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TOTAL QUALITY MANAGEMENT (TQM): A SOURCE OF COMPETITIVE ADVANTAGE. A COMPARATIVE STUDY OF MANUFACTURING AND SERVICE FIRMS IN GHANA

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ABSTRACT

The study investigated whether or not Total Quality Management(TQM) is a source of competitive advantage in both service and manufacturing sectors in Ghana. Among the objectives were; to find out the impact of TQM on organizational performance, challenges in the implementation of TQM policies and practices, and to ascertain whether TQM is a source of competitive advantage in both service and manufacturing firms in Ghana. The study employed a survey design by using questionnaire and interview guides as the data collection instruments. Simple random and stratified sampling techniques were used to select 30 service firms and 30 manufacturing firms in Accra, the capital of Ghana for the study. It was found out that when properly implemented, TQM will be a source of sustained competitive advantage. The study also revealed that while the quality of manufacturing products can be tested and controlled, it is difficult to control the quality of services before delivery because of their intangibility nature. It was recommended among others that organizations should cultivate a total quality management culture; properly designed training programmes on TQM should be regularly organized for staff of organizations so as to ensure that best practices of TQM are implemented if they want to achieve a sustained competitive advantage.

Keywords: Competitive advantage, Total quality management, Service firms, Manufacturing firms.

1. INTRODUCTION

The intensity of global competition has led to significant changes in the way companies conduct their businesses (Al-Rfou *et al.*, 2012). Providing a higher quality service as a strategy for achieving competitive advantage has become a strategic imperative for organizations and senior managements around the world. Quality therefore has become a strategic tool for measuring business performance in today's dynamic environment (Hassan *et al.*, 2012).

According to Mansour (2007), several quality tools and techniques have been employed to achieve this management objective and Total Quality Management (TQM) has proved to be among the most effective quality techniques that have been applied. Since the introduction of TQM in the

early 1980s, it has contributed immensely to management practice around the world. Its importance as a source of competitive advantage cannot be overemphasized by firms. Empirical studies have shown that the way organizations implement TQM can significantly affect the results and business impact, hence organizations need to take proper measure in implementing TQM in their organizations. There are a number of ways by which TQM has been defined. It generally means a quest for excellence, creating the right attitudes and controls to make prevention of defects or errors possible and optimize customer satisfaction by increased efficiency and effectiveness.

Some companies in Ghana today are making every effort to put in total quality management process in their operations to help produce quality products and services in meeting customer needs. Others have also failed as far as total quality management is concerned. Several literatures have suggested that proper TQM implementations can lead to better competitive advantage. In addition, many studies have investigated the notion that TQM practices provide an approach to improve financial performance. A research carried out by Hendriks and Singhal (1997);Hendriks and Singhal (1999) and cited by (Agus and Sagir, 2001), indicated that an effective TQM programmes actually improved operating performance.

The statistical results provided strong evidence that firms that have won quality awards outperformed the controlled firms on operating income-based measures. Mann (1992) also agreed that TQM is not only a management tool for producing quality products and services but also a process that leads to increased productivity and more favourable competitive position. He emphasized that there exists a correlation between quality and productivity. As quality improves waste or rework is minimized; and customer satisfaction will also be enhanced. Deming (1986) indicated 14 TQM principles which he offered as requirements to remain competitive in providing products and services. According to Deming TQM would generate improved products and services, reduced costs, more satisfied customers and employees and improved bottom line financial performance.

1.1. Statement of the problem

For an organization to achieve competitive advantage it has to differentiate itself in terms of cost and quality of products and services. It needs to be noted that nowadays best quality products and services are not a preserve of one organization. Given the increasing intensity of competition and the demands and expectations of customers and potential customers for quality products and services, organizations day in day out are strategizing to always be within or beat the competition.In view of this the implementation of Total Quality Management has been found by organizations as a very important tool to gain competitive advantage. However as to whether customers and organizations really appreciate and feel the impact of TQM, and if indeed TQM is a source of competitive advantage in the service and manufacturing sectors in Ghana was the motivation for this study.

1.2. Objectives of the study

- To examine the challenges in the implementation of total quality management by Ghanaian firms.

- To evaluate the impact of total quality management on Ghanaian firms.
- To find out whether total quality management is a source of competitive advantage in both service and manufacturing sectors in Ghana.

1.3. Research questions

- What challenges do Ghanaian firms face when implementing total quality management?
- What is the effect of total quality management on the performance of Ghanaian firms?
- Is total quality management a source of competitive advantage in both the service and manufacturing sectors in Ghana?

2. RELATED LITERATURE

2.1. The Concept of Total Quality Management(TQM)

TQM is a set of beliefs and principles that portrays the basis of a consistently growing organization. It is the application of quantitative methods and human resources to improve all the processes within an organization and exceed the customer needs now and in the future.

Other definitions of TQM are that it is a management style based on producing quality products and services as defined by the customer. However Godfrey (1999), defines it as a quality-centered, customer-focused, fact-based, team-driven, senior-management-led process to achieve an organization's strategy imperative through continuous process improvement. Furthermore according to Wade (2008) total quality management is a comprehensive and structured approach to organizational management that seeks to improve the quality of products and services through ongoing refinements in response to continuous feedback.

According to Crosby (1984) and Juran (1988) and cited by Hassan *et al.* (2012) definitions of quality include "conformance to requirements" and "fitness for use". To them the word "quality" was initially associated with the goods sector.

Total Quality Management (TQM) is a method that attempts to improve performance and quality to satisfy customer expectations. This can be attained by combining and linking all quality-related functions and processes throughout the organization. TQM takes a holistic view of all quality measures employed by an organization including managing quality design and development, quality control and maintenance, quality improvement, and quality assurance. It considers all quality measures taken at all stages and involving all workers of the company. TQM is the management of initiatives and procedures that are aimed at achieving the delivery of quality products and services. TQM has also been defined as a management philosophy embracing all activities through which the needs of the customer and the community, and the objectives of the organization are satisfied in the most efficient and cost effective way by maximizing the potential of all employees in a continuing drive for improvement (Cornish, 1998).

With the recent trend in global businesses, Total Quality Management (TQM) has been widely implemented throughout the world. Manufacturing organisations have been using Total Quality Management extensively since the 1920's. Many firms have arrived at the conclusion that effective TQM application can improve their competitive abilities and provide strategic advantages on the world market (Wade, 2008). Such benefits are winning customer loyalty, reduction in cost of

production and service and well informed and motivated staff, satisfied shareholders and positive recognition (Gilbert, 1992).

Even though there is much awareness on total quality management in Ghana, there is more work to be done when it comes to total quality management in all sectors of the economy. In Ghana, the complaints from consumers of service providers and producers of products are on the increase. For instance, there is a huge perception that locally produced goods are substandard compared to products from abroad. This is an indication that most organisations are paying little or no attention to the importance of total quality management in their organisations.

Wade (2008) noted that for organisations to achieve the best of products and services, it is very important that more attention is placed on total quality management throughout the entire organisation. Hence, total quality management is a management philosophy that needs to be integrated into all the organisation functions for efficient and effective performance.

The integration of total quality management in the process of every organisation will help reduce waste and reduce errors (Youngless, 2000). According to Alemna (2001), another reason why organisations should adopt TQM is that it embodies certain values and approaches, which are common and already established concepts within the organisation. These consist of necessary and key part of participative management, staff training and development and responsive service to customers. However, several of the defining and extraordinary elements of TQM such as continuous improvement, quality tools and measurement and customer-focused planning are not commonly applied in organisations. It is for these reasons that organisations are in a position to expand and improve upon principles they already value and employ, while introducing new approaches to planning, problem solving and envisioning future customer services and needs.

2.2. The Concept and Models of Competitive advantage

According to Conner (1991) and, (Porter, 1980; Porter, 1985) and cited by Reed *et al.* (2000) there are two models of competitive advantage, both of which are grounded in economic theory . The first model - the market-based model and the second, the Resource-based model are complementary. The market-based model focuses on cost and differentiation and asserts that inefficient firms including those that do not offer products for which consumers are prepared to pay a premium price are uncovered by the market (Reed *et al.*, 2000). The market-based model of competitive advantage is mainly driven by determinants like opportunities, threats, and industry competition which are external to the firm, and as Porter (1985) points out, sustaining an advantage means presenting competitors with ``a moving target."

The resource-based model (the second model) of competitive advantage on the other hand centers on the firm's resources (Reed *et al.*, 2000). As opposed to the market-based model which is externally driven, the resource-based theory is driven by factors internal to the firm.

According to Barney (1997) and cited by (Reed *et al.*, 2000), resources consist of ``assets, capabilities, organizational processes, firm attributes, information, and knowledge," and can be classified in terms of physical, human, or organizational capital. It is argued that because human and organizational capital are not easily acquired in the factor markets they are the main drivers of competitive advantage, unlike physical capital which are easily acquired in factor markets.

Wernerfelt (1984) cited by Breznik (2012), also pointed out that a firm can earn supernormal profit by identifying and acquiring resources that are critical to markets and are, hence, strategic. In line with the resource-based model, strategic resources are crucial components of sustainable competitive advantage. Lawson and Samson (2001) explain that resources are strategic when they possess some specific characteristics, for example if they are not easily imitated by competitors.

The majority of researchers use the resource-based theory or resource based view as a convenient tool in their study. In using the resource-based view, the firm is seen as a unique bundle of resources on which the firm's strategy is based (Fahy, 1996). Developing and nurturing the "right" resources depends on their classification in terms of recognizing their strategic value.

Michalisin *et al.* (1997)asserts that one of the major classifications of resources is the distinction between tangible and intangible ones. Tangibles are physical assets or resources, for example technology, computers etc. Such resources are not rare, are usually easily accessed and purchasable in the open market. They are often easy to imitate, although if they are the subject of transmission between firms they can represent synergy. Nevertheless, in line with the resource-based view or model only intangible resources can be sources of competitive advantage since they fulfill the basic attributes of being rare, valuable, non-substitutable, and imperfectly imitable (Barney, 1997).

Michalisin *et al.* (1997) believe that intangible resources can indeed be vital determinants of competitive advantage because of their characteristics and their influence on tangible resources through their development and exploitation. From the resource –based view or model therefore, only resources that are strategic can be sources of competitive advantage.

2.3. Competitive Advantage and Total Quality Management

Al-Rfou *et al.* (2012) defines competitive advantage as the ability of an organization to produce goods or services more effectively than competitors do, thereby outperforming them.

According to Porter (1980), and cited by Pace *et al.* (1995) organizations achieve competitive advantage through one or a combination of three approaches: differentiation, cost leadership, or focus. They moved on further to explain that firms employing a differentiation strategy attempt to achieve a competitive advantage by distinguishing their firm's products or services from those of its competitors (ie making their products unique).

Firms employing a cost leadership strategy effectively compete on the basis of price. Cost advantages can be achieved through such means as efficiency, cost reductions, tight cost controls or volume. Firm's employing a focus strategy attempt to achieve a competitive advantage by concentrating their efforts on a specific regional market or buyer group. In Porter's research, businesses that did not consciously adopt one of these three strategies had no strategic advantage (Daft, 1991). Firms employing a Total Quality Management approach can simultaneously achieve all three of Porter's competitive strategies. The focus on improving the quality of products and services to the organization's current customers (thereby increasing customer value), leads both to lower costs of production (cost leadership) which produce both greater profits and lower prices, and differentiation (the firm's products and services are seen as providing higher levels of reliability, quality, and value).

According to Romero (2005) many leaders find it difficult creating a competitive advantage because they are not sufficiently aware of the threats and opportunities in the external environment or their firm's strength, weaknesses and unique competencies. Again when some managers or firms or organizations are successful in business they think they have a competitive advantage. This is not entirely true, because it is not based on any scientific proof. Such managers, firms or organisations are temporarily successful despite having a weak, or no competitive advantage. It is just a matter of time before other firms, with a strong competitive advantage, will take away their business Romero (2005).

How does one create a competitive advantage? Day and Wensley (1988)cited in Hoffman (2000) differentiated between two categorical sources of Competitive Advantage: superior skills, which are "the distinctive capabilities of personnel that set them apart from the personnel of competing firms", and superior resources, which are "the more tangible requirements for advantage that enable a firm to exercise its capabilities". Srivastava *et al.* (1998) believe that for personnel to be a source of competitive advantage these personnel must truly understand customers' needs and must be able to foster business-intimate relationships.

In answering the same question, Romero (2005) is of the view that it is useful to think of tangible and intangible assets. Whilst intangibles are difficult to copy, tangible assets are not. For instance competitors of a company can easily copy its tangibles such as computers or machines. However itis extremely difficult for a competitor to copy a company's unique culture, transformational leaders, superior customer service, or other intangible assets, hence these can be a source of long lasting competitive advantage.

According to Romero therefore, it makes sense to focus on developing competitive advantages that are based on intangible assets or capabilities that are valuable to customers. Firms that are successful over the long-term are unique irrespective of the services and products they provide. It is therefore necessary for firms to avoid copying other firms if they want to achieve competitive advantage. Having unconventional leadership and an adaptive organizational culture, being aware of the internal and external environment, being either a low-cost or differentiated provider in either a broad or narrow market provider are all important in achieving a competitive advantage.

A study conducted by Lamptey (2009) and cited by Andoh (2010) revealed that in Ghana, several organizations are underperforming and finally collapsing because they have relegated quality management to the background. Most of these organizations, particularly the service and manufacturing ones treat customers like beggars, forgetting that in this modern business world customers can make and unmake an organisation and so organizations should place quality at the top of its priority table if they want to attain competitive advantage. Quality of employees is a very important element but most organizations ignore it. Because most organizations ignore training and development of their employees, inferior goods are produced by the employees.

2.4. TQM in Service and Manufacturing firms compared

According to Mansour (2007) there are several key characteristics that differentiate service firms from manufacturing firms and these would affect TQM principles, tools and techniques transfer to service environments. The most significant and notable characteristic is the intangibility

of a service as compared to a tangible product in manufacturing environments. It must be emphasized that whilst intangible goods are less homogeneous and difficult to measure, tangible goods can be measured and are standardized in their specifications. For example the concept of SERVQUAL, brought about by Zeithmal *et al.* (1990)to evaluate quality of intangible goods, was dominated by intangible variables such as responsiveness, courtesy and accessibility. Another important distinction is that in the service firms the use and delivery of a product takes place at the same time, hence it is difficult to control and even monitor the quality of the product before delivery to a customer. On the other hand, the quality of physical products can be tested, monitored and controlled before delivery. This is also evident by the fact that a defective item can be replaced but a defective service may create a lasting problem.

A number of researches have been conducted to critically compare the difference in TQM implementation between manufacturing and service firms. Among the pioneering studies, was a study on 261 manufacturing firms and 85 service firms conducted by Beamount *et al.* (1997) and cited in Mansour (2007) which indicated that service firms use fewer quality management tools, especially statistical process control. Again another study conducted by Woon (2000) on 240 Singaporean companies and cited in Mansour (2007) found that the service organizations generally showed a lower level of TQM implementation than the manufacturing organizations, particularly in terms of the elements of information and analysis, process management, and quality performance.

On the other hand, the studies also revealed no marked difference with respect to the elements of leadership, human resources, and customer focus. These two studies buttress the point that the "soft" elements of TQM which include leadership, human resources etc are more applicable in service firms than are the other statistical and process control methods. Huq and Stolen (1998) cited by Mansour (2007) also examined the difference in TQM implementation between 18 manufacturing and 18 service companies based on 19 TQM dimensions and found that the service companies apply TQM practices selectively as opposed to the manufacturing firms, which apply the full range of TQM practices.

2.5. Challenges/problems in the implementation of TQM

A study conducted by Kanji and Asher (1996) showed that in Western European countries, for instance France, Italy, England, and Norway the way firms implement their TQM practices is very complicated and has a long process. The analysis carried out shows that the level of TQM implementation in telecommunication institutions is even worse. According to Kanji and Asher (1996), the following were the problems noted in the implementation of TQM.

- The industries do not have even a single conception of quality;
- There is no clear vision, mission and concrete quality policy for the institutions;
- The leaders of the institutions do not understand the modern concept of quality and obligation to it;
- Firms have poor observation, care and control of quality of industrial practice;
- There is lack of time and resources and most enterprises prefer short-term goals to the long-term ones;

- The process of achieving total quality management is complicated involving all members of the organization;
- Organisations require enough time to change employees' traditional standpoint to the concept of quality.

Another research found that there are some problems pertaining to the application of TQM programmes in some Saudi public sector agencies. The most apparent problem is the limited implementation. The other main problem results from the change in leadership in all organizations which reflects on their commitment to TQM programmes implementation. These problems appear to be related to weak understanding of the TQM and its implementation goal in most of the organizations. Moreover, the training on TQM does not seem to be efficient, it is conducted mostly in-house where there is no experience to offer, not to mention the fact that the complexity of TQM training programmes and the lack of post training consultations were factors that hindered the efforts of these organizations in their implementations of TQM. A survey of branch managers in the UK banks considered lack of resources, short-term goals, internal environment and communication as major barriers to TQM implementation (Mansour, 2007).

Finally, the narrow perspective organisations have concerning TQM is a critical factor. TQM distinguishes itself in this regard; unlike much of the training in quality, it emphasizes thinking and deciding over learning the technical aspects. Practitioners will come away from it with a mental framework and a versatile toolkit, rather than a few narrow methods. For example, if a carpenter has only a hammer, his perspective is limited to finding nails to hit. Likewise, some quality management programmes arm their participants mainly with statistical methods and quality techniques, preparing them to look only for quantifiable things; nothing against nuts and bolts, but without a guiding philosophy, they are little else but scrap Embse (1990).

3. METHODOLOGY

A survey design involving both qualitative and quantitative research methodology was employed in the study. All service and manufacturing firms in Accra, Ghana formed the population of the study. Simple random and stratified sampling technique were used to select 30 manufacturing firms and 30 services firms from Accra, the capital of Ghana for the study. So in all sixty (60) questionnaires were administered to the firms. In each firm the head of TQM department, the CEO, or the Managing Director was interviewed and asked to fill the questionnaire. The researcher personally administered the questionnaire and conducted the interviews as well. In short, in each firm the one who is in charge of TQM was interviewed and also asked to fill the questionnaire. With respect to the secondary data, relevant literature on Total quality management and Competitive advantage from books and articles in journal were reviewed.

4. RESULTS AND DISCUSSION

4.1. What are the Challenges of implementing TQM in both service and manufacturing firms in Ghana?

Respondents were asked about the challenges they have faced as a result of implementing TQM policies and practices. The challenges mentioned are as follows: "the challenge is in getting the

implementation team to stick to quality", "logistics, management support, lack of quality staff, attitude and culture of third party", "a lack of commitment from other staff, when a mistake has been made, people tend to push blames instead of resolving the problem", "some processes are too long and require so many approvals before they can be resolved" and "interference from third party".

This confirms the findings of the study conducted by Kanji and Asher (1996) which showed that in Western European countries (France, Italy, England, Norway) enterprises' TQM implementation is very complicated and has a long process. The respondents from the service firms stated that one of the key challenges is how to control quality. They said while the quality of manufactured products can be tested and controlled before delivery, it is difficult to control the quality of services before delivery because of its intangibility nature. This implies that a defective product can be replaced but a defective service may create a permanent damage.The study revealed that service firms use relatively fewer quality management tools compared to the manufactured firms. This confirms the results of the study on 261 manufacturing firms and 85 service firms conducted by Beamount *et al.* (1997) and cited by Mansour (2007). The study also revealed that the application level of TQM implementation is lower in service firms than in manufacturing firms. This also confirms the study on 240 Singaporean companies by Woon (2000) and cited by Mansour (2007). From the discussions and the results of the questionnaire, it was clear that the service firms selectively apply TQM practices as compared to manufacturing firms which almost apply the full range of TQM practices. This also confirms the findings of the study conducted by Huq and Stolen (1998) and cited by Mansour (2007).

4.2. What is the Impact of TQM on Ghanaian firms?

The respondents were asked about the impact of TQM on the performance of their organisations. According to them service quality has gone up, the client base and hence market share has increased, reduction in operational and overall unit cost and consequently increase in profit. The implication is that the implementation of TQM has indeed given their firms a competitive edge over its competitors.This confirms the assertion made by Daft (1991), that firms employing a Total Quality Management approach can simultaneously achieve all three of Porter's competitive strategies. The focus on improving the quality of products and services to the organization's current customers (thereby increasing customer value), leads both to lower costs of production (cost leadership) which produce both greater profits and lower prices, and differentiation (the firm's products and services are seen as providing higher levels of reliability, quality, and value).

4.3. Is Total Quality Management (TQM) a source of competitive advantage in both service and manufacturing firms?

All the respondents said or indicated that an efficient and effective implementation of TQM is a source of sustained competitive advantage. All of them stressed the words "efficient and effective" because they feel that if TQM is poorly implemented it will rather increase cost and as a result be a source of competitive disadvantage rather. So all the respondents answered "Yes" to the question; Is TQM a source of competitive advantage?

The study conducted by Daft (1991) confirms this. Daft found out that firms employing a Total Quality Management approach can simultaneously achieve all three of Porter's competitive strategies. As stated earlier, the focus on improving the quality of products and services to the organization's current customers (thereby increasing customer value), leads both to lower costs of production (cost leadership) which produce both greater profits and lower prices, and differentiation (the firm's products and services are seen as providing higher levels of reliability, quality, and value). His research revealed that firm that did not adopt or implement Porter's strategies did not have strategic advantage.

5. CONCLUSION AND RECOMMENDATIONS

TQM has been based on the quest for progress and continual improvement in the areas of cost, reliability, quality, innovation, efficiency and business effectiveness. TQM has been a method or technique for constantly enhancing the quality of goods and services delivered through the involvement of personnel at all levels and functions of the organization. Organizations have viewed TQM as the totally integrated efforts for gaining competitive advantage by continuously improving every facet of organizational culture. The application of TQM could be due to many reasons. For example the major drivers for financial institutions to apply TQM are competitive pressures, customer demand for quality and desire to reduce cost. Financial service organizations are very labour intensive, and their staff come into frequent contact with the public. To deliver quality service, organizations must see teamwork, co-operation and motivation as key elements. Customer satisfaction can only be a result of a range of factors which in financial institutions would include friendly and courteous personnel, the quality of financial products, credit facilities, bank charges and user friendly online system.

6. RECOMMENDATIONS

- Organisations should design and develop appropriate products to cater for the needs of those with no formal education so as to attract them. This will increase their clientele base and consequently increase their market share.
- There should also be more outreach and more education on the products they have and the benefits potential clients will have.
- Properly designed training programmes on TQM should be regularly organized for the staff. This will ensure that best practices of TQM are also implemented to sustain the competitive advantage.
- Organisations should endeavour to regularly have interaction with all customers, giving them technical advice, educating them on their new products, and soliciting feedback on their services from them.
- Organisations should cultivate a total quality management culture.All organizations especially those in Ghana should cultivate a culture of quality. They should step up their TQM practices. They should have a department solely in charge of Total quality management. Apart from that every department should have TQM practices and processes embedded in its operations. It will be appropriate to inculcate the "quality at every

process" as part of the corporate culture; this will bring on board all staff and make all staff quality conscious and make the customer the center of all activities.

- Feedback and Complaint Channel should be created**.** Organisations should create avenues where it will be easy to receive feedback and complaints from customers. This will enhance their performance and hence remain competitive in the industry. Customers must have avenues to channel their complaints and also give feedback on the performance of the organization.
- There must be prompt answering of calls by customers.Organisations must ensure prompt answering of calls by customers. An organisation cannot afford to forego the business opportunity a telephone call may represent. The opportunity cost will be very great.
- There should be constant interaction with clients.Organisations should constantly interact with their clients or customers to offer technical advice especially to business owners in order to grow their businesses. This will make them unique and hence achieve competitive advantage.

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