizational performance may involve setting up certain objectives and setting of goals with clear direction and guidance that will guarantee

the attainment of the set goals. Performance is the main focus of an organization, this is because with the expansion of business, sales turnover, market share among others, the organization is able to grow optimally.

### **Reasons for The Failure of Total Quality Management**

Total quality management may have the following challenges:

Top management resistance to the philosophy of total quality management. it shows the level of commitment by top management TQM, managers can support TQM same way they can alter and obstruct it. Deming (1986) have it in view that top management is responsible for over 94 per cent of total quality problems, he further emphasis that inadequate resources, Lack of vision, poor communication, employee resistant and lack of strategic plan are all attributed to defects on top management level.

Erratic and ineffective implementation of total quality management method, this is because many failures of TQM is as a result of poor implementation methods. Coony and Sohal (2003) believe that TQM offers a vision of organizational change but it lacks the requisite tools for implementing such a change, inadequate preparation before the introduction of TQM program stands to be a challenge. Managers often try to implement sophisticated methods and techniques which is beyond the understanding of members because employee are not conversant with such techniques.

Another reason to the failure of TQM is poor education and training. In the view of Huq (2005) he observe that poor education and training as an obstacle to the development and implementation of TQM programmes. Training and development plays crucial role in the attainment of behavioral change among members.

### **Theoretical Frame work**

#### **Philip Crosby Theory**

This study is anchored on Phillip Crosby theory of quality management, Crosby in his perspective believe that if money is spent in other to attain product quality, such money was well spent. Philip Crosby is notable among those that started the total quality movement. He based his theory on four absolutes of quality management which are : (1)We define quality as adherence to requirements, (2)Prevention is the best

way to ensure quality (3)Zero Defects (mistakes) is the performance standard for quality (4) Quality is measured by the price of nonconformity. Crosby also suggested list of fourteen steps for organizations to achieve in other to attain quality improvement. The fourteen steps to continuous quality improvement as observed by Crosby are:

(1)Attain total commitment from management(2)Form a quality improvement team(3)Create metrics for each quality improvement activity(4)Determine cost of quality and show how improvement will contribute to gains(5)Train supervisors appropriately(6)Encourage employees to fix defects and keep issues logs(7)Create a zero-defects committee(8)Ensure that employees and supervisors understand the steps to quality, all managers should under go training before the fourteen steps are implemented (9)Demonstrate your company's commitment by holding a zero defects day(10)Goals are setting ,each supervisor gets his or her supervisees to establish specific measurable goals, these comprise 30, 60, or 90 day schedule(11)Determine root causes of errors, remove them from processes ,problems should be acknowledge within twenty four hours by the unit to which it is addressed to.(12)Create incentives programs for employees(13)Create a quality council and hold regular meetings(14)Repeat from step one.

### **Empirical Review**

Nwadukwe and Court (2013) carried out a research on the effect of total quality management on industrial performance in Nigeria. Longitudinal design was employed which spanned from the period of 1996 to 2008. Secondary data was drawn from set of quality control cost, expenditure of salary on labour and the value of industrial output that served as surrogates of total quality management and industrial performance respectively were collected from pal brewery in Anambra state. Ordinary least square method of multiple regression were used to analyze the data. Findings reveals that the cost of quality control had no significant positive effect on industrial performance. It was concluded that total quality management enhances industrial performance in the brewery subsector of the Nigerian economy.

Horsfall, Ukoha and Alagah (2018) investigated total quality management and organizational success of manufacturing firms in Rivers state ,primary sourced data were collected using structured questionnaire, a



sample size of 238 respondents out of a population size of 588 was used. Spearman's rank order correlation coefficient was used to analyze the data from the questionnaire. The study found out that despite the inherent importance of total quality management, it has rarely been adopted by the managers which could be as a result of their gender because all sampled managers are males, the study also discovered that majority of the managers had a strong knack for process improvement which was linked to their marital status because most of the respondents were married. A positive and significant relationship exist amongst the variables used showing that a rise in any of the total quality management is very likely to promote a corresponding rise in their organizational success status. It was recommended that managers are to invest in the time and resources to implement TQM programs.

Jimoh, Oyewobi, Isah and Waziri (2018) examined the relationship between total quality management practices and organizational performance in construction companies in Nigeria. An in – depth structured interview was conducted using questionnaire which form the basis for the cross sectional survey. One hundred and twenty eight valid questionnaires were administered to 155 medium and large sized companies. Factor analysis and partial least square structural equation modeling were used to analyze the data. Findings reveals that TQM practices have significant effects on organizational performance. However, the mediating roles of strategies for continuous improvement are necessary to ensuring better organizational performance. It was recommended that organizations that are craving for competitive advantage should place high premium on TQM practices and also ensure that the right strategy is put in place for continuous improvement.

Jonah, Ornguga and Torsen (2018) investigated the effect of total quality management on the organizational growth of Adama beverages: A marketing mixed perspective, the study adopted explanatory research design, the target population was 120 comprising of various heads of department and distribution units of Adama beverages. A sample size of 90 respondents was drawn using stratified random sampling. Structured questionnaires were used to obtain primary data. Data were analyzed using statistical package for social sciences (spss). Findings reveals that there is a positive and significant effect of total quality management on organizational growth. It was recommended that managers that wants to achieve organizational performance should pay attention to all the elements of total quality management.

## Methodology

The study used descriptive research design in which a cross-sectional survey method was adopted. The method deals with quantitative data generated through the questionnaire. The population of the study consist of 200 employees both casual and non casual staff of west African ceramic company , Ajaokuta. Data were drawn from primary sources through the use of questionnaire in order to answer the research questions and to test the hypothesis formulated. While the sample size of one hundred thirty three (133) was determined as shown below using Taro Yamane (1973) sampling technique , only One hundred and twenty (120) questionnaire representing 90% were filled and returned by the respondents while the remaining 13 questionnaires were not returned by respondents. Descriptive statistics of simple percentage was used to describe the data presented. Data were analyzed and hypothesis was tested using linear multiple regression.

The sample size can be analyzed below:

$$N = \frac{N}{1 + N(e)^2}$$

### Where

N= Population,N= Sample Size,E= Tolerate Error Margin (0.05) 5%,I= Constant

By substituting the Formular, We have

$$n = \frac{200}{1 + 200(0.05)^2}$$

$$n = \frac{200}{1 + 200(0.0025)}$$

$$n = \frac{200}{1 + 0.5}$$

$$\frac{200}{1.5}$$

$$N = 133$$

### Model Specification

The dependent variable is organization performance (OP), while the independent variable is Total Quality Management (TQM). In order to achieve the hypothesis, linear multiple regression was used to estimate the model. The model is presented thus:

$$OP = f(TQM) \text{ ----- (1)}$$

$$OP = \beta_0 + \beta_1 CI + \beta_2 EI \text{ ----- (2)}$$

Where: TQM= an indicator representing Total Quality Management (Independent Variable);

$\beta_0$ = a constant;

$\beta_1$  = coefficient of independent variable;

CI= Continual improvement

EI= Employee involvement

TQM= a predictor representing Independent Variable (Total Quality Management);

$\mu$ = Stochastic error term;and

$f$  = Functional relationship.

### Data Presentation and Analysis

#### Test of Hypotheses

**Table 1** **Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.980 <sup>a</sup>	.960	.959	.19625

a. Predictors: (Constant), EI, CI

Source:SPSS Result, 2019

The table above reveals that  $R=0.980$ ,  $R^2=0.960$ , Adjusted  $R^2=0.959$ . The result indicates that about 98% relationship exist among the method of total quality management and organizational performance. The coefficient of determination is 0.960, the implication of this is that about 96% of the variation in total quality management methods are explained by variables in the model, while the remaining 4% is explained by other factors which do not form part of this model. The model formulated is fit and very useful for making predictions.

**Table 2** **ANOVA<sup>a</sup>**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	107.994	2	53.997	1401.988	.000 <sup>b</sup>
	Residual	4.506	117	.039		
	Total	112.500	119			

a. Dependent Variable: Organization performance

b. Predictors: (Constant), E I, CI

Source: SPSS Result, 2019

The calculated Anova in table 2 above is analyzed to see if any of the variables are significant. From the above table,  $F=1401.988$ ,  $p\text{-value}=0.000 < 0.05(\text{sig})$ . It means that the  $p\text{-value}$  is  $<$  than 0.05 (critical value), the independent variable (TQM) is positively related with the dependent variable (organizational performance).

**Table 3** **Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.155	.090		1.729	.087
	CI	.146	.033	.325	4.388	.000
	E I	.339	.038	.662	8.952	.000

a. Dependent Variable: Organizational performance

Source: SPSS Result, 2019

H<sub>01</sub>. Continual improvement has no significant influence on organizational performance.

H<sub>02</sub>. Employee involvement has no significant effect on organizational performance.

The table 3 above indicates the coefficient values, it provides information on the effect of individual variables (the Beta values ) on the dependent variable .The significant effect of the predictors of continual improvement on organizational performance is accepted and the Null hypothesis (H<sub>01</sub>) which says that Continual improvement does not have significant influence on organizational performance is rejected on the

bases that (Beta = 0.146;  $P = 0.000 < 0.05$ ), hence, there is significant relationship between continual improvement and organizational performance. Also, table 3 indicates that (Beta = 0.339;  $P = 0.000 < 0.05$ ) showing a significant relationship between employee involvement and organizational performance, this indicates that the Null hypothesis ( $H_{02}$ ) that employee involvement does not have significant effect on organizational performance is rejected and the alternative hypothesis which states that there is significant relationship between employee involvement and organization performance is here by accepted.

## Discussion of Results and Findings

The result of the analysis indicates that Total quality management on organizational performance of west Africa ceramic company, Ajaokuta is significant. The result shows that Total quality management (continual improvement, employee involvement) significantly has positive effect on the performance of west African ceramic company, this study is in line with the study of Jonah, Ornguga and Torsen (2018) that there is a positive and significant relationship between total quality management and organizational growth. From the first objective of this study, table 3, shows that continual improvement has significant influence on organizational performance. The findings of Jimoh, Oyewobi, Isah and Waziri (2018) also supports this view as their result suggest a positive correlation between continuous improvement and organizational performance.

The second objective shows that employee involvement have significant effect on organizational performance. This findings is in line with Ravi (2017) who states that total quality management is an approach of an organization which is centered on quality performance and employee involvement aiming at a long term success through customer satisfaction and benefits to all members of the organization. . Anoop, et al (2012) also asserted that effective utilization of TQM in an organization improves the ability of performance of employee in the organization. Phillip Crosby theory is relevant to this study, this is in line with commitment from management which specifies quality improvement that will contribute to organizational performance.

## Conclusion and Recommendations

The study investigated the effect of total quality management on organizational performance of west Africa ceramic company Ajaokuta, Kogi state, the linear multiple regression analysis indicated that employee involvement and continual improvement have strong influence on organizational performance .It could therefore be concluded that employee involvement and customer satisfaction can be derived through innovating and rendering of quality products and services in other to attain organizational performance. Consequently, organization would perform better through continual improvement in the area of training of employee in line with the best practices and knowledge sharing through employee involvement, this would reduce the level of scrap and further enhance the retention of customers.

The study therefore recommended the following :

- I. That the management of the organization should set quality standard for each department and reward employee of departments that meets such quality standard inform of motivational package. This would help in maintaining quality compliance in the organization.
- II. Organization should should keep track of effective customers satisfaction. This can be achieved through effective feed back mechanism which will serve as response from consumers or customers on how the feel about products and service delivery, this will checkmate customers displeasure for the company's product and will act as prompt response to customers complain.

## References

- Anoop, P., Michael, C. G., & Ying W. (2012). Competition, Total Quality Management Practices, and performance: evidence from upscale hotels. *Tourism Analysis*. Cognizant Comm. Corp. USA. Vol 17.pp195- 211.
- Al-Qahtani, N. D., Alshehri ,S.S., & Azrilah, A. (2015), The Impact of Total Quality Management on organizational performance. *European Journal of Business and Management* [www.iiste.org](http://www.iiste.org) ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online) Vol.5, No.21, 71*European Journal of Business and*

Management [www.iiste.org](http://www.iiste.org) ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online)  
Vol.7, No.36, 119

- Barney, J. (2007). Gaining Sustaining Competitive Advantage. *Journal of management*, (17)1:99-12.
- Bature, N., Bernard, J. (2019). Effects Of Economic Recession On The Performance Of Small Scale Enterprises in Abuja. *Ilorin Journal of human resources management (IJHRM)* Volume 3, Page 36 Volume ISSN:2579-0447
- Cooney, R. and Sohal, A. (2003), "The human side of total quality management", in Holman, D., Wall, T., Clegg, C., Sparrow, P. and Howard, A. (Eds), *The New Workplace: A Guide to the Human Impact of Modern Working Practices*, Wiley, Indianapolis.
- Crosby, P. (1999). *Quality and me: Lesson from an evolving life*.
- Deming, W.E. (1986), *Out of the Crisis*, Cambridge University Press, Cambridge, MA.
- Demirbag, M. (2006). An Analysis Of The Relationship Between TQM Implementation and Organizational Performance. *Journal of Manufacturing Technology and Management*. 17 (6) 829-847.
- Gharakhani, D., Rahmati, H., Farrokhi, M., & Farahmandian, A. (2013). Total Quality Management and Organizational Performance, *American Journal of Industrial Engineering*, Vol.1, No.3, 46-50. DOI:10.12691/ajie-1-3-2
- Horsfall, B., Ukoha, O., & Alagah, A.D. (2018). Total Quality Management And Organizational Success Of Manufacturing Firms In Rivers State. *International Journal of Advanced Academic Research / Social & Management Sciences* | ISSN: 2488-9849 Vol. 4, Issue 5 <https://doi.org/10.1080115623599.2017.1411456>.
- Huq, Z. (2005), "Managing change: a barrier to TQM implementation in service industries", *Managing Service Quality*, Vol. 15 No. 5, pp. 452-469.
- Jeremiah, N., W. (2015). Total Quality Management and Performance of Pharmaceutical Manufacturing and Distributing Firms in Kenya. Retrieved from <http://erepository.uonbi.ac.ke:8080/bitstream/handle/11295/94811/Wangai%20Njimia%20Jeremiah.pdf?sequence=1&isAllowed=y>
- Jimoh, R., Oyewole, L., Isa, R., & Waziri, I. (2018). Total Quality Management Practices and Organizational Performance : The mediating roles of strategies for continuous improvement

- .International Journal of construction management*. pages 162-177.
- Jonah, N., Ornguga .I.G., & Torsen. E. (2018),The Effect of Total Quality Management (TQM) on the Organizational Growth of Adama Beverages: A Marketing Mix Perspective.*International Journal of Science and Research (IJSR)*.  
ISSN(Online):2319-7064www.ijsr.net Index Copernicus Value (2016): 79.57 | Impact Factor (2017): 7.296.
- Masejane, T. P. (2012). Total Quality Management and Organizational Performance in the Maluti-A-Phofung Municipality in the Free State Province. Retrieved from [http://uir.unisa.ac.za/bitstream/handle/10500/6045/thesis\\_masejane\\_t.pdf?sequence](http://uir.unisa.ac.za/bitstream/handle/10500/6045/thesis_masejane_t.pdf?sequence)
- Northlink College, (2015)." Quality Assurance",[ Adobe Digital Editions version]. Retrieved from <http://www.northlink.co.za/Qms.aspx>.
- Nunnally, J.,( 1978).Psychometric methods. (2nd edn). New York: McGraw-Hill.
- Nwadukwe, U. C., & Court, O. T. (2013), Effect of Total Quality Management on Industrial Performance in Nigeria: An Empirical Investigation.
- Rav , R.L.(2017). Total quality management notes. Symbiosis institute of international business. <https://www.researchgate.net/publication/1318654507>. Doi: 10:13140/RG2.2.27245.90089.
- Sajjad, F., & Amjad, D.S. (2012), "Role of Benchmarking in Total Quality Management: case of Telecom Service Sector of Pakistan", *Business Management Dynamics*, 1(8): pp. 34-44. San Fransisco, Jossey –Bass.
- Shehzad, A., Hashim, .Z.,& Rashid, S. (2014), Impact of Total Quality Management on the Performance of Service Organizations in Pakistan  
*International Journal of Academic Research in Economics and Management Sciences*
- Soltani, E., & Wilkinson, A. (2010). "The Effect Of in Congruency of Senior and Middle Managers Orientation On TQM programs" *International Journal of operations and Production Management*, Vol 30, no 4, pp 365-397.
- Talib, F., & Rahman, Z. (2010). Critical Success Factors of TQM in Service Organizations: A Proposed Model. *Services Marketing Quarterly*. 31 (3) 363-380



- Talib, F., Rahman, Z. & Qureshi, M.N. (2012), "Impact of Total Quality Management and Service Quality in the Banking Sector", J Telecommunication System Manage, 1: pp.102.7  
[www.phiipcrosby.com](http://www.phiipcrosby.com)
- Zulnaidi, Y. (2014). The Direct and Indirect Effects of Customer Focus on Performance in Public Firms. *International Journal for Quality Research*. Retrieved from <http://www.ijqr.net/journal/v8-n2/10.pdf>.