# Quality Assurance in Organizations: The Role of TQM and ISO 20700 as Panacea for effective Performance and Sustainability in Selected Companies in Nigeria

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**Abstract**

The paper examined the role of Total Quality Management (TQM) and ISO-20700 as a panacea for effective organizational performance and sustainability among selected moribound companies in Nigeria. The objective of the paper was to appraise the role of these quality management systems in Nigerian organizations with particular reference to Ajaokuta Steel Rolling Mill, Jos International Breweries and the Benue Cement company, with a view to preventing a reoccurrence and reviving those that are still dormant. The paper argues that if ISO and TQM principles are applied to these companies, they would be revived. Apart from these, the political will, competence of employees, and other counter productive work behavior, if checked, would reposition reinvigorate and regineer these organizations to greater performance. When these management principles are applied it would not only sustaining organizations, but would resursitate the moribound companies in the country. Findings show that the Ajaokuta Steel Rolling Mill, which was projected to provide over 30,000 jobs, has been comatose since its inception in 1979. Other companies like Jos International Breweries (JIB) and the former Benue Cement Company (BCC) Gboko among others failed largely due to the lack of political will and mismanagement. The paper concludes that a critical national asset like the Ajaokuta Steel Company must not be allowed to rot away considering its centrality in the building industry which is the gateway to socio-economic and infrastructural development of the country. It therefore recommends that the total quality management mantra be adopted in reinvigorating and reviving Moribound companies and even existing ones in the country. These quality management systems enhance effectiveness going by their principles which provide the enabling environment for business to thrive, with the resultant performance.

**Key Words:** Total Quality Management, ISO 20700, Organizational Effectiveness, Performance, Sustainability.

## Introduction

Organizations exist for many reasons to provide quality services if they are service organizations, and of course manufacturing organizations that produce goods or products for consumers. In the process of producing goods and services organizations have adopted a culture and core values of competencies, honesty, accountability and quality as the organization's core values. This, the organization believes, would enable it to attain set goals, vision, mission and objectives which the organization sets out to achieve.

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Total quality management (TQM) describes a management approach to long-term success through customer satisfaction. In a TQM effort, all members of an organization participate in improving processes, products, services and the culture in which they work. It is a management approach to long-term success through customer satisfaction. It is a management system for a customer-focused organization that involves all employees in continual improvement. It uses strategy, data and effective communications to integrate the quality discipline into the culture and activities of the organization.

Some of the principles of Total Quality Management include: Customer focused: The customer ultimately determines the level of quality. No matter what an organization does to foster quality improvement, training employees, integrating quality into the design process, upgrading computers or software, or buying new measuring tools, the customer determines whether the efforts were worthwhile.

Total employee involvement: All employees participate in working towards common goals. Total employee commitment can only be obtained after it has been driven from the workplace, when empowerment has occurred and management has been driven from the workplace, and when empowerment has occurred and management has provided the proper environment. High-performance work systems integrate continuous improvement efforts with normal business operations. Self-managed work teams are one form of empowerment.

**ISO 20700**

The document of the standard was prepared by project committee ISO/PC-280. Management service: It provides formal guidelines of good practice in management. This document development started in Milano, February 2014 and finished in Beijung, January, 2016, with publication in June 2017. The ISO20700 seeks to improve transparency and understanding towards achieving better results from projects.

ISO is an abbreviation of the International Standard Organization (ISO) founded in London, United Kindom on 23 February 1947. ISO is an independent non-governmental, international standards setting body. ISO has a membership of 162 national standards bodies. ISO has set over twenty thousand proprietary, industrial and commercial standards, covering everything from manufactured products and technology to food safety, agriculture and health-care, etc. These standards constitute a Quality Management System (QMS).

The UK Department of Trade defines QMS as a set of coordinated activities to direct and control an organization in order to continually improve the effectiveness and efficiency of its performance. Wikipedia.org defines it as a collection of business process focused on achieving quality, policy and quality objectives to meet customer requirements. Hawils (n.d) defines it as the totality of organizational processes, people, internal controls, resources and goals focused on producing a given output that meets defined specifications. It is expected that if organizations adopt and implement ISO, 20700 and TQM, it would strengthen such organizations especially the Moribound ones like the Ajaokuta Steel Rolling Company, Jos, International Breweries, and many more in the country.

**Process-centered**

A fundamental part of Total Quality Management (TQM) is a focus on process thinking. A process is a series of steps that take inputs from suppliers (internal or external) and transforms them into outputs that are delivered to customers (again, either internal or external).The steps required to carry out the process are defined and performance measures are continuously monitored in order to detect unexpected variation. An organization's sustainability depends on its ability to build and maintain sustainable relationships with all of its key stakeholders including the broader community (Perrini & Jencati, 2006). As a way of responding to this challenge, many organizations are now including additional dimensions relating to social and environment-related performance within their external financial reporting (eg, Triple Botton Line (TBL) that may now be captured within a Corporate Social Responsibility (CSR) perspective of a MPMS).

This CSR perspective encompasses different stakeholder's facets, including economic sustainability, customer loyalty, supplier satisfaction, environmental sustainability, community acceptance and employee morale. Total Quality Management (TQM), upheld as the management concept and practices, continues to evolve into more specific areas and keeps attracting attention (Beu-Liusar et al, 2009; Molina et al, 2007; Yeung et al, 2006; Nair, 2006). Recent studies of TQM in Malaysia have brought to the fore different issues that spread across industries. For example several authors speak of service quality (Ramayah et al, 2011; Sia &Muthusamy, 2011; Ramid et al, 2009), quality practices and quality costs in manufacturing company (Cheah et al, 2010; Islam &Karim, 2011) TQM implementation in the small Medium Enterprises (SME) (Abdullah, 2010), TQM/ISO and the contextual fit (Abdullah &Ahmad, 2009), TQM and organizational performances such as customer satisfaction operational flexibility and avoiding conflicts (Idris et al 2010; Wen et al 2009; Wan Yusoff et al 2010; Arumugam et al 2009; The et al, 2009) and TQM relations with other organizational functions such as the HRM (Ooni et al, 2009; Hassan 2010).

Among the still debated issues concerning those studies are the factors of TQM which would lead to improving various organizational performances. Wen et al. (2009), for example, suggest that leadership, customer focus, information and analysis and human resources focus are found to have significant and positive association with customer satisfaction as perceived by Malaysian Service Sector's Managers. In another important TQM study, Dow et al. 1999) conclude that only three dimensions: employee commitment, shared vision and customer focus yield a positive correlation with quality outcomes.

Organizations that adopted these quality management principles like the United States of America, United Kingdom, Japan and other western European countries have recorded successes. It is very obvious that TQM and ISO 20700 were not envisaged by the management of JIB and Ajaokuta Steel Company. ISO 20700 is a recent management upgrade. TQM is mainly concerned with continous improvement in all work, from high level strategic planning and decision making, to detailed execution of work elements on the shop floor. It stems from the belief that mistakes can be avoided and defects can be prevented. It leads to continuosly improving results, in aspects of work as a result of continuously improving capabilities, people, processes, technology, and machine capabilities.

It is instructive to note that these industries being studied formerly provided gainful employment for millions of Nigerians which helped address many social problems associated with unemployment. Thus, a study aimed at resurcitating them is imperative.

**Scope of Study**

The paper is concerned and centered on Ajaokuta Steel Company Limited (ASCL) popularly known as Ajaokuta Steel Mill. It is located in Ajaokuta, Kogi State of Nigeria. Built on a 24,000 hectares (59,000 acres) site, the company started operations in 1979 and is the largest steel mill in Nigeria. The company has not been operational since its inception 1979. The project was undertaken by the Soviet Union, under a cooperation agreement with Nigeria. In 1967, Soviet experts recommended prospecting for iron ore in Nigeria as the known deposits were of poor quality for steel making.

In 1979, iron of the required quality was discovered in Itakpe, Ajabanoko and Oshoko-shoko. The Ajaokuta Steel Company Limited was incorporated in 1979 and the steel mill reached 98% completion in 1994, to supply the Ajaokuta Steel Mills with raw materials and connect it with the world market.

A contract was awarded in 1987 for the construction of Nigeria's first standard gauge railway from the iron mines at Itakpe to the steel mill at Ajaokuta to Warri. However, both projects have been abandoned.

**Benue Breweries Nigeria Limited, Makurdi**

This was one of the largest projects executed by the then first executive governor of Benue State, Mr. Aper Aku, between 1979 and 1983. This project and others like Taraku Oil Mill left his footsteps indelible in the industrial history of the state.

The company was incorporated in 1978 as a limited liability company in accordance with the provision of companies Decree of 1968, which has been replaced with Allied matters Act of 1990 as amended and the name being Benue Breweries Limited.

The company, however, became distressed and moribound and was sold to International Beer and Beverage Industries (IBBI), Kaduna due to a number of factors which may include mismanagement and other factors.

The company was later acquired by the Nigerian Breweries in 2015.

**Jos International Breweries (JIB)**

This company was established in 1975 following a tripartite investment agreement signed between the government of Plateau State, the Danish firms of Zlere Kem International Limited and the Industrialization Fund for Developing Countries (IFDC). This company has since remained moribound.

It is emphasized that these companies may have become moribound not necessarily due to lack of

TQM and ISO 20700 but the roles of these management systems could have made a difference.

**Justification for the Role of TQM and ISO 20700**

The suggested role of these quality management system as a result of the principles embedded in these Quality System create the right platform and enabling environment for businesses to thrive, interms of motivation, team work, continuous improvement among others. It is the submission of this paper that the principles embedded in Total Quality Management (TQM) and ISO 20700 are the panacea for organizational effectiveness, performance and sustainability in industrial organizations.

The various incidences of collapsed buildings substandard products, fake and adulterated drugs, and collapsed bridges in the construction industry are manifestations of system failure. It is particularly important to stress that the Ajaokuta Steel Rolling Mill represents economic benefit in Nigeria's industrialization drive. Therefore, reviving this strategic national asset is cricial to the national development of the country, Nigeria.

Finally, the mistakes made with regards to the moribound companies in terms of mismanagement must not and never be allowed to reoccur. The issue of Ajaokuta Steel Company is even very disturbing because of its strategic importance to the development of the country, especially in the building and construction industries.

Nigerian industries and organizations need to be kept afloat to absorb the ever increasing number of the unemployed youths who are the future leaders of the country.

**Conceptual/Theoretical Review**

Organizations and businesses use quality management systems to improve the efficiency of their processes, which can help increase profitability. Total quality management systems use a variety of tools and theories to empower employees, build a team atmosphere and focus on the voice of the customer to deliver quality products on time to customers.

**Total Quality Management (TQM)**

Total quality management describes a management approach to long-term success through customer satisfaction (Porter, 2005). In a TQM effort, all members of an organization participate in improving processes, products, services and the culture in which they work. Total Quality Management (TQM) consists of organization-wide efforts to install and make permanent a climate in which an organization continuously improves its ability to deliver high quality products and services to customers (Sila 2007).

**ISO-20700**

The document was prepared by project committee ISO/PC-280 management consultancy. It provides formal guidelines of good practice in management service. The development of this document started in Milano, February, 2014 and finished in Beijing, January, 2016, with publication in June 2017. The benefits of ISO-20700 include enhanced customer satisfaction, assurance of quality, improved process management, among others.

**Effective Organization**

Organizational effectiveness is defined as how successfully, organizations achieve their missions and their ability to adapt to the expectations of the external environment, (Herman & Renz, 1998). It is also defined as the measure of how successfully organizations achieve their missions through their core strategies. Effectiveness studies are concerned with the unique capabilities that organizations develop to assure their success. (Jamrog & Overholt, 2005). The concept is also defined as the ability of organizations to adapt, manipulate or fulfill the expectations of the external environment (Cameron 1978).

The following is one among approaches frequently used to define and assess OE.

- Goal Achievement Model: This traditional model which relies on a vision of the organizations orientated towards the achievement of goals, maintenance of that effectiveness is measured in terms of accomplishment of outcomes. The focus is exclusively on the ends- i.e the achievement of goals, objectives, and targets, among others

**Sustainable Performance**

Sustainable performance improvement in general means the ability of an Organisation to continuously carry out its activities and services in pursuit of its statutory objectives, while still performing at a higher level and improving from time to time. The sustainable performance may be in the form of operational sustainability, financial sustainability, continuous customer satisfaction and all time employee satisfaction. The implementation of TQM can be beneficial to Nigerian orgnaisations or moribound organisations when the principles of TQM are effectively adopted. Effective implementation of TQM will increase customer satisfaction and innovations as it empowers employees to make decisions that affect their jobs. The improvement in quality can result in increased market share and profitability.

**TQM Models and Service Delivery**

The development of quality management system has substantially been influenced by quality experts like Deming, Juran, Crosby, Feigenbaum and Ishikana, etc. The main theme of Deming is that increased productivity will result in improved firm's competitiveness (Franks 2009). For Demnig, the quality improvement of a firm's processes will result in less rework. He stressed the importance of continuous improvement of the system of production and service. Management, he maintains, should continuously reduce waste and improve the quality of every activity in the company in all its functions.

Sustainable performance improvement means the ability of an organization to continuously carry out a higher level improvement from time to time. The sustainable performance may be in the form of operational sustainability, financial sustainability, continuous customer satisfaction and all the time employee satisfaction.

The implementation of TQM can be beneficial to the organization, when the principles are effectively adopted. Effective implementation of TQM will increase customer satisfaction and innovations as it empowers employees to make decisions that affect their jobs. The improvement in quality can result in increased market share and profitability (Porter 2005). Porter noted that constant improvement in the effectiveness of operation is essential but not a sufficient factor for organization to be profitable.

According to Sila (2007), TQM helps in improving the quality of products and also reduces the scrap, rework and the need for buffer stock by establishing a stable production system. He argued that TQM will reduce the cost of production and time of production.

**Theoretical Review**

This paper is anchored in the theoretical model of Kaizen. Kaizen in the western world is a Japanese word commonly translated to mean continous improvement.

Kaizen is a core principle of quality management generally and specifically within the methods of Total Quality Management, and manufacturing.

The model was originally developed and applied by Japanese industries and manufacturing in the 1950s to 60s. Kaizen continues to be a successful philosophical and practical aspect of some of the best known Japanese corporations and has for many years been interpreted and adopted by western organizations all over the world. Kaizen is a way of thinking working and behaving, embedded in the philosophy and values of the organization.

The aims of a Kaizen organization are typically defined as

- To be profitable, stable, sustainable and innovative.
- To eliminate waste, money, materials, resources and effort and increase productivity.

The model of Kaizen has recorded successes in Japan, United States of America, the United Kingdom and other Western European countries.

**Conclusion**

The paper examined the role of Total Quality Management (TQM) and ISO 20700 in organizations with particular reference to selected moribound companies namely: Ajaokuta Steel Rolling Mill, Jos International Breweries and the Benue Breweries Makurdi. Also, the Benue Cement Company (BCC) which could not perform and was acquired by the Dangote Group.

**Recommendations**

This paper recommends that the total quality management mantra be adopted in reinvigorating and reviving Moribound companies and even existing ones in the country.

Recruitment, selection and placement of newly employed should be done on merit and competencies in line with global best practices.

Finally, professional bodies like Nigerian Institute of Management (NIM), Nigerian Society of Engineers (NSE), etc. should be fully involved in the design and management of organizations for optimum performance.

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