



**APPLICATION OF TQM PRACTICES ON ORGANIZATIONAL PERFORMANCE:  
A STUDY OF LAFARGE AFRICA PLC. CALABAR, CROSS RIVER STATE,  
NIGERIA**

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**ABSTRACT:** *This study evaluated the application of TQM practices on organizational performance of Lafarge Africa Plc. The specific objectives were to examine the extent to which top management commitment, customer focus, process/product design and training and education on quality are applied or implemented in producing quality products in order to enhance performance. The study employed survey research design. The population of the study was 463 respondents. The study used a structure questionnaire using 5 points Likert Scale of SA=5, A=4, U=3, D=2, and SD=1. The sample size was 210 respondents using Krejcie and Morgan Table of 1970 for sample size determination. Cronbach Alpha Coefficient was used to validate the reliability of the instrument with the coefficient index of 97%. Simple Linear Regression Model was employed to test the hypotheses using SPSS version 23. The study revealed that the application of top management commitment to quality has a positive and significant effects on organizational performance of Larfarge Africa Plc. Calabar, Cross River State. The study revealed that the application of customer focus has a positive and significant effect on organizational performance. The study also found that the application of process design on quality has a positive and significant effect on organizational performance. The study also revealed that the application of training and education of workers on quality has a positive and significant effect on organizational performance. The study recommended that the management of the organization should put in more efforts and commitment to quality issues and decisions in order to improve quality products and services continuously. The management should also ensure that quality of products are maintain based on customers specification and expectations in order to enhance organizational performance steadily. The management should design the product and production processes based on quality standards set or established by SON and NAFDAC in the system in order to improve performance steadily. The management of the organization should ensure that workers are regularly train and educated on quality issues in order to produce quality products on a continuous basis.*

**KEYWORDS:** TQM, TQM Practices, Top Management Commitment, Customer Focus, Training and Education, Process Design.



## INTRODUCTION

The quest for continuous improvement on increased performance and gaining competitive advantage has made the adoption of total quality management (TQM) practices implementation pertinent in recent time in order to improve the quality of products and services in the society. TQM practices are set of activities that direct and control the application of quality approaches and principles towards the continuous improvement on quality of products and services in an organization in order to gained competitive advantage and increased market share in the business environment. TQM practices highlights the different approaches followed by management/managers to ensure that the highest level of customers' satisfaction in a product or service is achieved. It involves all stakeholders and stresses on the importance of work responsibility from every member in the organization towards quality products and services. The implementation of TQM practices is one of the most difficult tasks for a firm, since it has consequences for management, stakeholders, employees as well as customers in the system (Abu-Mahfouz, 2019). Organizations or manufacturing firms that apply TQM practices certainly revolutionized production processes and capabilities and enjoy greater market share in the economy, and firms without TQM philosophy or principles stand the risk of losing global market share in the new economic trend of the world market (Anekwe, 2017).

The application of TQM practices are closely related to performance/productivity innovation as well as flexibility management, since these concepts shared common orientations, and manufacturing firms need to apply TQM practices to ensure product's quality, increased market share, reduced cost, and improving customer satisfaction (Phan, Nguyen, Nguyen & Matsui, 2019). They further stressed that TQM implementation encourages continuous improvement in the daily routine operations that leads to better organizational learning, firms' capabilities, and the potential to adapt to environmental changes. Total quality management practices are not being widely adopted by manufacturing firms to solve problems involving poor quality issues in the manufacturing industry and other industries, and predominantly to satisfy the needs of the customers in the society (Al-Nasser, Yusoff & Islam, 2013). Total quality management practices are considered as a driving force to amplify and increased or supplemented organizational quality performance (Maqsood, Saeed, Ramzan, Ajmal Hussain & Arab, 2019). They further stated that ever changing and complex business environment has made manufacturing firms to faced challenges of poor implementation of TQM practices towards continuous improvement and higher performance standards in recent years with low deployment of TQM principles or philosophy.

The conception of TQM practices as elements for an organizational performance is of paramount importance for every firm in pursuit of competitiveness, and its application has also been an imperative aspect for improving organizational performance, effectiveness and efficiency in resources utilization of the manufacturing firms (Tasie, 2016). Implementation of total quality management practices enables companies to improve their internal operations in an efficient manner, which is considered as a requirement to become competitive in the global market place (Irungu & Were, 2016). Total quality management practices fuses essential management systems, assets, and its usage remains as a check and support to top management commitment and administration (Machimbi & Wanyoike, 2017). The implementation of TQM practices has shown a significant effect on increasing firm efficiency in managing its resources, since employees' involvement and motivation can influence TQM performance both directly and indirectly (Safitri & Zakky, 2019). In order to become more customer oriented through quality fanatical strategy, almost all the manufacturing firms need to adopt total quality



management practices as well as principles implementation during production processes (Mehmood, Qadeer & Ahmad, 2014).

The manufacturing sector contributes a substantial proportion or share to the overall gross domestic product of Nigeria, and it is a strategic and vital fragment of the sector whose influence and effect on the nation's economic development cannot be exaggerated. The manufacturing sector has become the third most prominent segment of the economy due to its continuous improvement in performance and productivity with proper implementation of the TQM practices (Khan, Khan, Sheeraz & Mahmood, 2017). This is because, all manufacturing firms are very much concerned about their productivity and performances, and they need to be continuously improving their products quality.

The demand for quality products and services is ever-increasing and this global revolution had forced manufacturing organizations to invest substantial resources in adopting and implementing total quality management practices or strategies in the system (Singh & Singh, 2014). They further asserted that the introduction of total quality management strategies has played an essential role in the development of contemporary management in achieving increased performance of manufacturing firms. TQM practices integrates fundamental management techniques, resources, and its application or implementation stands as a challenge and support to top management commitment in creating quality products and services in an organization (Muiruri, 2016).

In this contemporary period, the level of consciousness towards TQM practices has increased drastically and has gone to its peak to become a well-established field of research to improved manufacturing firms' performance due to intense global competition, increasing consumer awareness of poor quality, rapid technology transfer, and towards achieving world-class status in quality products or services (Anil & Satish, 2016). TQM practices application has not been well accepted by managers and quality practitioners as a change management quality approach, and it plays a vital role in the development of quality management practices. The poor and low level application of TQM practices of top management commitment on quality issues, customers' focus, process design, and training and education on quality issues among manufacturing firms needed attention by top management as well as employees on a continuous basis. It is on this backdrop that this study became imperative to examine the application of TQM practices on organizational performance of Larfarge Africa Plc. Calabar, Cross River State.

### **Statement of the Problem**

TQM practices are fundamental basis at which quality products and services are to be maintained and sustained in any given organization. The adoption of TQM practices has been so easy, but the application or implementation has been a very difficult task confronting management as well as employees of manufacturing firms in the system. Due to poor quality of products and services, customers have become dissatisfied or displeased, therefore the costs of poor quality are not just that of instant waste and alteration, but also the loss of customers' patronage as well as future sales of the manufacturing firms' products in the system. This can be attributed to poor as well as low level application of TQM practices among manufacturing firms, which has resulted to poor performance and declined in the market share. This was also characterized by poor quality culture and ineptitude of the top management to commit more efforts in creating continuous improvement on quality of the organizational products and



services regularly. It has also been observed that TQM practices such as top management commitment on quality issues and decisions, customer focus on quality products, process or product design as well as training and education of workers on quality problems or setback are not appropriately and properly implemented and applied among manufacturing firms during production processes. And this has caused a declined in the performance and competitive advantage of manufacturing firms in the business environment. Therefore, it is on this backdrop that this study became imperative to examine the application of TQM practices on organizational performance of Larfarge Africa Plc. Calabar, Cross River State.

### **Objectives of the study**

The main objective was to examine the application of TQM practices on organizational performance of Larfarge Africa Plc. Calabar, Cross River State. The specific objectives are:

1. To examine the application of top management commitment on organizational performance of Larfarge Africa Plc. Calabar, Cross River State.
2. To assess the application of customer focus on quality on organizational performance of Larfarge Africa Plc. Calabar, Cross River State.
3. To determine the application of process design on quality on organizational performance of Larfarge Africa Plc. Calabar, Cross River State.
4. To evaluate the application of training and education on quality on organizational performance of Larfarge Africa Plc. Calabar, Cross River State.

### **Research questions**

The following research questions were drawn to guide this study:

1. To what extent does the application of top management commitment affects organizational performance of Larfarge Africa Plc. Calabar, Cross River State?
2. To what extent does the application of customer focus on quality affect organizational performance of Larfarge Africa Plc. Calabar, Cross River State?
3. To what extent does the application of process design on quality affect organizational performance of Larfarge Africa Plc. Calabar, Cross River State?
4. To what extent does the application of training and education on quality affect organizational performance of Larfarge Africa Plc. Calabar, Cross River State?

### **Research hypotheses**

The following null hypotheses were formulated to guide this study:

- Ho<sub>1</sub>: The application of top management commitment does not has a positive effects on organizational performance of Larfarge Africa Plc. Calabar, Cross River State.
- Ho<sub>2</sub>: The application of customer focus on quality does not has a positive effect on organizational performance of Larfarge Africa Plc. Calabar, Cross River State.



Ho<sub>3</sub>: The application of process design on quality does not has a positive effect on organizational performance of Larfarge Africa Plc. Calabar, Cross River State.

Ho<sub>4</sub>: The application of training and education on quality does not has a positive effect on organizational performance of Larfarge Africa Plc. Calabar, Cross River State.

## CONCEPTUAL REVIEWS

### The Concept of Total Quality Management (TQM):

TQM is a firm-wide management philosophy of continuously improving the quality of the products/services/processes by focusing on the customers' needs and expectations to enhance customer satisfaction and firm's performance steadily (Sadikoglu & Olcay, 2014). TQM is a managerial attitude that acts as one of the most valuable tool and technique for any firm as its benefits in making managerial decisions and supports the operational strategy of the organization (Jaiswal & Garg, 2018). Total quality management is a quality management model that have a transforming impact on an industry that is in a state of substantial structural change and facing increased competition (Aletaiby, 2018; Ahmed & Lodhi, 2015). TQM is considered to be both a philosophy and methodology for managing firms, and it provides the overall concept that fosters continuous improvement in an enterprise (Odoh, 2015).

Gharakhani, Rahmanti, Farrohhi and Farahmandian (2013) pointed out that TQM is considered as a very imperative factor for the long-term success of an organization, and its implementation has been a vital aspect for improving organizational efficiency on quality of products and services. TQM is configured by a system of values and principles, and by a set of practices or modus operandi or methods utilized to be effectively implemented in the production of quality goods and services in manufacturing firms (Garcia, Rama & Alonso, 2014). TQM involves the application of quality management principles to all aspects of the organization, including customers and suppliers, and their integration with the key business processes. It is an approach which involves continuous improvement by everyone in the organization. TQM is a principle that involves the mutual cooperation of everybody that aids the business processes of an organization that involves all the stake holders of the firm can improve the organizational performance. It also found that supplier quality manage. TQM is both a philosophy and a series of guiding rationalizations or validations that are the basis of a continuously improving organizational quality of products and services (Yeng, Jusoh & Ishak, 2018; Shweta, Ruchi & Monika, 2018). It aims to achieve the effectiveness of the method of production, design, planning, quality tools, techniques involvement as well as customer satisfaction since it has the potentiality of not only to reinforce competitiveness but also to strengthen firms' productivity effectiveness as well as producing more satisfied customers (Khanam, Siddiqui & Talib, 2015; Yeng, Jusoh & Ishak, 2018). The role and the importance of TQM in building and managing the quality of organizational products and services can never be underestimated or understated.

### TQM Practices

Total quality management practices are gaining momentum because the forces to competition around quality have been in motion. In the international arena and increasing in the domestic or local arena, manufacturing firms risk losing to competitors if they cannot match their own rapidly rising levels of quality and performance in a sustainable manner (Aluko, Ghadamosi,





Odubesan & Osuagwu, 2014). They further stated that competitors are rapidly or frequently improving in quality, and those manufacturing firms that achieve only partial success in implementing TQM practices may fall behind in the competitive advantage struggle in the business environment. And that success comes to those firms that have fully internalize strategy and practices towards their own business operations in the business environment. Chong and Rundus (2012); Irungu and Were (2016) elucidated that total quality management practice as an effective system for integrating the quality development, quality maintenance and quality improvement efforts of the various groups in the manufacturing firm that enable production and service at the most economical levels which allows for full customer satisfaction. Androwis, Sweis, Tarhini, Moarefi and Amiri (2018) in their study revealed that TQM practices positively affect the organizational performance, with a significant value for top management commitment, customer focus, supplier management, process control and continuous improvement. And concluded that TQM is considered as a key-contributing factor to firm's survival. It also provides empirical support that TQM implementation in manufacturing organizations contributes to the performance and survival of manufacturing and service firms.

Total quality management practices are a set of fundamental beliefs, norms, rules and values that are accepted as true and can be used as a basis for continuous quality improvement management in organizations (Grayson, Nyamazana & Funjika-Mulenga, 2016). Chung (2016) also asserted that TQM activities constituted a potential source of competitiveness for firms, and the firms which implemented TQM activities would have more competitive advantages than those without TQM activities in their strategic planning policy. The expected results of total quality management practices are better organizational performance, enhanced productivity, efficient processes and competitive goods and services that satisfies the consumer and enhances the organizational competitiveness on a continuous basis (Milanoi, 2016). TQM practices implementation is closely related to productivity innovation as well as flexibility management since these concepts share common orientations, and manufacturing firms must apply TQM practices to ensure product's quality, reducing cost, and improving customer satisfaction (Phan, Nguyen, Nguyen & Matsui, 2019). They further stressed that TQM implementation encourages continuous improvement in the daily routine operations that leads to better organizational learning, firms' capabilities, and the potential to adapt to environmental changes. Total quality management practices are being widely adopted by contractor companies to solve problems regarding quality in the manufacturing industry and other industries and principally or predominantly to satisfy the needs of the customers (Al-Nasser, Yusoff & Islam, 2013).

TQM practices has become an acceptable technique to ensure manufacturing firms' performance, productivity, profitability and survival in the modern economies are sustained (Muiruri, 2016). Implementation of total quality management practices in the organization is the lasting solution to this challenge of global competition that will bring manufacturing firms to a world-class service and improve organizational performance, and is by providing the kind of quality products and services required for customer satisfaction to be attained, gained competitive superiority as well as better market share (Aziz, Sumantoro & Maria, 2019). TQM principles or practices sets a series of methods or techniques for manufacturing firms to achieve its objectives and productivity with the way to successful continuous improvement that involved or focused on the use of strategy, data and effective communication to instill a discipline of quality into the manufacturing firms' culture and processes. This is because TQM



practices' objectives are to eliminate waste and increase efficiencies by ensuring that the production process of the manufacturing firms' products/services is done right at the first time.

Zehir, Ertosun, Zehir and Muceldilli (2012) in their study focus on eight dimensions of TQM such as leadership management, factual approach to decision making, process management, supplier management, continual improvement, employee management, customer focus and system approach to management. To achieve the requirement of quality, organizations have to put more efforts on the implementation of TQM practices and to introduce quality management practices to integrate internal information communications with TQM philosophy effectively in the application of TQM mechanisms, which is also important to develop the relationship between organizations and their suppliers (Lakmal, Gayani, Subasinghe, Bandara & Rahulan, 2018). Absah, Rini and Sembiring (2019) revealed that quality management practices have a significant positive role in organizational performance, and that human oriented element and work environment as a moderating variable enhance the positive relationship between quality management practices and organizational performance among Indonesian higher educational institutions.

TQM practices help manufacturing firms to respond proactively through continuous improvement on quality to achieve best organizational performance (Manbanda, Maibvisira & Murangwa, 2017). They further revealed that total quality management practices positively impacted on the performance of food and beverage sector in the society. TQM practices such as continuous improvement, customer focus, leadership, education and training, teamwork, communication, and top management commitment are significant or essential to provide customer satisfaction by improved product performance and sustained it towards the organizational goals and objectives on continuous quality improvement (Dedy, Zakun, Omain, Rahim, Md-Ariff, Sulaiman & Saman, 2016).

TQM practices are basic techniques playing important role in maintaining a required quality products standards, performance and productivity in manufacturing firms (Ahmad, Yin, Nor, Wei, Hamid, Ahmad, Rahman & Nawawi, 2018). The introduction of total quality management practices entails substantial effect or impact on many aspects of employees' work values and attitudes especially in increased performance, productivity, costs reduction, job satisfaction as well as turnover retention (Yue, Ooi & Keong, 2011). TQM practices and implementation often requires a long-term effort and a great deal of energy, money, patience and management attention (Sajjad & Amjad, 2011). They further stated that TQM practices require decisions to delegate to average and operational level, the process of delegating and involving staff to make decisions about their tasks is a good motivational method, as well as sensitizing them to decisions they make towards quality standards.

### **Top Management Commitment to Quality**

Top management commitment is one of the main elements of TQM that orientates the implementation of TQM practices towards creating values, systems and goals to satisfy customers' expectations and improve organizational performance as well as productivity of manufacturing companies (Musa & Alawad, 2011). The top management commitment is a strong cornerstone in the total quality management philosophy (Oparinde, 2019). Stanojeska, Minovski and Jovanoski (2020) stated that the role of top management in quality management system is undeniable and they play a crucial role in establishing quality policies, providing resources, stimulating involvement of the employees for successful operation of ISO 9001 and



transition towards TQM practices. The ultimate responsibility for quality in an organization lies in the hands of the top management commitment. It is only with their enthusiastic and steady support that quality of products and services can thrive in an organization. A committed management at the top play a pivotal role by developing a clear organizational vision, mission and policy to achieve continuous improvement on quality, communication, and collaboration amongst the value chain thereby promoting a quality culture throughout the organization (Rehmani, Ahmad, Naseem & Syed, 2020).

Top management level is also responsible for mentoring product design and considering market demands and consumer needs, and the focus of top management is essential for manufacturing firms to produce goods that can be manufacture and meet customers' needs and expectations (Singh & Singh, 2014). This is because top management level plays an essential role in directing organizational operations as well as influencing the decision-making processes and resource allocation processes for supplier management and product design management. Involvement of management in quality management or decisions creates a participative environment in the organization which is very important in the implementation of TQM practices (Oruma, Mironga & Muma, 2014).

Wang and Meckl (2020) stressed that the top management need to plan the strategy and develop the policies of TQM practices for the firm, and the top management must have the ability to influence and aid or support others in the firm to understand and implement the strategy of TQM practices. The top management need to train the employees on the principles of TQM practices and inform them of their responsibilities for continuous improvement to be ascertained. Top management provides direction for achievement of quality related goals as well as basic atmosphere to enhance productivity or performance in organization. Mittal, Singla and Goyal (2011) stressed that top management commitment factor includes the awareness and support of top management on the quality systems, and the recognition of quality improvement and employees contributions. Alshatnawi and Ghani (2018) advice that top management commitment must develop a TQM strategy that understand what customers wants or needs, because customer-driven quality is a strategic organizational issue which need to be integrated in the overall organizational planning process during product development.

### **Customers' Focus:**

The customer is one of the most essential pillars in which TQM practices are based upon (Al-Saffar & Obeidat, 2020). Customer focus is the degree to which an organization continuously satisfies customers' needs and expectations. A successful manufacturing company recognizes the importance of putting the customers first in every decision made in producing quality products. The key to total quality management practices is maintaining a close relationship with the customers in order to adequately determine the customers' needs, and to receive positive feedback on the extent to which these needs and expectations are met. Mojtahedzadeh and Arumugam (2011) customers are the starting point of every organizational products and not the endpoint for business success to be achieved. The customer today dictates the market and the primary focus of TQM practice is the customer, which is targeted at satisfying customer needs (Betinah, Ojiabo & Alagah, 2018). Customer focus signifies organizational efforts to know customers' demands and market trends, as it relates to developing and maintaining good relationships with customers by ensuring their satisfaction continuously (Abbas, 2019).





Manufacturing firms as well as service organizations depend on their customers and therefore need to understand current and future customer needs and meet customer requirements, and therefore strive to exceed customers' expectations (Worlu & Obi, 2019). The demand of potential customers are increasing as they requires improved quality of products and services in the Nigerian business environment (Irechukwu, 2010). And to gain competitive advantage in the global competitive environment is the ability of the manufacturing firms to provide quality products and services that must meet or exceed customers' expectations. Customer focus factor covers the investigation of customer complaints, the specification of internal and external customer requirements and their satisfaction (Mittal, Singla & Goyal, 2011).

Customer focus is generally regarded as the most important TQM principle that manufacturing firms must practice steadily (Aletaiby, 2018). The key objective of using TQM strategy is to meet customers' latent and current needs by offering quality services and products (Sweis, Ismaeil, Obeidat & Kanaan, 2019). Focus on the customer is one of the priorities of total quality management practice (Jaiswal & Garg, 2018). The important driving force to establish the quality goals for business organizations, basically originates from customer needs or market-driven and expectations (Singh & Singh, 2014). They further stated that customer focus is the under pinning principles for firms to implement programmes of TQM practices in attaining maximum profits as well as performance. A customer focus keeps the business aware of the changes taking place in its environment and provides the knowledge needed to change the product based on customers' needs and expectations.

Focus on the customer is one of the priorities of total quality management practices (Jaiswal & Garg, 2018). The customer focus provides awareness to the business to be updated to any environmental change in the field and undergoes the required changes needed for product quality and innovative actions (Musa & Alawad, 2011). TQM focuses on a customer-oriented approach, is process inclined, aims for sustained quality improvement, and relies on teamwork (Navipour, Nayeri, Hooshmand & Zargar, 2010). TQM is one of the latest quality systems which ensures that everybody in an organization is fully committed to achieving all aspects of quality of products and services (Ojinnaka, 2011). A customer focus keeps the business to be aware of the changes taking place in its environment and provides the knowledge needed to change the product based on customers' needs and expectations (Agus, Ahmad & Muhammad, 2009). Khan, Khan, Sheeraz and Mahmood (2017) revealed that customer's requirements and perceptions are considered by an adequate feedback system, audits, and management reviews in Pakistani economy, and that overall manufacturing organizations are very much concerned about their performance, so that they are continuously improving their product quality. Understanding the customer's specific requirements as well as providing products and services that conform to these requirements can improve competitive advantage (Wang & Meckl, 2020). They further stated that the customer's requirements must be identified to find the best possible means of meeting those requirements, and the customer's opinion need to be respected at each stage of the product development process. A willingness is required to satisfy customers by meeting and exceeding their expectations (Alshatnawi & Ghani, 2018).

### **Process or Product Design**

Design practices provide an ideal starting point for the study of quality performance. A wide range of possible choices still exist until designs are finalized. Organizations need to consider the factors when planning for the product design processes: understand fully the customer product and service requirements; emphasize fitness of use, clarity of specifications and



performance; involve all affected departments in the design reviews; and avoid frequent redesigns. The efficient management of product design, production, support, and supplier processes and their continuous improvement on quality of products and services is essential to any quality organization (Pannirsevam, 2018). This factor emphasizes adding value to processes, increasing quality levels, and raising productivity per employee. However, there were varied tactics emphasized to accomplish this factor. The list contains: improving work center methods and installing operator-controlled processes that can lead to a lower unit cost, embracing kaizen (continuous improvement) philosophies, reducing the operator material handling duties, promoting a design for a manufacturing program, and achieving a compact process flow. Inferior quality manufacturing process will result in higher scrap rate and rework rate which will lead to more resource consumed to produce qualified products, and the goal of process management is to reduce process variation by building quality into the production process (Singh & Singh, 2014). The process of designing an organization quality products and services is pertinent to the development of performance on a continuous basis.

### **Training and Education on Quality**

Training and education of all members spread the knowledge of continuous improvement and innovation in products/service processes to achieve full benefits as well as business excellence (Talib, Rahman & Qureshi, 2010). The significance of education and training cannot be doubted in the organization's success or failure and a successful organization keeps this into consideration (Al-Nasser, Yusoff & Islam, 2013). Training and education will help the employees to perform well in their jobs and expand the knowledge base of all employees, and through the training programme, the employees can able to strengthen the skills and knowledge that each employee needs to improve (Zahari & Zakuan, 2016). Through the education and training, it cannot just improve the skills only but enhance self-esteem and pride. Knowledge and continuous learning are key elements of the infrastructure of TQM system and plays a significant role in its success, but in spite of their importance for the implementation of total quality management initiatives, which are not well regarded by top managers and quality practitioners in modern businesses (Al-Sohaim, Monstaser & Manhawy, 2016).

Providing training on quality will enhance skills of employees, especially quality-related skills (Nguyen, Phan & Matsui, 2018). They further stated that having a good policy on internal human resource is a contribution to social sustainability, and by improving skills, employees will improve the accuracy of the production processes, and in turns, reduce defects and increase the quality performance in general. To guarantee complete awareness and understanding of quality management's concepts, all employees need to be provided with the appropriate training and development since, without employee training, the organization will experience difficult times when solving production problems and also the employees' attitude and behaviour will not be focused towards the transformation to a quality culture (Aletaiby, 2018). Efforts need to be focused on an incorporated method to the instruction process when developing TQM training programmes. Appropriate TQM training of employees and managers will enhance, then develop, a positive attitude towards the process and commitment towards it as they now understand it. Effective training, good health and safety practices, and treating workers as a valuable resource can increases the firm performance (Singh, Kumar & Singh, 2018). Talib, Rahman and Qureshi (2013) in Basnet (2018) elucidated that training and education spread the knowledge of continuous improvement and innovation in service process to attain full benefits and business excellence.



Manufacturing firms throughout the world focus on the training and education paradigm as several success stories have been recorded after invading training and development session on employees in the organizations, and quality management implication cannot be initiated successfully if there are no prior training and education sessions held by the company, since employees are major stakeholders in the organization, and their role in business functioning cannot be neglected (Sweis, Ismaeil, Obeidat & Kanaan, 2019). Organizations adopting TQM practices need to give necessary training and education to all their employees to improve their proficiencies in their tasks towards quality products and services. Effective training and education in management and improvement on quality bring success for the firms, and employees' effective knowledge and learning capability that can provide sustainability of quality management in an organization (Sadikoglu & Olcay, 2014).

### **Application of TQM practices on organizations' performance**

The idea behind the implementation of total quality management systems is to ensure that adequate attention is given to quality so as to give room for an error free transactional process and less room for customers' complaints while maximizing customer satisfaction (Muiruri, 2016). He further established that satisfied customers are more willing to recommend quality service to others. Total quality management implementation improves the organizational performance by influencing other total quality management dimensions (Keinan & Karugu, 2018). Firms' implementation of TQM practices is to raise the competitive advantage, increase the profits, and become innovative in organizational productivity and performance (Bon & Mustafa, 2013).

The introduction of quality management practices is an important thing for business managers (Tisca, Cornu, Diaconu & Dumitrescu, 2015). Implementation of TQM plays a major role in improving efficiency of any organizational productivity and performance (Ray & Tripathi, 2017). TQM practices implementation has been instrumental in managing and enhancing quality thereby, increasing customer confidence and satisfaction in an organization (Jaiswal & Garg, 2018). The implementation of the TQM practices is used in the manufacturing industry to achieve organizational goals and to retain skillful and knowledgeable employee for a long period (Basnet, 2018). The implementation of quality management systems have positive effect to increasing revenue and reducing costs, improving firms' image, competitive differentiation, improve customer satisfaction, facilitate the participation in tenders nationally and internationally, control of all processes within the organization, consciousness or empowerment of workforce involvement in achieving organizational goals, understand better management decisions by the employees, leads to improved teamwork, implementation, understand a good attitude towards continuous improvement of product processing and management system of the organization and market value creation (Purwihartuti, Sule, Hilmiana & Zusnita, 2016). Implementation of total quality management practices in the organization is the lasting solution to this challenge of global competition that will bring manufacturing firms to a world-class service and improve productivity, is by providing the kind of quality products and services required for customer satisfaction, gained competitive superiority as well as better market share (Aziz, Sumantoro & Maria, 2019).

An effective implementation of TQM practices can be derived from employees' understanding of the philosophy as well as principles of implementation of TQM practices (Singh & Singh, 2014). The successful implementation of quality programs depends on employees or workforce (Milanoi, 2016). Matsoso and Olumide (2015) in their titled critical success factors towards



the implementation of total quality management in small medium enterprises: a comparative study of franchise and manufacturing businesses in Cape Town, revealed that SMEs that implemented TQM in their operations were more successful than those that did not. It was also evident that the management of customer relations was the most important critical success factor in both franchise and manufacturing SME businesses. Improving the quality of products was the most important performance measure for both entities. And recommended that enterprises should place more emphasis on operational measures to achieve more success; this will lead to improved organizational performances. The organizational benefits of implementing TQM practices include reduction of costs and cycle time, increased job satisfaction and reduced turnover of employees, increase in productivity and a good reward for all the stakeholders.

Faller (2018) in his study revealed that there is significant relationship between all the quality assurance implementation and staff performance, quality assurance implementation and management practices, and staff performance and management practices. The implementation of customer focus has facilitated improved customer satisfaction, communication with clients has improved, and the number of complaints has also reduced due to effective complaint handling thereby leading to increase in number of loyal customers (Wangui, 2018). Adopting and implementing quality management practices helped manufacturing firms to remain viable in the face of a very difficult as well as turbulent operational environment (Grayson, Nyamazana & Funjika-Mulenga, 2016).

Ozidal and Oyebamiji (2018) in their study identified nine important factors in implementation of TQM practices, which include leadership, continuous improvement, training and education, reward and recognition, communication, customer satisfaction, teamwork, employee participation and employees' satisfaction. And further stressed that leadership commitment, customer focus, reward and recognition are the most important determining factors in enhancing employees' performance and satisfaction in an organization. Proper implementation of TQM practices can be a very effective alternative or solution in improving manufacturing firms' productivity, the health care service quality, growing employees' performance and customers' or patients' satisfaction.

When reinforcing the operational performance, the manufacturing firms need to enhance the execution of TQM practices or activities. In order to enhance execution of TQM practices significantly, the manufacturing firms can improve the implementation of cost leadership and differentiation strategy and combining the characteristics of four cultures components such as group culture, developmental culture, hierarchical culture and rational culture (Chung, Hsu, & Tsai, 2010). They further revealed that implementation strategies of TQM (cost leadership and differentiation strategy) have significant influence on the execution degree of TQM activities; organizational culture significantly influences the execution degree of TQM activities; TQM activities implementation degree significantly influences operational performance (quality performance, financial performance as well as inventory management performance). One of the key determinants of the survival of manufacturing firms in doing business in a competitive and dynamic environment to continually improve and enhance their business productivity and capabilities is the implementation and application of total quality management practices (Topalovic, 2015). Total quality involves the implementation of TQM that is used to integrate business operations to create products/services with maximum quality.



## **Organizational Performance**

Performance is a key concentration of the organizations' management. The maintenance and enhancement of organizational performance is a challenge for manufacturing firms as they always try to sustain competitive advantage, and this problem can be solved through the principles of total quality management practices (Mehmood, Qadeer & Ahmad, 2014). Sutrisno (2019) emphasized that the system or method of quality continuous improvement and quality management has a fairly rapid development to answer the needs of customers both present and in the future, and TQM practices are the solution to improve quality of products and services in the manufacturing industry.

Organizational performance is the total results achieved in setting goals and objectives as well as the measured of how well resources are combined and utilized to accomplish specific needed outcomes or objectives in the organization (Ele, Okongo, & Omini, 2020). Ele, Enya, Okongo, Eja and Mbam (2021) defined organizational performance as the functions of competency, skills, abilities, knowledge and other job characteristics required with the intervening variables of effective and efficient recruitment and training of employees in an organization. Many manufacturing and service organizations adopt TQM practices as a management paradigm worldwide in solving performance problems (Alshatnawi & Ghani, 2018).

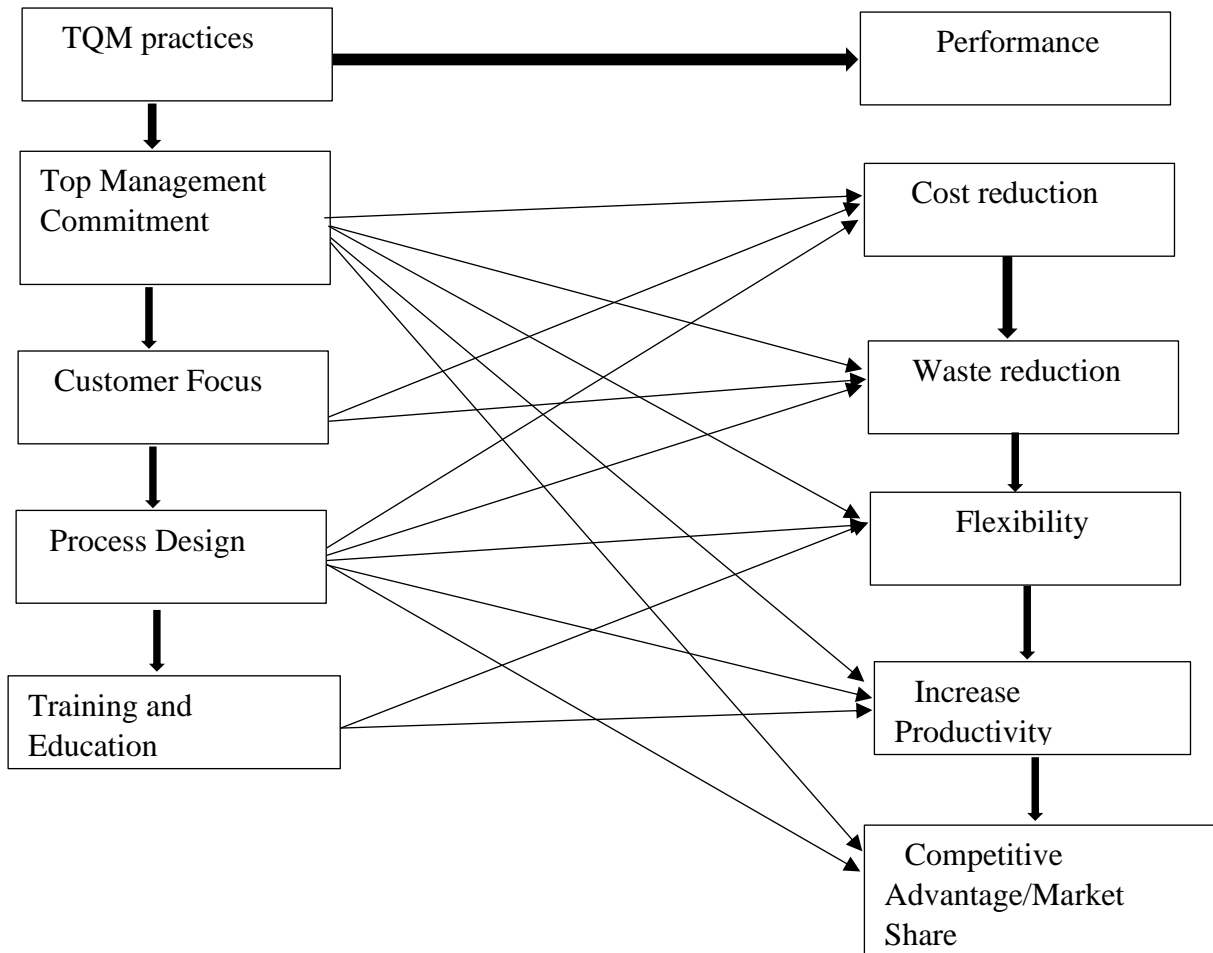
Organizational performance refers to the ability of the workforce to achieve organizational objectives and meet their targets steadily. Organizational performance is the results expected to be achieved by any company or firm at the end of any given period. It is the outcome of organizational operation which eventually causes achievement of organizational goals (Jabbarzare & Shafighi, 2019). They further explained that an improvement in organizational performance is equal to the reduction in employee turnover occurrence of costly accidents and disorders, and improvement in employees' performance, teamwork, and many more. Organizational performance is a critical element that enhances the company's success when the management of knowledge is effectively and efficiently implemented to gain a competitive advantage continuously. Managing organizational performance is concerned with aligning individual objectives and encouraging individuals to uphold its corporate core values. Organizational performance is a measure of change of the state of an organization or outcomes that result from management decisions and the execution of those decisions by members of the organization (Mwangi & Wekesa, 2017).





### CONCEPTUAL MODEL

This model was developed to show the positive effects of the application of TQM practices on organizational performance in an organization.





## Theoretical Framework

The theoretical framework of this study was anchored on Deming's Total Quality Management Theory. This Total Quality Management Theory was developed by Edwards W. Deming in 1939. Deming (1986) believed in a systematic approach to problem-solving and promoted the widely known Plan Do Check Act cycle (PCAC) of continuous improvement on quality products and services in an organization. Assumptions of Deming Quality Improvement Theory postulates that a feature of quality management doctrine is that it places responsibility for manufacturing organizations squarely at the door of top management towards continuous improvement of quality on products and services to gain competitive advantage in the business environment (Keinan & Karugu, 2018). These assumptions of Deming's quality improvement theory was based on the 14 points principles to address the problem of poor quality improvement on organizational performance. Deming's quality improvement theory provides business with a plan to eliminate poor quality control issues through effective managerial techniques basis in applying TQM practices in order to enhance performance as well as productivity of manufacturing firms in the system (Keinan & Karugu, 2018).

According to Beckford (2010) Deming's theory of quality improvement is summarized in his 14 principles of TQM, which are listed below: 1. Create consistency or constancy of purpose in bringing about improvement of products and services. 2. Adopt the new philosophy which is required to meet the challenges of a new economic age, and management is taken with providing leadership in bringing about the required changes. 3. Discontinue reliance on mass inspection and instead, build quality into the product or service. 4. Cease the practice of awarding business on price and concentrate on single supplier. 5. Develop a system of continuous improvement to provide good quality while minimizing costs. 6. Initiate on the job training during the production process. 7. Leadership is to be directed towards helping people to improved performance. 8. Eliminate an atmosphere of fear and inculcate a culture of collaborative work to benefit the organization. 9. Break down barriers and rivalries between departments by encouraging research, and design sales and production departments to see themselves engaged in a common enterprise. 10. Eliminate slogans, exhortations and numerical targets, which only serve to divide the workforce. 11. Instead of quotas or numerical goals for employees, managers should provide leadership by example. 12. Remove barriers that prevent people from taking pride in their work. 13. Initiate a vigorous quality education and self-improvement programme, and 14. Task everyone in the organization to bring about the requisite changes on quality. The main characteristics of Deming's TQM principles emphasized that quality must be involved in all process levels; reducing the quality cost must involve all employees; continuous training; aligning employee's goals with organization business goals; employee commitment; effective communication between leaders and employees; and continue development of quality standard according to the certification of ISO 2009, 2000-2015.

The value of this theory on this research work is to create a good spirit of quality culture and continuous quality improvement tendency towards quality products and services. To direct the top management commitment and training and education of workers on quality improvement of products and services. To produce quality products based on customers' focus and specifications in an organization. The theory is also necessary in this study, because it advocated continuous improvement on quality of the production processes to achieve conformance to specifications and reduce variability or changes in the production lines in order to produce quality products and services steadily.



## Empirical Reviews

Al-Saffar and Obeidat (2020) conducted a study the effect of total quality management practices on employee performance, with the moderating role of knowledge sharing in Qatar Ministry of Interior, Qatar of Jordan. The dimensions of TQM considered in the study were customer focus, employee participation, continuous improvement, leadership & good vision and operations management. The study adopted quantitative research design. Correlation analysis and regression analysis were used to test the hypotheses. The sample size was 280 respondents. A structured questionnaire was adopted using 5 points Likert scale of strongly approved (5), to strongly disapproved (1). Cronbach Alpha Coefficient was used to validate the reliability of the instrument. The study revealed that TQM practices with its dimensions had effects on employee performance through knowledge sharing. The study recommended that TQM practices contribute to develop and implement different strategic directions that enhance the performance of employees through the adoption of TQM and the dissemination of a culture of knowledge sharing.

Worlu and Obi (2019) examined total quality management practices and organizational performance using Cway Water Group, Lagos as a case study. Descriptive research design was adopted. Primary data were gathered from respondents through a structured questionnaire using 5 points Likert scale of strongly agreed, agreed, undecided, disagreed and strongly disagree. 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 with regression and correlation analysis using SPSS statistical software. The study revealed that TQM has significant effect on organizational performance. The study also revealed that TQM has positive effect on customer satisfaction. The result also showed that total quality management practice has significant effect on corporate performance. The study recommended that top management of organizations should make TQM practices top priority in their operations in the interest of sustainable performance.

Oparinde (2019) had a study on top management commitment to total quality management as a correlate of customer satisfaction in the Nigerian Banking Sector. The descriptive survey design was adopted for this study and primary data was collected with the use of a self-structured questionnaire from one hundred and thirty-six (136) randomly selected respondents among the employees of Access Bank Plc. (27); First Bank Nigeria Limited (35); Guarantee Trust Bank Plc. (30); United Bank for Africa (24); and WEMA Bank (20), in Akoka, Yaba Local Government Area of Lagos State, Nigeria. The sample size was statistically determined through the use of Taro Yamane formula of 1967. The hypotheses were tested using Pearson Product Moment Correlation Coefficient at 0.05 level of significance, with the aid of the Statistical Package for Social Scientists (SPSS 21.0). The study revealed that an increase in the Nigerian Banking Sector top management commitment to total quality management will imply increase in TQM implementation; increase in the involvement of money deposit banks' staff in the TQM implementation process is also tantamount to an increase in the total quality management implementation; and that implementation of total quality management significantly correlates increase in customer satisfaction in the Nigerian banking sector. The study recommended that the top management of the Nigerian banking sector should be committed to total quality management and involve employees in its implementation. The employee should also exhibit the best behaviour and manner in relating with the customers, as this will have a direct impact on the customers' impression concerning the quality of service provided.



Okeoma (2019) had a study on total quality management and organizational effectiveness in selected breweries in South East Nigeria. The study employed survey research design. The data were obtained through structured questionnaire. The variables considered were customer focus, strategic quality planning, supplier quality management, and knowledge and process management as well as organizational effectiveness. The population was 2039 respondents. The sample size was 398 Multiple Regression analysis model using SPP version 21, was used to test the hypotheses. The Ordinary Least Square (OLS) regression technique was adopted to analyze the relationship between dependent variables and the independent variables in each of the model. The study revealed that customer focus has significant and positive relationship with organizational effectiveness. Strategic quality planning was also found to have significant positive relationship with organizational effectiveness. Supplier quality management was also found to have significant and positive relationship with organizational effectiveness. The study also revealed that knowledge and process management have significant positive relationship with organizational effectiveness. The study recommended amongst others that breweries in South East Nigeria should improve employee involvement/skill and firm structure and allocate sufficient resources to implement total quality management successfully. That top management in organizations should continue their effort in considering total quality management as a priority for their company in the future and involving the company to TQM implementation at all levels. The study concluded that total quality management has significant positive relationship with organizational effectiveness in the selected breweries in South East Nigeria.

Ezenyilimba, Ezejiolor and Afodigbueokwu (2019) had a study on effect of total quality management on organizational performance of deposit money banks in Nigeria. The study employed survey research design. The population was 15 quoted deposit money banks in the Nigeria Stock Exchange. The sample size was 135 respondents using Cochran's equation of infinite population. Primary data was used through a structured questionnaire with 5 points Likert scale of SA, A, U, SD and D. the statistical tool employed in the study was t-test with the help of Statistical Package for Sciences (SPSS) version 20.0. The study revealed that the application of total quality management practices affect customer satisfaction in Nigerian deposit money banks; also total quality management practices affect customer's continuous loyalty in Nigerian deposit money banks and that the application of total quality management practices has assisted in achieving improved quality output and reduced cost. And concluded that TQM practices have direct effects on operating performance, and improving operating performance brings in the rise of customer satisfaction and improvement of financial performance.

Anam (2018) examined the impact of total quality management practices on organizational performance of SMEs in Pakistan. The study adopted survey research design. The sample size was 80 respondents determined through Simple random sampling technique. Data were obtained from primary sources with the aid of close ended questionnaire. 58 copies of the questionnaire were returned back to the researcher. Correlation coefficient and regression model using Statistical Package for Social Sciences was used to analyze the data collected in testing the hypotheses. The study revealed that there was a positive relationship between implementation of TQM practices (top management commitment, customer focus, supplier quality management, process management) and organizational performance. And concluded that TQM practices will be used as valuable and accurate reference for managers to formulate strategies or plans to improve quality and enhance organizational productivity in organizations.



Rawashdeh (2018) conducted a study on the effect of total quality management on firm performance, empirical study from Jordanian private airlines. The study adopted quantitative approach. Data was obtained by structured questionnaire instrument. The population of the study was 480 employees. Random and stratified sampling was used in selecting 390 respondents. 340 copies of questionnaire were completed and analyzed as a final sample. The data were analyzed with Mean, Standard deviation, Percentage, and Pearson correlation coefficient model using statistical package for social science (SPSS 20). The study revealed that effective implementation of total quality management practices such as supplier management, customer focus, leadership, process management, information and analysis, people management, strategic planning and continuous improvement results in enhancing private airlines performance. Total quality management practices, mostly, has been associated directly with improved corporate performance and sustainable competitive advantage. It was recommended that airline's management shall ensures that investing substantial resources in adapting and implementing total quality management practices in their operations would be valuable to create and sustain superior airline performance.

Basnet (2018) conducted a study to examine the impact of total quality management practices on employees' job involvement in Nepalese manufacturing industry. Convenience sampling technique was used to select the industries and respondents and their offices of selected industries are in Kathamandu and Chitwan district through the use of structured questionnaire. Data collected was analyzed by using correlation and sample regression analysis models. The sample size was 450 respondents. Out of 450 copies of the questionnaire that were distributed to all managers, senior officials and junior official in these industries, 405 copies of the questionnaire were returned, and only 384 copies of the questionnaire were usable. In this study, TQM practices considered are customer focus, training and education, teamwork, and organizational culture. The Cronbach's alpha was used to test the reliability of the instrument. Quantitative and correlational research designs were used. The study revealed that customer focus, training and education, teamwork, and organizational culture are positively associated with employees' job involvement. The study also revealed that customer focus has a positively significant effect on employees' job involvement. And that customer needs and expectations are associated with job involvement and more favorable perceptions of the work outcome. The study also specifies that training and education have a positive effect on employees' job involvement. The study also found that teamwork has a significant positive effect on employees' job involvement, and that organizational culture has a significant positive effect on employees' job involvement. Regarding practical implications, given the direct influence of certain TQM practices on employees' job involvement, the top management in the organization should conduct formal TQM programs for all new employees and provide their existing employees with continuous formal training and education program (on- the- job as well as off- the- job) in order to gain employees' attitudes and subsequently reduce their turnover rate.

Abuo, Nwachukwu and Ezeokonkwo (2018) had a study on evaluation of the factors affecting application of total quality management in building constructions in Nigeria using evidence from Calabar. The descriptive survey research design was adopted. Data were collected primarily from desk and field survey. A sample size of four hundred and fifty-five (455) respondents were determined using the Taro Yamane (1967) formula, comprising of senior managers, project managers, engineers, architects, quantity surveyors, and technical managers were used. The study used descriptive statistics and principal component method of factor analysis aided by Statistical Package for Social Sciences (SPSS) software of version 25 to





analyze the data. The study showed that the major factor to this effect is management support (with a component score of 0.365) while the least to this effect is staff training (with a component score of 0.263). Specifically, the study revealed that the major factor to this effect is inadequate management support. The State government of Cross River should set up monitoring and control team to ensure that project team members do not compromise on quality of products and standards in the construction industry, which will help to prevent quacks from carrying out construction jobs, and ensure that right quantity and quality of materials are used in building construction projects. All local planning authorities approving building plans should be properly organized and adequately staffed with the right professionals to enforce all building laws, regulations and codes. The construction firms should begin to insist that their suppliers show evidence of quality certification in order to enjoy patronage.

Keinan and Karugu (2018) had a study total quality management practices and performance of manufacturing firms in Kenya using Bamburi Cement Limited as a case study. The study adopted descriptive research design. The population of the study was 165 management staff employed at Bamburi Cement in Kenya. The sample size was 42 respondents using stratified random sampling technique. The study used a semi-structured questionnaire administered using a drop and pick later method. The questionnaire had both open and close-ended questions. Data collected was purely quantitative and was analyzed by descriptive analysis. The descriptive statistical tools such as Statistical Package for Social Sciences (SPSS Version 21.0) and MS Excel was used to extract frequencies, percentages, means and other central tendencies. Tables and figures were also used to summarize responses for further analysis and facilitate comparison. A multiple regression analysis was used to determine the relationship between the variables. The study that there is a positive and significant relationship between customer focus, top management commitment, continuous improvement and employee involvement and operational performance of Bamburi Limited. The top management commitment also influences positively on performance but there is need for strategy development and stakeholder involvement to foster performance. The study recommended that for Bamburi and manufacturing institutions to perform optimally there is need for improved strategy formulation and implementation geared towards TQM practices. And that TQM practices should be embraced by all the Manufacturing industry players to ensure adhered to shareholder requirements and customer needs. For operational performance to improve, there is need for all TQM practices to be intertwined towards improving performance of the employees and as a result organization.

## METHODOLOGY

The study employed a survey research design. The population was four hundred and sixty three (463), which comprises of all the staff of Lafarge Africa Plc. Calabar, Cross River State excluding the security officers. The sample size was two hundred and Ten (210) using Krejcie and Morgan Table of 1970 for sample size determination. The study make used of primary source of data. The instrument for data collection was a structured questionnaire using 5 points Likert scale of SA (5), A (4), U (3), D (2), and SD (1), administered on 210 respondents. The structured questionnaire was validated by expert in the research area. The reliability test was conducted and analysed using Cronbach Alpha Coefficient. The result of the alpha coefficient index ( $\alpha$ ) of 97% from the pilot test was considered adequately reliable for the instrument to be considered reliable. The study adopted Simple Linear Regression Model (LRM), using



Statistical Package for Social Sciences (SPSS) version 23, to analyze the data and test the hypotheses.

In this model, the data generated from the structured questionnaire was used through conversion process.  $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \epsilon$ . Where; Y = Performance;

$X_1$  = Top management commitment;  $X_2$  = Customers' focus;  $X_3$  = Process design;  $X_4$  = Training and education on quality.  $\beta_0, \beta_1, \beta_2, \beta_3, \beta_4$  and  $\beta_5$  are the coefficient of the variables.  $\epsilon$  is the error term.

### Test of hypotheses

$H_{01}$ : The application of top management commitment does not has a positive effects on organizational performance of Larfarge Africa Plc. Calabar, Cross River State.

$H_{a1}$ : The application of top management commitment has a positive effects on organizational performance of Larfarge Africa Plc. Calabar, Cross River State.

### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.813 <sup>a</sup>	.661	.659	.347

a. Predictors: (Constant), Top Mgt. commitment

### ANOVA<sup>a</sup>

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	48.638	1	48.638	404.906	.000 <sup>b</sup>
	Residual	24.985	208	.120		
	Total	73.624	209			

a. Dependent Variable: Organizational Performance

b. Predictors: (Constant), Top Mgt. Commitment

### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.602	.106		24.539	.000
	Top Mgt commitment	.490	.024	.813	20.122	.000

a. Dependent Variable: Organizational Performance



From the estimated results shown above, the null hypothesis was rejected, while the alternative hypothesis was accepted which stated that the application of top management commitment has a positive and significant effects on organizational performance of Larfarge Africa Plc. Calabar, Cross River State.

Ho<sub>2</sub>: The application of customer focus on quality does not has a positive effect on organizational performance of Larfarge Africa Plc. Calabar, Cross River State.

Ha<sub>2</sub>: The application of customer focus on quality has a positive effect on organizational performance of Larfarge Africa Plc. Calabar, Cross River State.

### Model Summary

Model	R	R Square	Adjusted Square	R Std. Error of the Estimate
1	.810 <sup>a</sup>	.657	.655	.349

a. Predictors: (Constant), Customer Focus

### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	48.353	1	48.353	397.992	.000 <sup>b</sup>
	Residual	25.271	208	.121		
	Total	73.624	209			

a. Dependent Variable: Organizational Performance

b. Predictors: (Constant), Customer Focus

### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.621	.106		24.715	.000
	Customer Focus	.493	.025	.810	19.950	.000

a. Dependent Variable: Organizational Performance

From the estimated results shown above, the null hypothesis was rejected, while the alternative hypothesis was accepted, which stated that the application of customer focus has a positive and significant effect on organizational performance of Larfarge Africa Plc. Calabar, Cross River State.

Ho<sub>3</sub>: The application of process design on quality does not has a positive effect on organizational performance of Larfarge Africa Plc. Calabar, Cross River State.

Ha<sub>3</sub>: The application of process design on quality has a positive effect on organizational performance of Larfarge Africa Plc. Calabar, Cross River State.



### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.775 <sup>a</sup>	.601	.599	.376

a. Predictors: (Constant), Process Design

### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	44.276	1	44.276	313.796	.000 <sup>b</sup>
	Residual	29.348	208	.141		
	Total	73.624	209			

a. Dependent Variable: Organizational Performance

b. Predictors: (Constant), Process Design

### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.771	.111		24.982	.000
	Process Design	.470	.027	.775	17.714	.000

a. Dependent Variable: Organizational Performance.

From the estimated results shown above, the null hypothesis was rejected, while the alternative hypothesis was accepted which stated that the application of process design on quality has a positive and significant effects on organizational performance of Larfarge Africa Plc. Calabar, Cross River State.

Ho<sub>4</sub>: The application of training and education on quality does not has a positive effect on organizational performance of Larfarge Africa Plc. Calabar, Cross River State.

Ha<sub>4</sub>: The application of training and education on quality has a positive effect on organizational performance of Larfarge Africa Plc. Calabar, Cross River State.

### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.796 <sup>a</sup>	.633	.631	.360

a. Predictors: (Constant), Training & Education

**ANOVA<sup>a</sup>**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	46.599	1	46.599	358.652	.000 <sup>b</sup>
	Residual	27.025	208	.130		
	Total	73.624	209			

a. Dependent Variable: Organizational Performance

b. Predictors: (Constant), Training & Education

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.647	.110		24.001	.000
	Training & Education	.496	.026	.796	18.938	.000

a. Dependent Variable: Organizational Performance

From the estimated results shown above, the null hypothesis was rejected, while the alternative hypothesis was accepted which stated that the application of training and education of workers on quality has a positive and significant effect on organizational performance of Larfarge Africa Plc. Calabar, Cross River State.

**DISCUSSION OF FINDINGS**

Based on the hypotheses tested, the study revealed that the application of top management commitment to quality has a positive and significant effects on organizational performance of Larfarge Africa Plc. Calabar, Cross River State. The finding is in line with the finding of Oparinde (2019) which found that an increase in the Nigerian Banking Sector top management commitment to total quality management implied an increase in TQM implementation. Anam (2018) also asserted that there was a positive relationship between implementation of TQM practices (top management commitment, customer focus, supplier quality management, process management) and organizational performance in an organization. Al-Saffar and Obeidat (2020) also asserted that TQM practices with its dimensions had effects on employee performance through knowledge sharing. Worlu and Obi (2019) also found that total quality management practice has significant effect on corporate performance. Abuo, Nwachukwu and Ezeokonkwo (2018) also affirmed that the major factor affecting the implementation of TQM practices was management support (with a component score of 0.365) while the least to this effect was staff training (with a component score of 0.263). Keinan and Karugu (2018) asserted that top management commitment also influences positively on performance, but there is need for strategy development and stakeholder involvement to foster performance. Oruma, Mironga





and Muma (2014) also found that top management leadership has statistically significant and positive effect on implementation of TQM practices in an organization. Sutrisno (2019) also asserted that the application of soft and hard TQM elements can lay the foundation for improving operational performance and achieving organizational performance, and that operational performance which is influenced by the aspects of soft and hard elements of TQM has a significant effect on corporate organizational performance. Ezenyilimba, Ezejiofor and Afodigbueokwu (2019) affirmed that the application of total quality management practices affect customer satisfaction in Nigerian deposit money banks.

The study also found that the application of customer focus on quality has a positive and significant effect on organizational performance of Larfarge Africa Plc. Calabar, Cross River State. Rawashdeh (2018) found that effective implementation of total quality management practices such as customer focus, supplier management, leadership, process management, information and analysis, people management, strategic planning and continuous improvement results in enhancing private airlines performance. Okeoma (2019) affirmed that customer focus has significant and positive relationship with organizational effectiveness. Chepkech and Cheluget (2017) also found that customer focus has an effect on organizational performance. Ezenyilimba, Ezejiofor and Afodigbueokwu (2019) also asserted that total quality management practices affect customer's continuous loyalty in Nigerian deposit money banks and that the application of total quality management practices has assisted in achieving improved quality output and reduced cost.

The study also revealed that the application of process design on quality has a positive and significant effect on organizational performance of Larfarge Africa Plc. Calabar, Cross River State. Irungu and Were (2016) also established that continuous process improvement had a positive effect on the performance of animal feed firm manufacturers. Anam (2018) also found that process management and design has a significant impact on organizational performance of SMEs. Rawashdeh (2018) also affirmed that process management has a positive effect on a firm performance. Betinah, Ojabo and Alagah (2018) also asserted that process improvement as well as product improvement has a significant relationship with organizational success of manufacturing firms in River State, Nigeria. Sutrisno (2019) also affirmed that process management has a positive relationship with organizational performance.

The study also revealed that the application of training and education on quality does not has a positive effect on organizational performance of Larfarge Africa Plc. Calabar, Cross River State. The result was supported with the finding of Basnet (2018) which found that training and education has a positive effect on employees' job involvement in an organization. Sweis, Ismaeil, Obeidat and Kanaan (2019) affirmed that training and education has a significant impact on organizational performance.

### **Managerial Implications**

If TQM practices are appropriately applied, it support the organization in enhancing organizational performance and gaining competitive advantage in the market place. The application of TQM practices such as top management commitment to quality, customer focus, process or product design, and training and education will help to increase quality performance of manufacturing firms by producing quality products and services in the system. Apparently, TQM practices are considered as driving forces contributing to performance of manufacturing firms in the business environment. It also provides empirical support that the application of



TQM practices in manufacturing firms helps in the growth and development of the firms' performance and survival. This will also help manufacturing firms to put in more efforts and commitment in adopting good TQM practices in order to enhance competitive advantage steadily in the market place.

## **CONCLUSION**

TQM practices are set of activities that direct and control the application of quality approaches and principles towards the continuous improvement on quality of products and services in an organization in order to gained competitive advantage and increased market share in the business environment. TQM practices are set of variables that served to amplify the manner at which quality approaches and principles are implemented in order to produce quality products in the society. The current study confirmed that the application of TQM practices such as top management commitment to quality, customer focus, process/product design, and training and education of workers on quality has a positive and significant effect on organizational performance. Effective application of TQM practices will provides lasting solution to the problem of poor quality products and poor products standards in the society. This is because, TQM practices has proving to be the best internal and external mechanisms or measures in manufacturing of quality products and services to maintain competitive position in the business environment or market place.

## **RECOMMENDATIONS**

Based on the findings, the following recommendations were made:

1. The management of the organization should put in more efforts and commitment to quality issues and decisions in order to improve quality products and services continuously.
2. The management should also ensure that quality of products are maintain based on customers specification and expectations in order to enhance organizational performance steadily.
3. The management should design the product and production processes based on quality standards set or established by SON and NAFDAC in the system in order to improve performance steadily.
4. The management of the organization should ensure that workers are regularly train and educated on quality issues in order to produce quality products on a continuous basis.



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