TOTAL QUALITY MANAGEMENT PRACTICES AND OPERATIONAL PERFORMANCE OF NAIROBI BOTTLERS LIMITED, KENYA

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ABSTRACT

The beverage sector in Kenya has consistently been characterized by persistent operational inefficiency and poor customer services. In order to address the problems of inefficiency in service delivery these organizations are fast adopting quality management in order to make them effective in meeting public demands. The beverage sector in the entire world is getting competitive every day due to the changes in technology and quality issues. In order to be successful in quality service delivery quality management practices ought to be the integral part of any organization's strategic management. The purpose of this study was to examine the effects of quality management practices on the performance of beverage sector in Kenya. The specific objectives of the study were to investigate the effect of continuous improvement, customer focus and organisational commitment on operational performance of Nairobi Bottlers Limited in Nairobi, Kenya. The study was anchored on theory of quality management and resource based view theory. The target population was the 425 employees of Nairobi bottlers limited at the company headquarters in Nairobi and a sample of 20% was selected making 85 respondents. The study relied on data collected through open and closed ended questionnaire to meet the objectives of the study using five point Likert scale. The questionnaire questions focused on the total quality management practices implementation and operational performance of the company. The process of data analysis involved data clean up, explanation and responses in the questionnaires were tabulated, coded and analysed using Statistical Package for Social Science (SPSS) version 20.0. The results were presented in form of tables, pie charts and bar graphs. It was realized that management commitment, customer focus and continuous improvement had a positive relationship with operational performance and a correlation coefficient close to 1. The management commitment was found to be lower while customer focus was above average and continuous improvement was also significant. The study recommends that the firm needs to involve employees in decision making and gain trust to lower the high rate of employee turnover.

Key Words: *total quality management practices, operational performance, Nairobi Bottlers Limited, Kenya*

INTRODUCTION

The survival of a business mainly depends upon the quality associated with the product. However, competition has become more challenging today than ever before, while customer expectations of service quality are higher than ever. To deliver superior quality of service to the customers, organizations are re-engineering their systems, operations, culture and adopting strategies in order to be customer focused. Quality has emerged to be the key component and critical success factor in most manufacturing as well as service organizations.

Fotopoulos and Psomas (2010) argue that the emergence of quality plays a vital role and have become a top priority for many companies worldwide in order to achieve their objectives and gain a competitive edge. In the United States of America for instance, operational performance of the beverage industry, has become an imperative in providing customer satisfaction because delivering quality service directly affects the customer satisfaction, loyalty and financial profitability of service businesses. There is an increasing awareness by senior executives, of the fact that quality is an important strategic issue, which should be implemented at all levels of the organization (Crosby, 1979; Oakland, 2000). According to WHO, (2011) increased globalization and liberalization with dynamic business conditions have brought challenges and opportunities for the bevarage sector and made them to promote quality in their products and services. With the increasing competition, business survival pressure and the dynamic, changing customer-oriented environment, operational performance has been identified as one of the important issues and generated a substantial amount of interest among managers and researchers. Quality performance has been considered as one of efficient approaches for business organization to improve their competitive advantage (World Health Organization, 2011).

Total quality management (TQM) requires effective knowledge management so as to ensure that employees obtain timely reliable, consistent, accurate, and necessary data and information as they need to do their job effectively and efficiently in the firm. TQM is concerned with the continuous improvement in all the process of design and operation, from the levels of planning and decision making to the execution of work by the front line staff. The focus on continuous improvement leads to the formation of formidable team whose membership is determined by their work on the detailed knowledge of the process, and their ability to take improvement action. TQM also implies reducing and streamlining the supplier base to facilitate managing supplier relationships, developing strategic alliances with suppliers, working with suppliers to ensure that customer expectations are met.

Operational Performance

Performance is the state of yielding a financial gain. It is the capacity to make a profit whether accounting or economic. Performance is measured using organizational profitability. Profitability is a primary goal of any business venture without which the business cannot survive in the long run. It measured using income and expenses, income being money generated from the activities of the business for example interest income for organisations and expenses being costs incurred or resources consumed by the activities of the business for example interest paid on deposits by banks. Profitability is measured using an income statement and it is the most important measure of business success. Increasing profitability therefore is one of the most important tasks of business managers. It is for this reason therefore that they are constantly looking for ways to change their businesses and consequently increase profitability and hence the adoption of policies such as the use of strategies such as TQM which have the ultimate goal of increasing profitability.

The common financial indicators of performance include: sales growth, return on investment (ROI), return on equity (ROE), and earnings per share. The popular ratios that measure organizational performance can be summarized as profitability and growth: return on asset (ROA), return on investment (ROI), return on equity (ROE), return on sale (ROS), revenue growth, market shares, stock price, sales growth, liquidity and operational efficiency (Oye, 2006).

A study conducted in Australia by Anoop et.al (2012) TQM utilized in an organization increase the ability and performance of the organization. The performance can be measured by financial performance, operational performance, customer retention, employee retention and quality of products. Performance in an organization can be widely affected environmental and organizational factors. Use of TQM affects financial performance either directly or indirectly.

Total Quality Management Practices

Total Quality Management, TQM, is a method by which management and employees become involved in the continuous improvement of the production of goods and services. It is a combination of quality and management tools aimed at increasing business and reducing losses due to wasteful practices (Hashmi, 2010). In fact Total Quality is a description of the culture, attitude and employee involvement to provide customers with products and services that satisfy their needs. The culture requires quality in all aspects of the company's operations, with processes being done right the first time and defects and waste eradicated from operations (Peters, 1994). TQM philosophy begins at the top, from the board of directors to the line employees.

TQM is an ideology which is focused on the satisfaction of customer's need. TQM require organisations to develop a customer focused operational processes and at the same time committing the resources that position customers and meeting their expectation profitably. This implies an approach of changing the corporate culture of an organisation to be customer centric. TQM requires effective change in organizational culture which is enhanced by the deep involvement/commitment of management to the organization's strategy of continuous improvement, open communication and cooperation throughout the organisation; broad employee interest, participation and contribution in the process of quality management. Leaders in a TQM system view the firm as a system; support employee development; establish a multipoint communication among the employees, managers, and customers; and use information efficiently and effectively. In addition, leaders encourage employee participation in decision-making and empower the employees.

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Total Quality Management Practices and Operational Performance

The effective implementation of TQM practices will increase customer satisfaction with the service offerings (Omachonu & Ross, 1994). Quality enhances customer loyalty through satisfaction; this in turn can generate repeat business and lead to the attraction of new customers through positive word of mouth. The word of mouth communication will help in cost reduction. The improvement in quality will result in increased market share and profitability. Total quality management is a management philosophy which emphasizes the devolution of authority to the front line staff. It ensures the participation of everyone in the decision making process through activities such as quality cycles and team work.

The implementation of TQM ensures that every worker in the organisation does his work with quality the first time, thus improving the efficiency of operation and avoiding some cost associated with waste. This in turn will offer more value to customers in terms of price and service quality, thus making them satisfied. Implementation of TQM further ensures that organisations change how they perform activities so as to eliminate inefficiency, improve customer satisfaction and achieve the best practice (Porter, 1996). According to Sila (2007), TQM helps in improving the quality of products and also reduces and establishes a stable production process. Continuous improvement which is a feature of TQM is said to reduce the product cycle time thus improving performance (Huang &Lin, 2002). Many other TQM practices such as training, information system management, relationship with suppliers etc have a positive impact on operational performance. The efficient management handling of these practices will improve efficiency and no doubt affect the profitability of the firm.

According to Sila (2007), TQM can minimize the total cost of production through sole sourcing. The cost in this case is reduced by limiting the number of suppliers used by the firm and providing them with necessary training and technology. The efficient functioning of an operation will then depend on how well the suppliers meet up with the expectations of the organisation. This is why the TQM principle emphasizes the totality of quality in all facets which includes the suppliers. The total quality approach creates an integrated method of analyzing operation by focusing the processes of production on customer satisfaction. Thus, it requires that quality be built into all the processes so as to be efficient in the overall operation (Andrle, 1994).

Nairobi Bottlers Limited

Nairobi Bottlers limited is one of the franchised Coca-Cola Bottling plants in Kenya. Other CCBF include Coastal Bottlers, Mount Kenya Bottlers, Kisii Bottlers and Almasi. NBL is majorly owned by the Coca cola Beverages Africa (CCBA) and Centum holdings in Kenya. The company employs approximately 1000 people, and it is the biggest single bottling plants in CCBA, as well as CCBF in Kenya. Departmental functions include manufacturing, sales, logistics and support functions such as human resource and finance. Nairobi Bottlers has received couple of awards since its inception and these include; in 1995, NBL received the 'Highest Quality Award' and was named Kenya's 'Bottler of the Year'. In 2007, NBL won two awards in the prestigious Company of the Year Awards for Kenyan companies and organizations. In 2008, Nairobi Bottlers Limited won the first runner-up award in the prestigious 'Company of the Year' Award in Kenya. In 2009, Nairobi Bottlers Limited won the Marketing award in the prestigious Company of the Year's Award .Quality awards from the Coca-Cola Company which Nairobi Bottlers has received due to outstanding quality of its products include-Gold award in 2009 ,Gold award in 2010 and Bronze award in 2011. In the manufacturing category, Nairobi Bottlers Limited was the best in the SABCO group in 2014, which was mainly driven by implementation of AM and FI, pillars of TPM. Other functions such as finance and logistics were the best in SABCO group as well on their deliverables.

Kenyans enjoy a wide range of beverages, including Coca-Cola, Coke Light, Sprite, Stoney, Dasani and those from the Krest, Schweppes and Sparletta groups. In 2015, 43 million unit cases of product were sold in the Kenyan market which was a record performance since the inception of the plant. Direct distribution of product to customers by the company is 10% whereas 90% of distribution is done by Manual Distribution Centers (MDCs) .Growth of the future consumption drinks category has seen the company invest in a state of the art new mega-line for PET.

STATEMENT OF THE PROBLEM

Over the years the beverage manufacturing sectors have consistently been characterized by persistent operational inefficiency and poor customer problems of poor services and in order to address the problems of inefficiency in service delivery these organizations are fast adopting TQM in order to make them effective in meeting public demands (Manivannan & Premila, 2011). Therefore most companies' quality programs are still in their infancy having in the past operated in an environment where there was limited competition and customer satisfaction was not a cardinal business objective. However, most companies in the industry are frequently unclear in articulating specific objectives in implementing quality programs. Additionally, whatever objectives may be in place, these tend to evolve over time and focus on different goals and objectives. Furthermore most of them are inadequately equipped with precise outcome metrics to identify and document the benefits of quality programs. A number of studies have been undertaken in total quality management in organizations. Dawn, (2011) investigated the application of TQM and found out that despite the fact that quality management has been addressed within a firm, Total Quality Management and its underlying assumptions could also be applicable to strategy management. However the study shows application of TQM in a telecommunication set up, results of which may not be applicable in banking organization. Gayah, (2012) in his study tries to show how human resource planning practices are affected by TQM and what needs to be improved for implementing TQM in any firm, but his study did not focus on operational performance. Mwangi, (2013) in his study found that stakeholders including non-governmental organizations continue to focus their attention on education but he does not mention what other areas are for focused on for performance improvement. Thus this study sought to fill this gap by establishing the relationship between total quality management practices and operational performance of Nairobi bottlers Limited.

GENERAL OBJECTIVE

The objective of this study was to establish the relationship between total quality management practices and operational performance of Nairobi Bottlers Limited.

SPECIFIC OBJECTIVES

1. To establish the effect of management commitment on operational performance of Nairobi Bottlers Limited.
2. To evaluate the effect of customer focus on operational performance of Nairobi Bottlers Limited.
3. To examine the effect of continuous improvement on operational performance of Nairobi Bottlers Limited.

THEORETICAL REVIEW

Theory of Quality Management

The theory of quality management has been developed from three different areas: First, Contributions from quality leaders (Deming, 1986; Ishikawa, 1985; Juran, 1992), Second, formal quality award models (Malcolm Baldrige National Quality Award-MBNQA; European Quality Award - EQA; The Deming Prize; Kanji Business Excellence Model) and third, measurement studies (Rahman, 2001; Sila, 2005; Prajogo, 2005; Brah and Lim, 2006;; Ya'acob, 2008; Salaheldin, 2009; Satish & Srinivasan, 2010; Arumugam & Mojtahedzadeh, 2011).

This theory of quality management has recognized many quality management systems practices such as quality management systems practices which have been documented and empirically analyzed in measurement studies and in studies that have investigated the relationship between quality management systems practices and performance. Saraph, Benson and Schroeder (1989) proposed Seventy eight items that were grouped in to eight critical quality management systems practices: role of divisional top management and quality policy, process management, product and service design, training, quality data and reporting, supplier quality management, role of the quality department and 8)employee relations. To measure quality management, Lu and Sohal (1993) used nine quality management systems practices: Top management commitment, Strategic quality management, Process quality management, Design quality management, Education and Training, Information and Analysis, Benchmarking, Resources and Statistical process control.

In the same way, Flyyn, Schroder and Sakakibara, (1994) proposed seven quality practices of quality management systems: top management support, product design, process management, quality information, supplier involvement, workforce management and customer involvement. Powell (1995) comprehended the dimensions of quality management and identified 12 factors from a thorough review of literature These factors are Committed leadership or executive commitment, employees empowerment, Adoption and communication of quality management systems or adopting the philosophy, Closer supplier relationships, Training, Open organization, Closer customer relationships, Benchmarking Process improvement, Zero-defects mentality, Measurements and Flexible manufacturing. Myoung- Ho lee et.al (2000) says quality management systems focuses on customer orientated approach so as to pursue strategically the continuous improvement of the results from all process.

This theory formed the basis upon which the independent variables were developed. The theory advocates for engagement of quality management practices to improve firm performance. The theory enlists 8 quality management systems with customer focus, continuous improvement and management support and commitment being among them.

Resource-Based View Theory

Resource-Based View Theory postulates that internal organizational resources that are valuable, rare, inimitable and without a substitute are a source of sustainable competitive advantage (Penrose, 1959), and therefore enhance performance. The Resource-Based View Theory suggests that performance is driven by the resource profile of the firm, whereas the source of superior performance is embedded in the possession and deployment of distinctive resources that are difficult to imitate (Wernerfelt, 1984).

Resource-Based View Theory posits that firms achieve sustainable competitive advantage if they possess certain key resources and if they effectively deploy these resources in their chosen markets (Barney, 2007). O’casset al. (2004) argue that a company’s specific characteristics are capable of producing core resources that are difficult to imitate and which determine the performance variation among competitors. The Resource-Based View Theory further says that the fundamental sources and drivers of a firm’s competitive advantage and superior performance are mainly associated with the attributes of their resources and capabilities, which are rare, valuable, difficult to imitate and not substitutable. The Resource-Based View (RBV) Theory postulates that a firm's performance depends on its specific resources and capabilities (Fotopoulos, Kafetzopoulos&Psomas, 2009).

According to Barney (2001), a firm develops competitive advantage by not only acquiring but also developing, combining, and effectively deploying its physical, human, and organizational resources in ways that add unique value and are difficult for competitors to imitate. The Resource-Based View Theory postulates that competitive advantage comes from the internal resources that are possessed by an organization (Wernerfelt, 1984). The Resource-Based View Theory is an economic tool used to determine the strategic resources available to a firm and that the fundamental principle behind the theory is that the basis for competitive advantage of a firm lies primarily in the application of a bundle of valuable resources at the firm's disposal (Wernerfelt, 1984; Orlando, 2000).

The Resource-Based View Theory is largely based on behavioral and sociological paradigm and considers organizational factors and their fit with the environment as the major determinants of success. Strategy models with this internal orientation have a strong 'inside-out' approach that considers internal process variables (such as quality improvement, product development, and flexibility and cost efficiency) as the most potent success factors. Barney (2007) suggests that to transform a short run competitive advantage into a sustained competitive advantage requires that these resources be heterogeneous in nature and not perfectly mobile. This in effect results to valuable resources that are neither perfectly imitable nor sustainable without great effort (Hockman& Grenville, 2004).

This theory argues that each and every firm has unique and distinct resources which if optimally and prudently used can enhance competitiveness and peak performance of a firm. Barney (2007) pointed out that if these conditions hold, the firm's bundle of resources can assist the firm sustain above average returns. This theory is relevant to this study because it recognizes customer focus and systems quality as important resources for creating quality image, which an organization uses to improve the firm's performance.

EMPIRICAL REVIEW

Management Commitment and Operational Performance

Mwaniki & Bichanga (2014) focused on determining the Effects of total quality management on financial performance in the banking sector: a case study of national bank of Kenya. This study was limited to establishing how the pillars of TQM, namely supplier relationship, customer relationship, processes and top management involvement relate to financial performance. The four pillars of TQM formed the independent variables of the study while financial performance was the dependent variable. The findings of the study indicated a positive relationship between top management involvement, process and supplier relationship and financial performance.

In their study Hassan, Mukhtar, Qureshi and Sharif (2012) examined the association between quality management practices and performance, i.e. quality, business, and organizational performance. The quantitative data were obtained through a survey from 171 quality managers of Pakistan's manufacturing industry. This study supports the hypothesis that quality management systems practices positively impact the performance. Quality management systems tools and techniques (Incentive and Recognition System, Process, Monitoring and Control and Continuous Improvement) and Behavioral factors (Fact based-management, top management's commitment to quality, employee involvement and customer focus) contribute to the successful implementation of quality management systems. The study reports that successful adoption and implementation of quality management systems practices results in improving the performance of organization. The main implication of the findings for managers is that with quality management systems practices, manufacturing organizations are more likely to achieve better performance in customer satisfaction, employee relations, quality and business performance than without quality management systems practices.

According to Irfan, Ijaz, Kee and Awan (2012) in the study on Improving Operational Performance of Public Hospital in Pakistan used a questionnaire with fourteen Quality management systems practices to measure the impact of Quality management systems practices on operational performance of public hospital in Pakistan. Structural Equation Modeling (SEM) approach was employed to develop a Quality management systems and performance model. A total of 239 questionnaires was included in the study and the results show that selected Quality management systems practices has a significant positive impact on quality management systems implementation and also on operational performance in terms of increased flexibility, improved quality of services, reduction in service time and effective diagnostics.

In examining whether quality management work in the public sector Stringham (2004) focused on the quality movement in the United States during the past two decades in the context of public management. The paper reviewed the impact of the Pennsylvania Department of Transportation's twenty-year experience with its quality improvement program on overall organizational performance and productivity. The study concluded with a discussion of the challenges of sustaining a quality program through the frequent changeover of senior political appointee leadership and the inherent tension between process improvement quality approaches and cost savings/cost avoidance approaches that surface during times of government fiscal crises.

Adeoti (2003) examined the gains of application of total quality management in the service industry with particular reference to the commercial banks in Nigeria and also to see how the application of TQM can prevent future threats of distress in commercial banks. Three banks were selected randomly, one to represent each of the three generation banks. The results of the study showed that the quality and quantity of employees employed determine to a very large extent the survival of any bank, also that the application of TQM is not immunity against distress but a preventive mechanism for distress.

Customer Focus Operational Performance

According to Deming (2006), customers see quality as the capacity to satisfy their needs and wants. This also agrees with the concept by Gilmore (2011) who considers quality to mean the degree to which a specific product satisfies the wants of a specific consumer. Historically, the philosophy of Total Quality Management (TQM) and customer can be traced back to the period just after the 2nd world war. The key personality behind the philosophy was one American called Edward Deming. According to historical records, Americans did not take the concept seriously until the Japanese who adopted in 1950 to resurrect their post-war business and industry used it to dominate world markets by 1980. It's a philosophy that focuses relentlessly on the needs of the customer, both internal and external, realigns the organization from detection to prevention and aims to improve continuously through use of statistical monitoring.

It is generally agreed that quality has become a powerful strategic weapon in meeting customer satisfaction both locally and internationally. Improved quality is pivotal to customer demands and increases productivity of the organization with the increased return. Many authors agree that quality of product and service is the key to competitiveness in the open market. Kondo (2009) notes that improving quality in creative ways reduces costs and raises productivity on their part stress that since global trade in service sector is growing, it is essential that a viable customer base is developed and maintained by implementing proper quality practices which implicates on the operational performance.

According to Garvin (2007) quality is not only a strategic weapon for competing in the current marketplace, but it also a means of pleasing consumers, not just protecting them from annoyances. Therefore, a company's specific advantage is to identify and then compete on one or more of the dimensions of quality. According to Noori (2004), who stresses in his book that competitiveness cannot be achieved but through quality, the needs for quality are fourfold: cost, competitive advantage, reputation and staying alive. Numerous empirical studies confirm that firms that have adopted a quality-oriented strategy have achieved improved productivity, greater customer satisfaction, increased employee morale, improved management labor relations and higher overall operational performance.

Continual Improvement on Operational Performance

Damjan, Maletic and Gomiscek (2012) noted that challenges posed by contemporary competitive environment calls for quality and performance improvement initiatives to improve competitiveness. IAEA (2006) observed that continuous improvement (CI) as a set of routines that helps an organization improve its performance. A well predictor of performance improvement in an organization is continuous improvement. CI is a process which requires clear comprehension of organization objectives and process of measuring effectiveness and efficiency. Critical elements such as good leadership and objectives of company are critical in the process.

Success of this process is more or less influenced by commitment of leadership (Jiri, 2000). According to IAEA (2016) strategy adopted in continual process should be flexible enough to allow the selection of the most appropriate approach for each improvement. Rigid strategies hinder effective use suitable tools and methodologies hence should be avoided.

Jiri (2000) defines CI as a result or product achieved in an organization after certain changes are made. It cuts across all levels in an organization such as leadership, people and processes. Consequently, according to Kaynak (2002) it should direct an organization to better prices, cost and productivity. This process can be effectively conducted through the use of the quality policy, quality objectives, audit results, analysis of data, corrective and preventive actions and management review. Since is a continual process management device how to improvement effectiveness in organization operations instead of waiting problems to emerge. These improvements vary from small step ongoing continual improvement to strategic breakthrough improvement projects.

Several items are involved in the cycle of CI which includes establishing customer requirements, meeting the requirements, measuring success, and continuing to check customers' requirements to find areas in which improvements can be made (Esin, 2008). Customers can be either internal or external depending on their location in the organization. Customers inside the organization are internal while those outside the organization. Internal customers usually work towards external customer satisfaction. Measures like service flow, ROI, profits and material flow fail when continual improvement process is not duly implemented (Chang, 2005).

Chang (2009) revealed that continuous improvement is one of the critical areas of focus in an organization. It entails modern quality research and practice. An organization should be in capacity to improve its quality of product and service henceforth minimizing cost burden to the customers. Due to increased competition in the market, continual improvement is necessary. Continual improvement is a management strategy which is an integral part of TQM. Fauzi, Arsono & Bambang (2016) asserted that CI is a gradual, planned and organized systematic approach for an organization to ensure continuity in incorporating different phases on implementation.CI sustains organization's ability. There are several approaches of measuring continual improvement which include customer service, complaints, requests for replacements and returns.

RESEARCH METHODOLOGY

Study Design

Research design refers to the method used to carry out a research. Orodho (2003) defines a research design as the scheme, outline or plan that is used to generate answers to research problems. The research study applied the descriptive research design in the process of determining the findings in relation to the relationship between total quality management practices and operational performance of the Nairobi Bottlers Limited. According to Mugenda and Mugenda, (2008) the purpose of descriptive research is to determine and report the way things are and it helps in establishing the current status of the population under study. Borg and Gall, (2009) note that descriptive survey research was intended to produce statistical information about aspects of a study that interest policy makers.

Target Population

According to Ngechu (2004), a population is a well defined or set of people, services, elements, events, group of things or households that are being investigated. In this study, the target population was composed of 425 employees at management level of Nairobi Bottlers Limited whose head officers are in Nairobi.

Sample Design

The sampling plan describes how the sampling unit, sampling frame, sampling procedures and the sample size for the study. From the above population of 425, a sample of 20% was selected from within each group in proportions that each group bears to the study population. According to Mugenda and Mugenda (2003) a sample of 10-20% is statistically significant representation of a population, hence the study's sample size was 85. This sample is appropriate because the population is not homogeneous and the units are not uniformly distributed. This generated a sample of 85 respondents which the study sought information from which was selected via purposive random sampling. This made it easier to get adequate and accurate information necessary for the research.

Data Collection, Procedures and Instruments

The study used of a survey questionnaire administered to each member of the sample population. The questionnaire had both open and close-ended questions. The close-ended questions provided more structured responses to facilitate tangible recommendations. The closed ended questions were used to test the rating of various attributes and this helps in reducing the number of related responses in order to obtain more varied responses. The open-ended questions provided additional information that may not have been captured in the close-ended questions. The questionnaire was carefully designed and tested with a few members of the population for further improvements. This was done in order to enhance its validity and accuracy of data to be collected for the study.

Data Analysis and Presentation

Before processing the responses, the completed questionnaires were edited for completeness and consistency. Quantitative data collected was analyzed by the use of descriptive and inferential statistics using Statistical Package for Social Sciences (SPSS) and presented through percentages, means, standard deviations and frequencies. This was done by tallying up responses, computing percentages of variations in response as well as describing and interpreting the data in line with the study objectives and assumptions through use of SPSS. The information was displayed by use of tables and in prose-form. Tables and other graphical presentations as appropriate were used to present the data collected for ease of understanding and analysis. A regression analysis was run to establish effects of TQM on operational performance. The following analytical model was used.

$$P = \alpha_0 + \beta_1 MC + \beta_2 CF + \beta_3 CI + \varepsilon_i$$

Where: P = Operational performance; α_0 - intercept coefficient; ε_i – error term (extraneous variables); MC - Management Commitment; CF – Customer Focus; CI – Continuous improvement; ET β_1,β_2 andβ_3=regression coefficients

RESEARCH RESULTS

Customer Focus and Operational Performance of NBL

13% of the respondents rated their firm as poor in terms of customer focus on operational performance of NBL, while 27% of them rated it as excellent while 60% rated it as good. This indicates that the organization has enhanced customer-focus. The study realized that NBL upholds customer satisfaction as a major undertaking at a mean of 3.98 and standard deviation of 0.811 while it ensures customer satisfaction is implemented at a mean of 4.01 and standard deviation of 0.794, the respondents indicated that the organization links internal performance with customer satisfaction to meet goals at a mean of 3.84 and standard deviation of 0.674 while the firm resets standards when customers' needs change at mean of 3.56 and standard deviation 0.694. Therefore customer focus was above average at NBL.

Management Commitment and Operational Performance of NBL

It is revealed that NBL ensures favorable environment in achieving organizational objectives at 75% while 20% indicated that it didn't while 5% were unaware. This shows that NBL is significantly committed to operational performance. The management of NBL sparingly takes the responsibility of ensuring quality performance at a mean of 2.7 and standard deviation of 0.405, management views quality improvement as a strategy to earn more profits at a mean of 3.8, the management offers incentives to achieve quality goals results to low employee absenteeism at a mean of 2.12, minimized miscommunication between organizational level improves performance at a mean of 3.4, the management however was significantly low in trying to obtain trust of employees, hence high employee turnover at the soft drink firm as indicated by a low mean of 1.8 and supervisors significantly promoted customer satisfaction which increased company productivity at a mean of 2.8. This indicates that NBL needs to improve on employee trust and reducing therefore employee turnover since it leads to low.

Continual Improvement and Operational Performance of NBL

The study revealed that there was continual improvement strategies (45%), 31% indicated that there weren't while 24% were not aware of such strategies within the organization given their position in the organization. This indicates that continual improvement is embraced in the organization. The use of information systems to ensure continuity in quality service delivery was enhanced in NBL at a mean of 3.77 and standard deviation of 0.884 while NBL was found to be significantly organizing and communicating its vision and mission clearly at a mean of 2.86 and standard deviation of 0.621. The firm was found to highly offer training to her staff to build their capacity at a mean of 4.28 and standard deviation of 0.764. The respondents indicated that continual improvement can be achieved through the use of quality policy at a mean of 4.11 and standard deviation of 0.833 and through data analysis at a mean of 2.41 and audit results at a mean of 3.76. This indicates that continual improvement is mostly done through capacity building of staff at NBL and audit results.

REGRESSION ANALYSIS

The researcher conducted multiple regression analysis to establish the influence of total quality management on operational performance of Nairobi Bottlers Limited. The findings were as indicated in subsequent sections;

Table 1: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.992	0.897	0.814	0.578

The table above indicates the model summary. From the findings, R was 0.992, R square was 0.897 and adjusted R squared was 0.814. An R square of 0.897 implies that 89.7% of changes in operational performance of NBL are explained by the independent variables of the study. There are however other factors that influence performance of the SMEs that are not included in the model which account for 10.3%. An R of 0.992 on the other hand signifies strong positive correlation between the variables of the study.

Table 2: ANOVA

Model	SS	df	MS	F	Significance
Regression	575.44	5	358.5	476.564	0.0876
Residual	311.10	475	0.588		
Total	886.54	480			

From the ANOVA table above, the value of F calculated is 476.244 while F critical is 361.521. Since the value of F calculated is greater than F critical, the overall regression model was significant and therefore a reliable indicator of the study findings. In terms of p values, the study indicated 0.0242 which is less than 0.05 and therefore statistically significant.

Table 3: Regression Coefficients

Model	Unstandardized coefficients		Standardized Coefficients	T	Sig
	B	Std Error	Beta		
Constant	4.258	0.807		2.296	0.000
Management Commitment	0.955	0.033	0.864	12.14	0.000
Customer Focus	0.847	0.036	0.124	09.52	0.000
Continuous Improvement	0.966	0.045	0.045	1.24	0.000

The resultant regression equation becomes;

$$\mathbf{Y = 4.258 + 0.955X_1 + 0.847X_2 + 0.966X_3}$$

Where: Y is the operational performance of Nairobi Bottlers Limited; β_0, β_1, β_2 and β3 are the regression coefficients and $X_{1,}$ X_2 and X3 represent management commitment, customer focus and continuous improvement respectively.

This implies that when all the variables of the study are held constant, operational performance of NBL in Nairobi, Kenya will be at the intercept which is 4.258. A unit improvement in management commitment to NBL while all other factors held constant results in 0.955 increase in operational performance of NBL, a unit increase in customer focus enhancement to NBL with other factors ceteris paribus leads to 0.847 increase in operational performance of NBL. Similarly a unit increase in continuous improvement while other factor ceteris paribus, translates to a 0.966 increase in operational performance of NBL.

CONCLUSIONS

The study concludes that there a number of strategies employed in enhancing total quality management at NBL to improve operational performance. The firm significantly applied customer focus strategies geared towards customer satisfaction. The study concludes that the firm has not done much in ensuring that the management builds trust with their employees and hence reduce employee turnover. Continuous improvement and involvement were also significantly low with only staff training being prominent out of the indicators considered. From the analysis, a unit improvement in management commitment to NBL while all other factors held constant results in 0.955 increase in operational performance of NBL, a unit increase in customer focus enhancement to NBL with other factors ceteris paribus leads to 0.847 increase in operational performance of NBL. Similarly a unit increase in continuous improvement while other factor ceteris paribus, translates to a 0.966 increase in operational performance of NBL. This indicates that the relationship between management commitment, customer focus and continuous improvement and operational performance was significantly positive and closer to a digit. From the findings, R was 0.992, R square was 0.897 and adjusted R squared was 0.814. An R square of 0.897 implies that 89.7% of changes in operational performance of NBL are explained by the independent variables of the study. There are however other factors that influence performance of NBL that are not included in the model which account for 10.3%. An R of 0.992 on the other hand signifies strong positive correlation between the variables of the study. In terms of p values, the study indicated 0.0242 which is less than 0.05 and therefore statistically significant.

RECOMMENDATIONS

The study recommends that Nairobi Bottlers limited needs to improve on total quality management through management commitment, customer focused strategies geared towards customer satisfaction, continuous improvement stressed on employee involvement and capacity building and other stakeholders. The management needs to improve staff welfare through compensation, appreciation, rewards and involvement in decision making. This will translate to trust and team work between management and employees which will improve the operational performance of the firm.

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