

## **Benchmarking as a Tool of TQM in the Delivery of Quality Services/Products**

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**Abstract:** *The strategic utilization of benchmarking as a tool in TQM for achieving product and service quality in a holistic manner has not yet been fully studied in Nigeria. This observation led to the overall objective of this study, which is to investigate benchmarking as a tool of TQM in the delivery of quality services/products in Nigeria. Companies operating in Nigeria, like Dangote, Globalcomm, Chivita, and Hollandia have continued to replicate quality performance in distribution, customer service and service/product quality. This continuous quality process has led to their constant acceptance by consumers. Competitive benchmarking has been of help to table water companies such as Edomat Water, Woodland Water and Water First in Benue State, Nigeria. These companies constantly re-evaluate their processes, activities and quality performance to conform to that of competitors like Eva water (Coca Cola) and Swan Water. Olam Nigeria Ltd has been known to effectively and efficiently utilize contract strategies as used by other firms in executing contract farming in Nigeria. This has enabled smooth value chain integration in agriculture. Even the Nigerian government utilizes the generic benchmarking tool to furnish and enact enabling policies. Organisations need to have a partnership agreement with highly performing firms so as to exchange information, processes, techniques, technology, innovation etc. that will be of help to them; a synergy should be designed to align organizations with exemplars so as to improve generic benchmarking component that would greatly enhance quality. Benchmarking is a possible way to get ahead and to stay ahead of competitors, since through benchmarking an organisation may compare itself with the best-in-class existing organisation in the same business; the organisation only learns from process, procedure, approach, strategies, steps, etc. that has already been proven as effective or successful in the best benchmarked organisation.*

**Key words:** *Benchmarking, best-in-class, competitors, exemplars, quality, total quality management*

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### **1. Introduction**

In today's highly competitive, rapidly changing global economy organizations have been forced to consider, and in many cases adopt or implement, a wide variety of innovative management program and techniques (Agus and Hassan, 2009). One such program that has been used extensively is a holistic management philosophy known as Total Quality Management (TQM). However, Total Quality Management (TQM) would only be successfully implemented in an

organization if management are committed and supported a life-long process of improving continuously in comparison with competitors by constantly benchmarking against the best in the industry. Benchmarking in essence is a crucial component of the TQM process by which a company evaluates and compares its strategies, products, and processes with that of the strongest competitors or the best. The purpose is to learn how they achieve excellence and then setting out to match and even surpass them. Benchmarking is a systematic and continuous measurement process; a process of continuously measuring and comparing an organization's business processes against business process leaders anywhere in the world to gain information which will help the organization take action to improve its performance (Watson, 1993).

Effective implementation of benchmarking practices can lead to financial gains and these financial gains are always in the areas of cost saving, investment avoidance and revenue generation" (Hesham, 2008). Furthermore, Heaphy and Gruska (1995) suggest the potential benefits of benchmarking include increased customer satisfaction through maximum value products and services and benchmarking can assist the change efforts by securing acceptance and compliance to new goals and strategies. Kumar and Chandra (2001), Voss, Ahlstrom and Blackmon (1996, 1997) and Voss and Blackmon (1994) suggest further that the benefits identified from benchmarking are better understanding of strengths and weaknesses of processes, improved suppliers management, improved cycle time and enhanced learning of other organizations work practices. Sweeney (1994) stressed that companies tend to increase productivity and achieve organizational performance through the effective implementation of benchmarking. Camp (1989) and Mittelstaedt (1992) find that effective benchmarking lead to defining customer requirements, establishing effective goals and objectives, develop true measure of productivity, and become more competitive. Jarrar and Zairi (2001) examine the benefits gained from the implementation of benchmarking in organizations in the U.K. They find that the most important benefits are process improvement, setting internal standards and quality improvement. Hesham (2008) noted that benchmarking helps organizations to sustain superior performance. According to Booth (1995) and Fong et al. (1998), this would involve change and improvement in products, services and processes.

In Nigeria, best performance companies have used benchmarking to facilitate and improve their product and service quality. This is essential since it is no longer strategic and time consuming in re-inventing the wheel all over again. It is not a crime to copy an innovation, technology, process etc. as long as you do not go against the law. Nigeria Companies like Conoil, Globalcomm, Transcorp, Dangote Industries etc. did not re-invent procedures, technologies or systems; they simply copied and adapted them to suit the Nigerian environment through benchmarking.

There is a scarcity of literature on the importance of Benchmarking as a tool of TQM in the delivery of quality products and services in Nigeria. However, Adewunmi, Omirin and Adjumo (2007) published an article on "benchmarking in facilities management in Nigeria", this study has short comings and do not take into perspective the strategic utilization of benchmarking as a tool in TQM for achieving product and service quality in a holistic manner.

This observation led to the overall objective of this study, which is to investigate benchmarking as a tool of TQM in the delivery of quality services/products in Nigeria. Specifically, the study was carried out to:

- a) find out the importance of internal benchmarking as a tool of TQM in the delivery of quality service/products,
- b) ascertain the relevance of competitive benchmarking as a tool of TQM in the delivery of quality service/products,
- c) examine the significance of functional benchmarking as a tool of TQM in the delivery of quality service/products, and finally
- d) explore the importance of generic benchmarking as a tool of TQM in the delivery of quality service/products.

## 2. Literature Review

### 2.1. Definition of Benchmarking, TQM and Quality

**Benchmarking:** Robert Bob Camp, one of the pioneers of organizational benchmarking, defined benchmarking as the search for industry best practices that lead to superior performance (Dragolea and Cotirlea, 2009). Leibfried and McNair (1992) defined benchmarking as “an external focus on internal activities, functions or operations in order to achieve continuous improvement”. According to Watson (1993), benchmarking should be viewed as a process of organizational adaptation, not adoption – not simply a question of copying others, but learning how to improve by sharing ideas.

**Total quality management (TQM):** TQM is the mutual cooperation of everyone in an organization and associated business processes to produce value-for-money products and services to meet and hopefully exceed the needs and expectations of customers (Dale, 2004). TQM is an initiative which aims to involve every member of an organization, at all levels, in improving the standard of product or services that they provide (Loughlin, 2008).

**Quality:** The American Society for Quality Control defines quality as: the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs (Kotler and Keller, 2006).

### 2.2. Historical evolution of TQM

The history of quality management, from mere 'inspection' to Total Quality Management, and its modern 'branded' interpretations such as 'Six Sigma', has led to the development of essential processes, ideas, theories and tools that are central to organizational development, change management, and the performance improvements that are generally desired for individuals, teams and organizations. Total Quality embraces not only the quality of a specific product or service, but everything an organization does, might or should do to determine the opinion not only of its immediate customers or end-users, but its reputation in the community at large. Dr J. M. Juran, the American quality guru, defines the difference between Total Quality and product quality as capital Q vs small q (Hutchins, 1992). TQM should be implemented into a company as a 'Kaizen' initiative, Kaizen is a strategy developed by the Japanese meaning 'continuous improvement'. So with TQM, it should be at the core of an organization and employed every working day, to achieve the best quality attainable. TQM is a continuous set of mindset that keeps on improvement processes for individuals, groups and whole organizations by understanding and discovering better process (Janpen, 2005).

The historical evolution of Total Quality Management has taken place in four stages. The can be categorized as follows:

**Inspection:** This method at one stage in time was the only method that was able to ensure a certain level of quality for a product or service. In manufacturing incoming goods and output would be measured and physically inspected for defaults or not meeting required guidelines. Services would be appraised at certain levels and inspected in production and delivery. The inspection process is an after-the-event measurement process that can only result in non conforming products being sent back to be re-worked or result in lower graded products that are produced in a rating system (Loughlin, 2008).

**Quality control:** Quality control remains in the operation of detecting mistakes, finding and fixing them after the event has occurred. Under a quality control scheme you may find that everything is closely monitored, with detailed performance and product specifications as well as control systems for paperwork and procedures, product testing at raw material and mid-production stages with reports being filed and overall feedback on the processes involved to personnel and suppliers. Quality control brought about delegation of quality inspection to approved operators with more sophisticated methods and systems. This brought about a higher number of process control with less non-conforming products being delivered to customers through screening (Loughlin, 2008).

**Quality assurance:** A lasting continual improvement in quality was needed as finding and solving problems wasn't viewed as an effective means to eliminate the root problems. It was identified that this could only be achieved by targeting efforts towards planning and prevention of problems occurring at the root source. On this basis Quality Assurance was developed. Quality systems development, advanced quality planning, comprehensive quality manuals, use of quality costs, involvement of non-production operations, failure mode and effects analysis are features attained through progression from quality control to quality assurance. At a minimum the systems adopted are likely to have met the requirements of BS EN ISO 9001 (2000). Overall the organization should experience a shift in emphasis from detection towards prevention of noncompliant produce. more emphasis is placed on advanced quality planning, training, critical problem solving tasks, improving the design of the product, process and services, improving control over the process and involving and motivating people (Dale, 2007).

### 2.3. Theoretical review

**a). Benchmarking:** Effective quality management requires judicious use of benchmarking. Since quality results have to be measured against a target, benchmarking is crucial for companies to gauge their performance in order to stay competitive. Benchmarking has been viewed as an important management tool of TQM (Kumar and Chandra, 2001; Fong, Cheng and Ho, 1998; Kouzmin, Loffler, Klages, and Korac-Kakabadse, 1999). According to Murray (1997), benchmarking is a process used by companies to target key areas for improvement within their operations so they can increase their productivity, competitiveness, and quality. It involves comparing their financial and operating performances against a competitor's performance or comparing the performance of various internal departments against each other. Firms must therefore engage in efforts to increase the understanding of its competitors thoroughly (Mabert, 1992). By comparing themselves with the best-performing competitors in every aspect of business endeavor, companies thus develop both high-quality targets and various possible sources of information concerning how to perform each aspect better (Richman & Zachary

1993). Benchmarking can and should be utilized as an essential element of a comprehensive TQM strategy.

Zairi and Leonard (1996) postulate that organizations implementing benchmarking tend to achieve various tangible and intangible benefits. Zairi (1998) notes that through effective implementation of benchmarking, companies gain significant improvements in customer satisfaction, reduced overheads and improved communication while establishing the importance of the internal customer. Benchmarking goes beyond just competitively analyzing the competition; it focuses on analyzing organizational processes and methods to assess how competitors achieved their positions (Mathaisel et al., 2004). At the same time, companies can learn about their competitors' strengths and weaknesses through secondary data and personnel experience. Zairi (2003) highlighted that the benefit of benchmarking can be categorized into operational, financial and strategic benefits. Benchmarking is an essential cornerstone for companies to remain at the forefront of excellence in a level playing field market (Wong and Wong, 2008). The results of benchmarking clearly show that it translates into higher profitability (Zairi and Youssef, 1995; 1996). Voss and Blackmon (1997) have noted that benchmarking is also associated with better financial results, operational performance, and business performance. It also leads to "strategic thinking and action" (Drew, 1997). Companies can also increase their knowledge by conducting primary marketing research with customers, suppliers, and dealers (Kotler and Armstrong, 1994). The organization must establish benchmarks for use in the determination and subsequent assessment of their efforts (Tillery and Rutledge, 1991). As a result, productivity, performance, and effectiveness can be enhanced. Even though the benefit derived from benchmarking might be different for each company, however the common benefits centers towards "improvement" and "value creation" (Wong and Wong, 2008).

**b). Total quality management (TQM):** This is a concept based on continuous improvement in the performance of processes in an organization and in the quality of the products and services that are the outputs of those processes. It is said that TQM has the potential to not only increase competitiveness and organizational effectiveness but also improve product quality and organizational performance (Ahire, 1996). Powell (1995) suggests that there are significant relationships between TQM, competitive advantage and business performance. Well implemented TQM can offer many benefits including improved products and services, reduced costs, more satisfied customer and employees, and improved bottom line financial performance (Powell, 1995). Quality advocates have identified several critical principles for successful TQM practices, which among others are: benchmarking, customer focus, supplier relationship, quality-oriented training, employee focus, zero-defects, process improvement and quality measurement (Saraph et al. 1989). TQM is fast becoming a condition for survival in business and will impact economic development of organizations dramatically by forcing increasing levels of sophistication and increased performance (Spiker, 1991; Canada, 1993). The bulk of the total quality management literature is based on personal experiences and anecdotal evidence (Black & Porter, 1996; Rao *et al.* 1999). TQM studies in developing countries like Nigeria, has not kept pace with that of developed nations. It is appropriate, therefore, for studies in TQM implementation to be conducted for the benefit of the managers in these developing countries, where the need is confounded by a dire lack of total quality management information (Thiagarajan *et al.* 2001; Ali, 1997).

## 2.4. Conceptual review

Benchmarking is an important tool for bringing about continuous improvement that is required to survive competitive world of business these days. It is a structured management tool that involves comparison of management process and learning from the others for the further organizational improvement. Not the whole process is to be change but the important and critical processes can be changed according to the need in view of improvement. The benchmarking process, according to Murray (1997), usually consists of 4 tools: (i) analyzing the company's practices, procedures, and performances, (ii) selecting benchmarks, (iii) collecting data on the benchmarks' practices, and (iv) analyzing data. Also, internal benchmarking is compared with external benchmarking. The types of benchmarking, according to Camp (1995), are based on who counterparts are. They are as follows:

- *Internal benchmarking*: A comparison among similar operations within one's own organization. Internal benchmarking establishes operating standards within organizations (Spendolini, 1992). It is aimed at identifying the best internal procedures and used as a baseline for external benchmarking. Internal benchmarking involves comparison of two or more departments /units or division within the organization.
- *Competitive benchmarking*: A comparison with the best of the direct. It follows internal benchmarking since internal information must be gathered and analyzed before they can be compared to externally (Fink, 1988; Yasin and Zimmerer, 1995; Camp, 1989). The process involves comparing companies in the same markets that have competing products, services, or work processes. It is type of benchmarking in which comparison is done directly against the competitor. It is usually done through the help of third party or consultant. It is crucial to select the appropriate organization to compare with.
- *Functional benchmarking*: A comparison of methods with that of companies with similar processes in the same function outside one's industry. It involves improving the specific function's quality and efficiency like advertisement process, HR policies, marketing process.
- *Generic benchmarking*: A comparison of work processes with that of others who have innovative, exemplar work processes. It can be used across dissimilar organizations. It is thought to be extremely effective but difficult to implement. It requires a broad conceptualization of the entire process and careful understanding of the procedures (Elmuti and Kathawala, 1997). This type of benchmarking involves comparison of various common functions and system across the different companies or industry such as inventory system, customer interaction, and billing.

### 2.4.1. The importance of *internal benchmarking* as a tool of TQM in the delivery of quality service/products

Internal benchmarking involves replicating activities of intra-organizational exemplars (standards) which provides a trigger for improving anomalous performance; any element of an organization achieving superior performance in any common practice may be used as the template for all others doing likewise (Zairi, 1994). Examples include 'branch' performance in distributed organizations, customer service performance between different service locations. This form of benchmarking is an application of organizational learning where proven innovation may

be replicated without the external competitive constraints to improve overall welfare (Zairi, 1994). *Customer orientation* enables firms to learn about and from the needs of their customers; *collectivity*, encourages cooperation and mutual learning, and *Cumulative*, generates the capacity to continuously upgrade and improve (Humphrey and Schmitz 1996). Firms then specialize in a certain production and intensify their operations over time (Galvez-Nogales, 2010). For example, companies operating in Nigeria, like Dangote, Globalcomm, Chivita, and Hollandia have continued to replicate quality performance in distribution, customer service and service/product quality. This continuous quality process has led to their constant acceptance by consumers.

#### **2.4.2. The relevance of *competitive benchmarking* as a tool of TQM in the delivery of quality service/products**

An organization's business practices are re-evaluated in the light of knowledge that their primary competitors have been observed to demonstrate superiority in some important elements of performance (Zairi, 1994). Traditional candidates for triggering this re-evaluation have been observable customer-facing factors such as defect rates or unimpressive process speed. This form of benchmarking is at 'arms-length' (Zairi, 1994). Laggard agribusiness organizations can copy "best-in-class" organizations to improve their operations so as to compete favorably in the environment. Competitive benchmarking has been of help to table water companies such as Edomat Water, Woodland Water and Water First in Benue State, Nigeria. These companies constantly re-evaluate their processes, activities and quality performance to conform to that of competitors like Eva water (Coca Cola) and Swan Water.

#### **2.4.3. The significance of *functional benchmarking* as a tool of TQM in the delivery of quality service/products**

An organization's business practices are re-evaluated in the light of knowledge that non-competitor organizations demonstrate superiority in some common elements of business practice (Zairi, 1994). This triggers re-evaluation of these business practices – often in partnership or in conjunction with the exemplar. Common elements such as the use of information technology, administrative or logistical processes permits co-operation between organizations since the risk of market-place competition is non-existent (Zairi, 1994). Agro-based organizations like Olam jointly develop and exchange industry-specific knowledge and technology and use similar procurement and marketing channels with best-in-class companies in different industries. It is now common in Nigeria, for agro-based companies to utilize the concept of "*value chain*" as used in corporate and marketing organizations to improve their business and quality performance. This value chain technique is expected to spur development and try to enhance the collaboration and synergies among stakeholders; they include for example establishing credit lines, subsidizing R&D, strengthening technological capacities, diffusion of knowledge and information and building trust (Galvez-Nogales, 2010). Horizontal relationships among producers, which take the form of growers' cooperatives or various types of smallholder business consortia; support relationships between producers and facilitating organizations (e.g. local governments, business service providers, research institutes, universities and non-government service organizations) that reinforce the quality, efficiency and sustainability aspects of the chain (ITC, 2006). Upgrading can be understood as building technological, managerial and organizational capacities that enable the actors to participate effectively in businesses; it means acquiring knowledge and technologies, but at a faster pace than competing clusters and industries

(Galvez-Nogales, 2010). This effective upgrading of laggard agribusiness firms in Nigeria by copying non-competitive firms brings fast track development in technology that eventually surpasses competitors. Olam Nigeria Ltd, has been known to effectively and efficiently utilize contract strategies as used by other firms in executing contract farming in Nigeria. This has enabled a smooth value chain integration in agriculture.

#### **2.4.4. The importance of generic benchmarking as a tool of TQM in the delivery of quality service/products**

An organization's business practices are purposefully compared with organizations having demonstrably superior performance from similar practices of dispositions; comparisons of exemplar practices or dispositions, either through a conscious search or through observed performance, are conducted irrespective of the type of industry or location; this is the broadest form of benchmarking as it is triggered by broadly applicable practices or dispositions associated with better performance; practices such as just-in-time production management and zero-waste environmental practices improve efficiency in a generic manner and have minimal cross-sector or competitive overtones; similarly, dispositional factors such as quality (of service), timeliness (of production), knowledge, analysis, success (financial results) or leadership may also provide a broad basis for benchmarks between organizations in completely different sectors (Zairi, 1994). Whereas the other forms of benchmarking can provide elemental comparisons, generic benchmarking provides factor-level comparisons; practitioners are then required to augment their findings with other techniques such as root-cause or cause-effect analysis to identify elemental deficiencies. The Baldrige business excellence model is an example of a generic, dispositional framework that is empirically determined to be associated with exemplary performance (BNQP, 2008).

Food producers need to develop brands that will be able to convince young consumers; the most successful producers are those that invest in teams of good specialists inspired by what their western competitors are doing in terms of both production and marketing (FAO, 2006). In 2009, NTA Makurdi, showed a documentary showing the CEO of RanTito Diaries Nig. Ltd, producers of Tito Yogurt, Woodland Water etc., touring a leading yogurt company in the U.S.A. The documentary narrated that Mr. Tito, had gone to the U.S.A. to learn and copy an entire new process or system on the latest innovation in yogurt production and marketing. This action will eventually make him the best among competitors if he implements what he had learned. Even the Nigerian government utilizes the generic benchmarking tool to furnish and enact enabling policies for our various economic sectors; she copy's policies from other countries and tries to institute them in Nigeria once they have been proven to have had a major impact in another country. Nigerian hospitals are now copying the overall system of highly successful countries by introducing insurance schemes in the health sector as practiced in the U.S.A. for an efficient health delivery system in the country.

### **3. Conclusion**

Failure of management to be committed and supportive of life-long process, comparing their firms with competitors by constantly benchmarking against the best organizations, has led to waste of resources and poor outcomes in Nigerian corporate organizations. This challenge formed the basis for this study. Benchmarking provides a vision that focuses everyone in an organization on quality improvement. The pursuit of quality improvement is not only requested

by the market but also driven by the need to survive. Organizations in Nigeria must make quality products better, faster, and cheaper than those of their competitors. Adoption of effective Benchmarking strategies as a tool of TQM will be one of the most crucial factors for success in any organization. This study found that developing countries like, Nigeria are yet to catch up to the developing nations on the use of benchmarking as a tool of TQM for improving product/service quality. We could also attest from the study that benchmarking is not only attainable in the private sector alone; Nigerian government is benchmarking her insurance scheme to cut across private and public hospitals. Even the enabling economic policies enacted by Nigerian government, borrows a leaf from foreign countries that have succeeded in the formulation and implementation of such policies.

#### **4. Recommendations**

From our study, the following recommendations are imperative for stakeholders:

- a) Organizations needs to consistently improve and implement previously replicated performance (processes); therefore, the ability of managers to sustain the internal improvement effort , by involving employees, empowering them and bringing them into the decision making process, will provide the opportunity for improving internal benchmarking and achieving product/service quality.
- b) Considerable attention should be given to improve the innovation and information technology of manufacturing organisations; this agenda would benefit production firms by having reasonable quality information systems to enable them to function well.
- c) Organizations need to have a partnership agreement with highly performing firms so as to exchange information, process, techniques, technology, innovation etc that will be of help to them; a synergy should be designed to align organizations with exemplars so as to improve generic benchmarking component that would greatly enhance product durability,
- d) Benchmarking is a possible way to get ahead and to stay ahead of competitors, since through benchmarking an organisation may compare itself with the best existing organisation in the same business; the organisation only learns from process, procedure, approach, strategies, steps, etc. that has already been proven as effective or successful in the best benchmarked organisation.

#### **References**

- Adewunmi, Y.A., Omirin, M.M. and Adejumo, I. (2007). Benchmarking in Facilities Management in Nigeria. Department of Estate Management. Faculty of Environment Sciences. University of Lagos, Nigeria.
- Agus, A. and Hassan, Z. (2009). Exploring the Relationship between the Length of QM Adoption and Financial Performance: An Empirical Study in Malaysia. *International Journal of Management*, 17(3):323-333.
- Ahire, S.L., Golhar, D.Y. and Waller, M. A. (1996). Development and Validation of TQM Implementation Constructs. *Decision Sciences.*, 27(1):23-55.
- Ali, M. (1997). An Empirical Study of Total Quality Management in the Middle East: A Proposed Model for Implementation. University of Bradford, Unpublished Ph.D. thesis.

- Black, S. and Porter, L. (1996). Identification of Critical Factors of TQM. *Decision Sciences*, 27: 1-21.
- BNQP (2008). Criteria for performance excellence: department of commerce: national institute of standards and technology. p. 4.
- Booth, D. (1995). Benchmarking – the essential phase of preparation. In Kanji, G.K. (Eds.). *Total Quality Management: Proceedings of the First World Congress*. London: Chapman and Hall. pp.493-6.
- Camp, R.C. (1989). *Benchmarking: The Search for Industry Best Practices that Leads to Superior Performance*. Milwaukee, WI: ASQC Quality Press. 84 pp.
- Camp, R.C. (1995). *Business Process Benchmarking: Finding and Implementing Best Practices*. Milwaukee, WI: ASQC Quality Press.
- Canada, P. (1993). TQM benchmarking for Economic Development Programs: Good is not Good, Where Better is expected. *Economic Development Review*, 11(3):34-38.
- Dragolea, L. And Cotirlea, D. (2009). Benchmarking – A Valid Strategy for the Long Term? *Annales Universitatis Apulensis Series Oeconomica*, 11(2):813-826.
- Drew, S.A.W. (1997). From knowledge to action: the impact of benchmarking on organizational performance, *Long Range Planning*, 30(3):427-41.
- Elmuti, D. and Kathawala, Y. (1997). An Overview of Benchmarking Process: a tool for continuous improvement and competitive advantage. *Benchmarking for Quality Management & Technology*, 4(4):229-43.
- FAO (2006). *Agricultural and Food Marketing Management*. United Nations, Viale delle Terme di Caracalla, 00100 Rome, Italy. FAO. pp 344.
- Fink, R. 1988, Group therapy, *Financial World*, 162(19):42-8.
- Fong, W.S., Cheng, W.E. and Ho, C.D. (1998). Benchmarking: a general reading for management practitioners. *Management Decision*, 36(6):407-18.
- Gálvez-Nogales, E. (2010). Agro-based clusters in developing countries: staying competitive in a globalized economy, *Agricultural Management, Marketing and Finance Occasional Paper 25*, ISBN 978-92-5-106558-7, Food and Agricultural Organization of the United Nations, Rome, pp. xii+105.
- Heaphy, M.S., Gruska, G.F. (1995). *The Malcolm Baldrige National Quality Award: A Yardstick for Quality Growth*, Reading, Mass.: Addison Wesley.
- Hesham A.E. (2008). Understanding benchmarking in Egyptian organizations: an empirical analysis, *Benchmarking: An International Journal*, 15 (6): 742-764.
- Humphrey, J. and Schmitz, H. (1996). The triple C approach to local industrial policy. *World Development* 24 (12), 1859-1877.
- ITC (2006). *Sustainable Agriculture and Value Networks: An Opportunity for Small Growers to Export Successfully?* Alvarez, G. ITC Executive Forum 2006, International Trade Centre UNCTAD/WTO. Geneva, Switzerland.
- Jarrar, F.Y., and Zairi, M. (2001). Future trends in benchmarking for competitive advantage: a global survey, *Total Quality Management*, 12(7-8):06-12.
- Kotler, P. and Armstrong, G. (1994). *Principles of Marketing*. Prentice-Hall, New Jersey
- Kotler, P. and Keller, K.L. (2006). *Marketing Management*. (12<sup>th</sup> Ed.). India, New Delhi: Prentice-Hall of India Private Limited. 729 pp.

- Kouzmin, A., Loffler, E., Klages, H., and Korac-Kakabadse, N. (1999). Benchmarking and performance measurement in public sectors: towards learning for agency effectiveness, *The International Journal of Public Sector Management*, 12(2):121-44.
- Kumar, S. and Chandra, C. (2001). Enhancing the Effectiveness of Benchmarking in Manufacturing Organizations. *Industrial Management and Data System*, 101: 80-89.
- Leibfried, K.H.J. and McNair, C.J. (1992). *Benchmarking: A Tool for Continuous Improvement*. Essex Junction, VT: Oliver Wight Publications Inc. with arrangement from Harper Collins Publishers Inc. 231 pp.
- Loughlin, M. (2008). Discuss the Key Elements of TQM Within the Context of the Emerging Business Environment.
- Mabert, V.A. (1992). Operations in the American Economy: Liability or asset. *Business Horizons*, 35(4):3-5.
- Mathaisel, D., Cathcart, T., and Comm, C. (2004). A framework for benchmarking, classifying, and implementing best sustainment practices, *Benchmarking: An International Journal*, 11(4):403-17.
- Mittelstaedt, R.E. Jr. (1992). Benchmarking: how to learn from best-in-class practices. *National Productivity Review*, 11(3):301-15.
- Murray, M.A. (1997). Can benchmarking give you a competitive edge? *Management Accounting*, 79(2): 46-50.
- Rao, S., Solis, L. and Raghunathan, T. (1999). A framework for international quality management research: development and validation of a measurement instrument. *Total Quality Management*, 10(7):1047-1075.
- Richman, E. and Zachary, W. (1993). Quality and Reliability Management: Review and Update. *Quality Management*, July/August.
- Saraph, J.V., Benson, G.P. and Schroeder, R.G. (1989). An instrument for measuring the critical factors of quality management. *Decision Sciences*, Fall. 20:810-829.
- Spendolini, M.J. (1992). *The Benchmarking Book*. New York: AMACOM. 204 pp.
- Spiker, B.K. (1991). Total quality management: The mind-set for competitiveness in the 1990s. *Manufacturing Systems*, September: 40-45.
- Sweeney, M.T. (1994). Benchmarking for Strategic Manufacturing Management. *International Journal of Operations and Production Management*, 14(9):4-15.
- Tillery, K.R. and Rutledge, A.L. (1991). Quality-strategy and quality-management connections. *International Journal of Quality & Reliability Management (IJQ)*. 8(1): 71-77.
- Thiagarajan, T., Zairi, M. and Dale, B. (2001). A proposed model of TQM implementation based on an empirical study of Malaysian industry. *International Journal of Quality & Reliability Management*, 18(3):289-306.
- Voss, C., and Blackmon, K. (1994). Practice performance relationships in UK manufacturing industry. *Proceedings of the First International Conference of the European Operations Management Association on Operations Strategy and Performance*. June. pp 1-5.
- Voss, C., Ahlstrom, P., and Blackmon, K. (1996). Learning, Benchmarking, and Manufacturing Performance. *Proceedings of the Third International Conference of the European Operations Management Association on Operations Strategy and Performance*. pp 689-94.
- Voss, C.A., Ahlstrom, P., and Blackmon, K. (1997). Benchmarking and Operational

- Performance: Some Empirical Results. *International Journal of Operations & Production Management*, 17(10):1046-58.
- Voss, C.A., Blackmon, K. (1997). Benchmarking and Operational Performance: Some Empirical results. *Benchmarking for Quality Management & Technology*, 4(4):273-85.
- Watson, G.H. (1993). *Strategic Benchmarking: How to Rate Your Company's Performance against the World's Best*. New York: John Wiley and Sons. 342 pp.
- Wong, W.P., Wong, K.Y (2008). A Review on Benchmarking of Supply Chain Performance Measures. *Benchmarking: An International Journal*, 15 (1): 25-51.
- Yasin, M.M., Zimmerer, W.T. (1995). The Role of Benchmarking in Achieving Continuous Service Quality. *International Journal of Contemporary Hospitality Management*, 7 (4):27-32.
- Zairi, M. (1994). *Practical Benchmarking: The Complete Guide*. London: Chapman and Hall.
- Zairi, M. and Youssef, M. (1995). A Review of Key Publications on Benchmarking: Part I. *Benchmarking for Quality Management & Technology*, 2(1):65-72.
- Zairi, M., and Youssef, M. (1996) A Review of Key Publications on Benchmarking: Part II. *Benchmarking for Quality Management & Technology*, 3(1):45-9.
- Zairi, M.,and Leonard, P. (1996). *Practical Benchmarking: The Complete Guide*. London: Chapman and Hall.
- Zairi, M. (1998). *Benchmarking for Best Practice: Continuous Learning through Sustainable Innovation*. Butterworth-Heinemann, Oxford.
- Zairi, M. (2003). *Performance Excellence: A Practical Handbook*, Dubai: e-TQM College Publishing House.

Abstract: The strategic utilization of benchmarking as a tool in TQM for achieving product and service quality in a holistic manner has not yet been fully studied. This observation led to the overall objective of this study, which is to investigate benchmarking as a tool of TQM in the delivery of quality services/products in Nigeria. Companies operating in Nigeria, like Dangote, Globalcomm, Chivita, and Hollandia have continued to replicate quality performance in distribution, customer service and service/product quality. This continuous quality process has led to their constant acceptance by consumers. Competitive benchmarking has been of help to table water companies such as Edomat Water, Woodland Water and Water First in Benue State, Nigeria. Traditional TQM Theory. Modern approaches to quality have emerged gradually, a product of a series of discoveries stretching back over a century. These discoveries can be organized into distinct quality areas: statistical quality. top management commitment, corporate culture, mission statements, benchmarking, training and education, reward and recognition, communication vehicles, and leadership. Among several models it is appropriate to examine the practical application of TQM in the delivery of healthcare by government- contracted service organizations, specifically, the application of TQM principles in HMOs that service the senior population eligible for health care services under the national government's Medicare program.