Impact of Total Quality Management on Customer Satisfaction in the Retail Sector: Case of indigenous Supermarkets in Botswana.

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Abstract

The study sought to investigate the impact of Total Quality Management on customer satisfaction on indigenous supermarkets in Botswana. In today's contemporary business environment, customers no longer tolerate poor or average quality of products or services, leading organizations to seek ways to overcome the problem of mediocre quality of service and product. Total Quality Management is one of the prominent quality improvement practices, whose goal is total dedication and commitment to nonstop process of improving the quality and productivity of organizations. The objectives of the study were to identify service quality attributes to invest in order to enhance customer satisfaction, to determine the impact of total of TQM on customer satisfaction and finally to determine the relationship between service quality attribute and customer satisfaction. To achieve the objectives, the researcher integrates the famous Servqual scale into Kano Model to bridge the gap between marketing and total quality management. A sample of 128 respondents was randomly chosen from ten indigenous supermarkets in Gaborone, Botswana. The Profusion method was employed to get reliable robust results and identify service quality attributes which indigenous supermarkets should invest into in order to compete competitively in the retail sector. The Consumers Satisfaction index was also employed to measure the extent of service quality attributes that evoke customer satisfaction and dissatisfaction respectively. SPSS version 20 was used to compute the regression and correlation coefficients to determine the relationship between TQM and customer satisfaction. The results obtained in the study suggest that TQM has a significant on customer satisfaction and where it is not implemented customer dissatisfaction lever increases as in the case of indigenous supermarkets in Botswana. Indigenous supermarkets need to have quality as one of its strategic focus and make quality the focus of every employee. Indigenous supermarkets must stop buying and selling generic brands. They also need to continuously engage its customers in order to understand their needs and develop TQM goals and strategies based on customer needs. In order to realize the full benefits of TQM, indigenous supermarkets should invest in employee empowerment and involvement. Continuous improvement is a must for indigenous supermarkets and to achieve this goal employee training and development should be part of indigenous supermarkets' core business.

Key words: Total Quality Management, Customer Satisfaction, Servqual model, Kano model.

1. Introduction

The retail sector is a highly volatile and competitive business environment, leading retail businesses to seek ways to overcome the problem of mediocre quality of service and product. Total Quality Management is one of the prominent quality improvement practices, whose goal is total dedication and commitment to a non-stop process of improving the quality and productivity of organizations (Juran, 1992). TQM is the system of activities directed at achieving delighted customers, empowered employees, higher revenues, and lower costs (Juran, 1992). In today's contemporary business environment, customers no longer tolerate poor or average quality of products or services. They demand world class service and products. Excellent retailers must adapt to rapid and unexpected changes in consumer tastes and preferences. Inspite of the pervasiveness of Total Quality Management most indigenous retail stores in Botswana have little or no information about Total Quality Management. Total Quality Management is a management approach that originated in the 1950s and has steadily become more popular since the early 1980s. Total Quality is a description of the culture, attitude and organization of a company that strives 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. TQM is mainly concerned with continuous improvement in all work, from high level strategic planning and decision-making, to detailed execution of work elements on the shop floor. It stems from the belief that mistakes can be avoided and defects can be prevented. It leads to continuously improving results, in all aspects of work, as a result of continuously improving capabilities, people, processes, and technology and machine capabilities.

The performance of indigenous supermarkets in Botswana has been declining at an alarming rate in terms of service and product quality, compared to well-known supermarkets like Choppies, Spar, and Shoprite among others. Indigenous supermarkets rely on local micro- business suppliers of products. Local micro-business

suppliers of products and services have neither capacity to improve nor to maintain the quality of their products and services. Often local producers of cordial drinks, dried products and gardening produce are unable to match the quality of established suppliers such as Schweppes, Coca-Cola and others. Also there is poor packaging of products with some products being supplied with no expiry dates. Employees of indigenous supermarkets are not well trained and at the end it compromise quality of service resulting to customer dissonance and dissatisfaction. The indigenous supermarkets seem to experiencing low sales volumes and the number of customers visiting indigenous supermarkets has been declining. Customers are shying away from inferior brands as thy no longer tolerate average quality products and opt for well-established retail supermarkets such as Pick and Pay, Shoprite, Choppies, Spar among others.

Most suppliers of indigenous supermarkets in Botswana are made of youth from poor and marginalized communities, who are lacking the financial muscle and know how to conduct market research to establish consumer needs and wants and there has been an increase in the number of defects. The increasing number defects have been depriving indigenous supermarkets of its profit returns as it is costing more to rectify customer queries. Often customer complaints go unresolved, the policy is "No Returns, No Refunds". The stance has tarnished the image of indigenous supermarkets in Botswana as they are now viewed as inferior supermarkets of low quality service. It is upon this background that the research study is tailored towards unearthing ways on how indigenous supermarkets can improve customer satisfaction by adopting Total Quality Management in order to remain competitive against prominent supermarkets like Spar, Choppies and Shoprite.

The study sought to achieve the following objectives:

- To identify service quality attributes indigenous supermarkets in Botswana should invest in to enhance customer satisfaction using the Kano Model.
- To determine the impact of Total Quality Management on customer satisfaction.
- To determine the relationship between service quality attributes and customer satisfaction.

2. Conceptual and Theoretical Literature

2.1 Total Quality Management

There is little consensus among researchers and practitioners concerning the most appropriate definition of TQM. The international Organization for Standards (ISO) defines Total Quality Management (TQM) as a management approach for an organization, centred on 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 to society (ISO 8402: 2014). Kruger (2001) defines TQM as an integrated organizational effort designed to improve quality at every level. Kemally (1996) asserts that Total Quality Management is pure pragmatism, a quest of excellence, fitness for use, value for money and customer satisfaction. While Hansson (2003) concurs with Kemally (1996) in his definition, he adds another dimension when he posits that Total Quality Management is not a destination but a journey towards improvement. TQM is a management philosophy that seeks to integrate all organizational functions (marketing, finance, design, engineering, and production, customer service, etc.) to focus on meeting customer needs and organizational objectives. TQM views an organization as a collection of processes. It maintains that organizations must strive to continuously improve these processes by incorporating the knowledge and experiences of workers. The simple objective of TQM is "Do the right things, right the first time, every time."

2.2 Total Quality Management Framework

Kemally (1996) asserts that Total Quality Management is the way of managing for the future, and is far wider in its application than just assuring product or service quality. It is a way of managing people and business processes to ensure complete customer satisfaction at every stage, internally and externally. Kemally (1996) adds that TQM combined with effective leadership, results in an organization doing the right things right, first time. Total Quality Management (TQM) is a management approach that aims for long-term success by focusing on customer satisfaction. TQM is based on the participation of all members of an organization in improving processes, products, services, and the culture in which they work. Figure 1.0 below shows the TQM framework.

Figure 1.0 TQM Framework



Source: Sahu (2007)

The core of TQM is the customer-supplier interfaces, both externally and internally, and at each interface lay a number of processes. According to Sahu (2007), this core must be surrounded by commitment to quality, communication of the quality message, and recognition of the need to change the culture of the organization to create total quality. These are the foundations of TQM, and they are supported by the key management functions of people, processes and systems in the organization.

2.3 Components of Total Quality Management

2.3.1 Customer Focus

The first, and overriding, feature of TQM is the company's focus on its customers. Quality is defined as meeting or exceeding customer expectations. The goal is to first identify and then meet customer needs. TQM recognizes that a perfectly produced product has little value if it is not what the customer wants. Therefore, we can say that quality is customer driven. Hansson (2003) explains that TQM focuses on satisfying and exceeding customer expectations. According to Labarbere and Marzursky (1993), dissatisfied consumers can decide to discontinue purchasing the good or service, complain to the company or a third party and perhaps return the item and finally they can engage in negative word of mouth communication which can be detrimental to the organization. Therefore, companies need to continually gather information by means of focus groups, market surveys, and customer interviews in order to stay in tune with what customers want. They must always remember that they would not be in business if it were not for their customers.

2.3.2 Continuous Improvement

Another concept of the TQM philosophy is the focus on continuous improvement. Traditional systems operated on the assumption that once a company achieved a certain level of quality, it was successful and needed no further improvements. Continuous improvement means that a TQM organization must continuously strive to improve their products or services and increase the quality standards (Kruger 2001). Change involving a process or change in consumer taste is viewed as an opportunity for the organization to develop and explore quality (Oakland, 2005). Continuous improvement, called kaizen by the Japanese, requires that the company continually strive to be better through learning and problem solving. Because we can never achieve perfection, we must always evaluate our performance and take measures to improve it.

The **Plan-Do-Study- Act** (**PSDA**) cycle describes the activities a company needs to perform in order to incorporate continuous improvement in its operations. The Deming Cycle, or PDCA Cycle (also known as PDSA Cycle), is a continuous quality improvement model consisting out of a logical sequence of four repetitive steps for continuous improvement and learning: Plan, Do, Study (Check) and Act. Figure 2.0 shows the PSDA cycle:

Figure 2.0 Plan-Do-Study-Act cycle



Source: Deming (1986)

The circular nature of this cycle shows that continuous improvement is a never-ending process.

Plan

The first step in the PDSA cycle is to plan. Managers must evaluate the current process and make plans based on any problems they find. They need to document all current procedures, collect data, and identify problems. This information should then be studied and used to develop a plan for improvement as well as specific measures to evaluate performance.

Do

The next step in the cycle is implementing the plan (do). During the implementation process managers should document all changes made and collect data for evaluation.

Study

The third step is to study the data collected in the previous phase. The data are evaluated to see whether the plan is achieving the goals established in the plan phase.

Act

The last phase of the cycle is to act on the basis of the results of the first three phases. The best way to accomplish this is to communicate the results to other members in the company and then implement the new procedure if it has been successful. Note that this is a cycle; the next step is to plan again. After we have acted, we need to continue evaluating the process, planning, and repeating the cycle again.

2.3.3 Employee Empowerment

Part of the TQM philosophy is to empower all employees to seek out quality problems and correct them. With the old concept of quality, employees were afraid to identify problems for fear that they would be reprimanded. Often poor quality was passed on to someone else, in order to make it "someone else's problem." The new concept of quality, TQM, provides incentives for employees to identify quality problems. Employees are rewarded for uncovering quality problems, not punished. In TQM, the role of employees is very different from what it was in traditional systems. Workers are empowered to make decisions relative to quality in the production process. They are considered a vital element of the effort to achieve high quality. Their contributions are highly valued, and their suggestions are implemented. In order to perform this function, employees are given continual and extensive training in quality measurement tools. TQM differentiates between external and internal customers. External customers are those that purchase the company's goods and services. Internal customers are employees of the organization who receive goods or services from others in the company. Employees are referred to as internal customers of the organization (Oakland, 2005).

2.3.4 Team Approach

TQM stresses that quality is an organizational effort. To facilitate the solving of quality problems, it places great emphasis on teamwork. The use of teams is based on the old adage that "two heads are better than one." Using techniques such as brainstorming, discussion, and quality control tools, teams work regularly to correct problems. The contributions of teams are considered vital to the success of the company. For this reason, companies set aside time in the workday for team meetings. Teams vary in their degree of structure and formality, and different types of teams solve different types of problems. One of the most common types of teams is the quality circle, a team of volunteer production employees and their supervisors whose purpose is to solve quality problems. The circle is usually composed of eight to ten members, and decisions are made through group consensus. The teams usually meet weekly during work hours in a place designated for this purpose. They follow a preset process for analyzing and solving quality problems. Open discussion is promoted, and criticism is not allowed.

2.4 Kano's Two Dimensional Model

The Kano Model was first developed by Kano (1984), a Japanese professor and international consultant. Kano (1994) challenged the traditional ideal that the better you perform on each product/ service attribute, the more satisfied the customers will be. The Kano Model holds that performance on product/service attribute is not equal in the eyes of the customers. Performance on certain categories of attributes produces higher levels of satisfaction than others, and some no feeling at all with others displaying a feeling of dissatisfaction to the presence of a quality attribute.



Figure 3.0: Kano's model of customer satisfaction (Berger et al., 1993)

In his model, Kano (Kano, 1984) distinguishes between three types of product requirements which influence customer satisfaction in different ways when met:

Must-be requirements: If these requirements are not fulfilled, the customer will be extremely dissatisfied. On the other hand, as the customer takes these requirements for granted, their fulfillment will not increase his satisfaction. The must-be requirements are basic criteria of a product. Fulfilling the must-be requirements will only lead to a state of "not dissatisfied". The customer regards the must-be requirements are in any case a decisive competitive factor, and if they are not fulfilled, the customer will not be interested in the product at all.

One-dimensional requirements: With regard to these requirements, customer satisfaction is proportional to the level of fulfillment - the higher the level of fulfillment, the higher the customer's satisfaction and vice versa. One-dimensional requirements are usually explicitly demanded by the customer.

Attractive requirements: These requirements are the product criteria which have the greatest influence on how satisfied a customer will be with a given product. Attractive requirements are neither explicitly expressed nor expected by the customer. Fulfilling these requirements leads to more than proportional satisfaction. If they are not met, however, there is no feeling of dissatisfaction.

2.5 Servqual Scale Model

The works of Parasuraman, Berry and Zeithaml (1988) resulted in the development of a model known as Servqual. Servqual is based on the underlying premise that service quality can be defined as the extent to which a service meets a customer's needs or expectations. Gabbie and O'Neill (1997) support the continued use of

Servqual to measure customer satisfaction, although the recommend that more work is needed to improve the scale. Servqual assumes that service quality is critically determined by the disparity between the expectations and perceptions of the customer, and the service actually delivered (Curry and Sinclair, 2002). The service quality determinants according to the Servqual are as follows: Reliability, Responsiveness, Assurance, Empathy and Tangibles. Table 1.0 below shows the service quality determinants.

Table 1.0 Servqual- Service Quality Determinants

Tangibles

This determinant is related to appeal of physical facilities, equipment and material used by a service firm as well as appearance of service employees.

Reliability

This means that the service firm provides its customers with accurate service the first time without making any mistakes and delivers what it has promised to do.

Responsiveness

This means that the service providers / employees are willing to help the customers and respond to their requests as well as to inform customers when the service will be provided and then give prompt services. This also involves giving quick responses to customer queries and enquiries promptly.

Assurance

This means that employees behaviour will give customers confidence in the firm and that the firm makes customers feel safe. It also means that the employees are always courteous and have the necessary knowledge to respond to the customers' questions.

Empathy

This means that the firm understands customers' problems and performs in the best interest as well as giving customers individual personal attention and having convenient operating hours.

Source: Parasuraman, Berry and Zeithaml (1992)

2.6 Empirical evidence

2.6.1 Impact of Total Quality Management on Customer Satisfaction

Temtime and Solomon (2002) assert that TQM has been proposed to improve customer satisfaction and received considerable attention among managers and researchers. Mehra and Ranganathan (2008) also argued that TQM substantially increase customer satisfaction across diverse industrial and cultural settings. Tari and Molina (2002) asserts that ISO 9000 certified firms implementing TQM not only achieve significant improvements in customer satisfaction but also improves employee satisfaction, social impact and increase business results. While concurring with Mehra and Ranganathan (2008) and Tari and Molina (2002), Hanna and Newman (2009) posit that there is enough empirical evidence to suggest that firms seeking a more globalized level of customer satisfaction, one which includes cost competitiveness and environmentally sound products and process can only do so having TQM in place. Another study by Psomas and Fotopoulos (2010) also assert that a company's quality improvement is the primary factor that leads to customer satisfaction.

2.6.2 The relationship between Service Quality Attributes and Customer Satisfaction

Iglesias and Guillen (2004) concluded that service quality attributes has a direct and positive impact on the level of customer satisfaction. However, Awwad (2012) was of the notion that customer perceptions, perceived quality and perceived value are important predictors to customer satisfaction which results in customer loyalty. Sivadas and Prewitt (2000) points out that service quality attributes influences relative attitude of customer satisfaction and fosters store loyalty in retail department store context. According to Pezeshki, Mousavi and Grant (2009) they argued that each service quality attribute has a different impact on customer satisfaction regardless of their classification. The assertions above digress from the notion that service quality has the same impact on customer satisfaction. Chen and Ting (2002) concur with Pezeshki et al, (2009) that each quality factor has a different effect upon customer satisfaction. Cheng and Ting (2002) assert that quality factor and customer satisfaction are different constructs in the minds of consumers. Mazter and Sauerwein (2002) concurs with Chen and Ting (2002) and Pezeshki et al, (2009) when they point out that there is growing evidence that service quality attribute fall into categories that have a different impact on the formulation of customer satisfaction. According to Chen, Chang, Hsu and Yang (2011) customer satisfaction is positively correlated with different types of service attributes. The authors pointed out that customer of different gender have significantly different views to quality elements. Mcdougall and Levesque (1996) concur with Chen et al. (2011) that the relative importance of drivers of satisfaction varies among service attributes.

2.6.3 Importance of identifying service quality attributes that enhance customer satisfaction

Kristianto, Ajmal and Sandha (2012) postulates that organizations should identify service quality attributes that enhance customer satisfaction in order to align a company's resources to customer needs to yield high returns on investment. According to Weller (1996) failure to realize returns on quality investment leads firms to perceive

TQM as too expensive to implement. He further pointed out that assessing customer needs and expectations and producing quality outputs which meets or exceeds customer expectations yields returns on investment in quality factors. Tan and Pawitra (2001) assert that organizations cannot sufficiently rely solely on continuous improvement to maintain and develop their competitive edge. There is need to identify attractive service quality attributes and embedded them into future services. Tan and Pawitra (2001) also argue that identifying attractive service quality attributes help organizations to evaluate customer satisfaction and guide improvement efforts in strengthening weak quality attributes. Witell et al, (2011) concur with Tan and Pawitra (2011) that investment in attractive service quality attributes yields high returns and such attributes are of high customer value. According to Kuo (2012) the Kano Model provides a guide to prioritize improvement enhancements of service quality attributes and help develop services by incorporating the voice of the customer. Kuo (2012) asserts that under competitive situations service providers providing similar products need to grasp customer needs and wants and convert them into deliverable services promptly. Baki et al, (2008) integrated the Servqual scale and Kano Model and identified attractive service quality attributes as the quality attributes with the most significant effect on customer satisfaction. They further recommended investment in attributes that match customer needs. While concurring with Baki et al, (2008), Wang and Ji (2012) add another dimension that matching organizations' resources to service quality attributes enhances customer satisfaction and also improves customer loyalty.

3.0 Research Methodology

The study adopted a descriptive research design to determine the impact of TQM on customer satisfaction. The research philosophy governing this study is positivism. Positivism believes that only phenomena which are observable and measurable can be validly regarded as knowledge (Collins and Hussey, 2003). Probability random and convenience sampling were used to select participants from ten (10) indigenous supermarkets in Gaborone Botswana. The Kano's two dimensional questionnaire coupled by the Servqual scale were used to collect the data. These techniques enabled the researcher to collect two views from the customer: how they would feel if a particular service quality attributes was provided (functional question) and their reaction in the absence of the service quality attribute (dysfunctional question). To ensure that the information gathered from questionnaires was reliable, Cronbach's alpha was calculated and SPSS version 20 was employed to analyze the study results. The Profusion method was used to combine responses obtained from the Kano questionnaire. The Consumer Satisfaction Coefficient method was used to establish the relationship between Total Quality Management and customer satisfaction.

4.0 Findings and Results

4.1 Identification of Service Quality Attributes to invest in to improve Customer Satisfaction

To identify service quality attributes that enhance customer satisfaction the responses to the Kano questionnaire were combined in accordance with the Kano Assessment table. The responses were then summed up using the Profusion Method to determine the influence of each attribute on customer satisfaction.

| Consumer's Opinion | In the absence of the attribute | | | | | |
|----------------------------------|---------------------------------|------------------|------|-------------|---------|---------------------|
| | | 1- | 2- | 3- | 4- | 5- |
| | | Strongly Like | Like | Indifferent | Dislike | Strongly Dislike |
| In the presence of the attribute | 1-Strongly Like | Q | A | A | А | 0 |
| | 2-Like | R | I | Ι | I | М |
| | 3-Indifference | R | Ι | I | I | М |
| | 4-Dislike | R | Ι | I | I | М |
| | 5-Strongly Dislike | R | R | R | R | Q |

Table 4.0: Kano Assessment Table

Source: Kuo, (2004)

Using the Kano's assessment table in table 4.0, the items being studied were labeled by the abbreviations; **Q**, **A**, **O**, **R**, **I**, **M**. The number of each attribution to each and every item was summed up on the basis of how the customers of indigenous supermarkets conceive and categorize the service quality attributes of the Servqual items in the Kano format. Therefore, the Profusion method was employed to get reliable robust results and identify which service quality elements were of interest to customers. Table 4.1 below shows the responses to Kano's Questionnaire.

| Table 4.1 Responses to | Kano's Questionnaire using the P | Profusion Method |
|------------------------|----------------------------------|------------------|
|------------------------|----------------------------------|------------------|

| Servqual Dimension | Kano Questionnaire | Grading by Citation | | | | | |
|---------------------|---|---------------------|----|---|----|----|----|
| | | | 0 | Q | R | I | М |
| Responsiveness 1 | Should indigenous supermarkets have the best customer care in town with employees willing and ready to respond to customer requests? | | 97 | 0 | 0 | 5 | 14 |
| 2 | Indigenous supermarkets should it step up its Point of Sale System in order to provide prompt services to its customers. | | 99 | 1 | 0 | 7 | 6 |
| Tangibles 3 | Should indigenous supermarkets remain open on public holidays and extend the usual business hours from 7:30am to 8:00pm. | | 84 | 0 | 0 | 7 | 11 |
| 4 | 4 Should indigenous supermarkets employees be nicely dressed and the building and its furniture be beautiful and nicely managed | | 30 | 1 | 1 | 49 | 21 |
| Reliability 5 | Indigenous supermarkets management should they be dependable and respond to customer complaints and rectify were necessary. | | 97 | 2 | 0 | 4 | 15 |
| 6 | Indigenous supermarkets management must be reliable and ensure that the supermarkets are well stocked and avoid stock outs. | | 93 | 0 | 0 | 4 | 13 |
| Assurance 7 | Should indigenous supermarkets instill confidence in customers and make customers feel safe in their transaction. | | 34 | 0 | 1 | 56 | 12 |
| 8 | Indigenous supermarkets should produce and sell private brands and branded products | | 63 | 0 | 0 | 21 | 24 |
| Empathy 9 | Should indigenous supermarkets have shop assistants eager to give individual attention to customers | | 23 | 1 | 13 | 68 | 10 |
| 10 | Indigenous supermarkets should it have caring and friendly employees having customer's interest at heart. | 13 | 87 | 0 | 0 | 10 | 18 |

Results and Analysis

The highest frequencies per Kano quality element are shown in red. The values shown in red are indicative of the category in which the Servqual dimension is grouped in terms of Kano model. The results of the study based on the Profusion method of analysis in table 4.1 are indicative that service quality attributes numbered 4, 7 & 9 do not have any influence in the satisfaction or dissatisfaction of the customers. Customers of indigenous supermarkets felt indifferent to the hypothesis situations tested by the Kano questionnaire. However, service quality attributes numbered 1, 2, 3, 4, 5, 6, 8 & 10 are categorized as one dimensional service quality that have a significant influence on customer satisfaction. Indigenous supermarkets should invest in items 1, 2, 3, 5, 6, 8 and 10 to enhance customer satisfaction. Kano (1984) asserts that one dimensional quality is directly proportional to customer satisfaction, therefore the more the service quality attribute provided the more the

customer will be satisfied. Findings of this study are similar to those of Pezeshki et al, (2009) that there is a dynamic relationship between service quality attributes and overall customer satisfaction. Service quality attributes have different impact on customer satisfaction. The findings in table 4.1 shows that Servqual items classified as one dimensional quality in terms of Kano Model should be invested in to gain noticeable results in terms of customer satisfaction. Kristianto et al, (2012) postulates that organizations should identify service quality attributes that enhance customer satisfaction in order to align a company's resources to customer needs to yield high returns on investment.

4.2 Determining the impact of Total Quality Management on Customer Satisfaction

The Consumer Satisfaction Coefficient method was applied to determine the impact of TQM on customer satisfaction. The researcher established the effect of each service quality element on customer satisfaction and dissatisfaction and then regressed the results to ascertain the impact of TQM on customer satisfaction. The Consumer Satisfaction Index comprises two indexes: Satisfaction Increment Index (SII) and the Dissatisfaction or Decrement Index (DII). It measures the extent that the presence/absence of an attribute will evoke satisfaction or dissatisfaction respectively. Table 4.2 shows the Consumer Satisfaction Index Formula.

Table 4.2: Consumer Satisfaction Index Formula

| Satisfaction Increment Index (SII) | Dissatisfaction Decrement Index (DII) |
|------------------------------------|---------------------------------------|
| <u>A+O</u> | <u>O+M</u> |
| A+O+M+I | <u>(</u> A+O+M+I) x (-1) |

Source: Berger (1993)

Table 4.3: Results of Consumer Satisfaction Index for Servqual items

| Servqual Dimension | Kano Questionnaire | SII Satisfaction | DII Dissatisfaction |
|--|--|------------------|---------------------|
| Responsiveness 1 | Should indigenous supermarkets have the best customer care in town with employees willing and ready to respond to customer requests? | 0.85 | -0.87 |
| 2 | Indigenous supermarkets should it step up its Point of Sale System in order to provide prompt services to its customers. | 0.90 | -0.83 |
| Tangibles 3 | Should indigenous supermarkets remain open on public holidays and extend the usual business hours from 7:30am to 8:00pm | 0.86 | -0.74 |
| 4 | Should indigenous supermarkets employees be nicely dressed and the building and its furniture be beautiful and nicely managed | 0.44 | -0.40 |
| Reliability 5 | Indigenous supermarkets management should they be dependable and respond to customer complaints and rectify were necessary. | 0.85 | -0.89 |
| 6 | Indigenous supermarkets management must be reliable and ensure that the supermarkets are well stocked and avoid stock outs. | 0.87 | -0.83 |
| AssuranceShould indigenous supermarkets instill confidence in customers and make customers feel safe in their transaction.7 | | 0.46 | -0.36 |
| 8 | Indigenous supermarkets should produce and sell private brands and branded products | 0.65 | -0.68 |
| Empathy 9 | Should indigenous supermarkets have shop assistants eager to give individual attention to customers | 0.32 | -0.29 |
| 10 | Indigenous supermarkets should it have caring and friendly employees having customer's interest at heart | 0.78 | -0.82 |

Table 4.4 Key for Consumer Satisfaction Index

| Scale | Description |
|------------|---|
| 0.5 to 1 | The higher influence on customer satisfaction |
| 0 to 0.5 | Signifies that there is very little influence on customer satisfaction |
| 0 to -0.5 | Signifies that this feature does not cause dissatisfaction if it is not met |
| -0.5 to -1 | The influence on customer dissatisfaction is strong if not provided |

Source: (Kuo, 2004)

Table 4.3 shows that service quality attributes numbered 4, 7 & 9 do not have any significant influence on customer satisfaction or dissatisfaction as they recorded scores of between 0 and 5 and 0 to -0.5 respectively as shown in the key table 4.4. However, service quality attributes 1, 2, 3, 5, 6, 8 & 10 in table 4.3 indicates that they have a strong customer satisfaction and dissatisfaction as they recorded scores of between 0.5 to 1 and -0.5 to -1 respectively. According to Tontini (2003) the focus should be on service quality attributes with higher absolute values as they demonstrate a higher influence on satisfaction and dissatisfaction. It can be inferred therefore that satisfiers numbered 1, 2, 3, 5, 6, 8 & 10 have the greatest influence on customer satisfaction and if not fulfilled the influence on customer dissatisfaction is strong. The results obtained using the Customer Satisfaction Index is identical to those identified using the Profusion Method in table 4.1, hence classification of the Servqual items in terms of Kano model for indigenous supermarkets was confirmed via two analysis methods: Profusion Method and Customer Satisfaction Index.

4.3 The relationship between Service Quality Attributes and Customer Satisfaction

The study employed regression analysis to determine the relationship between service quality attribute and Customer Satisfaction using SPSS version 20 as shown in table 4.5 below:

Table 4.5

| Model | Summary |
|-------|---------|
|-------|---------|

| Mo | odel | R | R Square | Adjusted Square | R | Std. Error of the Estimate |
|----|------|-------------------|----------|--------------------|---|----------------------------|
| 1 | | .968 ^a | .938 | .930 | | 6.124 |

a. Predictors: (Constant), satisfaction

According to the model of summary of calculations (Table 4.5), it is observed that the correlation coefficient between service quality and customer satisfaction is 0.93. According to Field (2005) a coefficient value between the ranges 0.8-1 indicates a strong positive relationship. Therefore, 0.93 denotes a strong positive relationship between service quality and customer satisfaction. The results depict that customers will be dissatisfied in the absence of TQM in the same manner in which they would be satisfied if TQM was implemented. This shows that TQM has a significant impact on customer satisfaction.

Table 4.6

Coefficients^a

| Model | | Unstandardized Coefficients Standardized Coefficients | | Т | Sig. | |
|-------|-----------------|--|------------|------|--------|------|
| | | В | Std. Error | Beta | | |
| 1 | (Constant) | -5.365 | 6.889 | | 779 | .459 |
| 1 | Service quality | 1.038 | .095 | .968 | 10.960 | .000 |

b.Dependent Variable: Customer Satisfaction

The findings of the study show that Total Quality Management has a significant impact on customer satisfaction. The observed significant value of 0.0% (Table 4.6) the probability that the obtained R square of 0.93 was obtained by chance is less than 5% hence the effect satisfaction has is significant. The findings are similar to those of (Tari and Molina, 2002; Kumar et al., 2009) who concluded that firms implementing TQM achieve significant customer satisfaction. Mehra and Ranganathan (2008) postulates that TQM substantially increase customer satisfaction. The findings to the study suggest that TQM has a significant impact on customer satisfaction. However, the relationship can be positive or negative association. Chen and Ting (2002) assert that each service quality factor has a different effect upon customer satisfaction. The results are similar with the results in table 4.3. However, Awwad (2012) was of the notion that customer perceptions, perceived quality and perceived value are important predictors to customer satisfaction. Sureshchander et al. (2002) posit that the relationship between service quality attributes and customer satisfaction is shrouded with uncertainty. The two argue that the constructs are independent but closely related such that an increase in one is likely to lead to an increase in another respectively.

5. Conclusion

The researcher concluded that Total Quality Management has a significant impact on customer satisfaction especially where the TQM concept captures the voice of the customer. The results of Customer Satisfaction index also show that implementing TQM give indigenous supermarkets competitive advantage over major competitors. The results show that responsiveness and reliability have substantial significant impact on customer satisfaction. The results show that indigenous supermarkets should invest in responsiveness, reliability and assurance quality dimensions i.e. investing in a point of sale system that provides prompt service to customers, training frontline employees on how to provide the best customer care, recruiting more staff and invest more capital to ensure that the stores will be fully stocked and avoid stock outs.

6. Recommendations

Indigenous supermarkets should adopt a companywide focus on quality. Indigenous supermarkets need to have quality as one of its strategic focus and make quality the focus of every employee. This can best be done by integrating various departments to communicate the quality message. Indigenous supermarkets must develop and order quality products and services that meet customer's needs and expectations. They should stop buying and selling generic brands. They also need to continuously engage its customers in order to understand their needs and develop TQM goals and strategies based on customer needs. In order to realize the full benefits of TQM, indigenous supermarkets should invest in employee empowerment and involvement. Continuous improvement is a must for indigenous supermarkets and to achieve this goal employee training and development should be part of indigenous supermarkets' core business. There is need to equip employees with the necessary skills to cope with technology and changing customer tastes and preferences.

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