COVENANT UNIVERSITY, OTA, OGUN STATE

Covenant Journal of Business and Social Sciences

The Covenant Journal of Business and Social Sciences (CJBSS) is a publication of the College of Business and Social Sciences, Covenant University, Ota, Nigeria. CJBSS is a refereed journal, published twice a year, and covers the various desciplines in development studies. Contributions from allied discipline that address business and social issues are also welcome.

CJBSS: Vol. 10 No.1, June 2019 PUBLICATION ISSN:2334-5708

PDF

Total Quality Management Practices and Organizational Performance Prof. Rowland E. Worlu & Dr. James Nwoye Obi

TOTAL QUALITY MANAGEMENT PRACTICES AND ORGANIZATIONAL PERFORMANCE

BY

Prof. Rowland E. Worlu
Department of Business Management
Covenant University, Ota
e-mail: worlu@covenantuniversity.edu.ng

Dr. James Nwoye Obi
Department of Business Management
Covenant University, Ota
e-mail: james.obi@covenantuniversity.edu.ng

ABSTRACT

This article examined Total Quality Management (TQM) practices and organizational performance using data gathered from Cway Water Group, Lagos to consummate the study. Total quality management aims at enhancing the quality of products, services and processes in all departments and sections in an organization. Sometimes improvement in quality gives rise to increased cost. The paper, therefore, critically examined the extent to which drive for total quality ultimately impinges on corporate performance. Descriptive research design was adopted. Data were gathered from respondents using structured questionnaire. A total of 325 respondents were used as sample size for the study. The data gathered were analyzed using tables and percentages. Three hypotheses were formulated and tested using SPSS statistical software with regression and correlation analysis. The test of hypotheses revealed that TQM has significant effect on organizational performance as the P-

Value was found to be less than 0.05 occasioning the rejection of the null hypothesis. The test also revealed that TQM has positive effect on customer satisfaction. The paper recommended that top management of organizations should make TQM practices top priority in their operations in the interest of sustainable performance.

Key words: *Quality management, performance, customer satisfaction, profitability*

INTRODCTION

Concern for quality has been an important part of business activities since the advent of globalization. At the early stage of industrialization, manufacturing was essentially conducted by the cottage industry and heavily relied on craftsmen (Powel, 2015). The manufacturers were merely in sellers market. However, the trend has changed from sellers' market to buyers' market. The consumers have become more aware of the variety of products in the market. Thus, customers are the focus of manufacturing such that every organization has to study what customers' need and offer products and services that would satisfy those needs for the firm to remain in business. Barney (2012) stated that quality of goods are determined by customers and thus customers have become the key factors that create competition among organizations and this makes firms to focus more on quality products and services that are needed by customers in order to remain competitive in the business environment (Anderson, Rungtusanatham and Schroder, 2015).

Excellent quality of products and services determine sales volume and profitability thus serving as essential factor in an organization and also contributing to the growth of the economy. Meanwhile in the light of increasing complexities and the change from local to global tiers of market places, there have been constant pressures applied on the management organizations to improve competitiveness by lowering operating cost and improving logistics (Motwani, 2014). The customers are becoming increasingly aware of rising standards having access to wide range of products and services to choose from. There is an ever-increasing demand for quality products and services and this global revolution is forcing organizations to invest substantial resources in adopting and implementing total quality management (TQM) strategies. Total quality management refers to total commitment to quality in all areas, functions and operations within an enterprise (Garvin, 2011). Total quality management gives everyone in the company responsibility for delivering quality to the final consumers. TQM views each task in the organization as fundamentally a process in a customer-supplier relationship. The aim at each stage is to define and meet the customers' needs in order to maximize their satisfaction and retain their patronage. Incompetence on the part of employees could result in poor quality output (Gaspersv, 2015). Thus, quality product delivery at all times enhances organization repute and customer patronage. Over the years, many organizations witnessed different negative impacts as a result of substandard products, fake and adulterated goods as a result of poor quality control (Jung and Wang, 2016). If products and services are not of good quality and required

specifications, it will not command high sales volume and the organization will suffer poor earnings in the market place.

Two authors (Banner and Garvin, 2015) proposed that organizations should pay attention to the balance between quality and research issues and use them in their macro strategy. They argued that existence of organizational qualitative facility is essential for enhancing organizational resources in order to achieve higher productivity and superior performance (Powel, 2015).

CONCEPTUAL FRAMEWORK

Definition of Total Quality Management

Famous authors in total quality management disciplines such as Garvin, Juran, Deming and Crosby defined the concept of quality and total quality management in different ways. Garvin identified eight attributes to measure product quality (Garvin, 2011). Juran defined quality as "fitness for use". Juran focused on a trilogy of quality which are; planning, quality control and quality improvement. Crosby defined quality as "conformance to requirements or specifications". According to Crosby, requirements are based on customer needs. Crosby identified 14 steps for quality improvement plan to achieve performance improvement. According to Deming, quality is a predictable degree of uniformity and dependability, at low cost and suited to the market. Deming also identified 14 principle of quality management to improve productivity and performance of the organization. Ishikawa also emphasized importance of total quality control to improve organizational performance. Feigenbaum came up with the concept of organization-wide total quality control. He was the first to use total quality control concept in the quality literature. He defined quality as "the total composite product and service characteristics of marketing, engineering, manufacturing and maintenance through which the product and service in use will meet the expectations of the customer" (Kruger, 2015.

The Concept of Total Quality Management (TQM)

Total quality management involves total commitment on the part of an organization to satisfying customers through the use of an integrated system of tools, techniques and training Silas and Ebrahimpour, 2015). It is geared towards increasing the production of better products and services at more competitive price. It involves the continuous improvement of organizational processes, resulting in the manufacture of high quality products and services. It is thus primarily a change in the technology of an organization and its way of carrying out its operations. In service organizations, this means the way clients are processed, the service delivery methods applied by the enterprise and the ancillary organizational processes in place (Silas and Ebrahimpour, 2015). Kanji and Wallace (2011) asserted that substantial and positive change can occur in an organization in three dimensions and that such change must be properly aligned in order to give value to the enterprise (Barney, 2012). Total quality management as a technological change will not be successful unless cultural and political dimensions are attended to as well. TQM results in a radical change in the culture and the

way work is done in an organization. A system of TQM directs the effort of the entire firm towards higher customer satisfaction, continuous improvement, and employee involvement (Heizer and Barry, 2015). TQM involves a system of management that involves all people in an organization delivering products or services that meet or exceed customer requirements. Garvin (2011) asserted that TQM is a preventive, proactive approach to doing business and as such it reflects strategic leadership, common sense, data-driven approaches to problem solving and decision making, employee involvement, and sound management practice (Krajewski, Ritzman and Malharta, 2016). TQM has a strong focus on process measurement and controls as means of continuous improvement. TQM is a quality initiative.

Critical Factors in Total Quality Management

To determine critical factors in total quality management, various studies have been carried out and different instruments were developed by individual researchers and institutions such as Malcolm Baldrige Award, European foundation For Quality Management (EFQM) and the Deming Prize Criteria. Based on these studies, a wide range of management issue, techniques, approaches and systematic empirical investigation have been generated. Accordingly, Saraph, Benson and Schroder, 2015) developed 78 items which were classified into eight critical factors to measure the performance of total quality management in an organization. These critical factors include; role of divisional top management and quality policy management, process management, quality data and reporting and employee relations.

Flyon, Schroder and Sakakibara (2013) developed another instrument to determine critical factors of total quality management. The authors identified seven quality factors. These are top management support, quality information, process management, product design, workforce management, supplier involvement and customer involvement. This instrument is very similar to the preceding instrument that was developed by seraph et al (2013). Flyon et al (2013) measured the impact of total quality management practices on quality performance and competitive advantage. In another note-worthy study, Anderson, Rungtusanatham and Schroder (2015) developed the theoretical foundation of quality management practice by examining Deming's 14 points. They reduced the number of concepts from 37 to 7 using the Delphi Method. These are visionary leadership, internal and external cooperation, learning, process management, continuous improvement, employee fulfillment and customer satisfaction. Barney (2012) also identified critical factors of the total quality management using the Malcolm Balridge Award criteria and investigated their validity by empirical means. They developed 32 items, which were classified into ten critical factors. These factors are: Corporate quality culture, strategic quality management, quality improvement measurement systems, people and customer management, operational quality planning, external interface management, supplier partnerships, teamwork structures, customer satisfaction orientation and communication of improvement information.

Integrated Quality Management Constructs

Ahire, Golhar and Walter (2014) developed eleven integrated quality management constructs through detailed analysis of literature to determine critical factors of quality management of organizations. They identified eleven factors. Which include the following: (1) Supplier Quality Management (2) Supplier Performance (3) Customer Focus (4) Statistical Process Control Usage (5) Benchmarking (6) Internal Quality Information Usage (7) Employee Involvement (8) Employee Training Design Quality Management (9) Employee empowerment (10) Product Quality (11) Top Management Commitment. Motwani (2014) visualizes TQM as constructing a house. First, putting top management commitment to TQM as the foundation. Without a strong foundation, the house will never stand. Once the foundation is in place, attention should be given to top employee training and empowerment, quality measurement and benchmarking, process management and customer involvement and satisfaction. These factors can be viewed as the four pillars of a house. Once the pillars are in place and enriched, it is time to incorporate the factors of vendor quality management and product design. These are the final elements to achieving TQM.

Therefore, the problem in reaching consensus on dimensions is the broad range of approaches used by various TQM authors. For example, some authors focus on the technical and programmatic properties of TQM, while others look at the general management philosophy. Very few authors (Saraph et al, 2015; Anderson et al, 2015; Silas and Ebrahimpour, 2015; and Motwani, 2014) looked at the holistic picture when formulating constructs of TQM. They examined TQM constructs in line with the goals of each investigator but the concepts were ultimately made to complement one another. Based on the fore-going description, the constructs on TQM practices used in the study consists of leadership, strategic planning, customer focus, information and analysis, people management, process management and supplier management. Other notable organizations both national and international have attempted to define total quality management. These organizations include; United State Department of Defense (1988) and British Institutions for the Maintenance of Standards (1992).

Total Quality Management Principles

Effective quality management is becoming increasingly important to the leadership and management of all organizations. Quality management principles provide the understanding and guidance on the application of quality management techniques (Gaspers, 2015). By applying the following seven quality management principles, an organization will bring benefits to its customers, owners, suppliers and the society at large:

1. **Customer focused organization**: Organizations depend on their customers and therefore should understand current and future customer needs meet customer requirement, and strive to exceed customers' expectations.
2. **Leadership**: Leaders are to establish unity of purpose and directive for an organization. They should create and maintain the internal environment in which people can become fully involved in achieving organizational objectives.

3. **Involvement of people**: People at all levels are the essence of an organization and their full involvement makes it possible for their abilities to be used for the benefit of an organization.
4. **Process approach**: A desired result is achieved more efficiently when related resources and activities are managed as a process.
5. **Continual improvement**: Continual improvement should be a permanent objective of the organization.
6. **Factual Approach to decision making:** Effective decision and prompt action should be embraced by all managers.
7. **Mutual relationship with suppliers and customers:** An organization and its suppliers as customers should pursue mutual relationship in the interest of all.

THEORETICAL FRAMEWORK

Theories of Total Quality Management

Total quality management is a quality improvement body of methodologies that are customer-based and service oriented. TQM was first developed in Japan and subsequently spread into other countries of the world. There are a number of theories guiding TQM practices in modern organizations as discussed below:

Deming's Theory

Deming's theory of total quality management rests upon fourteen points of management. The author identified the system of profound knowledge, and the Shewart Cycle (Plan-Do-Check-Act). The author is known for his ratio-quality which is equal to the result of work effort over the total cost. If a company is to focus on cost reduction, the result may be that cost will reduce with deteriorating quality. Deming's system of profound knowledge consists of four points namely: (1) **System Appreciation**: About the way company's processes and systems work (2) **Variation Knowledge**: Variation occurring and the causes of the variation. (3) **Knowledge Theory**: Concerning what can be known (4) **Psychology Knowledge**: About human nature. By being aware of the different types of knowledge associated with an organization quality management can be understood better.

Fourteen points of Deming's theory of total quality management include; constancy of purpose, adopting new philosophy, stopping dependencies on mass inspections; less dependence on price, continuous production and service improvement, job training, effecting leadership, doing away with fear, breaking down departmental barrier, getting rid of quantity-based work goals, Supporting pride of craftsmanship and training and educating every worker. Plan-Do-Check-Act (PDCA) cycle enhances continuous improvement in the planning phase. Objectives and actions are outlined followed by doing action and implementing process improvement. Check to ensure quality against the original and determine what changes need to be made for continued improvement before returning to the plan phase. Deming's theory guides organizations in the step-by-step implementation of total quality management principles and practices.

Crosby's Theory

Philip Crosby is another author credited with starting the TQM movement. He made the point, much like Deming, that if you spend money on quality, it is money that is well spent. The author provided four absolute requirements of quality management which include; (i) looking at quality as adherence to requirements (ii) prevention to maintain quality (iii) maintaining zero defects for high quality and avoiding non-conformity in all processes. Crosby also provided fourteen steps to continuous quality improvement which include; total commitment from management; having quality improvement team; creating metrics for quality improvement activity, determining cost of quality and showing contribute of improvement to results, training supervisors, encouraging employees how to fix defects timely, ensure proper understanding of quality steps by the workforce, demonstrate commitment by maintaining zero defects day, set short term goals, determine root causes of errors in the processes, create incentives programmes for employees, create quality council and hold regular meetings.

Joseph Juran's Theory

Quality Trilogy invented by Joseph Juran is made up of quality planning, quality improvement and quality control. If a quality improvement project is to be successful, then all quality improvement actions must be carefully planned out and controlled. Juran also provided ten steps to quality improvement and they include; creating awareness of opportunities and needs for improvement, determination of goals, map out activities required for reaching the goal; proper training, determine projects, monitor progress, recognize performance, report result, track achievement and then repeat the process.

LITERATURE REVIEW

TQM as Holistic Concern for Quality

Total Quality Management (TQM) is a business management strategy aimed at embedding awareness of quality in all organizational processes. Motwani (2014) noted that it has been widely used in manufacturing, education, hospitals, call centers, government and service industries. It is a management approach for an organization, centered on quality, based on the participation of all its members and aimed at long-term success through customer satisfaction, and benefits to all members of the organization and to the society (Flyon, Schroder and Sakakibara, 2013. It involves making constant effort to identify what the customers want from time to time and determining how to cater for them based on the recognition of the fact that customers' needs, desires and wants normally change over time, in relation to changes which may occur in the key aspects of the environment such as; social, political, economic and technological environments. TQM is a culture of continuous improvements based on continuous learning and adaptation to changes in consumer demand and product or operational methods (Powe, 2015). TQM is organization-wide management

of quality and it requires a comprehensive approach that must first be recognized and then implemented if the rewards are to be realized.

Human Resources are the source of ideas and innovation, and their expertise experience, knowledge, and co-operation have to be harnessed to get those ideas implemented. When human resources are treated like machines, work becomes uninteresting and unsatisfying. Under such conditions, it is not possible to expect quality services and reliable products (Lackhal, Pasin and Liman, 2016). Organizations exist for joint efforts to achieve a common goal and to reach such goal the factors of production (land, material, man, and money) must be properly harnessed and utilized. Obviously, the most important and most difficult factor of production to manage is the human element and this must be properly taken care of because human resource is the most important factor of production and any organization that neglects it human resources does so at its own peril (Prajogo and Sohal, 2012).

Basic Principles of Total Quality Management (TQM)

The first and major TQM principle is to satisfy the customer- the person who pays for the product or service. Customers want to get their money's worth from a product or service they purchase. If the user of the product is different from the purchaser, then both the user and customer must be satisfied, although the person who pays gets priority. A second TQM principle is to satisfy the supplier, that is, the person or organization from whom you are purchasing goods or services. It is only in the company's best interest that its suppliers provide it with quality goods or services, if the company hopes to provide quality goods or services to its external customers. It also involves supervisors trying to keep their workers happy and productive by providing good task instructions, the tools they need to do their job and good working conditions. The supervisor must also reward the workers with praise and good pay (Heizer and Barry, 2015).

The third principle of TQM is continuous improvement. Never be satisfied with the method used, because there always can be improvement. In other words, no matter how excellent a product or process may be today, there is always room for further improvement (Silas and Ebrahimpour, 2015). The competition is getting tougher in the business environment, so it is very necessary to strive to be ahead of the game. Workers are a source of continuous improvement and they can provide suggestions on how to improve a process and eliminate wastes and unnecessary work. It also includes quality improvement methods. There are many quality improvement methods, such as just-in-time production, variability reduction that can improve processes and reduce waste Powel, 2015).

Sources of Resistance to TQM in an Organization

TQM implies finding ways to change the organization from its current state to a better developed state. Change is inevitable and desirable but its acceptance varies, its impact differs and so it is often

resisted either by the organization itself, groups and trade unions or by individuals. Resistance can manifest in form of strikes, reduced production, shoddy workmanship, absenteeism, request for transfer, resignation, loss of motivation to work and lateness in arriving at work (Anderson, and Schroder, 2015).

Implementation of large scale change such as TQM will inevitably face resistance which should be addressed directly. Individuals tend to resist change for several reasons. First, they may resist change as a result of fear of the unknown. Again, they may dislike having to learn to use new skills. Also change disrupts stable friendships (Garvin, 2014). The resistance could be because they have a lack of trust in management. The organizational structure also tends to resist change because change is a threat to the power structure, the existing organizational systems are designed to maintain the status quo, other sub-systems within the organization resist change, and previous commitments have been made in the form of sunk costs. Management resistance to employee empowerment may also be experienced.

Top management may see itself spending less time on control and more on facilitation. For many traditional managers, this transition will require teaching, training, self reflection, and time as well as assurances from upper management that they are not in danger of being displaced. Hair, Yoseph, Rolph, Anderson and Black (2014) opines that resistance in other parts of the organization will show up if TQM is introduced on a pilot basis or only in particular programmes. Krugar (2015) refers to this perspective as segmentation-approach where each unit or programme sees itself as separate and unique, with nothing to learn from others and no need to collaborate with them.

There are several tactics which can be helpful in dealing with resistance to TQM implementation. Generally, they have to do with acknowledging legitimate resistance and changing tactics as the situation demands using effective leadership to align people with TQM principles. A useful technique to systematically identify areas of resistance is a force field analysis which involves creating a force field or driving forces, which aid the change or make it more likely to occur, and restraining forces which are likely to breed resistance. The analysis of the force field involves looking at which driving forces may be strengthened and which restraining forces may be eliminated or mitigated in order to avoid future resistance (Motwani, 2014). If it appears that, overall, driving forces are strong enough to move back restraining forces, adoption of TQM would be worth pursuing. The change plan would include tactics designed to move the relevant forces. Another way to address resistance is to get all employees on the same side, in alignment towards the same goal. Sound leadership is the driving force for achieving this goal and leadership models such as transformational or visionary leadership are most effective.

Research on change implementation identified four methods. The first, "intervention," involves a key executive justifying the need for change, monitoring the process, defining acceptable performance, and demonstrating how improvements can be made. This would involve a leader articulating a

compelling vision of an ideal organization and how TQM would help the vision to be actualized. It is often found to be more successful than the second method "participation," in which representatives of different interest groups determine the features of the change (Barney, 2012). Participation is sometimes more successful than the third method "persuasion" which involves experts attempting to sell the changes they want to make to the workforce. The fourth method "edict," is the least successful. A powerful way to decrease resistance to change is to increase the participation of employees in making decisions about various aspects of the process. Powel (2015) identifies two rationales for employee participation. The first rationale is to increase employee commitment to the resultant outcomes, as they will feel a greater stake or sense of ownership in what is decided. The second rationale is that employees have a great deal of knowledge and skills relevant to the issue at hand for instance, increasing quality, identifying problems, and improving work processes, and their input should lead to higher quality decisions.

Guidelines for Successful Implementation of TQM

The guidelines for TQM implementation will ensure the success of TQM adoption in an organization. TQM usually fails if there has not been a well-articulated programme for putting it in practice. The question therefore arises – which is the best TQM model to adopt? The first problem a company faces when a decision has been taken to implement TQM is the choice of model to adopt (Saraph et al (2025). This arises from the fact that there are different approaches for implementing TQM. As a general rule, whichever model is chosen must be tailored to suit the company. Factors such as business area, company size, age, operation, corporate values and culture should be taken into consideration before choosing a model. It is therefore advisable to adopt the approach that best fits a company's situation. Garvin (2011) is of the opinion that every manager be able to understand that the procedure that succeeded in one organization may not be so successful elsewhere. Every manager should also understand that every company and every situation is different. Jung and Wang (2016) stipulated that different organizations require different approaches. He suggested that bold ridge framework is the best guide for companies to know where they are and where they want to go.

Top Management Commitment to TQM is an essential requirement without which the implementation cannot succeed. The Chief Executive Officer (CEO) and his senior managers must not only give commitment to the programme but must lead it. Juran (1994) stated that the most frequent reason for the failure of quality programme is the failure of upper managers to have personal involvement in the implementation of TQM. There are non-delegate things that senior managers have tried to delegate. All CEOs with their managers should personally be fully involved in all quality programmes. Motwani (2014) supports this give and stipulates that if owners or directors of the organization do not recognize and accept their responsibilities for the initiation and operation of TQM, then these changes will not happen. It is possible to detect real commitment. It

shows at the top of operation. Things happen at this operating interface as a result of real commitment. To do this, they must have good understanding of the principles and benefits to be derived through implementing the programme, which could be through organizing awareness seminars (Hendricks and Singhal, 2014).

Implementation Principles and Processes

A preliminary step in TQM implementation is to assess the organization's current reality. Where the current reality does not include important preconditions, TQM implementation should be delayed until the organization is in a state in which TQM is likely to succeed. However, a certain level of stress is probably desirable to initiate TQM. This is because people need to feel a need for a change. Finally, action vehicles are needed i.e. mechanisms or structures to enable the change to occur and become institutionalized (Silas and Ebrahimpour, 2015). TQM processes and models of employee participation are such mechanisms. Essential or desirable preconditions may be identified in macro and micro areas. Macro factors include those which are concerned with issues such as leadership, resources, and the surrounding infrastructure. Micro issues have to do with internal issues such as employee training and empowerment and organizational processes such as quality assurance. In designing a comprehensive change process, the leader must acknowledge the existing organizational culture (norms and values, managers' leadership philosophies and styles at all levels) to ensure a good fit. TQM also needs to be congruent with other organizational processes, including reward systems, financial & information systems, and training systems (Flyon Schroder and Sakakibara, 2015). Implementing TQM essentially involves organizational transformation which has to do with beginning to operate in new ways, developing a new culture a type of change which though difficult, is possible.

TQM and Organizational Performance

Organizational performance factors provide the social context within which individuals and groups must perform. Organizational performance is the result of factors such as work processes; team/group communication and interaction; corporate culture and image; policies; leadership; climate for innovation and creativity and loyalty (Heizer and Barry, 2015). Human performance factors can either positively or negatively influence organizational performance and vice-versa. The issue of organizational performance can be approached either from the perspective of culture (internal) or brand (external). Organizational Performance can be divided into three major categories: social, technical/operational, and ideological. There are numerous methods that can be used to increase the performance of an organization. These may include; regular recurring activities to establish organizational goals, monitoring progress toward the achievement of the goals, attracting more customer patronage through the provision of superior quality goods and services that provide customers with greater satisfaction (Mentzer et al (2017).

Typically, these become integrated into the overall recurring management systems in the organization as opposed to being used primarily in one-time projects for change. There are several approaches for a planned, comprehensive approach to increasing organizational performance such as; balanced scorecard, benchmarking; business process reengineering, continuous improvement, cultural change, knowledge-based management, management by objectives(MBO), outcome-based evaluation and strategic planning. It is also essential to note that top management total support is needed for successful implementation of total quality management principles and practices in modern organization.

Advantages of Implementing Total Quality Management in an Organization

Some of the advantages and benefits of implementing total quality management in an organization include the following:

(1) High-lighting the needs of the market: Total Quality Management helps in highlighting needs of the market and how to meet those needs better.

(2) Ensuring better quality performance in every sphere of activity: Total Quality Management stresses bringing attitudinal changes and improvement in the performance of employees by proper work culture and effective team work.

(3) Helping in checking and eliminating non-productive activities: In Total Quality Management process, quality improvement teams are constituted to reduce waste and inefficiency of every kind by introducing systematic approach. Such efforts are helpful in achieving cost effectiveness.

(4) Helping a company to remain competitive: Total Quality Management techniques are greatly helpful in understanding the competition and also developing an effective combating strategy to enable the organization to remain competitive.

(5) Helping in developing an adequate system of communication: Total Quality Management techniques bind together members of various sections, department and levels of management for effective communication and interaction.

(6) Continuous Review of progress: Total Quality Management helps to review the process needed to develop the strategy of never ending improvement.

(7) Effectiveness: The goal of total quality management system is to improve the effectiveness of the organization in achieving targets and to continuously improve the quality of production and client satisfaction.

(8) Efficiency: Total quality management ensures a high efficiency through improving the quality of resources, using inputs and outputs without increasing capital volume.

(9) Quality Chains: Every member of staff is part of quality chains i.e. supplier of products/ services to customers. The product of one unit of an organization is an input (raw material) to

another unit. Thus, every staff in the quality chains should know his/her customer and supplier expectations.

Disadvantages of Implementing TQM in an Organization

Some disadvantages are also inherent in the implementation of total quality management in an organization. Such disadvantages include the following:

(1) Demand for change in culture: TQM demands an organizational culture that focuses in continuous process improvement and customs satisfaction. It requires a change of attitude and a reprioritization of daily operations.

(2) Demand for detailed planning, time and resource: A good TQM system often takes time to implement and it usually takes place only after significant planning, long-term resource allocation and unwavering management commitment.

(3) Quality is expensive to maintain: TQM is expensive to implement. Implementation comes with additional training cases, team development cost, infrastructural improvement cost, consultant fee and the like.

(4) Takes years to show results: Result of effort to maintain total quality in all departments and sections in an organization takes a long time to come and sometimes at additional cost to the organization.

Prospects of Total Quality Management in Nigeria

There is the possibility of Total Quality Management practices to be successful with companies operating in Nigeria. Every organization in Nigeria and every individual in the organization (Top management, Junior Management and Shop floor workers) must gain a basic understanding of the quality management principles, then identifying the key issues from top level strategic interest to everyday operational concerns. The key issues are then prioritized for improvement of activities to be undertaken for the success of the organization. Improvement teams and facilitators at the introduction of TQM and during the development stage of the implementation activities take charge to ensure the success of the programme. Less important activities and functions along the line can be revised or removed entirely as occasion demands. People in all functions will be encouraged to take responsibility for their own personal improvement, but, sometimes, it may take some time for this to happen. However, care must be taken to review and re-assess the effectiveness of the process of implementation to ensure that the momentum of improvement process is being maintained.

RESEARCH METHODOLOGY

Descriptive research design was adopted in this article. Data were gathered from respondents using questionnaire carefully designed by the researcher. A total of 325 respondents were used as sample size for the study. The data gathered were analyzed using tables and percentages. Three hypotheses were formulated and tested using SPSS statistical software with regression and correlation analysis. The results of the tested hypotheses were given and appropriate recommendations were made.

Data Presentation

TABLE 1: Analysis of Questionnaire Response Rate

Questionnaire	Respondents' Response	Percentage of Response
Number of questionnaires Administered	380	100%
Number of questionnaires Returned	325	85%
Number of questionnaires not returned	55	15%
Total	380	100%

Source: Field Survey (2019)

Demographic Characteristics of Respondents

Table 2. Gender of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	127	39.1	39.6	39.6
	Female	194	59.7	60.4	100.0
	Total	321	98.8	100.0	
Missing	System	4	1.2		
Total		325	100.0		

Source: Field Survey (2019)

Interpretation: The above table depicts information concerning the gender of the sample population. It shows that 127 (39.1%) of the respondents are male and 194 (59.7%) are female. It also shows that 4 (1.2%) respondents did not fill in their gender. This simply implies that majority of the respondents are females.

Table 3. AGE of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	15 - 20	239	73.5	74.2	74.2
	21 - 25	83	25.5	25.8	100.0
	Total	322	99.1	100.0	
Missing	System	3	.9		
Total		325	100.0		

Source: Field Survey (2019)

Interpretation: The table above shows that 239 (73.5%) of the respondents are within the ages of 15-20 and 83 (25.5%) respondents are within the ages of 21-25 while no respondents were within the ages of 26-30. It also shows that 3 (0.9%) respondents did not fill their ages. This simply implies that majority of the respondents that completed the questionnaire are within the age bracket of 15-20 yrs.

Table 4. Level of Education of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	MBA/M.Sc.	67	20.6	20.8	20.8
	B.Sc./HND	37	11.4	11.5	32.3
	NCE/ND	63	19.4	19.6	51.9
	CRAFT CERT.	129	39.7	40.1	91.9
	WASC/GCE	26	8.0	8.1	100.0
	Total	322	99.1	100.0	
Missing	System	3	.9		
Total		325	100.0		

Source: Field Survey (2019)

Interpretation: The table above illustrates that 67 (20.6%) respondents have MBA/M.Sc. degrees, 37 (11.4%) respondents have B.Sc./HND, 63 (19.4%) respondents have NCE/ND, 129 (39.7%) respondents have

Craft Certificates while 26 (8.0%) respondents have WASC/GCE. It also shows that 3 (0.9%) respondents failed to fill in details of their qualifications. This depicts that majority of the respondents have Craft Certificates.

Table 5. Positions held in the Organization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	JUNIOR	196	60.3	60.9	60.9
	SENIOR	10	3.1	3.1	64.0
	MIDDLE	54	16.6	16.8	80.7
	SUPERVISOR	62	19.1	19.3	100.0
	Total	322	99.1	100.0	
Missing	System	3	.9		
Total		325	100.0		

Source: Field Survey (2019)

Interpretation: This table illustrates that 196 (60.3%) respondents are Junior workers, 10 (3.1%) respondents are Senior managers, 54 (16.6%) respondents are Middle level managers and 62 (19.1%) are Supervisors. However, 3 (0.9%) respondents did not provide details of their position in the organization.

Research Questions

Can TQM practice, in some ways, help an organization to enhance its profitability?

Table 6. Can TQM practice, in some way, help an organization to enhance its profitability?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY AGREE	7	2.2	2.2	2.2
	AGREE	57	17.5	17.5	19.7
	UNDECIDED	33	10.2	10.2	29.8
	DISAGREE	158	48.6	48.6	78.5
	STRONGLY DISAGREE	70	21.5	21.5	100.0
	Total	325	100.0	100.0	

Source: Field Survey (2019)

Interpretation: The table above shows that 7 (2.2%) respondents strongly agreed, 57 (17.5%) respondents agreed, 33 (10.2%) respondents are undecided, 158 (48.6%) respondents disagreed and 70 (21.5%) respondents strongly disagreed. Thus we can determine that the majority of the respondents disagreed with the question.

To what level can TQM practice aid an organization to improve productivity?

Table 7. To what level can TQM practice aid an organization to improve productivity?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY AGREE	9	2.8	2.8	2.8
	AGREE	42	12.9	13.0	15.8
	UNDECIDED	55	16.9	17.0	32.8
	DISAGREE	144	44.3	44.6	77.4
	STRONGLY DISAGREE	73	22.5	22.6	100.0
	Total	323	99.4	100.0	
Missing	System	2	.6		

Total		325	100.0		

Source: Field Survey (2019)

Interpretation: This table shows that 9 (2.8%) respondents strongly agree, 42 (12.9%) respondents agree, 55 (16.9%) respondents are undecided, 144 (44.3%) respondents disagree and 73 (22.5%) respondents strongly disagree. It was also discovered that 2 (0.6%) respondents did not respond to this question. It is therefore deductible that the majority of respondents disagree with the question.

Table 8. To what degree can TQM practice help a corporate entity to improve customer satisfaction ?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY AGREE	18	5.5	5.6	5.6
	AGREE	174	53.5	53.7	59.3
	UNDECIDED	39	12.0	12.0	71.3
	DISAGREE	63	19.4	19.4	90.7
	STRONGLY DISAGREE	30	9.2	9.3	100.0
	Total	324	99.7	100.0	
Missing	System	1	.3		
Total		325	100.0		

Source: Field Survey (2019)

Interpretation: This table above shows that 18 (5.5%) respondents strongly agree, 174 (53.5%) respondents agree, 39 (12%) respondents are undecided, 63 (19.4%) disagree and 30 (9.2%) respondents strongly disagree. There was also a missing number of 1 (0.3%) respondent who did not respond to this question. Therefore we can deduce that the majority of respondents agree to the question

Test of Hypotheses

Hypothesis 1

Ho: Total Quality Management practice has no significant effect on corporate performance.
Hi: Total Quality Management practice has significant effect on corporate performance.

Table 9. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.553[a]	.305	.303	.66757

a. Predictors: (Constant), Total Quality Management

Table 10. ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	63.311	1	63.311	142.062	.000[b]
	Residual	143.946	323	.446		
	Total	207.257	324			

a. Dependent Variable: Corporate Performance

b. Predictors: (Constant): Total Quality Management

Table 11. Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.539	.156		9.852	.000
	TQM	.530	.045	.553	11.919	.000

a. Dependent Variable: Corporate Performance.

Interpretation

The R^2 value above shows how much of the variance in the dependent variable which is Corporate Performance is explained by the independent variable which is Total Quality Management. In this case, the R square value is 0.305 which is translated as 30.5% effect on the variance corporate performance.

The ANOVAa table reveals the assessment of the statistical significance of the result. The null hypothesis is rejected and the alternative hypothesis is accepted because the P-value is less than 0.05. The model in this table reaches statistical significance (sig = 0.000), in which the P-value is equal to 0.000 and less than 0.05.
The coefficient table above shows the extent to which the independent variable contributed to the prediction of the dependent variable. In this table, the beta coefficient is 0.553 which simply implies that a unit change in total quality management would result in a 55.3% change in corporate performance. From the table above, it can be concluded that corporate performance is directly influenced by the total quality management practice. Therefore this implies that "Total Quality Management" has a significant effect on "Corporate Performance".

Hypothesis 2

Ho: Total Quality Management practice has no significant effect on the productivity of an organization.

Hi: Total Quality Management practice has significant effect on the productivity of an organization.

Table 12. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.562[a]	.316	.314	.74815

a. Predictors: (Constant), Total Quality Management

Table 13. ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	83.521	1	83.521	149.219	.000[b]
	Residual	180.790	323	.560		
	Total	264.311	324			

a. Dependent Variable: Productivity of an Organization

b. Predictors: (Constant), Total Quality Management

Table 14. Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.561	.162		9.615	.000
	TQM	.548	.045	.562	12.216	.000

a. Dependent Variable: Productivity of an Organization

Interpretation

The R^2 value in the model summary shows how much of the variance in the dependent variable which is productivity of an organization is explained by the independent variable which is total quality management. In this case, the R square value is 0.316 which is translated as 31.6% effect on the variance productivity of an organization.

The ANOVAa table reveals the assessment of the statistical significance of the result. The null hypothesis is rejected and the alternative hypothesis is accepted because the P-value is less than 0.05. The model in this table reaches statistical significance at (sig = 0.000), in which the P-value is equal to 0.000 and less than 0.05.
The coefficient table shows the extent to which the independent variable contributed to the prediction of the dependent variable. In this table, the beta coefficient is 0.562 which implies that a unit change in total quality

management practice would result in a 56.2% change in the productivity of an organization. From the table above, it can be concluded that the productivity of an organization is directly influenced by the total quality management practice. Therefore this implies that "Total Quality Management" has a significant effect on "the Productivity of an Organization".

Hypothesis 3

Ho: Total Quality Management has no significant effect on the improvement of customer satisfaction in an organization.

Hi: Total Quality Management has significant effect on the improvement of customer satisfaction in an organization.

Table 4.15. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.371[a]	.138	.135	.89376

a. Predictors: (Constant), Total Quality Management

Table 16. ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	41.157	1	41.157	51.524	.000[b]
	Residual	258.013	323	.799		
	Total	299.171	324			

a. Dependent Variable: Customer Satisfaction

b. Predictors: (Constant), Total Quality Management

Table 17. Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.035	.169		12.030	.000
	TQM	.403	.056	.371	7.178	.000

a. Dependent Variable: Customer satisfaction

Interpretation

The Regression analysis was used in evaluating hypothesis 3. which represents the "Model Summary." It gives information about the overall goodness fit of the model being tested. The R value represents the simple correlation and is 0.371 which indicates a moderately high degree of correlation.

The R^2 value shows how much of the variance in the dependent variable which is Customer Satisfaction is explained by the independent variable which is Total Quality Management. In this case, the R square value is 0.138 which is translated as 13.8% effect on the variance customer satisfaction.

The ANOVAa table reveals the assessment of the statistical significance of the result. The null hypothesis is rejected and the alternative hypothesis is accepted because the P-value is less than 0.05. The model in this table reaches statistical significance at (sig = 0.000), in which the P-value is equal to 0.000 and less than 0.05. The coefficient table shows the extent to which the independent variable contributed to the prediction of the dependent variable. In this table, the beta coefficient is 0.562 which simply implies that a unit change in total quality management practice would result in a 37.1% change in customer satisfaction. From the table above, it can be concluded that customer satisfaction is directly influenced by total quality management practice. Therefore, this implies that "Total Quality Management practice" has a significant effect on "Customer Satisfaction".

Discussion of Findings

Hypothesis One:

The R^2 value shows how much of the variance in the dependent variable which is (corporate performance) is explained by the independent variable which is (total quality management). In this case, the R square value is 0.305 which is translated as 30.5% effect on the variance corporate performance. The ANOVAa table reveals the assessment of the statistical significance of the result. The null hypothesis is rejected and the alternative hypothesis is accepted because the significant level = 0.000 is less than 0.05. The result is that **total quality management practice has significant effect on corporate performance.** This finding is in consonance with Garvin (2014) which postulated that careful implementation of the principles of TQM leads to outstanding corporate performance.

Hypothesis Two:

The R^2 value shows how much of the variance in the dependent variable which is productivity of an organization is explained by the independent variable which is total quality management. In this case, the R square value is 0.316 which is translated as 31.6% effect on the variance productivity of an organization. The ANOVAa table reveals the assessment of the statistical significance of the result. The null hypothesis is rejected and the alternative hypothesis is accepted because the P-value is less than 0.05. The model in this table reaches statistical significance at (sig = 0.000), in which the P-value is equal to 0.000 and less than 0.05. The result is that **total quality management practice has significant effect on the productivity of an organization.** This finding supports the view of Anderson and Schroder (2015). The authors stressed that absence of resistance by employees against TQM principles leads to increased productivity of the workforce.

Hypothesis Three:

The R^2 value shows how much of the variance in the dependent variable which is Customer Satisfaction is explained by the independent variable which is Total Quality Management. In this case, the R square value is 0.138 which is translated as 13.8% effect on the variance customer satisfaction. The ANOVAa table reveals the assessment of the statistical significance of the result. The null hypothesis is rejected and the alternative hypothesis is accepted because the P-value is less than 0.05. The model in this table reaches statistical significance at (sig = 0.000), in which the P-value is equal to 0.000 and less than 0.05. Therefore, the result is that **total quality management has significant effect on the improvement of customer satisfaction in an organization.** This finding is in agreement with Mentzer et al (2017) which argued that superior quality goods and services resulting from effective TQM practices provide customers with greater satisfaction.

CONCLUSION

Total Quality Management (TQM) seeks to satisfy the external customers with quality goods and services as well as the company's internal customers. The first and major TQM principle is to satisfy the customer- the person who pays for the product or service. Customers want to get their money's worth from a product or service they purchase. If the user of the product is different from the purchaser, then both the user and customer must be satisfied. The second TQM principle is to satisfy the supplier, that is, the person or organization from whom you are purchasing goods or services. It is only in the company's best interest that its suppliers provide it with quality goods or services, if the company hopes to provide quality goods or services to its external customers.

Workers should also be provided with good rewards and adequate motivation. The reason for providing workers with good rewards is to get the best of productivity out of them. An effective supervisor with a good team of workers will certainly satisfy his or her internal customers. One area of satisfying the internal customers is by empowering the workers. This means to allow them to make decisions on things that they can control. This not only takes the burden off the supervisor, but it also motivates these internal suppliers to do better work. The third principle of TQM is continuous improvement. Never be satisfied and complacent with the present method used, because there can always be improvement. In other words, no matter how excellent a product or process may be today, there is always room for further improvement. The importance of TQM in every organization cannot be over-emphasized due to it many benefits to a firm. Total quality management is a long term continuous process that faces many obstacle such as slow process of staff to adapt the changes of TQM, the need for the company to purchase modern equipment which would make the manufacturing process more efficient and also help reduce the cost of production. Lack of team work will also affect TQM growth.

With the involvement of leadership commitment and effective communication total quality management will enhance customer satisfaction and improve organizational performance.

RECOMMENDATIONS

Based on the findings of this study, the following recommendations are put forward with the aim of helping modern organizations to make the best use of total quality management principles and procedures to increase organizational profitability:

(1) TQM approaches should be carefully identified, planned and executed at all the level of the company.
(2) There should be perfect working system and continuous feed-back process through effective and efficient communication and information system.
(3) Conducting relevant training for the employees to inculcate in them the principles and practices of TQM in order to eliminate or reduce to the barest minimum resistance to change.

REFERENCES

Ahire, S. L., Golhar, D. Y., Walter, M. A. (2014), Development and validation of TQM implementation constructs, Decision Science, 27 (1), 23-56.

Anderson, J. C., Rungtusanatham, M., and Schroeder, r. G. (2015). A theory of quality management underlying the Deming management method, academy of Management Review, 19 (3), 472 – 509.

Barney, J. (2012). Firms Resources and sustained Competitive Advantage Journal of Management. 17 (1) 791 – 400

Flyon, B. B, Schroder, R. G. and Sakakibara, S. (2013). A framework for quality management research and an associated measurement instrument. Journal of Operations Management, 11 (3), 339

Flyon, B. B, Schroder, R. G. and Sakakibara, S. (2015). The impact of quality management practices on performance and competitive advantage. Decision Sciences, 26 (5), 659 – 691

Garvin, D. A. (2014). Competing on the eight dimension of quality, Harvard Business Review, Nov. – Dec., 101 – 109

Gaspersv, V. (2015). Total Quality Management, Jakarta: Gramedia Pustakan Utama Press

Hair Jr., Yoseph F., Rolph E., Anderson R. L. P. and Black W. (2014) Multivariate Data Analysi,s 5th Edition, New Jersey: Prentice-Hall, Inc.

Heizer, I. and Barry r. (2015), Operation Management, Seventh Edition, USA: Pearson Prentice Hall Inc.

Jung I. and Wang Y. (2016), Relationship between Total Quality Management (TQM) and Continuous Improvement of International Project Management (CIIPM), Technovation, 26 (5), 716 – 722

Kanji, G. K., Wallace, W. (2011). Business Excellence Through Customer Satisfaction, total Quality Management, 11 (7), 979 – 989

Krajewski, L., Ritzman, L. and Malhorta, M. (2016) operations Management, 8th Ed., Upper Sadle River, NJ: Pearson Prentice-Hall.

Kruger, V. (2015), Main Schools of TQM: the big five. The TQM Magazine, 13 (13), 146-155

Lakhal, L., Pasin, f. and Liman M. (2016). Quality Management Practices and their impact on performance. International Journal of Quality and Reliability Management, 23 (6), 625 – 646.

Mentzer J. T., Min S. and Zacharia Z. G. (2017). The nature of inter-firm partnering in supply chain management, journal of Retail 76, 549-568

Motwani J. (2014). Measuring Critical Factor of TQM, Measuring Business Excellence, 5 (2), 27

Powel T. C. (2015). Total Quality Management as Competitive Advantage. Strategic Management Journal, 16 (1), 19-28.

Reed R., Lemak D. J. and Miero N. P. (2013). Total Quality Management and sustainable Competitive Advantage. Journal of Quality Management, 5, 5-26

Saraph, I. V., Benson, G. P., Schroder, r. G. (2015). An instrument for measuring the critical factors of quality management, Decision Science, 20 (1), 810 – 829.

Sila, I. and Ebrahimpour M. (2015), Critical Linkages among TQM factors and business results, International Journal of Operations & Production Management, 25 (11), 1123 – 1155

Prajogo, D I. and Sohal, A. S. (2001) TQM and innovation: a literature review and research framework, Technovation, 21 (9) 539- 558

Hendricks, K. B. and Singhal, R. V. (2014) Does implanting an effective TQM programme actually

improve operating performance? Empirical evidence from firms that have won quality awards, Management Science, 43 (9), 1258 – 1274

Easton. G. S. and Jarrel, S. L. (2014) The effects of total quality management on corporate performance. An empirical investigation, the Journal of Business, 71 (2), 253 – 308.

Lin, C. and Chang, S. (2016) Exploring TQM's impact on the Casual Linkage between Manufacturing Objective and Organizational Performance Total Quality Management & Business Excellence, 17(4), 465 – 484

Bou, J. C. and Beltran, I. (2015)total Quality Management, High-commitment Human Resource Strategy and Firm Performance: An Empirical Study, Total Quality Management & Business Excellence, 16 (1), 71 – 86.

Herrmann, A., Huber, F. Alghesheime, R. and Tomezak, T. (2014) an empirical study of quality function deployment on company performance International journal of Quality & Reliability Management, 23(4), 345 – 366

Zairi, M. and Youssef, M. A. (2014). Benchmarking critical factors for TQM Part 1: theory and foundations, Benchmarking for Quality Management & Technology 2 (1), 5- 20