

# Effect of Total Quality Management on organizational Effectiveness: Evidence from Table Water Producing Companies in Lagos State, Nigeria

James Nwoye Obi, Olalekan U. Asikhia and Adedugba T. Adebayo

Department of Business Administration  
College of Arts, Social and Management Sciences  
Caleb University, Imota, Lagos, Nigeria

**Abstract:** *The need for organizations to implement total quality management (TQM) has assumed great importance and many businesses are now devoting fully-fledged department for that purpose. Yet there is doubt in some quarters as to whether or not the pursuit of total quality in products, processes and procedures will add value to organizational effectiveness. This paper has undertaken an empirical investigation to determine the effect of Total Quality Management on organizational Effectiveness using data gathered from Table Water Producing Companies in Lagos State to consummate the study. The methodology deployed in this study is mixed method approach. This method necessitates the use of both quantitative and qualitative data. Quantitative data were gathered through the administration of copies of questionnaire to employees of the two selected table water-producing companies while qualitative data were obtained from interview sessions held with other stakeholder groups consisting of customers, suppliers of consumables, distributors of table water and maintenance engineers of the two firms. The study sought to establish whether top management commitment has significant effect on organizational productivity, employee involvement has effect on organizational efficiency and continuous improvement has effect on product quality. Three Hypotheses were formulated and tested using statistical package (SPSS) and regression analysis. The results revealed that top management commitment has significant effect on organizational productivity, employee involvement has significant effect on organizational efficiency and continuous improvement has significant effect on product quality. Based on the findings, the paper recommended that management of corporate organizations should pay serious attention to continuous improvement of products, processes and structures to enable them remain afloat in today's ever-challenging business environment.*

**Keywords:** *Efficiency, organizational effectiveness, product quality, total quality management*

© 2024. James Nwoye Obi, Olalekan U. Asikhia and Adedugba T. Adebayo. This is a research/review paper, distributed under the terms of the Creative Commons Attribution-Noncommercial 4.0 Unported License <http://creativecommons.org/licenses/by-nc/4.0>, permitting all non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

## **Introduction**

Total quality management is concerned with achieving superior quality in all the departments, sections and divisions in an enterprise. Sometimes, the meaning and value placed on quality vary among organizations. Some authors see quality as the standard of performance while others view it as satisfying customer needs and requirements (Ahman & Feigenbaum, 2019). Quality is crucial in modern business practices and it is a basic requirement for success in competitive environment. The pursuit of total quality management (TQM) has assumed great importance in the business world today leading to the creation of TQM department in many organizations (Azrilah, 2018). Consumer demand for quality products and services is on the increase today. According to Brown (2019), quality is the general feature of an entity that provides an organization with competitive edge in the market place. Quality is putting together the components and characteristics that determine the extent to which output satisfies the customer's needs (Brown, 2019). Furthermore, improving quality has become a strategy to achieve competitive advantage. Total Quality Management calls for improvement in products, processes and methods by which an organization carries out its business operations.

## **Background to the Study**

Total Quality Management is a process that requires proper understanding by all organizational members so that the skills and knowledge can be deployed holistically to achieve total organizational effectiveness (Cruickshank, 2018). It is important to implement TQM at all levels of an organization and to integrate all functions and processes within the enterprise to achieve excellent results. Pina & Joe (2020) stated that total quality management consists of all activities that managers perform to improve quality of products, processes and services which include; quality control, quality assurance and quality improvement. Total Quality Management is the practice of continuously improving quality and finetuning processes to achieving customer satisfaction at all times. As stated by Arman & Feigenbaum (2019), achieving superior quality is a long-term process but it is a sure-way of enhancing organizational effectiveness. TQM calls for managers' commitment and continuous effort at all levels to achieve optimum quality results. For an organization to remain continuously effective, it must frequently analyse its present performance against its set goals and objectives (Griffin, 2020). Successful implementation of TQM practices manifests itself in improved quality of products and services, employee engagement, cohesive teamwork, smooth working relations among organizational members, customer satisfaction and increased profitability (Dale, Zairi, Vanfder, Wiele & Williams, 2018). Thus, the thrust of this paper is to examine the effect of total quality management on organizational effectiveness. Specifically, the study will investigate the extent to which top management commitment affects organizational productivity, how employee involvement affects organizational efficiency and the extent to which continuous improvement affects product quality.

## **LITERATURE REVIEW**

### **Conceptual Review**

Deming (1986) asserted that total quality management (TQM) is management phenomenon that provides room for constant improvement of quality within an organization and this serves as key ingredient of success in a corporate entity. Total quality management calls for long term plan for improvement of products and services (Tseng & Lee, 2018). Total quality control has also been

defined as a system consisting of interdependent units such as key values, process management techniques and customer benchmarking. Oakland (2018) pointed out that total quality management is a concept designed to improve an organization's competitiveness, efficiency and flexibility.

According to Richardson (2019), TQM is a new system of management that represents a vehicle that takes an organization to the destination it wants to be. The true meaning of total quality management may not be simple to understand because different scholars have different ideas and opinions of what constitutes total quality (Pina & Joe, 2020). TQM gives every member of the organization the opportunity to be involved and to contribute towards the common goal of holistic quality standard (Motiwani, 2021). Total quality management is a structured technique or concept of organizational management, with the objective of increasing quality of product for customers through creating new product value and constantly improving a firm's procedure and approach to business operation (Pina & Joe, 2020). TQM is management principle used to develop a company's human and material resources in the most effective way to meet the objectives of an organization. (Oakland, 2018).

According to Sadikoglu & Olcay (2017), total quality management is an all-encompassing approach adopted by business organizations to constantly improve their products, services and procedures in order to satisfy their customers' need and improve organizational performance.

Jagdeep & Singh (2020) stated that total quality management is a management idea which concentrates on the job process and people with the main concerns for satisfying customers and improving the performance of an organization.

Total quality management is an organizational strategy that brings all functional departmental together, including; marketing, finance, production and customer service and directs them to concentrate on meeting customers' need and achieving organizational bottom-line (Motiwani, 2021). Griffin (2020) was of the opinion that TQM is a gateway for improving organizational products and services and utilizing appropriate instruments and innovative ideas to live up to customers' expectations at all times.

### **Continuous Improvement and Product quality**

Sadikoglu (2020) described continuous improvement as the "heart" of management. It is a procedure and system that can be utilized to strengthen efficiency and effectiveness in all operations. Continuous improvement refers to effective technique through which the organization can constantly innovate and finetune management techniques and approaches. Continuous improvement focuses on improving products, processes, services, resource utilization and relationship with stakeholders, consumers, suppliers, and the general public. It is a management principle originally referred to as Keizen principle by Japanese and was referred to as "torchlight of curiosity" for constant improvement and innovation in business operations (Brown, 2019). Continuous improvement can be described as the process through which an organization creates and sustains a culture of continuous improvement in processes, products and relationship with complementors and competitors in diverse business dealings. Pina & Joe (2020) stated that an organization must strive to improve continuously by engaging and involving employees and allowing them to deploy their initiatives in accomplishing organizational tasks.

High quality product is usually the outcome of total quality management effort. Quality is a crucial part of product and service success. In recent times, quality enhancement has become an important topic in the business world. Quality is a source of competitive advantage for

organisations. According to Tseng & Lee (2018), quality means different things to different people. It serves as veritable instrument for increasing sales volume and expanding market share in an organization. Brown (2019) is of the opinion that quality is a subjective concept and that different people have different interpretation of quality. The author argued that quality is of two kinds; firstly, the attributes possessed by an item to fulfil a special need, and secondly, the condition and conformity of the item to peculiar need (Brown, 2019). Quality adds to the level of value derivable from a given product or service and it is like a vehicle that delivers customer expectation and customer satisfaction. To achieve success in the implementation of total quality management, special attention should be paid to product quality, customer service and customer relationship management. Customer-oriented organizations highly value superior quality products and the setting of right price for their products in order to gain large market share and increase earnings. Such organizations focus on continuous effort at utilizing organizational resources to meet customer needs and employees are groomed to be customer-oriented.

### **Employee Involvement and Organizational Efficiency**

Employee involvement can be seen as a process for empowering members of an organization to make decisions and to solve problems appropriate to their levels in the organization (Jagdeep & Singh, 2020). Oakland (2018), described employee involvement as the sharing of knowledge, motivating, encouraging and recognizing the effort of employees and their contribution. Employee involvement enhances employees' emotional connection with the organization and gives them sense of belonging.

Employee involvement means employees' active participation in decision-making and driving improvement activities in the organization (Griffin, 2020). Employee involvement also extends to improving the means of information flow to and from employees and re-designing work system by developing work groups. Employee involvement is a key motivator of employees and it engenders creativity and innovativeness on the part of the workforce. It creates an environment that enables employees to have ownership mentality and accountability. For total quality management principles to be effectively implemented within an organization, there must be total understanding of the philosophy and principle of TQM implementation and free participation by employees. Richardson (2019) asserted that employee involvement provides advantage that increases employee morale and loyalty to the firm and boosts creativity and innovativeness in workers which are sources of competitive advantage.

On the other hand, organizational efficiency is important for achieving business goals. Efficiency generally concerns the saving of costs and utilization of processes and strategies that save time, resources and reducing physical effort of workers. New technologies take into consideration efficiency of equipment and processes to enable organizations save cost in their operations

### **Top management Commitment and Organizational Productivity**

Top management commitment is key to achieving long term total quality improvement. Top management commitment is the core component of quality management principles (Freigenbaum, 2019). It is the obligation of management to provide commitment and leadership and to strengthen employees to give-in their best in the organization. It is the responsibility of top management to decide on the tasks of the workforce and to structure organizational jobs. It is important for top management to engage employees in quality improvement and to build

quality culture into the firm. Motiwani (2021) defined commitment as a drive that ties a person to strategy of significance and performance. The author further described TQM as a complete house and top management commitment serves as the foundation and without the foundation the house cannot stand. Thus, top management must set clear and achievable goals, establish mission and vision of the organization and also demonstrate its commitment to achieving quality improvement. Commitment of top management is the most critical factor for achieving success in any TQM programme. Senior managers must concentrate on creating enabling environment that would facilitate operations in all divisions, departments and units of an organization (Brown, 2019). Many organizations have failed in the implementation of total quality management programme due to the reluctance of top management to delegate authority and to empower employees adequately (Jagdeep & Singh, 2020).

Organizational productivity represents a balance between and among all factors of production that results in maximum output with the minimum of resources. Productivity is the result of combination of factors of production in the best mix, shape and design to achieve the best of end results (Hoyle, 2020). Productivity is the effort to do better today than an organization did yesterday and to continuously sustain and improve on that position (Khaleef, 2019). Productivity calls for constant adaptation to changing business conditions. It demands sustained effort in applying new techniques and method to productive factors.

Effective training of the workforce improves productivity as new skills and techniques are acquired and applied to production effort (Oakland, 2018). Effective communication between managers and their subordinates is a powerful driver of productivity in modern organizations. (Hoyle, 2020). Employee proactiveness is also an important component of organizational productivity. Proactiveness refers to self-starting, change-focused, and future-oriented behaviors (Khaleef, 2019). Brun (2018) define Employee Proactiveness as an anticipatory action that employees take to impact themselves, and their productivity in the work environment thereby collectively improving the level of labour output in an organization.

### **Theoretical Review**

#### **Crosby's Total Quality Management Theory**

Crosby propounded Total Quality Management (TQM) theory in the year 1979. The theory set forth standards for implementing effective quality improvement programmes. The standards basically include employee participation in management, education, recognition of employees and reduction of quality expenses through cost evaluation and cost prevention. Emphasis is on prevention rather than after-the-event inspection and remediation. The focus is to do things right the first time and to achieve zero defect in operations. Crosby contended in his theory that mistakes are caused by two factors: Lack of learning and absence of attention to details. He stated that education and training can eliminate the causes of mistakes. Crosby also highlighted the importance of management style and technology for successful quality improvement. The way to improve quality is to influence change in the thinking and mindset of top managers and to focus their attention to quality improvement programmes. Principles to be followed to achieve success in total quality management programme include; management commitment to achieving zero defect in all operations, the formation of quality improvement team to direct quality practices, setting up quality measures for each area of activity, creating quality awareness which necessitates providing proof of the need for quality improvement and sensitizing workers to be

mindful of cost of defects to the organization. This theory also recommended the setting up of an ad-hoc committee for zero defect program and the removal of all causes of error in operations. Critics of Crosby's theory argued that the drive to achieve zero defect in all operations within an organization is simply utopian. In real life, processes are not fool-proof and human beings are not perfect and mankind remains fallible by creation. The relevance of this theory to the study is on the pedestal that organizations pursue total quality management programmes in order to improve business bottom-line while at the same time they aim at zero defect as a means of reducing cost and cost reduction is at the heart organizational effectiveness.

### **Empirical Evidence**

Pina & Joe (2020) researched on the impact of total quality management on organizational performance. The study focused on petroleum Refinery Companies in India and used a sample size of 103 managers at different levels of the organisations studied. The findings showed that total quality management has a positive impact on the performance of the organizations sampled. Ahman & Feigenbaum (2019) undertook a study on the impact of total quality management on organizational productivity sampling five firms in Accra, Ghana. The study was largely conceptual and the results revealed that total quality management practices had partial effect on the workforce of the organizations sampled. Tseng & Lee (2018) focused their studies on best practices to increase quality and organizational competitiveness using industrial case study of a large chemical company in Namibia. The study followed qualitative research method integrating interviews with top management responsible for process and overall operations. Findings revealed that teamwork and effective communication among departments improved the sense of involvement in problem solving.

Richardson (2019) carried out a research study that laid emphasis on total quality management practices and organizational performance with mediating roles of strategies for continuous improvement. The study also investigated the interconnectivity and impact of total quality management practices on continuous growth of a firm focusing on construction companies in Nigeria. 128 copies of questionnaire were administered to 50 construction companies. The findings showed that effective total quality management practices have significant impact on the performance of the organizations sampled.

Azrilah (2018) carried out a research on the impact of total quality management on a firm's product quality. Data were gathered from manufacturing firms in Cameroon. The study revealed that the implementation of total quality management principles improved product quality in the firms sampled. Horsfall, James & James (2018) engaged in a research on total quality management and organizational success of manufacturing firms in rivers state, the study examined the link between total quality management and organizational effectiveness in manufacturing firms in Nigeria. Copies of questionnaire were administered to 238 respondents to determine the connection between total quality management and operational effectiveness. Findings revealed that there was a positive connection amongst variables of the study implying that improved total quality management practices can lead to an equivalent rise in operational effectiveness. The study recommended that top management of corporate organizations should double their investment in total quality management programmes in order to enhance organizational effectiveness.

Arman & Feigenbaum (2019) also researched on the strategic imperatives of total quality management and customer satisfaction in organizational sustainability. The study aimed at

examining the connection between total quality management and customer satisfaction in five service industries in Kenya. The study revealed that total quality management practices increase customer satisfaction through improved product quality and superior customer service. The study recommended that top management of firms should implement total quality management principles and practices in all areas of their operations to enhance customer satisfaction and loyalty.

**Methodology**

The study adopted the mixed method approach involving the use of both quantitative and qualitative data to enhance validity of the results. Quantitative data were obtained using copies of questionnaire that were administered to respondents in the two companies used for the study. Qualitative data were gathered through interview sessions held with participants that included customers, suppliers, distributors, contractors and maintenance engineers of the two firms.

**Sampling**

The study population comprises stakeholders of the two Table Water production companies (Cway Table Water Company in Lagos and Covenant University Table Water firm in Ota). To obtain quantitative data, copies of structured questionnaire were administered to 135 respondents chosen through simple random sampling method. A total of 120 copies of questionnaire were retrieved correctly completed for analysis. To gather qualitative data, interview sessions were held with 20 participants drawn from other stakeholder groups that included (customers, suppliers, contractors and distributors of the companies).

**Validity and Reliability of the Research Instrument**

Content validity measurement was adopted in this study. Content validity tries to establish whether or not the instrument contains all the necessary elements that would enable the researcher to measure correctly the attributes of interest. To certify content validity, the questionnaire items were generated from established prominent authors in the field such as; Li (2019) and Motiwani (2021). Other experts in this research area were given access to the draft questionnaire in order to provide feedback on the adequacy of the items in measuring the constructs. Their views were taking into consideration in the final draft of the research instrument.

Reliability test used for this research is the internal consistency technique. The Cronbach alpha ( $\alpha$ ) is the most popularly used measure of internal consistency (Pallant 2005). The Cronbach Alpha internal consistency of the items in the questionnaire was analysed using the reliability procedure in SPSS version 22. The Cronbach alpha value ( $\alpha$ ) obtained was 0.792 which established that the instrument is reliable.

**Response rate of Respondents on Questionnaire Administration**

**Table 1:**

<b>Questionnaire</b>	<b>Responses</b>	<b>Percentage</b>
Number Administered	135	100%
Number Returned	120	88%
Number Not Returned	15	12%
<b>Total</b>	<b>135</b>	

**Source: Researcher’s field study result (2021)**

**Demographic Characteristics of Respondents**

**Table 2:**

	<b>Gender</b>	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
Valid	Male	101	84.2	84.2	84.2
	Female	19	15.8	15.8	100.0
	Total	120	100.0	100.0	
	<b>Age</b>	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
Valid	Below 25years	69	57.5	57.5	57.5
	26-35years	14	11.7	11.7	69.2
	36-45years	16	13.3	13.3	82.5
	46-55years	21	17.5	17.5	100.0
	Total	120	100.0	100.0	
	<b>Educational Qualification</b>	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percentage</b>
Valid	OND/Diploma	22	18.3	18.3	18.3
	HND/BSC	82	68.3	68.3	86.7
	MSC/MA	16	13.3	13.3	100.0
	Total	120	100.0	100.0	
	<b>Nationality</b>	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
Valid	Nigerian	117	97.5	97.5	97.5
	Non-Nigerian	3	2.5	2.5	100.0
	Total	120	100.0	100.0	
	<b>Job Experience</b>	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
Valid	Below 1 year	33	27.5	27.5	27.5
	1-3years	8	6.7	6.7	34.2
	4-6years	39	32.5	32.5	66.7
	7-10years	8	6.7	6.7	73.3
	Above 10years	32	26.7	26.7	100.0
	Total	120	100.0	100.0	

**Source: Researcher’s Field Study Result (2021)**



**Testing of Hypotheses**

**Hypothesis One**

Ho: Top management commitment has no significant effect on organizational productivity

Hi: Top management commitment has significant effect on organizational productivity

**Table 3: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.286 <sup>a</sup>	.082	.074	6.89193

a. Predictors: (Constant), Top management Commitment

**Table 4: ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	497.950	1	497.950	10.483	.002 <sup>b</sup>
	Residual	5604.850	118	47.499		
	Total	6102.800	119			

a. Dependent Variable: Organizational Productivity

b. Predictors: (Constant), Top management Commitment

**Table 5: Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.360	2.562		4.825	.000
	Top Management Commitment	.509	.157	.286	3.238	.002

a. Dependent Variable: Organizational Productivity

In this study, 8.2 % of the variation in productivity in the organization is determined by management commitment. Hypothesis one which stated that ‘management commitment has no significant effect on productivity in the organization was rejected at  $R=0.286$ ,  $R^2=0.08$ ,  $F_{(1, 119)} = 10.483$ ;  $p<.05$ . This implies that management commitment has significant effect on productivity in the organization.

**Hypothesis Two**

Ho: Employee involvement has no significant effect on organizational efficiency

Hi: Employee involvement has significant effect on organizational efficiency

**Table 6: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.181 <sup>a</sup>	.033	.025	7.07288

a. Predictors: (Constant), Employee Involvement

**Table 7: ANOVA<sup>a</sup>**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	199.781	1	199.781	3.994	.048 <sup>b</sup>
	Residual	5903.019	118	50.026		
	Total	6102.800	119			

a. Dependent Variable: Organizational Efficiency

b. Predictors: (Constant), Employee Involvement

**Table 8: Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	15.724	2.427		6.477	.000
	Employee Involvement	.375	.188	.181	1.998	.048

a. Dependent Variable: Organisational Efficiency

In this study, 3.3% of the variation in organizational efficiency is determined by the level of employee involvement carried out by an organization. The hypothesis two which stated that ‘There is no significant influence in the level of employee involvement on organizational efficiency was rejected at  $R = .181$ ,  $R^2 = -.033$ ,  $F(1, 119) = 3.994$ ;  $p < .05$ . This implies that there is a significant influence in the level of employee involvement on organizational efficiency.

**Research Hypothesis Three**

Ho: Continuous improvement has no significant effect on product quality

Hi: Continuous improvement has significant effect on product quality

**Table 9: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.374	.1398	.039	4.24468

a. Predictors: (Constant), Continuous Improvement

**Table 10: ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	276.118	1	276.118	5.33	.001 <sup>b</sup>
	Residual	6096.682	118	51.667		
	Total	6372.824	119			

a. Dependent Variable: Product quality

b. Predictors: (Constant), Continuous Improvement

**Table 11: Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	21.300	2.697		7.899	.000
	Continuous Improvement	.052	.152	-.032	344	.731

a. Dependent Variable: Product quality

In this study, 3.4% of the variation in product quality is determined by continuous improvement in an organization. The hypothesis three which stated that ‘there is no significant impact of continuous improvement on product quality was rejected at  $R = 0.374$ ,  $R^2 = -0.139$ ,  $F(1, 119) = 5.33$ ;  $p < .05$ . This implies that there is a significant impact of continuous improvement on product quality

## **Results of the Study**

### **Hypothesis One**

Null hypothesis one which stated that 'Management commitment has no significant effect on organizational productivity was rejected at  $R^2=-0.233$ ,  $F_{(1, 119)} = 2.284$ ;  $p<.05$ . This implies that management commitment has significant effect on organizational productivity.

### **Hypothesis Two**

Null hypothesis two which stated that 'employee involvement has no significant effect on organizational efficiency was rejected at  $R^2=-.112$ ,  $F_{(1, 119)} = 1.535$ ;  $p<.05$ . This implies that employee involvement has significant effect on organizational efficiency.

### **Hypothesis Three**

Null hypothesis three which stated that 'continuous improvement has no significant effect on product quality was rejected at  $R^2=-0.183$ ,  $F_{(1, 119)} = 2.743$ ;  $p<.05$ . This implies that continuous improvement has significant effect on product quality.

### **Conclusion and Recommendation**

Total Quality management should be a continuous activity in an organization and top management along with all employees of the firm should be dedicated to quality improvement in products, processes and service delivery to customers. Businesses need to emphasize quality of their products rather than quantity to remain competitive in the business environment. The study has revealed that the responsibility of delivering quality products and services to customers rests on the shoulders of every individual associated with the organization. The goal is to ensure customer satisfaction at all times. Employees need to interact with customers with utmost care and professionalism and to deploy the best of soft skills to retain customer patronage and loyalty. Top management should encourage continuous feedback from customers to fully understand their needs, feelings and complaints and to address them timely in order to retain their patronage. Based on the results of the study, the paper recommended that organizations should invest more on continuous improvement of products, processes, service delivery and structures to remain strongly competitive.

### **Managerial Implication**

The finding of this study which emphasized commitment of top management in the implementation of TQM principles has significant implication on productivity. All heads of departments, supervisors down to shop-floor attendants should imbibe the culture of TQM in the organization. The success of TQM implementation in modern organizations depends solely on the commitment of top management in integrating the effort of other units and departments to achieve cohesive and synergistic results that would enhance business bottom-line.

### **Suggestion for Further Research**

The results of this study and exposition from literature review validated the positive effects of total quality management practices on organizational effectiveness. The absence of top management commitment in the execution of total quality management principles and practices is the key cause of failure in TQM implementation. Further research could focus on analyzing and finding out the quality of leadership appropriate for successful implementation of TQM programmes in an organization.

## **Acknowledgement**

The authors of this research work sincerely thank the Management of Caleb University, Imota, Lagos, Nigeria, for providing research friendly environment to faculty and staff of this great institution.

## **References**

- Ahman & Feigenbaum (2019) . The importance of recruitment and selection process for sustainability of total quality management. *International Journal of Quality & Reliability Management*, 19 (5), 540 -550.
- Azrilah, Z.W. (2018). Reactivating higher education with total quality management: Using quality and productivity concepts, techniques and tools to improve higher education. *Total Quality Management & Business Excellence*, 6 (5), 519-537.
- Brun, C. (2018). *Achieving Quality Through Continual Improvement* (1st ed.). New Jersey: John Wiley & sons.
- Brown, A.S. (2019). Total quality management as competitive advantage: a review and empirical study. *Strategic management journal*, 16(1), 15-37.
- Brown, B. B. (2017). How can institutions of higher education achieve quality within the new economy? *Total Quality Management Journal No. 7, (2)*, 153- 160.
- Cruickshank, M. (2018). Total quality management in the higher education sector: a literature review from an international and Australian perspective. *Total Quality Management & Business Excellence*, 14(10), 1159 -1167.
- Dahlgaard, J. J., Kristensen, K., & Kanji, G. K., (2017). *Fundamentals of Total Quality Management - Process analysis and improvement*. London: Taylor & Francis.
- Dale, S.S., Vanfder, B.Z. & Williamds, Z.M. (2018). Quality Management Implementation in Malaysian Hotels: The Management Perspective. *Middle East Journal of Scientific Research*. 7(4), 619-624.
- James, S.N. & James, J. V. (2018). Higher education and total quality management. *Total Quality Management & Business Excellence*, 9(8), 659-668.
- Feigenbaum, A.V. (2019). *Quality Control: Principles, Practice and Administration*. McGraw-Hill, New York.
- Gaverea, N.O. (2017) *Total Quality Management: Text and Cases Readings. 2<sup>nd</sup> Edition*, Kogan Page, London.
- Griffin, N.N. (2020). *Total Quality Management. Are information systems managers*