

THE IMPLEMENTATION OF QUALITY MANAGEMENT STRATEGIES: AN
EMPIRICAL STUDY OF GUINNESS NIGERIA

By

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ABSTRACT

The importance of quality to firms has progressively pervaded today's markets as customer requirements and expectations have become more rigorous and challenging. According to Deming (1982), the only definition of quality that matters is that of the customer; therefore, a simple definition for quality is 'products meeting or exceeding the expectations of customers'.

There are various advantages of the implementation of Quality Management strategies in a company, some of which include: Strengthened competitive position, higher productivity, elimination of defects and waste, which leads to increase in profitability.

This project will look into the Quality Management strategies being adopted by Guinness Nigeria in its operations by analyzing the initiatives adopted by the company and taking an in-depth look at the difficulty/ease they face in the implementation of quality strategies.

In carrying out this extensive research on Guinness Nigeria, my aim is to analyze how well Quality Management techniques have been implemented and the challenges that have been faced during this implementation. The end of this research will achieve the following aims and objectives:

- How has TQM been implemented in Guinness Nigeria?
- Identify challenges that have been faced by organization.
- Make recommendations for the improvement of quality management strategies.

In finding out this information a detailed research that involves questionnaires and interviews will be carried out. The questionnaire aims to find out the opinions of employees in the organization; the interview also aims to find out the strategies that are being used by the organization. The information was analyzed by using the framework for the implementation TQM that is designed in this research.

The analysis showed that TQM in Guinness Nigeria is very much being implemented, but it still needs to be developed. Some of the elements are present but need to be developed further, while some of the elements are non-existent.

For Guinness Nigeria to successfully implement TQM, it will need to focus on the core elements of TQM and develop the supporting elements.

ACKNOWLEDGEMENT

I dedicate my dissertation work to my God, family and friends, most importantly to my parents, Adeola and Funmilola Adelanwa, for giving me this opportunity to pursue a master's degree. I will also like to thank my parents for encouraging me during tough times, and God for giving me the grace to be able to complete this dissertation.

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GLOSSARY

TQM

TOTAL QUALITY MANAGEMENT

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CHAPTER 1

INTRODUCTION

In the world today quality is an important factor that cannot be overlooked; as the demand for products increase, the quality of these products is becoming increasingly important to customers. Total quality management (TQM) is an organization-wide approach that focuses on quality; it has become one of the most popular modern management concepts. It focuses on everyone involved with the organization, from the employees to the customers, and allows organizations to continuously improve their processes, thereby meeting and exceeding the needs of its customers.

Quality is an important element in ensuring customer expectations are met, these expectations become more and more challenging as the world changes. Authors, scholars and quality enthusiasts have attempted to define quality in their own different ways.

The definition of quality is usually dependent on the role of the people defining it. Crosby (1979) defined quality as the conformance to requirements or specifications; and also suggested that to manage quality adequately, it must also be able to be measured. The measurement of quality allows for management to monitor progress of strategies being carried out. Conformance to requirements or specifications measures how well a product or service meets the targets and tolerances determined by its designers. In addition to this, Crosby added in 1992 that quality means getting everyone to do what they have agreed to do and doing it right the first time is the skeletal structure of an organization, finance is the nourishment and relationships are the souls.

According to Deming (1982), the only definition of quality that matters is that of the customer. Therefore, a simple definition for quality is meeting or exceeding the expectations of customers. W. Edwards Deming is perhaps the best-known quality expert in the world.

ISO 9000 defined quality as the degree to which a set of inherent characteristics fulfills requirements; this is similar to Juran's definition of quality. Juran (1988) defined quality as fitness for use in terms of design, conformance, availability, safety and field use. In other words fitness for use refers to how well the product

performs its intended function for use. Juran (1999) proposed the quality trilogy: quality planning, quality control and quality improvement to develop a universal thought process for quality. Quality planning allows the company to prepare its goals. A quality planning allows for quality to be designated into the deliverables of project before the task begins. It describes the team's tools and techniques in which organizations use, as well as the responsibilities for quality activities. According to Early and Colleti (1999), Quality planning is a structured process for developing products (both goods and services), which ensures that customer needs are met by the final result. It involves a series of universal steps, which are summarized below:

- Establishment of quality goals: The first step involves setting the goals to help with the direction and knowing the resources to be used to achieve the goal.
- Identification of the customers, to know those who will be impacted by the efforts to meet the goal: It is important to identify the customers; this gives the organization a focal point. In determining the needs of customers, the two types of customers are identified, the internal customers and the external customers. The effectiveness of meeting the needs of the internal customers has a great impact on the service to the external customers.
- Determine customer's needs: This provides a complete understanding required for a successful product design to meet the customer's needs. Develop product features that respond to customers needs: This stage follows the identification of the customers as well as their needs, without those steps it is impossible for the organization to make products that meet the needs of customers. Early (1999) lists 5 activities required for effective discovery of customers needs, they include: Plan to collect customers' needs, collection of a list of customers needs in their language, analysis and prioritization of customers needs, translation into organizations language and the establishment of unit measurements and sensors. It is important for organizations to differentiate between the customer's real needs and stated needs. Early (1999) explains that customers commonly state their needs in terms of the goods and services

they wish to buy, however their real needs are the benefits they believe they will receive.

- Development of the product: This follows the identification of the customers as well as their needs. In the development of the product, organizations need to determine which product features will provide the optimal benefit for the customer and identify what is needed so that the designs can be delivered without deficiencies.
- Develop processes that are able to produce those product features: The process design helps to ensure that the final product is the product that was designed. Early (1999) defined process development as the set of activities for defining the specific means to be used by operation personnel for meeting product quality goals. Process should be measurable and should always lead to a goal.
- Establish process controls, and transfer the resulting plans to the operating forces. Early (1999) identified 7 major activities that are needed in this step: Identification of controls needed, design of feedback loop, Optimize self-control and self-inspection, Establish audit, demonstrate process capability and controllability, plan for transfer of operations, implement plan and validate transfer.

According to Flynn et al. (1993) “quality management is defined as an approach to achieving and sustaining high quality output”. It has been developed in recent years from inspection, quality control, and quality assurance to total quality management. Organizations who have continuously tried to improve are working towards TQM.

SUMMARY

This dissertation aims to analyze the implementation of TQM in Guinness Nigeria; the literature review considers the evolution of quality management and the elements of TQM, the level of adoption are also considered and the chapter is rounded up by the benefits and limitation of TQM.

The framework is designed in chapter 3 and it analyzes the elements of TQM that are considered in the literature review. In addition to this, the methodology for

this research is explained in the next chapter. The last two chapters present the results, which are the carefully analyzed with the use of the framework. Recommendations are provided for the further implementation of TQM in the last chapter.

CHAPTER 2

LITERATURE REVIEW

INTRODUCTION

This chapter assesses the evolution of quality management and the development of TQM. In addition to this, the chapter further examines the principles of TQM, the benefits and the limitations in its implementation. The evolution of quality explains how it has been developed over the years; this development involves the contribution of quality gurus. Furthermore the chapter looks at the development of TQM, and this involves the various definitions of TQM by scholars. In addition to this, it includes the stages of development of TQM, the levels of adoption, the benefits derived from TQM and the limitations in the implementation of TQM.

THE EVOLUTION OF QUALITY MANAGEMENT

Quality management is an organization-wide approach to understanding exactly what customers need and continuously delivering accurate solutions within budget, on time and with the minimum loss to society. In carrying out quality management, organizations are concerned with satisfying customer's expectations and improvements in the overall business efficiency. According to Flynn (1993), Quality management is defined as an integrated approach to achieving and sustaining a competitive advantage. Quality management is a critical component in both the design and the production of products, which are superior to competitor's products. Quality management will ensure the effective design of processes that verify customer needs, plan product life cycle and design, produce and deliver the product or service. Quality management has evolved over the years through contribution of various quality gurus from one phase to another, they include:

- Inspection
- Quality Control

- Quality Assurance
- TQM

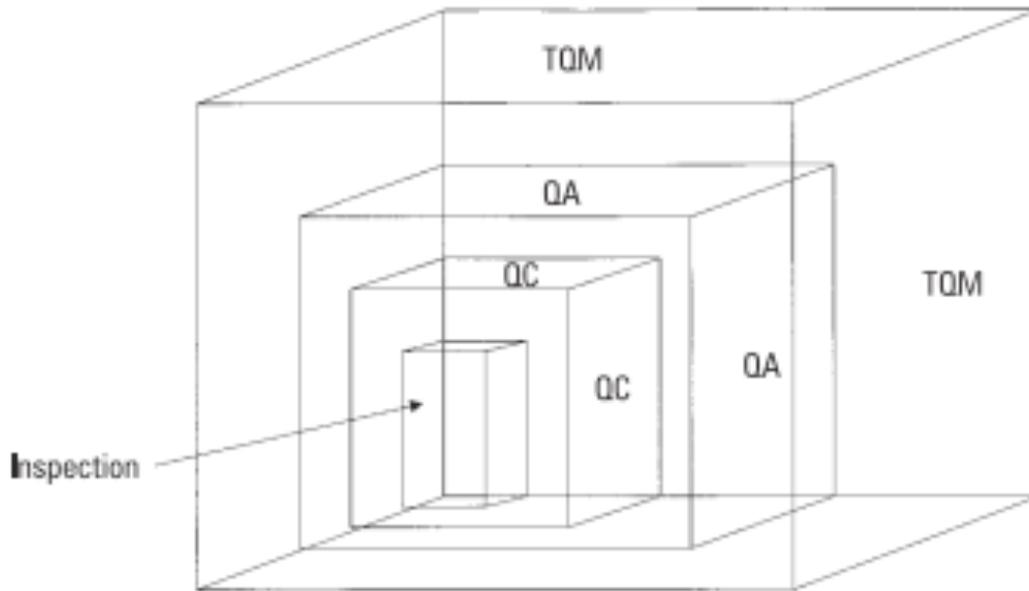


Figure 1: Stages in the Evolution of Quality Management (Mintzas, 1999)

INSPECTION

According to ASQ, inspection can be defined as measuring, examining, testing and gauging of one or more characteristics of a product or service and comparing the results with specified requirement to determine whether conformity is achieved for each characteristic. That is, Quality Inspection are measures aimed at checking, measuring, testing of one or more product characteristics and relating results to the requirements to confirm compliance. Quality inspection is one of the first stages of evolution of management. The origins of quality inspection date back to the 19th and 20th century. Quality wasn't up to speed with labor productivity. To alleviate errors or defects, which occurred, firms replaced defective products with new ones. This strategy cost companies a lot; to reduce excessive cost escalation manufacturers introduced the craft position controller. A position controller is a designated employee who carried out the inspection of the products. A key assumption relating to quality inspection is to adopt the principle that ultimate controller is the client. Quality inspection serves a number of purposes, they include:

- Identification of the problem
- Preventing its occurrence
- Elimination of the problem

The quality control inspectors make sure everything from the raw materials to the finished products meet the quality and safety standards set by a particular organization. Quality control inspectors also monitor purchases made in by the organization, this allows them to be able to monitor quality effectively.

Inspection occurs at different stages in an organization, they include:

- Inspection of incoming materials: This could occur upon arrival or before it leaves the suppliers location. It is the inspection of raw materials and parts needed in a production process. This is very essential as it prevents poor resources from going into the process before identification
- Inspection of production process: This level of inspection is carried out at the same time when the production process is going on. It prevents wastage in the assembly time.
- Inspection of finished goods: This is carried out when production is completed. It allows organizations to calculate their defect rates and sort out product that are fit for sale from those that are not. Often some organizations may sell defective products at reduced price; this is usually dependent on the type of product.

There are two major types of inspection used by organization, they include:

- 100% inspection: This is a strategic form of inspection that involves inspecting individual products at every stage. It is an expensive form of product inspection since it needs more inspectors than sampling inspection. It is also more time consuming than the other method.
- Sampling inspection: This involves taking a randomly selected sample out of a batch. If the randomly selected sample is defective then it is rejected. It is relatively less costly but may lead to defective products being accepted.

QUALITY CONTROL

This can be defined as a process in which a business or firm seeks to ensure that product quality is maintained or improved and manufacturing errors are reduced or eliminated. According to Juran (1999) Quality control can be defined as that industrial management technique by means of which product of uniform acceptable quality is manufactured. Quality control as defined by Early (1999) “is a universal managerial process for conducting operations so as to provide stability- to prevent adverse change and maintain status quo”. In order to maintain stability, it is important for organizations to evaluate actual performance and compare to performance goals. On the other hand, quality improvement means “the organized creation of beneficial change; the attainment of unprecedented levels of performance”

The main aim of quality control is to create an environment in which both management and employees strive for perfections. In the use of quality control there has been a development from the basic inspection and activity in terms of sophistication of methods and systems, self-inspection by approved operators, use of information and tools and techniques that are employed. A major aspect of quality control involves an establishment of well-defined standards. These standards help to control activities during productions and reactions to quality issues that have occurred. Having clearly defined standards helps to prevent employees from making mistakes during processes. Juran (1999) identifies 3 major objectives of quality control, they include:

- It helps to decide about the standard of quality of a product that is easily acceptable to the customer
- To take note of variation during manufacturing
- Preventing poor quality products from reaching the customer.

Organizations that run a quality control method are operating in a detection type mode; this involves finding and fixing mistakes. Dale (2007) emphasizes that in a detection environment, the focus is on the product, procedures, service deliverables and the downstream producing and delivery processes. This

method leads to a series of after event inspecting like, troubleshooting, checking and testing of the product or service and providing quick fixes, in order to get the right goods to the customer. This approach creates difficulties for organizations, with planning and improvements being neglected defects are identified late in the process, this creates losses for organizations at large. The problems that are identified in this system are not removed and are always likely to reoccur, even though it attempts to prevent non-conformance products from getting to the final consumer it does not stop it from being produced. This creates a situation in which the customers are made part of the organization, as they have to inspect the goods they purchase. According to Dale (2007) an organization that practices this style usually lacks team spirit, co-operation and a good work atmosphere.

QUALITY ASSURANCE

This can be defined as a way of preventing mistakes or defects in manufactured products and avoiding problems when delivering solutions or services to customers. ASQ defines quality assurance as “the planned and systematic activities implemented in a quality system so that quality requirements for a product or service will be fulfilled”. Quality assurance is more of a proactive approach as compared to quality control, which is more reactive. Quality Assurance is applied to physical products in pre-production stages to verify what will be made meets specifications and requirements, and during manufacturing runs by validating lot samples meet specified quality controls. There are two major principles that are involved in quality assurance, fitness for purpose and right first time. Fitness for purpose refers to how well the products perform the function they are required to do. Right (appropriately) the first time involves the elimination of mistakes from operations processes. There are various ways or methods that are used in ensuring quality assurance, they include: comprehensive quality management system to increase uniformity and conformity, use of seven quality control tools, statistical process control, failure mode and effects analysis, and the gathering and use of quality costs. These tools and techniques will aim to focus on the prevention of errors. Dale (2007) defines quality assurance as a prevention-based system, which improves product and

service quality, and increases the productivity by placing the emphasis on product, service and process design.. The implementation of quality into the planning and design stage as well as the concentration on the source activities allow for organizations to prevent the production of defective products. Most of the defects that occur in the production stage are due to the poor or unsuitable designs of products or processes. Dale (2007) further explains that in the prevention approach, there is recognition of the process as defined by its input of people, machines, materials, method, management and environment. It also brings a clearer and deeper sense of responsibility for quality and eliminates the root cause of waste and non-value adding activity to those actually producing and delivering the product or service. It is important for management to change their philosophy and way of thinking in order to create a preventive mentality.

TOTAL QUALITY MANAGEMENT

The systems for managing quality have been redeveloped towards improvement. There have been 3 previous stages prior to the development of TQM. These stages include: Inspection, quality control, quality assurance the fourth level is TQM, according to the International Organization for Standardization (ISO) it can be defined as “a management approach of an organization centered around quality, based on the participation of all its members and aiming at long term success through customer satisfaction and benefits to all members of the organization and society”. In addition to this, another key aspect is the emphasis on continuous improvement. According to Lakhe (1993) TQM may be defined as “a continuous quest for excellence by creating the right skills and attitudes in people to make prevention of defects possible and satisfy customers/users totally at all times”. TQM is an organization-wide activity that has to reach every individual in an organization. Oakland (1993) defined TQM as an approach to improving the effectiveness and flexibility of business as a whole. It is essentially a way of organizing and involving the whole organization, every department, every activity and everyone at every level. TQM has been based on the quest for progress and continual improvement in the areas of cost, reliability, quality, innovation efficiency and business effectiveness. Dale (2007) explains that TQM

involves the implementation of quality management principles to all the aspects of the organization, including customers and suppliers and their integration with the key business processes. It requires that the principles of TQM be implemented in every branch and at every level in the organization with integration into business practices and a balance between technical, managerial and people issues.

Dale (2007) points out 8 quality management principles, they are:

- **Customer Focus:** It is important for organizations to understand the needs of customers, both present and future needs. Organizations should aim to meet customer's expectations and surpass those expectations in the near future.
- **Leadership:** Leadership in an organization helps to provide a sense of direction as well as unity. It is important for the internal environment in the organization to share the same goals and objectives. This makes it easier for organizations to meet those set goals.
- **Involvement of People:** When everyone in an organization is involved it makes it easier for the potential abilities of members in the organization to be put to full use.
- **Process approach:** When activities are managed as processes it makes it easier for desired results to be managed much more efficiently and effectively.
- **System approach to management:** Processes should further be managed as a system; this involves identifying, understanding and managing the various processes. This helps to increase efficiency and effectiveness.
- **Continual Improvement:** A constant objective in the organization should always focus on continuous improvements.
- **Factual approach to decision making:** Important decisions that are to be made in the organization should be based on analysis of data and information.
- **Mutually beneficial supplier relationship:** The importance of a mutually beneficial relationship cannot be overlooked. This enhances the ability to be able to create value on both ends.

ORIGIN OF TQM

Powell (1995) states, "The origin of TQM can be traced to 1949, when the Union of Japanese Scientists and Engineers formed a committee of scholars, engineers, and government officials devoted to improving Japanese productivity, and enhancing their post-war quality of life". It is difficult to select an exact date when TQM was invented, but it is clear the philosophy came to origination in the 1980s. Bemowski (1992) states that TQM was initially coined in 1985 by the Naval Air Systems Command to describe its Japanese-style management approach to quality improvement. Martinez-Lorente (1998) further explains that the main reason for the origin of the term TQM could be a substitution in the previously used term of quality control (TQC), the word "control" to "management". Deming (1982) further reinforces this point by stating that inspection should be suppressed. In addition to this Crosby (1979) makes the point that control is not necessary when a zero defects level is achieved. In the USA the development of TQM was as a result of the penetration of the USA market by Japanese products. Furthermore writings by quality gurus like: Crosby, Deming and Felgenbaum, Ishikawa and Juran and the integration of their works led to the concept of TQM.

Stages of TQM implementation

The implementation of TQM is a major task in organizations as it is complex to achieve and involves a number of parties. In order to manage TQM in a business there are certain strategies that can be implemented, they include: Employee and Customer Involvement, Strategic planning, Leadership, Information and feedback etc.

- Documenting: A key step to understanding a process is by documenting it and listing out the steps. According to Ehresman (1995) the best tools for documenting are process flow diagrams.
- Data Collection: The next step is to gather information from the previous step and measure the process. The best tools for this purpose are check-

sheet, histogram, statistical process control (SPC), and Pareto chart, scatter diagram and run chart.

- **Problem solving:** This helps firms to identify the problem, so that efforts are not misguided. The techniques that can be used are brainstorming, relationship diagram, reversal and characteristic changing and cause and effect diagram. A key step to solving a problem is finding its root and cause.
- **Continuous improvement:** This process ensures that the use of the above listed tools and techniques are repeated, this helps to attain continuous improvement. The plan-do-check-act (PDCA) cycle is a popular model for continuous improvement. Planning; this refers to the identification of opportunities and finding ways to exploit these opportunities. Doing; this refers to how firms attempt to correct the change through implementation. Checking; this on the other hand involves knowing the effect of the change or measuring it. Act; this is the next step after which the effect is observed. The tools and techniques in this step are: failure mode, fault tree analysis and effect analysis (FMEA) and control charts. Organizations need to continuously look to improve due to external demands. Continuous improvement in processes leads to customer satisfaction, which results in an external quality improvement.

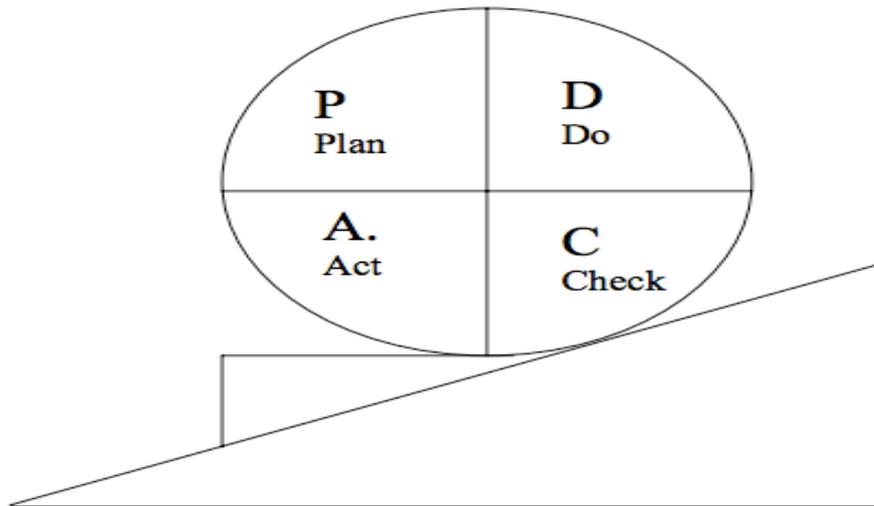


Figure 2: Deming Cycle, a Systematic Approach to Problem Solving (Niie, 2008)

Quality Stabilization: Most organizations make use of ISO9000 series in an effort to make quality a point of focus for every employee. According to Ehresman (1995) Quality is everyone's job.

In addition to this, the focus on customers is very important to the implementation of TQM; this means that products and processes should always have a customer focus. Customers and products should always value quality or services should cover their needs and expectations. According to Hanson (2003) this signifies that quality is a relative concept, which, among other things, is set by the market competition. Firms need to be committed to satisfying customers and ensure its is a continuous and long term effort. In focusing on what the customers want, it is important to find out the needs of the customers before making the products.

In order for TQM to be well implemented there must be commitment of top management. The management must initiate planning for implementation and participate in the work including evaluation of processes and results. According to Tenner and DeToro (1992) the importance of the role of senior managers as advocates, teachers and leaders cannot be overstated. These leaders must serve as role models throughout the organization.

It is also important for everyone involved to be fully committed. If the organizations quality strategy should be successful, all of the organizations

employees should be engaged in the work of satisfying the customer with a continuously improved quality. The commitment of all employees in the organization means that they should all be involved with practices, these core values should include the suppliers who later become partners through practices like these. The education and training of employees is important to realizing the mission, vision, direction and strategy of the organization.

LEVELS OF TQM ADOPTION

There are varying levels at which TQM are introduced in companies, Dale and Lascelles (1991) describe 6 levels at which TQM is adopted in organizations, they include: Uncommitted, drifters, tools pushers, improvers, award winners and world class

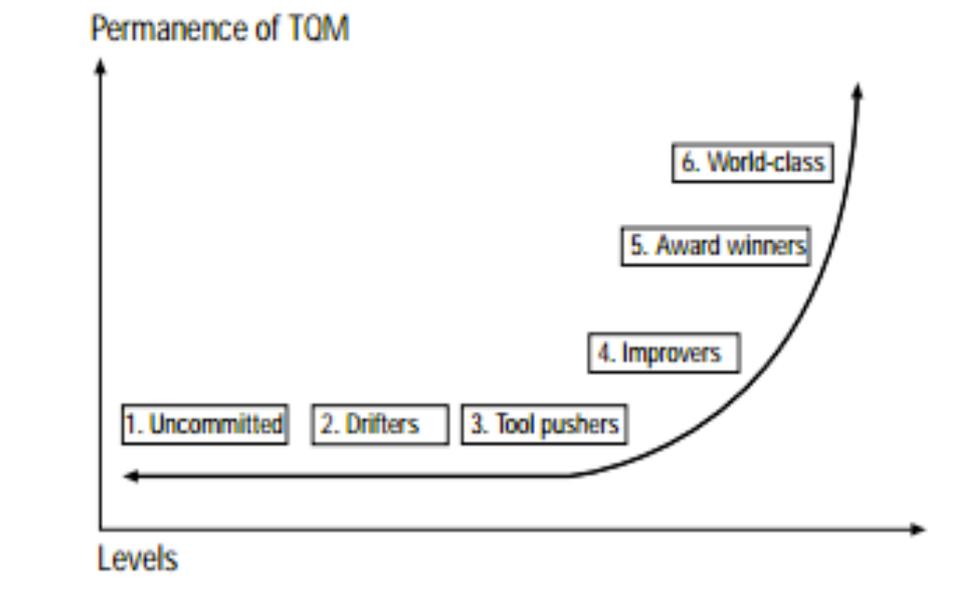


Figure 3: Levels of TQM adoption (Dale and Lascelles, 1997)

Uncommitted

This stage represents organizations that have not started a formal process of continuous improvement and are seen as somewhat ignorant of the knowledge of TQM. Organizations in this category are usually limited to ISO 9000 quality management system series registration and apply some quality management tools and techniques. Organizations in this category are more concerned about other factors such as productivity and financial indicators. In organizations like

these little investment goes into education and training of management in respect to quality takes place. The major reason why organizations in this category are termed as uncommitted is because they have no long-term plan for continuous improvement and do not think it will be of advantage to them. Organizations in this stage view quality improvement as an added cost thus have no investment in quality improvement programs such as training etc. It can be argued that companies at this level who are very profitable do not need TQM, but usually such success is usually short term.

Drifters

Level 2 organizations are known as drifters and organizations in this category that have engaged in a process of quality improvement for up to three years and have followed the available advice and wisdom of TQM. The management of the organizations in this stage tends to review the performance of the firm based on the implementation of TQM and expect immediate gains from it. Organization which fall within this stage usually have no plan for the deployment of TQM philosophy through out the organization thus limiting the implementation of TQM to the managers while leaving the shop floor out of the implementation process. They are known as drifters because they drift, without a clear defined boundary, from one program to another. There are various characteristics of organizations in this category include:

Tool-Pushers

Organizations in this category usually have more experience than drifters in the implementation of TQM. Experience in these type of organizations range from 3 to 5 years. Quality management tools such as statistical process control (SPC), the seven basic quality control tools, quality circles, departmental purpose analysis (DPA), failure mode and effects analysis (FMEA) etc. Organizations in the category look at quality improvement programs but in most cases fail to use such tools appropriately. This type of organization finds it difficult to quick the momentum of its improvement strategies going and is always on the lookout for new ideas for quick fixes. When such an organization is owned by an offshore

parent company, it is likely it will have made an attempt to address the annual themes in its officially submitted business plans and will have responded to the improvement initiatives put out by regional and corporate headquarters. However, there will be no master plan to integrate and sustain the various initiatives that have been downloaded by headquarters to the various operating businesses. There are some organizations in this category that have purchased quality improvement tools and after 2 years these tools have been put to misuse by the organization.

Improvers

This group of organizations has practiced TQM between 3-8 years and during this period they have made progress. They recognize some of the key elements of TQM such as customer focus and the need for continuous improvement. Senior management has shown commitment through leadership and their personal actions. A proper strategy for TQM has been developed and it has been integrated with other business strategies, this allows TQM to have a real impact on business performance.

However in such an organization, there is a danger of momentum being lost, as TQM is dependent on a small number of individuals in the organization. They are termed improvers, as they are moving in the right direction but still have more to learn. TQM is not self-sustaining, with organizations still vulnerable to short term pressures and unexpected difficulties. It is also possible that the change in culture is relatively slow and some contradictory signals are sent out. At this level the more complex quality management techniques must be implemented carefully. Employees who understand it should apply them.

Award Winners

This level indicates those who have successfully implemented TQM. According to Dale (1999), organizations at this level have reached a point in their TQM maturity where the kind of cultures, values, trust, capabilities, relationship and employee involvement in their business required to win such an award have

been developed. This is a point at which quality improvement has become “Total” in nature. Many organizations choose to work towards TQM by means of the award criteria. An example of an international quality award is the European Quality Award; this was developed in order to sustain business excellence efforts among organizations within a European context. Williams and Bersch (1989) conclude “strong world-class-quality related competitiveness can only be achieved when an organization has reached the stage of being able to compete for top quality awards” Characteristics of the organization include the following:

World Class

According to Dale et al (1994) these organizations are characterized by the total quality improvement and business strategies to the delight of customers. The organizations that have attained this category are always in search of opportunities to improve their services to satisfy customers. It was further explained that the focus of TQM here is on enhancing competitiveness by influencing the perception of customers to the company through the continuous innovation of the service offering. The impact of TQM is felt more here as it is aimed at continuous improvement to enhance customer appeal. An indication of world-class quality performance is that a company can apply for the Japan Quality Medal five years or more after it has received the Deming Application Prize. The task of satisfying customers is a goal for everyone in the organization.

(Dale and Lascelles, 1991)

TOOLS AND TECHNIQUES USED FOR TQM IMPLEMENTATION

In striving for continuous improvements it is important for organizations to select from a number of tools and techniques available to them. Some of the techniques available to organizations include: checklists, flowcharts, seven quality tools (cause and effect diagram, check sheet, control charts, graphs, histogram, pareto diagram and scatter diagram), quality costing, statistical process control, benchmarking, data collection monitoring and maintaining control etc.

It is important for organizations to know or understand the main uses of the particular tool or technique in consideration. It is very common for organizations to misuse tools or techniques, which therefore affect the implementation of TQM as a whole. Dale (2007) states that “a number of companies use tools and techniques without thinking through the implications for TQM or how the concept will be developed and advanced within the organization. Tools and techniques available to organizations are very important for continuous improvement. Dale (2007) identifies two factor organizations should consider when selecting tools and techniques:

- The applications of tools or techniques without a strategy and plan will only lead to short term benefits. In order for the tools and techniques used to be effective over the long term, appropriate employee behavior and attitudes are needed to make effective improvements.
- There is no existence of hierarchy in the importance of tools or techniques; they all have a role to play in the improvement process.

Cause and effect diagrams

This type of diagram was developed by Ishikawa (1976) to determine and breakdown the main causes of a given problem. They are usually employed where there is only one problem and the possible causes are hierarchical in nature. It is used during brainstorming sessions to influence a particular decision. Each problem is broke down into groups and this usually gives rise to a fish-bone looking diagram.

Quality Costing

Porter and Rayner (1992) explain that organizations competitiveness is seriously affected by the costs of correcting errors, doing things over, apologizing to customers etc. The quality related cost of these nonproductive activities has been estimated to be as high as 20% of sales revenue across a wide range of industries. They further explain that quality costing can be used for the following purposes:

- It is an important tool for getting the commitment of senior management.

- It allows organizations to put a case forward for TQM initiative.
- It allows organizations to identify areas of improvement.
- It allows organizations to estimate gains from potential quality improvement plans.

Dale and Rayner (1992) identify Feigenbaum's P-A-F Model who built on the work of Masse. He identifies 3 categories of cost:

Prevention costs:

This can be said to be the cost of any reaction taken to investigate, prevent or reduce the risk of non-conformity or defects.

Appraisal costs:

This is the cost of evaluating the achievement of quality requirements.

Failure costs:

This is the cost of non-conformity both internal and external, internal involves nonconformity discovered before delivery to the customers and external refers to those discovered after delivery to the customers e.g warranty costs and service costs.

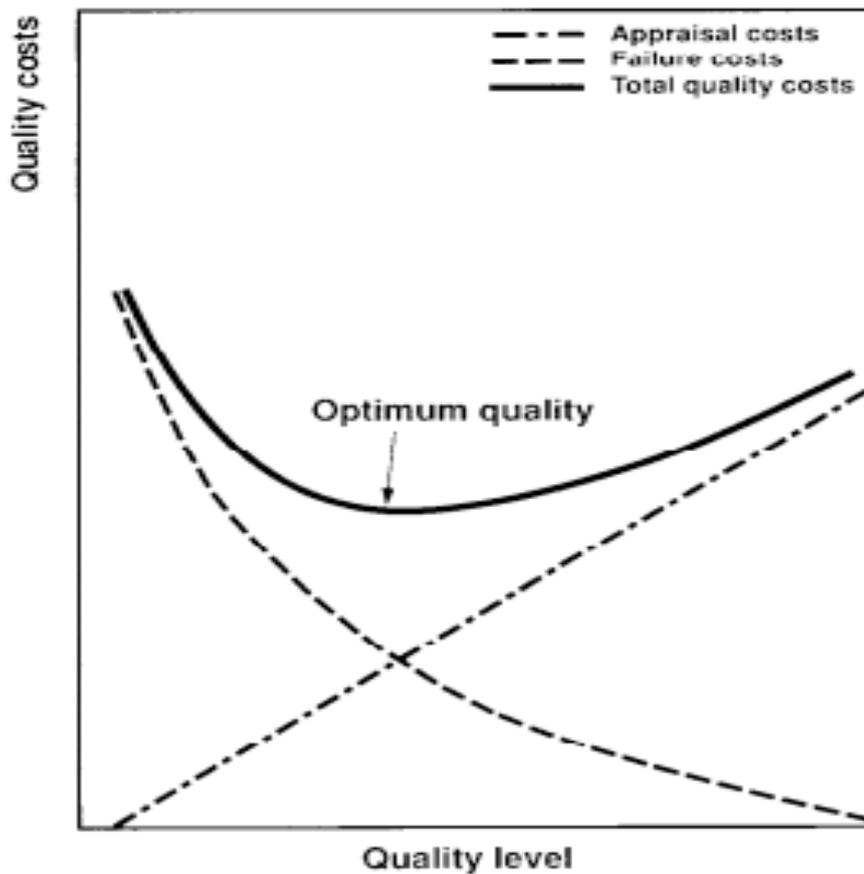


Figure 4: The relationship between appraisal and failure costs (Dale and Rayner, 1992)

Feigenbaum's costs are related to failure costs tend to fall as the appraisal costs rise. This is due to the fact that the cost of correcting misytakes increase as it proceeds down the line of production, so failures are usually found at an earlier stage. The diagram below shows how the cost increases as materials move down the line of production.

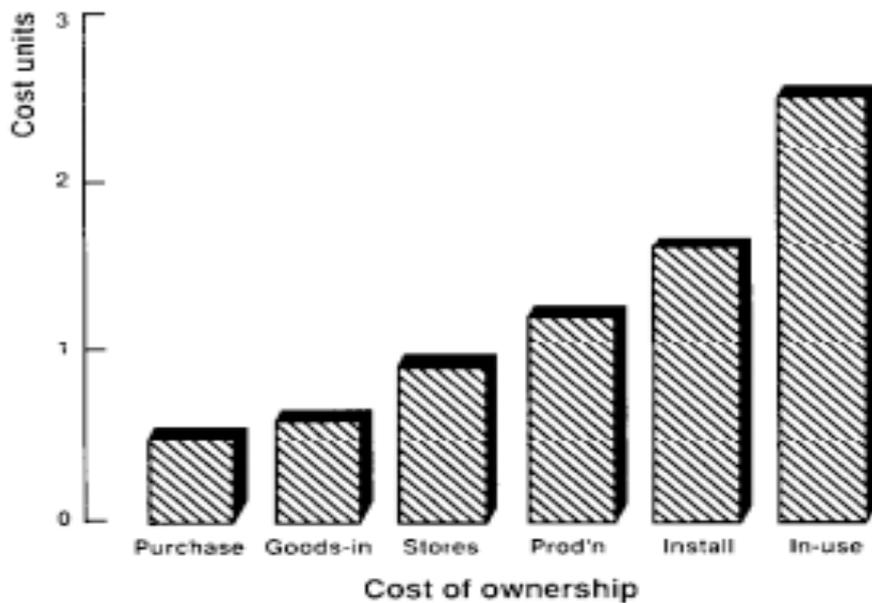


Figure 5: Cost of correcting a fault at successive stages of manufacture (Dale and Rayner, 1992)

When organizations decide to undertake a particular TQM approach, they will need to decide on the on the tools and techniques available to be able to assist the process of continuous improvements.

KEY ELEMENTS OF TQM

Organizations looking to embed TQM in the organizations culture need to put in place certain principles. This section of the literature review looks to identify and explain the principles of TQM implementation. Al-Sulimani and Sharad (1994) consider the main TQM elements to be top management commitment, customer focus, employee involvement, and training and education, communication and preventive action.

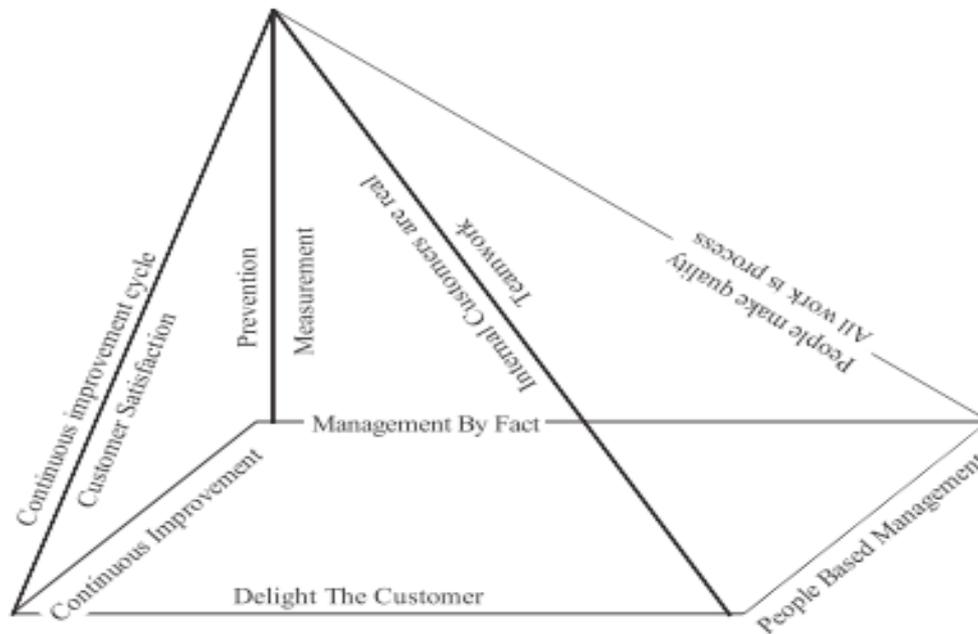


Figure 6: Pathway to TQM (Nwabueze, 2012)

Customer-Focused Organization

Griffiths (1990) defines quality as meeting customer requirements and therefore considers the customer as the driving force of the whole quality process. Frorza (2009) explains that due to the dynamic global competition during the past two decades, providing customers with quality product and service has become important. The first and major TQM principle is to satisfy the customer, a customer can be defined as the person or individual who pays or requires a particular service or product. It is important for organizations to understand the future and current needs of existing and potential customers. Gherbal (2012) defined customer focus as the degree to which a firm continuously satisfies customer needs and as can be expected a successful firm will recognize the need to put the customer first in every decision made. A key element to quality management is maintaining a closer relationship with the customer in order to determine their needs. Evans and Lindsay (1993) consider the customer as the most important element of TQM, whilst Roberts (1999) argues that being a customer oriented firm is critical to TQM success and should be considered as a focal point of the decision making process. To determine customer needs Evans and Lindsay (1993) suggest the use of customer surveys, focus groups and

enlisting customer feedbacks, this allows organizations focus on the needs of customers.

Management commitment and leadership

Baidoun (2000) explains that leadership with the customer focus is two major elements of TQM. The customer provides a focal point for management on TQM. Anderson et al. (1994) described the concept of leadership as the ability of top management to create practice and a long-term vision for the organization or firm driven by changing customer requirements. The commitment of top management is determines how successful TQM is and to what extent the whole organization adopts the strategy. Leadership requires the manager to provide an inspiring vision, make strategic directions that are understood by all and to instill value and guide subordinates. A supervisor must understand TQM, believe in it and then demonstrate their belief and commitment through their daily practices of TQM. The supervisor makes sure that strategies, philosophies, values and goals are transmitted down through out the organization to provide focus, clarity and direction. A key point is that TQM has to be introduced and led by top management. Commitment and personal involvement is required from top management in creating and deploying clear quality values and goals consistent with the objectives of the company and in creating and deploying well-defined systems, methods and performance measures for achieving those goals. Oakland (1996) explains that commitment of management must be a constant purpose and embrace al departments, as well as customers, suppliers and subcontractors, Dean and Evans (1994) extend this to commitment to shareholders and employees.

Involvement of people

Low and Jasmine (2002) successful implantation of a TQM environment or culture requires a committed and skilled workforce to fully participate in activities carried out to improve the quality. Employees in the organization should be ready to take responsibility and communicate effectively towards improving the quality levels at every stage. In organizations, there is a presence

of both internal and external customers. The internal customers are those who are concerned with the relationships between the employees in an organization. Employees in an organization should treat each other as customers. Satisfaction of the internal customers will lead to the organization taking steps to improving the quality levels. On the other hand the external customers refers to those who are involved with the firm from the outside of the organization. The involvement of everyone in the organization includes the chain from suppliers to workers and customers. Evans and Lindsay (1993) state that the concept of TQM will be effective only when all employees are involved, this shows the need for horizontal integration, communication and co-operation using techniques such as quality circles, self directed teams and steering committees. Employee involvement also entails empowering employees and creating good communication systems.

Communication

Communication can be defined as the exchange of information and understanding between two or more persons or groups. According to Chase (1993), good communication will result in reducing ones fear, as this will allow TQM to be more appropriate. Kanji et al. (1993) indicated that the communication is part of the cement that holds together the bricks of the total quality process. Sanders (1994), good communication and a good feedback system are very important in transmitting ideas to the management and to integrate the necessary change needed. The feedback system is essential for understand the needs of the customer and getting senior managements support in focus on these needs. For efficiency in an organization, employees should be able to convey their messages properly. The main purpose in organizations is to enable employees to have the information they need to perform their work best.

Training And Education

Ishikawa (1972) believes that training and education is vital in determining the success of total quality management. The training and education carried out in organizations should target employees at all levels to ensure TQM is successful.

This allows the employees from top management to the bottom staff to understand the major philosophies of TQM. Training is very important for employees to be highly productive. Training that employees require are interpersonal skills, the ability to function within teams, problem solving, decision making, job management performance analysis and improvement, business economics and technical skills. During the creation and formation of TQM, employees are trained so that they can become effective employees for the company. Evans and Lindsay (1993) assert the need for training at all levels of the organization for TQM and quality improvement, Oakland (1996) further adds to this by stating that training is the most important factor in improving quality. Kaddash (2002) states that training for quality improvements may include programmes dealing with elements of process improvement, such as team skills, communication, interpersonal relations and team building. Additionally programmes can cover problem-solving techniques, SPC, benchmarking, customer care, TQM implementation, quality costs and design for manufacturing.

Customer And Employee Satisfaction

Customers' satisfaction is primarily dependent on a company's ability to meet or exceed customer expectation. Hauser and Clausing (1988) further explain that this will involve organizations maintaining close contact with customers through surveys, sales people, and marketing and customer relations departments. Ugoror and Obeng (2000) explain that since TQM's focus is on quality of products and services that meet or exceed customer expectation, organizational effectiveness has become synonymous with customer satisfaction. Berry et al. (1998) identifies 5 principal measures used by customers to rate organizational services: quality, tangibility, reliability, responsiveness or willingness to assist customers, ability to convey trust and confidence to customers.

Locke (1976) defined job satisfaction as, "a favorable attitude or pleasurable emotional state that results from a person's job experience or a fit between a person and an organization". In addition to this, Ugoror and Obeng (2000) further explain that organizations who have successfully implemented TQM programs, especially those who have won the Malcolm Baldrige Quality Award,

highlight that employee satisfaction is influenced by improvements in work environments.

Supplier Partnership

Organizations spend huge portions of their resources on the purchasing of raw materials, components and services; these resources purchased are used for production. Therefore, the quality of the supplier's product can significantly affect the overall quality of a product. Dale (2007) explains that many European companies, following the example of Japan, in the last 15 years have started encouraging their suppliers to develop their quality management system, adopt continuous improvement philosophy, eliminate non-value adding activity, improve their manufacturing systems, use lean manufacturing, become more responsive and flexible, reduce costs and concentrate on their core competencies. It is important for organizations to develop partnerships with their suppliers. Partnerships involve working together towards common aims and objectives, and it is based on the simple principle that both parties can gain more from cooperation. In order for partnerships to be successful, there are a number of elements that must be present, they are: mutual trust and commitment, integrity, integration, co-operation, honesty, a willingness to openly declare problems and work together for solutions, the sharing of data and ideas, improvements and best practices, clearly understood responsibilities, collaborative research and development, and a drive for continuous improvement.

Teamwork

A team can be defined as a group of people with different skills, who work together on a common project in order to attain a particular goal. Teamwork is essential to the successful implementation of TQM. It is important for organizations to create groups consisting of different people with different skills.

It is important to measure improvements so as to improve on I Organizations must ensure that the organizational infrastructure can adapt the changes which teamwork will bring. Dale et al. (2007) explains that the development of people and their involvement in improvement activities both individually and through teamwork is a key feature in a company's approach to TQM. This helps in making full use of the skills and knowledge possessed by various employees and embedding it as a group culture.

Continuous improvement

An important concept of TQM is continuous improvement, as organizations must continuously find ways in which to improve, even after reaching their goals. Sower (2011) explains that continuous improvement, called Kaizen by the Japanese, requires that the company continually strive to be better through learning and problem solving. Dale et al (2007) explains that organizations committed to quality will strive continually to improve the quality of their goods or services.

Organizational structure

The way a business is structured is important; the organizational structure includes the functions, roles, responsibilities, hierarchies and flexibility. The success of any strategy depends heavily on its fit with organizational structure (Chandler 1962; Paterson, 1988). Douglas et al (2001) emphasize that there has been an increase in the importance of organizational structure in ensuring the successful implementation of TQM. Hunt (1993) explains that a TQM oriented organization has a function as the basic fundamental unit of analysis; workers loyal to process focus cross-functional teams as opposed to functional departments, responsiveness to customer needs and quality rather than to department and functional rules.

Organizational culture

Jones (2006) explained that in developing countries the chances of a successful implementation of TQM is reduced because of several cultural characteristics

that contradict TQM principles. It is of great importance to understand the dominant culture of an organization before implementing TQM as explained by Cheng and Liu (2007). Hofstede (2001) defined organizational culture as the collective programming of the mind that distinguishes the members of one organization from another. On the other hand, Shein (2004) defined organizational culture as “a pattern of shared basic assumptions that was learned by the organization as it solved problems of external adaptation and internal integration that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think and feel in relation to those problems”. Hill (1991a) A quality culture is defined as a culture that nurtures high-trust social relationships and respect for individuals, a shared sense of membership of the organization, and belief that continuous improvement is for the common good.

Employee empowerment

In order to ensure that employees perform at a high level a tool that organizations use to motivate employees is employee empowerment. Fulford and Enz (1995) found employee perception of empowerment to have an impact on employee loyalty, concern for customers and satisfaction. This implies that increasing employee empowerment leads to employee job satisfaction, job commitment, Pride of workmanship and employee fulfillment. Lawlar (1994) explained that employee empowerment is one of the most important elements of TQM. Thomas and Velthouse (1990) define empowerment as, “an intrinsic task motivation that manifests itself in four cognitions reflecting an individual’s orientation to his or her work roles”. In addition to this, Bowen and Lawlar (1992) defined empowerment “as sharing with front-line employees information about an organization’s performance, information about rewards based on organizations performance, knowledge that enables employees to understand and contribute to organizational performance, and giving employees the power to make decisions that influence organizational direction and performance.

Self-assessment

Self-assessment is a method that is used for reviewing the activities and performance of an organization. According to Dale (1997), the key to successful self-assessment is effective management and a use of a team to manage the process. Dale (2007) explains that there are many reasons why companies decide to undertake self-assessment, to find opportunities for improvement, to pursue continuous improvement, to monitor and measure the progress of improvement initiatives, to create quality awareness by focusing on the model criteria, to acknowledge best practices, to facilitate advance quality planning and to winning awards. Dale (2007) further explains that there are different methods that can be used for self-assessment, the main self-assessment approaches are: award simulation, matrix method, workshop, peer involvement and questionnaires. Teo and Dale (1997) explain that before getting self-assessment, it is important that the initiator obtains the support and commitment of senior personnel.

BENEFITS OF THE IMPLEMENTATION OF TOTAL QUALITY MANAGEMENT

The successful implementation of TQM in organizations leads to a potential range of benefits. The benefits of TQM inevitably depend on effective implementation. Customer Satisfaction is one of the most important aspects of TQM is the maximization of customer satisfaction. By identifying customers needs and surpassing these expectations organizations are able to put themselves in a competitive position in the market. Juran (1989) has shown that one of the goals of TQM, customer satisfaction, has a significant positive impact on the market value as well as accounting returns.

Cost of quality: Hendricks and Singhal (2001) state that the cost of quality concept predicts that as conformance quality increases so does the total cost of quality reduce. A good way to calculate the benefits of TQM is to balance expenditures against expected revenue gains and reduced costs, Rust and Zahorik (1995) identify this approach as the return on quality (ROQ).

Chong (1998) states that TQM may provide a fundamental way of conducting business, which makes the organization more competitive and viable, with TQM driving change and development. A study by Radovilski et al (1996) shows that out of 235 companies that implemented TQM, it revealed a profit increase of 21%, productivity of 20% with reductions in defects of 24% and a cost achieving quality of 20%.

Oakland (1996) explains that TQM leads to organizational synergy, removal of non-productive activities, better competitor understanding through benchmarking and a more reliable communication system.

Other benefits realised from the implementation of TQM include: employee relations which is developed as a result of teamwork, a sense of belonging since quality is the responsibility of all individuals in the organization, improvement in operating processes and so on.

LIMITATIONS TO THE IMPLEMENTATION OF TQM

According to Dooley and Flor (1998) an individual's attitude towards an innovation is not only shaped by their own feelings and experiences, but also by the feelings and experiences of others. Westphal et al (1997) further add that acceptance of the innovation ultimately depends on both its performance and its ability to gain institutional legitimacy. Choi and Behling (1997) state that much recent writing and opinion has lamented about the lack of "bottom-line" impact that TQM has had on business, and suggest that TQM is a fad whose time has come and gone. For example and American Electronics Association survey from 1994 showed that TQM implementation had dropped from 86% to 63%, and that reductions in defect rates were not realized.

A study by Mann and Kehoe (1995) points out the importance of attitudes; they found out that the four most important factors affecting TQM implementation success were top management's attitude towards change, trade union support, employees attitudes towards change and middle managements attitudes towards change. The attitudes of stakeholders involved in the organization define how effective the implementation of TQM will be. The attitudes shown by

top managers usually translate to the attitudes shown by workers in the organization. Also if top managers are willing to take on TQM without properly training and education workers in the organization, then the implementation of TQM will be futile.

Porter (1996) also noted that TQM is important for the organizations productivity and effectiveness but it does not necessarily translate to competitive advantage over its competitors. A key aspect of competitive advantage is the ability to differentiate ones product from the market. Differentiation involves providing certain aspects to ones product that attracts customers and puts an organization at a better position than its rivals. TQM does not provide any form of differentiation and therefore isn't enough to provide competitive advantage.

Another issue attributed to TQM is the lack of proper understanding of the concept, which further leads to the concept being wrongly implemented. Top managers must have a good understanding before trying to introduce the concept and implement the concept in an organization.

Some organizations after considering the investment needed to successful implement TQM are sometimes discouraged by the cost.

SUMMARY

The literature review aims examine the major aspects of quality management. It focuses on the development of quality management strategies, from inspection to the development of total quality management. The literature review then takes an in-depth look into the origin of TQM, the stages of the implementation of TQM, key and additional elements of TQM, the various adaptation levels of TQM and some of the tools and techniques used in the implementation, which are relevant to this research. The chapter is then rounded up by looking at the limitations and benefits of the implementation of TQM.

CHAPTER 3

THEORETICAL FRAMEWORK

The theoretical framework has been developed to show the necessary elements for the implementation of TQM, the framework also helps to differentiate between the primary dimensions, which are the key elements of TQM, and the secondary dimensions. The primary dimensions refer to the elements of TQM which must be present in the implementation of TQM, on the other hand the secondary dimension are the elements which determine how successful an organizations efforts will be. The secondary dimensions are what separate the various adaptation levels of TQM. This framework has been designed by considering the elements and determining their relative importance.

There are two major dimensions in the implementation of TQM, which are the 'primary dimension' and the 'secondary dimension'. The primary dimension includes: customer and employee satisfaction, training, continuous improvement, teamwork, supplier partnership, and leadership and top management commitment. On the other hand, the supportive dimension involves: organizational structure, communication, employee empowerment change management, culture forming, and self-assessment.

Looking at the elements of TQM and comparing those that are needed compulsory and those that could serve, as support to the important elements was the process used to designed the framework. The literature review highlighted the elements and how they affect the implementation of TQM.

PRIMARY DIMENSION

Leadership and Top Management Commitment

Commitment of top management has been referred to as one of the most important factors impacting TQM. It is important for top management staff to allocate enough time to understanding the principles of TQM, being visible and accessible, and holding discussions with people at the operating level of the business (Dale, 2007). The implementation of TQM is dependent on the top management; without their commitment, it will be impossible to implement TQM. After deciding on implementation, senior managers must devote time to

TQM by learning about it and attending relevant training courses. TQM requires the commitment, confidence, and conviction of the senior management team. AHire (1997) stated that management research shows that the commitment of top management is crucial to the success of any effort aimed at the operational philosophy in the organization. Without top management support the performance of the collective workforce is not likely to change. Hoffman and Hagerty (1994) also state that top management plays a key role in critical areas such as quality management, product development and innovation.

Customer and Employee Satisfaction

The primary focus of TQM is customer's satisfaction, customers gain satisfaction when their needs or expectations are met or even exceeded. It is important for the organizations to determine the needs of the customers before then responding to it. This is ensured by organizations maintaining a solid relationship with its customers. There are various ways in which this can be done, they include: through the use of surveys, getting involved with direct sales to customer, establishing a solid relationship with retailers who understand the needs of these customers.

The employee satisfaction is also of paramount importance; organizations with employees who are satisfied with their jobs are influenced with improvement in their performances. It is essential for organizational staff, particularly frontline staff, to be highly satisfied in their roles as this could factor in the maintenance of a good relationship with customers.

Training

According to Crosby (1984), training and education are viewed as key on-going processes that support organizational growth and advancement. Kasseich and Yourstone (1998) explain that training provides a medium for the communication of new organizational strategy, values, tools and new ways of working. Training plays a particularly important role in a QM environment for several reasons, including, communicatingg the vision of QM, training in QM tools and training in job skills (Brown 1993). Furthermore, the communication

of the need to change is likely to be ineffective unless tools like training and education of the work force are used. Training of both employees and managers is important for prevention of errors; Juran and Gryna (1993) explain that training can move an organization beyond preventing errors to a point at which breakthrough achievements are realized. Training should not just be an activity for just workers in the organization, it is important for suppliers to also be trained. Moreover, Kasseich and Yourstone (1998) state that supplier education in TQM recognizes the dependence of an organization's effort on the quality levels of its suppliers.

Supplier Partnership

It is important for organizations to develop partnerships with their suppliers. Partnerships involve working together towards common aims and objectives, and it is based on the simple principle that both parties can gain more from cooperation. In order for partnerships to be successful, there are a number of elements that must be present, they are: mutual trust and commitment, integrity, integration, co-operation, honesty, a willingness to openly declare problems and work together for solutions, the sharing of data and ideas, improvements and best practices, clearly understood responsibilities, collaborative research and development, and a drive for continuous improvement.

Continuous Improvement

Organizations need to find ways to continually improve so as to build competitive advantage in its industry. "The ability to identify what is changing in the environment and respond proactively through continuous improvement efforts has been viewed as a key element needed for organizational success" (Brown et al.,2000). By carrying out regularly audits and comparing KPI's organizations can identify loopholes that need improvement. This further helps to customer satisfaction and organizational success in the long run.

Teamwork

Evans and Lindsay (1993) assert the need for training at all levels of the organization for TQM and quality improvement. Teamwork helps as a key facilitator in providing continuous improvements. Dale (2007) identifies a number of ways in which teams help to improve continuous improvement, they include:

- Aiding the commitment of people to the principles of TQM
- Providing an additional means of communication between individuals, management and their direct reports, across functions and with customers and suppliers
- Provides the means and opportunity for people to participate in decision-making about how the business operates.
- Help to develop people and leadership traits
- Help to facilitate change in management style and culture
- Aid personal development and build confidence
- Build collective responsibility and develop a sense of ownership

Teamwork also helps to create a better relationship between the employees in an organization. In an organization teams varies from on department to another and from one level to another, there are various examples of teams, they include: quality circles, yield improvement teams, quality improvement teams, continuous improvement teams, cost reduction teams, problem elimination teams, self directed work teams, self-managing teams, process improvement groups etc. (Dale, 2007).

SUPPORTIVE DIMENSIONS

Organizational Structure

The way any organization is structured is important to the implementation of any company-wide strategy. It is important for organizations to have a flexible structure with a focus on cross-functional teams. Cross-functional teams allow the organization to respond to the needs of customers more easily. It is also

important for the structure of the organization to allow for top management to get involved in discussions with the staffs who work at the plant level, as well as the employees who are closer to the customers.

Communication

Communication can be defined as the exchange of information or ideas through speaking, writing or other methods between two or more parties. One of the key philosophies of TQM is the fact that quality products and processes are the responsibility of everyone in the organization. This means that TQM requires the involvement of top management, suppliers, workforce, customers and any stakeholder involved in the processes. For TQM to be successful, communication is important among all the stakeholders. Another important aspect of communication is feedback; it is important for organizations to have a good feedback system so as to monitor customer needs. If there is a breach in the feedback system, it makes it difficult for organizations to react to customer needs or problems. Scully (1995) states that communicating and coordinating all the activities is a guiding principle, which is vital to TQM success.

Organizational Culture

Jeffries et al. (1996) defines the culture of an organization as “all the interactions, which take place between people, their relationships and the feeling engendered by their behavior”. The organizational culture can work for or against in the development of TQM. Williams et al. (1993) states that culture influences what the executive group attends to, how it interprets the information and the responses it makes to changes in the external environment. Culture is a significant contributor to strategy analysis and the development of strategy. The culture in the organization is important to how the top management interprets the information and responds to changes from its external environment.

Employee Empowerment

Employee empowerment helps to ensure that the employees are fully committed to their jobs. It helps to motivate employees in a positive way so they care about

the satisfaction of the customers. Organizations can empower their employees by allowing them understand the importance of their respective duties to quality. Employees could also be empowered by providing incentives based on their performances.

Self-assessment

After obtaining the necessary support from senior management, the next step is to communicate the plan and the concept of self-assessment to all employees involved in the process. In the implementation of self-assessment the organization must be assessed in terms of strengths and its weaknesses, then each criterion is scored and results from the assessment are analyzed. The organization then decides what steps to take in returning the organization to its desired states. In addition to this, it is important for management to review the steps taken in order to steer the organization towards its desired state. This should be carried out before the next step of self-assessment is carried out. Dale (1997) explains that there are various effects of carrying out self-awareness, it increases quality awareness, facilitating advanced quality planning and incorporating the quality plan with business strategic planning process, focusing on continuous improvement, laying a foundation for benchmarking, improving business performance etc.



Figure 7: Framework for TQM implementation (Adelanwa, 2014)

SUMMARY

The theoretical framework has been designed to show how an organization can implement TQM. The implementation of TQM involves a number of elements, and it is important for organizations to determine which elements should be present and determine the elements to focus on. The primary elements should all be present in an organization when trying to implement TQM; on the other hand the secondary dimensions serve as support to the key elements. Organizations that plan to be successful or world-class level adopters need to ensure the primary and secondary dimensions are present.

CHAPTER 4

METHODOLOGY

The aim of this chapter is to describe the research methods and approaches used to conduct the study. The chapter assesses the purpose of the study, techniques used to conduct the research, sample design, the data acquired, and the data analysis methods. In addition to these, reasons for selecting particular methods of research are given in this chapter.

The methodology involves the procedures or techniques used to perform the research effectively. The methodology determines the effectiveness of the information. A simple definition of methodology by Oxford dictionary is “a system of methods used in a particular area of study or activity”. There are two major research method approaches, qualitative and quantitative research.

Case study methodology

According to Onsrud et al. (1992) case study is an examination of the phenomenon in which the primary purpose of the observer has been to carry out research rather than to implement a system or improve an operational environment. The essence of a case study, the central tendency among all types of case study, is that it illustrates a decision or set of decisions: why they were taken, how they were implemented and with what result (Schramm, 1971). Many social scientists still deeply believe that case studies are only appropriate for the explanatory phase of an investigation that surveys and histories are appropriate for the descriptive phase and that experiments are the only way of doing explanatory or causal inquiries (Yin, 2012). According to Yin (2003) a case study design should be used when:

- The focus of the study is to answer how and why
- When you cannot manipulate the behavior of those involved in the study
- When you want to cover contextual conditions because you believe they are relevant to the phenomenon and context

Types of Case Study Design:

Explanatory case study

According to Yin (2003) this type of case study is used when trying to answer a question that sought to explain the presumed causal links in real-life interventions that are too complex for the survey or experimental strategies. In addition to this, Yin (2003) further describes that the applications of explanatory case study as a research tool across the social science disciplines, in both the traditional fields such as psychology, sociology and anthropology as well as the practice-oriented fields of urban planning, public administration, public policy, management science, social work and education. Kumar (2005) explains that explanatory research attempts to clarify why and how there is a relationship between two aspects of a situation. The use of explanatory case study enables the researcher to develop a theoretical framework and then justify it through analyzing the qualitative and quantitative data being collected in the case study. The theoretical framework can be further strengthened after analyzing the collected data.

Exploratory case study

This type of case study is used to explore those situations in which the intervention being evaluated has no clear, single set of outcomes (Yin, 2003). According to Cresswell (2007) in contrast to the explanatory design, the exploratory design begins with and prioritizes the collection and analysis of qualitative data in the first phase. Cresswell (2007) further adds that “exploratory case study means that not much has been written about the topic or the population being studied, and the researcher seeks to listen to participants and build an understanding based on their ideas”. For the purpose of this research the exploratory case study will be used.

Stages of a case study methodology

Yin (2003) recommended four stages for a case study methodology:

- Research design

- Method of data collection
- Population and sample
- Method of data analysis

Research and Design

Yin (1994) defined design as the logical sequence that connects the empirical data to a study's initial research questions and, ultimately, to its conclusion. The research design allows you to link the data to the study's initial questions. In addition to this, the research design can also be seen as a blueprint for the research, dealing with 4 major problems: what questions to study, what data are relevant, what data to collect, and how the data is analyzed (Philliber, Schwab and Samsloss, (1980). One of the major aims of the research design is to make sure that the evidence addresses the initial research questions. According to Yin (1994) there are 5 main components of the research designs:

A study's questions:

The study question involves clearly defining the research objectives, the main objectives, which aim to be achieved at the end of this research, are:

- How has TQM been implemented in Guinness Nigeria?
- The identification of the challenges faced by Guinness Nigeria in the implementation.
- Recommendations to help the organization improve on the implementation of quality management strategies.

Its unit of analysis:

The unit of analysis of this research is focused on the Technical Department of Guinness Nigeria.

Method of Data Collection

Primary data

The primary data can be referred to as data observed or which is gathered from a direct experience. Sekaran (2003) defines primary data as the information put together from the researcher, when secondary data is not enough in achieving

the research objectives. There are different ways in which primary data may be collected, through questionnaires, interviews and observations. In the research there will be a combination of the 3 methods in putting together the primary data. For the purpose of this research, questionnaires were handed out to different groups of workers in the organization. In order to get a detailed understanding of the employees in the organization, the employees were divided into 3 major groups. The groups consisted of the top-level management, middle level employees and low level employees. This system allows the data analysis to be more straight-forward, it also makes comparing between the 3 groups easier. An interview was conducted with a middle level quality manager and a short tour around the accessible part of the production facility was done. The interview with the middle level manager was carried out due to the unavailability of the top-level managers.

Questionnaires

A questionnaire can be said to be a way in which feelings, beliefs, experiences, perceptions or attitudes of a sample of a group of individuals. Sekeren (2003) defined a questionnaire as a pre-formulated written set of questions to which respondents provide answers usually within closely defined alternatives, although this may not necessarily be the case. The questionnaire is most frequently a very concise, preplanned set of questions designed to yield specific information to meet a particular need for research information about a particular topic.

A questionnaire was handed to the staffs of Guinness Nigeria, a total of 30 questionnaires were handed out to the Top, middle, and low level staffs. The questionnaires designed were exactly the same to make it easier in evaluating the different beliefs and understanding from different participants. The questionnaires were handed to a middle level staff to make it easier to be able to share the questionnaires to the available participants. This form was selected based on a number of reasons; it is an easier way to collect information from participants and a cheaper method. The questionnaire consisted of open-ended and closed ended questions. Closed or restricted form call for "yes" or "no"

answer, or a short response, it is fairly easy to interpret, tabulate and summarize. Closed-ended questions require lesser time to be answered. A problem with this form of questions are that responses may be incomplete and reduces the amount of information gotten. On the other hand open or unrestricted form calls for free response from the participants and allows for greater depth of response, it is much more difficult to interpret, tabulate and summarize. Open-ended questions are those that will solicit additional information from the inquirer. According to Richardson Jr (2002) allow for unrestrained or free response and maybe more useful.

The questions were designed in a way to test the knowledge of the employees on TQM, while also trying identifying the ways in which the organization has gone about the implementation. An example of the questionnaire is attached in the appendix.

The questions were focused on most of the information contained in the literature review and was designed to be straightforward for easy understanding.

QUESTION 1: "How important is quality to the organization as a whole? (On a scale of 1-5, with '5' being very important)"

This question was aimed at finding out how the employees in the organization perceived the importance of quality, it is important for an organization to emphasize the importance of quality to its employees.

QUESTION 2:"On a scale of 1-5 with 5 being the strongest, do you have knowledge of TQM"

Following the first question, this question aimed to find out if the organization had been educating its staff on TQM, it is important for everyone in an organization to be involved in the process.

QUESTION 3:"Are you aware of quality strategies being carried out?"

Just like the second question this aimed at finding out the involvement of the employees in the strategies being introduced.

QUESTION 4: "As an employee do you personally think it is your responsibility to ensure quality standards are followed"

QUESTION 5: "How well do you think top management are providing support"
This was a closed style question and aimed to find out how well top management was doing in providing support to the subordinates in the organization.

QUESTION 6: "Can you please provide ways in which top management provide support or ways in which you are motivated to ensure quality standards"
This question allowed employees list ways in which top management provided support to the employees. It is very important for management to provide support, and the ways they provide this support is also very important.

QUESTION 7: "How important is teamwork to the implementation of quality strategies (On a scale of 1-5, with 5 being the most important)?
Teamwork is one of the primary elements of TQM; this question was designed to find out how important it is to the employees.

QUESTION 8: "How frequently are you required to work in teams? (Day to day basis, weekly, monthly, very rarely)
This was a follow up from the previous question and aimed to find out how frequently the 3 groups worked in teams.

QUESTION 9: "How long have you been employed in this firm?"
This question was designed to find a relationship between some of the questions and how long a particular employee has been employed for"

QUESTION 10: "Have you taken any courses or training in respect to quality management? Can you please give some examples of courses or training you have undergone".

This was designed to find out the amount of education each employee had received while working at the organization.

QUESTION 11: "How important do you think quality is to the image of the organization"

This question aimed at finding out from the employees the link between company image and the importance of quality.

QUESTION 12: "Can you please suggest ways in which the company can improve on its quality management strategies?"

This question aimed at allowing employees to recommend ways to improve, since the employees are in the organization they would have a good understanding on how improvements can be made.

A copy of the questionnaire can be found in appendix 1.

Interviews

An interview can be said to be a way of finding out from a particular person or a group of people things that cannot be observed directly. According to Patton (2002) we can state that the purpose of interviewing is to allow us enter into a person's perspective, by assuming, at the beginning, that the perspective of others are meaningful, knowable and able to be made explicit. According to Gemke (2013) interviews are very useful in order to conduct a comprehensive and deep going investigation of a certain phenomenon.

The interview questions were designed to focus on some of the aspects of quality implementation that weren't covered by the questionnaires. It focused on the elements of TQM, the questions were designed to find out how some of the elements were embedded into the organization. The interview questions have been attached in the appendix.

A personal interview was carried out with a middle level manager, with some assistance coming from a top-level manager. The personal interview focused on:

- How the organization ensures continuous improvement
- Relationship between the organization and its suppliers

- The maintenance of relationship with suppliers
- Inspection of raw materials
- Employee empowerment
- Team work in the organization
- Top management support
- Employee training
- Communication in the organization
- Inspection of products
- Tools and techniques
- Audits
- Culture of employees
- Ways in which TQM can be improved in the organization

A copy of the questions asked during the interview can be found in appendix 2.

The interview carried out was informal and was held with middle level managers. Questions that needed assistance from a top-level manager were provided days after the initial interview. This was done to ensure that answers given were reliable and valid. A further meeting was scheduled to explain answers, which were provided from the interview questions.

On-site Observation

On-site observation is a form of obtaining primary data by taking note of some of the events that occur in a particular location.

A tour of the site was done at the end of the interview to further understand some of the answers that were provided. This was carried out in their brewery branch, which was located a few miles away from the head office. On arrival an induction video was carried out to understand some of the emphasis points of the organization. The tour involved having a look at the production facility.

Sample Design

A sample can be defined as a subset of the population being studied. It helps to represent a larger population and attempts to draw results from the larger population. There are two major types of sampling techniques:

- Non-probability sampling techniques
- Probability sampling techniques

Non-probability sampling is a technique where samples are gathered using a process whereby all individuals involved in the sampling process is not given equal opportunities. This technique was used as the questionnaires handed out were given to most of the low-level staff, a significant number to the middle level staff and a relatively lower number to the top-level managers. A quota sample method was adopted as questionnaires were given out in proportion to the groups of staff. A quota sample is one in which units are selected into a sample on the basis of pre-specified characteristics so that the total sample has the same distribution of characteristics assumed to exist in the population studied.

On the other hand probability sampling technique involves giving the individuals in the population an equal chance of being selected, this technique was not applied in this project.

Analysis of research population

Bartlett et al. (2001) explain that a common goal of survey is to collect data representative of a population. The researcher uses information gathered from the survey to generalize findings from a drawn sample back to the population.

Roscoe (1975) proposes that the sample sizes larger than 30 and less than 500 are appropriate in carrying out a research. The determination of a sample size is a common task for many organizational researchers. Inappropriate, inadequate, or excessive sample sizes continue to influence the quality and accuracy of research.

The survey started on the 5th of August 2014, with the questionnaire being handed out to a middle level manager. A short meeting was scheduled explaining the questions included on the questionnaires. An advice was given to reduce some of the questions in order to get a good response to the questionnaires.

Although this may have limited the amount of information that could have been gotten, it allowed for the questionnaire to be short and precise. The questionnaires were shared to 4 top-level managers, 15 middle level staffs and 12 low level staffs. The lower level staffs were all workers who worked in the production facility. The approach of used by getting a middle level manager to share the questionnaires, ensured that all the questionnaires were answered. I was also advised to remove questions pertaining to the gender, which was not very relevant to the data being collected. A question on the department of the respondents was also taken out, as only the technical department was available for this data analysis.

Method of data analysis

The data was analyzed by comparing the responses of the closed ended questions provided by the respondents. The analysis will be divided into the 3 main categories for respondents, i.e. top-level managers, middle-level managers and low-level staff. After each group is analyzed individually, the general responses provided by the groups as a whole will be compared in order to point out important findings. Tables and charts were used to compare the responses of the 3 groups. By dividing

For the open-ended questions, responses were selected based on the most popular answers, i.e. responses that occurred more than once were selected.

In addition to this, the responses given during the interview will be analyzed and information received will be discussed in relevance to the literature review and the theoretical framework designed.

The interview was also carried out with a middle level manager, questions were provided and answers were sourced for around the organization. The answers provided were therefore explained one after the other in a meeting, which lasted for an hour. Most of the questions provided in the interview were open-ended questions, this allows for maximum provision of information by the organization. The data gotten from the questionnaires were analyzed into 3 main categories, the top management, middle level, and low-level employees. Close-ended

questions were analyzed and were far more straightforward than the open-ended questions. The responses to the open-ended questions will be discussed in more details in chapter 5.

The top-level managers

4 Top-level managers were given the questionnaires of which they all responded to. The top-level managers all work in the technical department, which allowed them to have a better understanding of the questions asked. The details of the questionnaire are included in the appendix.

Middle level staff

A total of 15 middle level staff participated in this survey, making it the highest group of participant. It was important to get a significant number of respondents at this level, as they are the link between the top-level management and the low level staff.

Low-level staff

This group of workers was selected from those who work at the plant, it was important to get employees at this level to understand what they know about quality strategies, a total of 12 employees filled in the questionnaires.

Limitations to Data collection

In collecting data from an organization various challenges can be encountered. In relation to this project, some challenges were faced in obtaining some of the information.

Firstly it was important to consider the validity of the responses given by the participants. In designing the questionnaire, it was ensured that the participants gave minimum information about themselves. This allows them provide information without being worried about the information provided, also by allowing them provide information in regards to their levels, it allowed for the analysis to be relevant irrespective of their individual positions.

In addition to this, the analysis only consisted of employees in the technical department; TQM being an organizational wide approach should involve the organization as a whole. It was relevant examining the technical department, as they are the most relevant to quality.

The questions provided in the questionnaire were limited to the knowledge of the employees especially the middle and low-level employees, the same questions were given to allow the data from the various groups to be compared.

The interview done was also restricted to a middle level manager; this was due to the unavailability of the top-level managers. This restricted the amount of information received with respect to some of the questions.

In addition to this, the questions asked were limited to the elements that were discussed in the literature review and the data collection was strictly limited to topics covered.

SUMMARY

This chapter elucidates on the approaches taken towards data collation, the primary research involved the use of questionnaire, interviews and on site observation to acquire the information relevant to this research. The chapter also takes into consideration how the questions used for the questionnaires and interviews were developed. This chapter also takes into consideration the method of data analysis and the population and sample size. Considering the limitations to data collection concludes the chapter.

CHAPTER 5

RESULTS

INTRODUCTION

This chapter presents the results of the data collected from the questionnaires and interview. Each question is presented and results are simplified for use in the next chapter, the interview section consists of a summary of the interview. The chapter is then rounded up by the on-site observation.

Company Overview

This project focuses on a company that belongs to the alcoholic beverage industry. Guinness is one of the most successful brand names in the world today with daily sales of over 10 million glasses globally (Guinness, 2008). Guinness Nigeria is a subsidiary of Diageo Plc. of the United Kingdom. In 1963, Ikeja, Lagos Nigeria was chosen as the first location outside the British Isles to brew the iconic dark beer. The company holds a significant share in the alcoholic beverage industry in Africa, and according to Bloomberg is West Africa's second largest brewer. With the growing demand of products from the company, the company has gone on to build 3 more breweries in Nigeria. According to the Business Day (2014) Nigeria has the second largest beer market in Africa, after South Africa. With a growing middle class and the largest population in Africa, this trend is expected to continue. The company then expanded its already existing breweries to accommodate the growing demand. Some of the products produced by the company include: Guinness Extra Smooth, Malta Guinness, Harp Lager and other brands such as Gordon's spark, Smirnoff ice etc.

In recent years the company has seen a decline in its revenue, according to Onu (2014) net income for the 12 months through June fell 19% (9.5 billion naira), this has led to the company reducing prices to boost exposure. With the increase in competition and a reduction in household consumption, Guinness Nigeria has had to implement new strategies to tackle these growing concerns. However household expenditure is expected to return back normal soon and with the introduction of new products and new pricing strategies the company is expected to improve.

QUESTIONNAIRE

QUESTION 1:

How important is quality to the organization as a whole? (On a scale of 1-5, with '5' being very important)

TOP	Respondents in this category all responded to this question positively, stating that quality is very important.
MIDDLE	Participants in this category responded positively also, they also stated that quality is very important.
LOW	This group of employees just like the top and middle level respondents agreed to the importance of quality.

Table 1: Importance of quality to the organization

QUESTION 2:

"On a scale of 1-5 with 5 being the strongest, do you have knowledge of TQM?"

	TOP	MIDDLE	LOW
No idea	-	13%	25%
Brief idea	-	20%	17%
Good understanding	-	40%	42%
Excellent understanding	100%	27%	17%

Table 2: Knowledge of TQM



Figure 8: Knowledge of TQM

QUESTION 3:

Are you aware of quality strategies being carried out? (Yes or No)

TOP	All the top-level respondents are aware of the quality strategies being implemented.
MIDDLE	Only one out of the respondents at this level was not aware of the quality strategies.
LOW	3 out of 12 had no awareness of the quality strategies being implemented.

Table 3: Awareness of quality strategy

QUESTION 4:

As an employee do you personally think it is your responsibility to ensure quality standards are followed? (Yes or No)

TOP	They all agree that quality standard should be followed and it is their responsibility.
MIDDLE	Just like the top-level managers, this group of workers all agreed.
LOW	The low level employees also agreed.

Table 4: Employee responsibility

QUESTION 5:

How well do you think top quality managers are providing support? (5 being the strongest and 1 being the weakest)

	TOP	MIDDLE	LOW
NO SUPPORT	-	-	-
LITTLE SUPPORT	-	13%	25%
AVERAGE SUPPORT	25%	20%	16.7%
GOOD SUPPORT	25%	40%	41.7%
EXCELLENT SUPPORT	50%	26.7%	16.7%

Table 5: Top management support

QUESTION 6:

Can you please provide ways in which top management provide support or ways in which you are motivated to ensure quality standards.

TOP	Quality awareness sessions, training, investments in instruments to assure consistency in quality analysis, reporting, top management involvement in quality review, team meeting and discussion sessions on quality.
MIDDLE	Participating in quality calls, root cause problem solving with top managers, setting and stretching quality standards, quality policy compliance, and adequate awareness in the benefits of good quality system, quality system auditing and training.
LOW	Training, awareness, audit, empowerment, drawing specifications and provision of KPI's.

Table 6: Ways in which support is provided by top management.

QUESTION 7:

How important do you think teamwork is to the implementation of quality strategies? (On a scale of 1-5, with 5 being very important)

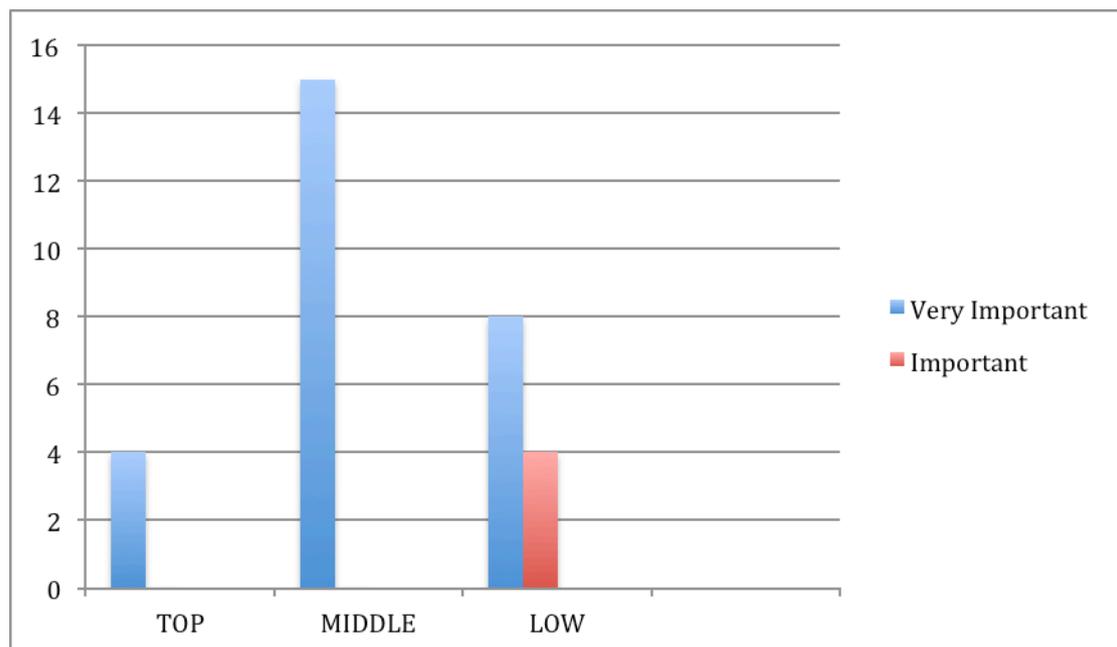


Figure 9: Importance of teamwork

QUESTION 8:

How frequently are you required to work in teams?

TOP	All 4 top level respondents work in groups on a daily basis.
MIDDLE	In this category 14 out of the 15 respondents work in teams on a day-to-day basis, only one of the respondents rarely worked in teams.
LOW	Just like the middle level category only 1 of the respondents rarely works in teams, the other respondents work in teams on a daily basis.

Table 7: Teamwork frequency

QUESTION 9:

How long have you been employed in this firm?

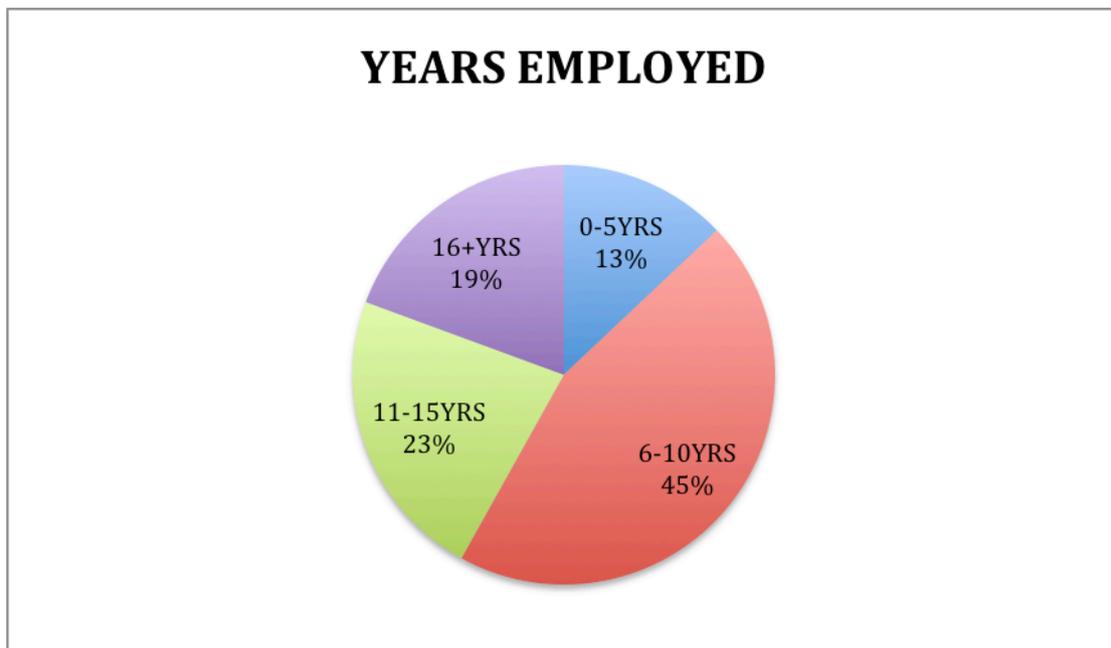


Figure 10: Employment duration

QUESTION 10:

Have you undertaken any courses or training in respect to quality management?
 Can you please give some examples of courses or training you have undergone.

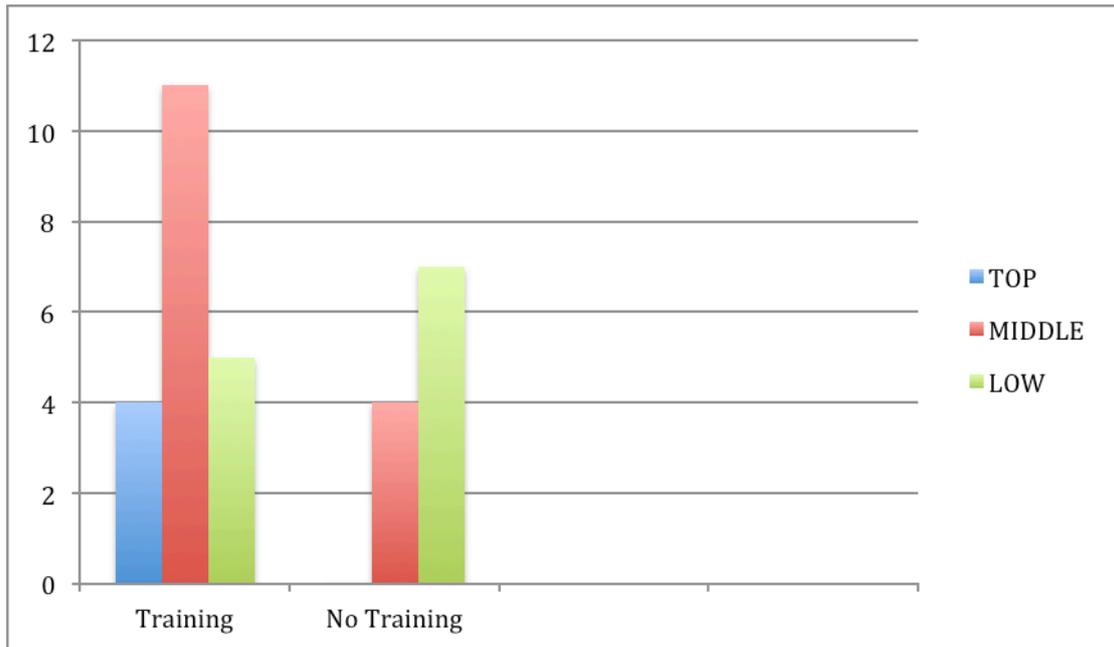


Figure 11: Quality management training

	TOP	MIDDLE	LOW
TRAINING	100%	73%	42%
NO TRAINING	-	27%	58%

Table 8: Employee training

TOP	Hazard analysis and critical control points, TQM, Auditing, Various ISO training, beer sensory training.
MIDDLE	IBD courses, ISO 9001:2008, internal auditing, quality awareness, food and safety management system training, quality improvement associate certificate.
LOW	Quality management systems, while majority of the low level staff stated they had not undergone any training.

Table 9: Training done by employees

QUESTION 11:

How important do you think quality is to the image of the organization i.e. would quality issues affect its reputation in public? (On a scale of 1-5, with 5 being very important)

TOP	All the respondents in this category recognize quality as a key element to their reputation in public.
MIDDLE	Just like the top-level managers, this group also agrees that it is very important.
LOW	4 out of the 12 respondents state that it is important, while the other state that it is very important.

Table 10: Importance of quality to brand image

QUESTION 12:

Can you please suggest ways in which the company can improve on its quality management strategies?

TOP	Inclusion of quality targets and objectives in annual performance management document of every staff, institution of monthly quality competition with tangible incentives, create clear quality KPI's to drive improvement, quality assurance isn't carried out through the process, continuous monitoring of processes, increase of quality training and quality awareness.
MIDDLE	Training ownership at each level, creating awareness, the whole organization should take part in quality management systems, drive for continuous improvement, quality processes should be well laid down and continuous training for employees on basic quality improvement initiatives.
LOW	The responses in this category were relatively low, the few responses focused on the increase in communication and that details from meetings should be followed.

Table 11: Recommendations for improvement of quality strategies

Interview

The interview provided an opportunity for the organization to provide some information based on questions provided, the questionnaires are linked to the framework for the implementation of TQM. This section provides a summary of the interview carried out for the purpose of the research.

Quality initiatives have always existed in Guinness Nigeria right before the first products were made; specifications and targets were set by the organization. The organization maintains continuous improvement by continuously monitoring its processes through regular audits; internal audits are done quarterly while external audits are done once a year.

The organization maintains its relationship with its suppliers through service level agreement (SLA), this allows them monitor the performance of the suppliers. The organizations supplier's products are also monitored through the use of sampling.

The interview also showed that the organization recognized the importance of teamwork as it was stated in the interview "team members understand strengths and weaknesses of each member and as a team device a system to enable them reach their goal".

Training in the organization is also done at the beginning of the year and awareness programs are also carried out. The communication department handles communication, which is also an important element of TQM.

The interview also provided an opportunity for the participant to provide ways in which the company could improve when implementing. Some of the ways provided include: more frequent monitoring reduced delegation, inspection of products and raw materials and regular audits.

On-site observation

After the completion of the interview and the collection of questionnaire, a brief but important tour was taken around the manufacturing plant. This showed some of the information covered in the literature review and some of the responses in the interview and questionnaires. The on-site observation showed

the importance of teamwork, employees in the organization continued to work in groups and no employee was seen in isolation. In addition to this there were clearly written procedures guiding some of the activities of the employees. This showed that employees have clearly defined roles, which they are meant to adhere to strictly. The employees were also allowed to move freely and communicate any issues they accounted on a daily basis. Depending on the level of the problems being encountered employee's relayed information from one level to another. Issues that could be dealt with by team leads were handled without having to go to the middle level managers. Significantly more serious problems were reported to middle level managers and if this was beyond them, they were further communicated to the top-level managers, for example the technical director.

SUMMARY

This chapter presents and overview of the subject company Guinness Nigeria and presents the results obtained from the questionnaires. It also contains a summary of the interview and the on-site observation that was carried out. The graphs and tables used ensured that the results are presented in the most suitable way possible.

CHAPTER 6

DISCUSSION ON FINDINGS, RECOMMENDATION, LIMITATION OF RESEARCH AND CONCLUSION

This chapter focuses on the findings from the results; it discusses these findings in more detail. The responses in the questionnaires are aligned to those in the interview and are then analyzed with the framework for the implementation of TQM in an organization. The chapter also comments on the limitation of this research and the recommendations of the study. The conclusion of the research comes at the end of this chapter.



Figure 12: TQM framework 2

Discussion on findings

In order for the top management to show support and commitment to the implementation of TQM, it is important for them to have a good understanding of the concept. In Guinness Nigeria the top management all responded positively to having an excellent understanding of TQM. This is the first step in steering the company towards the implementation of TQM.

In addition to the element of top management commitment, question 5 in the questionnaire provided an opportunity for the respondents to tell us how well top management provided support. The top managers who participated had a mixed opinion about this, one of the respondents felt that the support from the managers was average, while another respondent in this category claimed it was good enough with room for improvement and the other two participants think the support is excellent. The middle level category also had a mixed review to this question, 13% of the respondents in this category feel that the support is little and 20% feel it is average, on the other hand 40% and 27% feel that support is good and excellent respectively. The low level category also provided mixed responses, 25% feel the support is little, 17% feel that the support is average, 42% feel that it is good enough and 17% believe the support from top managers is excellent. This result shows that the leadership from top management needs improvement. From the data received, it is evident that support reduces from one level to another, the low level employees who work at the plant need more support from the managers, also the middle level managers who are the link between the top and low level employees agree that this is true. Even though majority of the employees think the support is good or excellent, it is important for all the employees in the organization to believe in the support from top management.

The interview provided some information about training in Guinness Nigeria, in the interview it was stated that, "training plans are rolled out at the beginning of the year. Additional awareness in relation to quality are done quarterly for staff and new employees". This information is true to an extent, but it is clearly limited to some of the employees in the technical department. The entire top the respondents had gone through some form of training, on the other hand 27% of

the middle level participant had not gone through any form of training. It is also important to note that the employment duration of these 4 employees was 7Yrs. In the low level category, 58% of the respondents had not undergone any training, it is also important to note that the average of employment duration for the group of workers with no training is almost 11Yrs. This information shows that even though the organization provides training for its workers annually, it is only available to a limited number of employees. Guinness Nigeria is clearly more concerned with training the more qualified employees; this should not be the case as TQM is an organizational wide approach

In terms of supplier relationship, Guinness Nigeria understands the importance of their suppliers and it was also stated that it is important for the suppliers to recognize the organizations commitment towards quality. When asked to explain how the organization maintains its relationship with its suppliers, it was explained that the organization used service level agreements (SLA's). The service level agreement is drawn between the organization and its suppliers. Target performance and standards are also agreed and suppliers are appraised raw material an appraisal is carried out by increasing a particular suppliers share in the supply. From this information, the organization clearly recognizes the importance of the relationship with its suppliers; it therefore creates mutual trust and commitment, integrity, integration, co-operation and honesty, which are the key elements to developing a strong supplier partnership.

Teamwork helps organizations to achieve their goals, as stated during the interview "Team work is very important as it enhances the working relationships, team member understand the strength and weaknesses of each member and as the team device system that enable them achieve a common goal". Guinness Nigeria has done very well in making the employees understand the importance of teamwork. The interview statement is supported by the fact that 27 out of the 31 respondents agree that teamwork is very important and 4 agree that it is important. This is further supported by the fact that 94% of the respondents work in teams on a day-to-day basis. Teamwork is clearly a very important element to Guinness Nigeria's implementation of TQM.

The framework also shows how integrating teamwork in an organization helps to improve continuous improvement.

The organizational structure is very rigid in Guinness Nigeria and it is evident with how limited employees are. It was explained that top managers would have to be brought in when a cross-functional decision was needed. All employees know what is required of them and are rarely required to work cross-functionally.

Guinness Nigeria ensures that communication in the organization is well circulated. In the interview it was said, "the communication department is responsible in ensuring important communications are passed down to the employees". Also the organization ensures that representatives from the different units in the technical department are present at the general meetings. This allows the units to understand some of the new developments that come from the meetings.

It was suggested by one of the top managers that the organization should institute monthly quality competitions with tangible incentives when targets are met. Employee empowerment is almost non-existent in Guinness Nigeria, as the organization does not provide rewards for its employees based on quality. Also in terms of giving employees tasks in order to motivate them, the organization requires employees to carry out limited tasks.

The framework provides information on the importance of self-assessment to for the supportive dimension of TQM. Guinness Nigeria undergoes internal audit on quarterly basis. This allows the organization to ensure that the processes are being followed. Self-assessment is an element of TQM that Guinness Nigeria are clearly paying little attention to, a number of recommendations in the questionnaire included the use of KPI's in order to compare where the organization has been to where it should be. It was also recommended that the organization should do more regular audits.

In concluding the discussion, the objective questions of the research will be answered.

How has TQM been implemented in Guinness Nigeria?

The framework provides a guideline to how organizations should implement TQM. Even though the organization has clearly tried to implement TQM, it is evident that more work needs to go into the implementation.

The organization has clearly taken into consideration the primary dimension in the implementation. It is important to note that senior management leadership is existent but the overall commitment is questionable. The organization has ensured that its top managers have the necessary training in understanding TQM.

Guinness Nigeria has also ensured that majority of the top and middle employees have undergone training in relations to TQM. This is very important as it allows for the employees to be aware of the quality management strategies being implemented. In these two categories only 1 of the respondents was not aware of the strategies being implemented.

It is also important to note that the organization has done a good job in relation to its suppliers, even though further improvements can be made. Through the use of SLA's Guinness Nigeria has been able to monitor the performance of suppliers, while also motivating them through the use of appraisals.

In terms of continuous improvement, it is evident that the senior managers have undergone some training, 3 out of the 4 top managers had undergone ISO: 9001, it is also important to note that it had not necessarily been translated in the processes.

One of the stronger elements for Guinness Nigeria is teamwork; all the employees recognize the importance and the organization have ensured that the employees worked in teams. This is evident from the results from the questionnaire as 94% work in teams.

The secondary dimensions, which are used to support the primary elements need to be better developed in Guinness Nigeria. For instance the organizational structure has clearly not been considered, it is very rigid. It was later explained

in the interview that this was partly to reduce employees from making mistakes and allow them focus on strictly what was required of them.

Communication is important to TQM and the organization has a communication department, which helps to ensure that decisions made at the top are circulated through the organization. Representation during meetings is also another important tool that is used by the organization to ensure ideas are communicated. Also with the use of team leads as stated in the interview, the employees at plant level can send their complaints.

There is little or no evidence of employee empowerment in the organization and self-assessment needs to be increased.

It is evident that Guinness Nigeria has implemented TQM to an extent, even though there is still work to be done. The organization has done this by focusing on some of the primary dimensions, which are the leadership and top management commitment, supplier partnership, teamwork and training of some of its better-qualified employees. Other elements such as the organizational structure, employee empowerment, and self-assessment need to be better developed to improve on its implementation.

Despite the implementation of TQM in Guinness Nigeria, the organization can be said to be part of the level 2 category of TQM adopters known as drifters. The management in this organization clearly have no deployment plan for deployment in the organization, so the concept of TQM is limited to the Top-level managers.

During the interview it was stated that the organization used tools such as the cause and effect diagram to determine some of their problems to be solved. Also the use of quality costing is very important as it was stated during the interview that it was being used in the company.

Challenges faced in the implementation of TQM?

In the implementation of TQM Guinness Nigeria has faced some challenges, the challenges will be analyzed in relation to the framework designed for the implementation.

The top management has experienced some challenges in ensuring this element is in place, this challenges are highlighted I the fact that some of the employees believe that top management is not providing enough in terms of support. Even though majority of the respondents believe it is good or excellent, a significant number of employees still believe there are improvements to be made. This backed by the fact that 1 top manager responded by saying support is average, while 20% and 17% from the middle and low level category agree with this respectively. Also 13% of the middle level category believes there is little support and 25% of the low level category agrees.

Despite the fact that it was stated that interviews were done every year for their employees, it was discovered that the organization faced some challenges. It was evident from the questionnaire that some workers had not undergone any training despite working in the organization for a long duration. 27% of the middle level respondents had not gone through any training as well as 58% of the low level category.

The top managers seemed to have the expertise and the knowledge necessary for continuous improvement. Some of the middle level respondents had also been trained on continuous improvement. It was evident from the interview that this was not well integrated into their processes. The organization monitored its processes, but most checks as stated by a top level respondents came after the final products were made. This increases the cost of quality as products that did not reach the standard were quarantined and destroyed. There are signs that the organization have tried to develop the concept of continuous improvement.

Guinness Nigeria operates a very rigid structure, but this is partly to do with the nature of the Nigerian workforce. Employees have to be kept with their limit. Decisions are strictly made from the top based on what top management perceives. It is important for Guinness Nigeria to understand the importance of cross-functional teams.

In terms of employee empowerment challenges have also been faced, the organization does not have any system in place to improve employee empowerment.

Self-assessment is done in Guinness Nigeria but it needs to be improved and done more frequently. This has been a challenge to the organization and may be a reason why they have not been able to improve on their continuous improvement.

Despite the fact that Guinness Nigeria used tools such as quality costing, the quality checks were being carried out after the final products were made.

Recommendations

The recommendations will provide ways in which the company can manage the implementation of its quality strategy more effectively. They are based on the responses from the questionnaire and interview sessions and the recommendations are from the framework for TQM that was designed.

Guinness Nigeria needs to improve in terms of providing support to its employees, this can be ensured by being visible and accessible and holding discussions with employees at the operating level. This will help provide support to the employees of Guinness Nigeria. The accessibility and visibility of managers in Guinness is very questionable and it needs to be improved upon. This will help the employees in the organization to feel involved in the processes as their ideas can be taken on board during discussions. Also problems faced by the plant workers (low level) will be reported more easily rather than having to send complaints through the system.

Even though Guinness Nigeria trains some of its employees, it is important to train all the employees involved in the organization. The annual training sessions should be organized for all the employees and not just the most qualified ones. The quality awareness sessions done quarterly should also be available to everyone. The training will help the employees to understand the quality

strategies that are being implemented, as it helps top management communicate the vision of quality strategies.

Guinness must continue to find ways to improve in order to better its processes, it is clear that the knowledge of continuous improvement exists but it should be instituted in their processes. Using self-assessment tools to compare where the organization is to where they want to be can do this. Through the use of KPI's they can also identify areas that need more improvements. By identifying areas that can be improved upon, Guinness Nigeria can reach goals by improving the quality of its products.

The organizational structure also needs some improvements, even though roles are clearly defined, they need to ensure that there is more flexibility. They should also ensure that cross-functional teams as opposed to functional departments. Creating inter-department teams who work together in solving key quality issues can do this. By taking into consideration all the departments involved in a process, they will be able to make better decisions in relation to customer needs. Becoming more flexible will ensure that they are better equipped to respond to customer needs. For example the top managers can work with the marketing department and the plant workers to determine how the shape of their products are, this involves multiple departments who will determine the outcome of an objective.

Another element of TQM that should be improved in Guinness Nigeria is employee empowerment. Employees are given tasks and carry them out based on what is required. There is clearly no framework that exists in the organization to motivate the employees to ensure they understand the importance. Rewards and incentives should be included in the organizations framework. It will also benefit the organization to share important information with employees so they understand the significance of quality. It will allow the employees to understand and contribute to the organizational performance. For example meetings can be carried out quarterly comparing the KPI's and showing how it has affected the

profits of the business, employees can also be given bonuses depending on improvements or if targets are met.

In addition to this, self-assessment should be carried out more frequently as it will lead to benefits such as continuous improvement. Self-assessment will allow them find areas that need to be improved upon, in addition to this self-assessment will ensure that their processes are strictly being adhered to. Some of the self-assessment approaches that can be carried out: award simulation, matrix workshop, peer involvement and internal auditing.

The top management should ensure that some of the tools being implemented are being used properly. In the case of quality costing for example, the organization should ensure that processes are monitored rather than the finished products. It was stated in the interview that products that were not up to standard were destroyed, the cost of quality explains how the cost is lower when errors are identified earlier in the processes.

Limitation of research

Throughout the course of this project a number of factors influenced the study. Firstly getting an appointment to begin the research was difficult as the company faced a number of problems relating to their profitability. This made it difficult for the designated officials in providing enough time and support to the research. In addition to this, TQM being an organizational wide approach the survey should have been carried out on other departments and not just the technical department. Due to the availability of employees only those in the technical department took part in the survey and interview.

The questionnaire designed was edited a number of times to better suit the understanding of the participants. This was done to maximize the information from the participants. Some of the individuals had some difficulties in understanding some of the questions that were initially provided.

The initial questions that were provided in the questionnaire covered more of the topics in the literature review. I was also advised to reduce the questions so

as to get more responses. This was justified as 31 out of the 31 questionnaires got responded to.

The interview should have been carried out on 3 top-level managers, but this was impossible due to their availability. The only interview done was carried out on a middle level manager as opposed to a top-level manager. This limited the amount of information that was gotten from the interview.

Due to the restriction of movement in Nigeria as a result of the ebola outbreak, it was difficult to get information from customers on their opinions about the quality of the Guinness Nigeria products.

Conclusion

The importance of TQM implementation to the effective running of an organization cannot be overlooked. TQM being an organization-wide approach provides a range of benefits as mentioned in the literature review, though there are some limitations to the implementation.

The framework for TQM serves as a guideline for the successful implementation of TQM in an organization. The primary elements need to be supported by the secondary elements.

The research from Guinness Nigeria shows that the organization still has a long way to go if they want to successfully implement TQM. Some elements need to be introduced while some need to be further improved upon. Guinness Nigeria can be said to be drifters in terms of their level of adoption of TQM. For the purpose of this research it is important for more studies to be carried on TQM in manufacturing industries in Nigeria. Also it will be important to get the opinions of customers to have a better understanding of the customer satisfaction.

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APPENDICES

Appendix 1

Questionnaire

Dissertation Topic: The implementation of Quality Management Strategies: An Empirical Study of Guinness Nigeria

Management level: Top

Middle

High

1. How important is quality to the organization as a whole? (On a scale of 1-5, with '5' being very important)
1 2 3 4 5
2. On a scale of 1-5 with 5 being the strongest, do you have knowledge of TQM
1 2 3 4 5
3. Are you aware of quality strategies being carried out? (Yes or No)
4. As an employee do you personally think it is your responsibility to ensure quality standards are maintained? (Yes or No)
5. How well do you think top quality managers are providing support? ('5' being the strongest and '1' the weakest)
1 2 3 4 5
6. Can you please provide an example(s) of ways in which top management provide support or ways in which you are motivated to ensure quality standards?
7. How important do you think teamwork is to the implementation of quality strategies? (On a scale of 1-5, with '5' being very important)
1 2 3 4 5
8. How frequently are you required to work in teams?
Day-to-day basis Weekly Monthly Very rarely Never
9. How long have you been employed in this firm?

10. Have you undertaken any courses or training in respect to quality management? Can you please give some examples of courses or training you have undergone.

11. How important do you think quality is to the image of the organization i.e. would quality issues affect its reputation in public? (On a scale of 1-5, with '5' being very important)

1 2 3 4 5

12. Can you please suggest ways in which the company can improve on its quality management strategies?

APPENDIX 2

Interview

Dissertation Topic: The implementation of Quality Management Strategies: An Empirical Study of Guinness Nigeria

1. When was the first quality initiative carried out?
2. How do you ensure continuous improvement in the organization?
3. How important is the relationship between the organization and its suppliers?
4. How does the organization maintain its relationship with long-term suppliers?
5. What are the strategies that are being carried out to ensure that suppliers provide quality materials?
6. Do you think employee empowerment is important?
7. What are the ways in which employees are empowered?
8. How important is teamwork in the day to day running of the organization
9. One of the major aspects of quality implementation is top management support, what ways have the management shown commitment to the implementation of TQM?

10. How regularly are management and employees trained on quality issues?

11. Communication is of great importance to the implementation of TQM, How have you ensured that this is not an issue in the organization?

12. What tools are currently in place to help the implementation of TQM?

13. What happens to the products that are below your approved quality levels?

14. How regularly are the quality strategies that are carried out assessed and what methods are used to assess them?

15. Has the implementation of TQM and quality strategies been smooth or challenging?

16. There is a difference in the culture of individuals in general, how has Guinness been able to align the Nigerian culture with strategies used to implement TQM.

17. Personally, How do you think the organization can improve on its quality standards and implementation techniques?