

**TOTAL QUALITY MANAGEMENT AND PRODUCT DIFFERENTIATION
IN AGRICULTURAL STATE CORPORATIONS IN KENYA**

KIMANI JOYCE WAMBUI

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DECLARATION

I, the undersigned declare that this project report is my original work and has not been presented for the award of a degree or any other Certification in any other Institution.

Signed

Date

D61/75679/2012

KIMANI JOYCE WAMBUI

APPROVED BY:

SUPERVISORS

ERNEST O. AKELO

SIGNATURE.....

DATE.....

DR. PETERSON MAGUTU

SIGNATURE.....

DATE.....

DEDICATION

I wish to dedicate this research to my family. They have been very instrumental in making me what I am today. The bold steps I have taken in life is all because of them. They have made a significant contribution towards my intellectual, professional as well as personal development. My dad John Kimani, my mother Teresia Wanjiku and all my brothers and sisters. My mentors Janet Kuteli and Grace Mwamba have enriched me at every step of my life through inspiring me to strive for excellence.

Thank you so much for being there for me and your encouragement as my lowest moments. You all have encouraged me to handle life challenges with greater resilience.

Thank you for all your love, support and guidance

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CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

The contemporary business environment is shaped by rapid changes in demographic patterns, shift in societal demands, increased competition, changing employee expectations, globalization, rapid technological changes and constraining fiscal environment (Kotler and Keller, 2006). To meet these challenges and survive in the market, organizations have to adopt strategies that influence system change, increase customer and employee satisfaction; reduce cost, alongside improving productivity. In response to this, most state corporations across the world have adopted business models that enhances their competitive position in product or services delivery. One such model is Total Quality Management which has seen entire corporations transformed their conduct and operations to a business like manner (Mani, 1995).

The application of TQM in most countries across the globe began towards the end of 1980 and accelerated in the 1990s. The initial aim of TQM application in the public sector was to lower cost of production, increase the productivity of human resources and focus on customer satisfaction. The increased popularity of TQM application in the public sector alongside rapid changes in market and consumer preferences elevated the implementation of quality management processes from operation to strategic levels (Prajogo and Sohal, 2004). Customer focus has remained the center of contemporary business orientations models. Therefore, production of distinguished products sold at premium prices has often defined strategic inclination of most public sector organizations (Cool and Schendel, 1998). The customer oriented business model is thus product differentiation and how it is implemented alongside TQM practices leaves a raging academic debate and forms the foundation of this study.

1.1.1 Total Quality Management

TQM is a managerial philosophy and strategy that can be traced back in 1949 from Japanese firms that were struggling to rebuild their market after devastating effects of World War II (Walton, 1986). By 1980, with the guidance of quality consultants such as Deming and Juran, the Japanese manufactures were able to overtake firms from United States in market shares and

product superiority owing to successful implementation of TQM principles in their production process (Evans & Lindsay 2008:8). It didn't take long before firms and industries in the United States and across the World would follow suit and incorporate TQM in their processes thus making it a global managerial concept.

However, TQM suffers from lack of a generally accepted definition and as Boaden (1997) notes "attempting to define TQM is like shooting a moving target". Scholars, practitioners and organization have given different definitions of TQM. For instance, Pfeifer, (2002:) defines TQM as "a philosophy for managing an organization in a way which enables it to meet stakeholder needs and expectations efficiently and effectively, without compromising ethical value". Hoyle (2007: 200), building on views of British Standards Institution, defines TQM as, "A management philosophy and company practices that aim to harness the human and material resources of an organization in the most effective way to achieve the objectives of the organization".

Notable in the definitions above and an array of other definitions, TQM is perceived by the management and involves every stakeholder in a business organization with an ultimate goal of satisfying the customer in the most efficient and effective way. TQM practices therefore, guides the quality management philosophy in a way that enables the organization to meet stakeholders' needs and expectation effectively and efficiently without compromising on ethical values (ISO 9001:2008). TQM is manifested in a number of practices that include: employee training and participation, inspection, competitive benchmarking, continuous improvement, commitment of top management, system approach, mutually beneficial supplier relationship and customer focus.

The implementation of quality management techniques enables organizations to improve internal efficiencies. This is considered as a prerequisite to become competitive in global market place (Lambert & Ouedraogo, 2008). Quality management practices have been built on the concept of total quality management which has been guiding quality management practices in organizations.

1.1.2 Product Differentiation

In the modern market place, each product has to find an appropriate market-niche. In order to do this, each product must stand out because of characteristics only that particular product possesses which also give the product its unique identity. Therefore, Product Differentiation is a marketing strategy that businesses use to distinguish a product from similar offerings in the market (Kotler and Keller, 2006). According to Jay (2006) major sources of product differentiation are: Differences in quality which are usually accompanied by differences in price, functional features or design, reputation and availability (e.g. timing and location). Differentiation is a strategy that is used to provide a competitive advantage in a market dominated by products of many competitors.

Besides other strategies such as price leadership and market penetration, business settle on product differentiation with an aim of creating a perceived value among consumers and potential customers (Tay, 2003). This makes product differentiation extremely important to business as it explores the economic principles that have been demonstrated time and time again in nearly every market place that; if the public perceives no difference between two competing products, then the only possible means of competition is through pricing (Chamberline and Robinson, 1996). Competition has largely been viewed as an important source of innovation (Bolo *et al.*, 2009). This has often informed the variation in product line for the purposes of gaining competitive advantage in a market comprising of many sellers and a few buyers.

Under the differentiation theory, the ability of a firm to maintain its competitive advantage depends on how it manipulates other variables, in line on variety and immutability of its organizational strength and weaknesses. In examining product differentiation and firm performance in relation to perfect competition, Chamberline and Robinson (1996) observed that when firms sell differentiated products, they gain some ability to adjust their prices i.e., they can sell output at very high price and produce small amount or sell its output at very low prices and produce greater amount. Similarly, Powers and Hahn (2004) argue that firms following a

differentiation strategy can charge a higher price for their products based on the product characteristics, the delivery system, the quality of service, or the distribution channels.

1.1.3 Relationship between TQM and Product Differentiation

This study aims at investigating how state organization incorporate TQM practices in their organizational strategy, in this case, product differentiation. As Prajogo and Sohal (2004), argue, product differentiation is often designed as a competitive strategy whereas TQM is implemented as an operation strategy. According to Dean and Bowen (1994), TQM is concerned more with strategy implementation, or deployment rather than strategic choice and intent.

Therefore, TQM implementation must be associated with a certain strategy in order to measure its competitive intent. Customer focus orientation of TQM aims at gaining market advantage by outperforming competitors in terms of attracting more customers with distinguished products and charge premium prices (Reed *et.al.*, 1996). Under such circumstances, though not implicitly stated, TQM practices are associated with product differentiation strategy (Prajogo and Sohal, 2004). Therefore, TQM practices mediate organizational strategy towards competitive positioning.

1.1.4 Agricultural State corporations

The establishment of agricultural State Corporation is provided for under the laws of Kenya, *State Corporation Act of 1986*, cap 466. The Act provide for corporation to be established by the President, with ministerial responsibility. These organizations are mandated to provides services like: agricultural research, agricultural extension training, information services, marketing, pest and disease control, statutory bodies and development authorities.

Most of these state corporations have adopted quality management processes to improve internal efficiencies as well as give customer satisfaction as well as remain on the competitive edge. Such quality practices at the state corporation level ensure the process of service support to farmers is defect free and also align farming practices to TQM principles. Agricultural State Corporations include: Agricultural Finance Corporation (AFC), Pest Control Products Board (PCPB), Kenya Agricultural Research Institute (KARI), Kenya Plant Health Inspectorate Services (KEPHIS),

Cotton Development Authority (CDA), Agriculture Society of Kenya (ASK), Kenya Sugar Research Foundation (KSRF), Pyrethrum Board of Kenya (PBK), Kenya Seed Company (KSC), National Cereals and Produce Board (NCPB), Kenya Sugar Board (KSB), Coffee Research Foundation (CRF), Nyayo Tea Zones Development Corporation (NTZDC), Agricultural Development Corporation (ADC), The Kenya Agricultural Productivity Programme (KAPP), The Agricultural Sector Programme Support (ASPS), Horticultural Crops Development Authority (HCDA), Tea Board of Kenya (TBK), Tea Research Foundation (TRF) and Kenya Coconut Development Authority (KCDA).

1.2 Statement of the Problem

Total Quality Management is perceived as a proactive tool for lowering cost of production, increasing the productivity of human resources and focusing on customer satisfaction. This implies by extension that implementation of TQM practices is associated with the business orientation that aim at gaining market advantage. According to Reeds *et al.* (1996) customer focus orientation of TQM aims at gaining market advantage by outperforming competitors in terms of attracting more customers with distinguished products and charge premium prices.

This aligns the market intention for TQM implementation in State Corporation is to pursue product differentiation strategy and gain market appeal. Kenya is an agricultural country and this makes the sector of agriculture the largest in the country producing over 26% of the GDP. The agricultural State corporations are charged with regulation, implementation of State policies, Input supplies and marketing of agricultural products which indicates diversity in the 20 state corporations under study.

Most of the past studies conducted on TQM practices focused more on implementation status and not practices and also were conducted in developed countries only. For instance, Kok Fei and Rainey (2003) in their study found out that organization that ranked high in the implementation of TQM reported high level of communication and innovation in their organization. In Asia, Teng and Quazi carried out a study to investigate the aims of implementing TQM alongside the relationship between its implementation and the level of economic growth.

They found out that there was a positive correlation between the level of economic growth and adoption of quality management.

In Africa, a study by Masejane (2012) in South Africa focussed on the application of TQM to improve organizational performance in one of the municipalities. He concluded that TQM can be and is a viable approach of improving productivity and performance in the public sector. Clement Kasongo & Michael Moono carried out a study in 2011 in Zambia. They found out that top management commitment and availability of resources were some of the factors that lead to successful implementation of TQM in Zambian tourist sector. S.R. Karani & Bichanga, W. O (2012) carried out a study on effects of TQM implementation on business performance in service institutions. They found out that effective management leads to improved performance hence a need to put more emphasis on all TQM principles. Something worth noting is that all the above studies focussed more on TQM implementation and relationship of TQM practices and any one of the market strategies.

The only studies which focussed on TQM practices was by Chong and Rundus (2003) in Australia and Mutunga (2003) in Kenya. They analyzed firms in Australian on the role of TQM in enhancing competitive positioning of an organization and observed that, where there is a high degree of market competition, the more TQM practices are successfully aligned towards customer focus, organization performance and product differentiation. In Kenya, Mutunga (2013) carried out a study on the indicators of TQM in agricultural state corporations. She found out that top management commitment is the most important component of ensuring successful implementation of TQM practices in agricultural corporation.

From the above studies, its clear that even though there is increased popularity in the implementation of TQM in state corporations in Kenya, empirical interrogation is still inadequate in establishing the alignment of TQM practices with market oriented strategies. Most studies are conducted in the developed regions and use non probabilistic methodologies often with very low response rate. To bridge this gap, this study aims at holistically investigating how state corporations are implementing TQM practices in line with differentiation as a competitive

strategy. The study will use both descriptive and inferential approaches to establish relationships. The focus will be on agricultural related corporations as they form majority of state corporations.

The study seeks to answer the following questions:

What are the TQM practices being implemented by agricultural state corporations in Kenya; and;
What is the relationship between TQM practices and product differentiation in agricultural state corporations in Kenya

1.3 Objectives

The general objective of this study is to investigate the relationship between Total Quality Management practices and product differentiation strategies in state corporations in Kenya. The study aims to achieve the following specific objectives:

- i. To establish the TQM practices being implemented by agricultural state corporations in Kenya;
- ii. To determine the relationship between TQM practices and product differentiation in agricultural state corporations in Kenya;
- iii. To determine the relationship between Total Quality Management and Product Differentiation.

1.4 Importance of the study

The management of the selected state corporations will use study findings to understand strategic alignment of TQM in their organizations in order to gain competitive advantage. Through investigating implementation of TQM practices and their relationships with product differentiation.

The study will also benefit other non-agricultural state corporations to understand how to align TQM practices with various market oriented strategies in order to gain competitive advantage.

By channeling the scope of the study to State Corporations, this study contributes not only to the ongoing scholarly debate on TQM, but also will form an important source of literature and methodology for scholars in the field of TQM.

CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction

This chapter seeks to review literature on the implementation of TQM practices in State Corporations and how it relates to product differentiation strategy. The review begins by pointing out and discussing TQM practices, product differentiation and empirical studies on the relationship between TQM practices and product differentiation strategy. Finally, the chapter ends by outlining the conceptual framework of this study.

2.1 Total Quality Management

Total Quality Management is a management approach that originated in the 1950's and has steadily become more popular since the early 1980's. It is a method by which management and employees become involved in the continuous improvement of the production of goods and services with an aim of providing customers with products and services that satisfy their needs. It is a combination of quality and management tools aimed at increasing business and reducing losses due to wasteful practices.

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. It maintains that organizations must strive to continuously improve these processes by incorporating the knowledge and experiences of its workers. TQM is now becoming recognized as a generic management tool in both private and public sector organizations.

2.2 Total Quality Management Practices

The history of TQM had its genesis in the quality management processes designed and implemented in the manufacturing sector as early as 1920s. Even though TQM is considered a

recent concept, elements of its principles had appeared in earlier publications and as Stuelpnagel (1993) notes, origin of TQM can be related to Ford and Crowter's book, 'My life and Work' published in 1926. The popularity and importance of TQM has been rubberstamped by quality innovations systems such as quality cycles, quality function deployment, six sigma programs, benchmarking and internationally sanctioned quality awards and standardization series (ISO standards) (Mutunga, 2013).

Government and state corporations were not left behind in the implementation of TQM. The efforts raised a notch high in 2010, after the implementation of performance contracting in all government institutions which is aimed at utilizing human capital efficiently in order to ensure high quality delivery of services. TQM is manifested in a number of practices that include: competitive benchmarking, continuous improvement, commitment of top management, adoption of system approach, mutually beneficial supplier relationship, employee involvement, and customer focus.

2.2.1 Competitive Benchmarking Practices

Benchmarking is the practice of determining the relative value of something by comparing it to a known standard (Tzu, 2002). High performing businesses in the industry lay down 'performance indicators' against target values, which they measure the effectiveness of their progress towards attaining policy and organizational objectives and goals. The practice of benchmarking as it is applied today was developed by Xerox in 1979 as a strategy to enhance their competitive edge.

Firms usually employ different approaches to benchmarking depending on the nature of their business. For instance, a firm may opt for internal benchmarking where comparisons are made within the same organizations (between teams, departments or units). In this type of benchmarking, the firm assumes that there are differences in the work processes as a result of differences in geography, personnel etc hence the need for different units to be assessed and compared to each other.

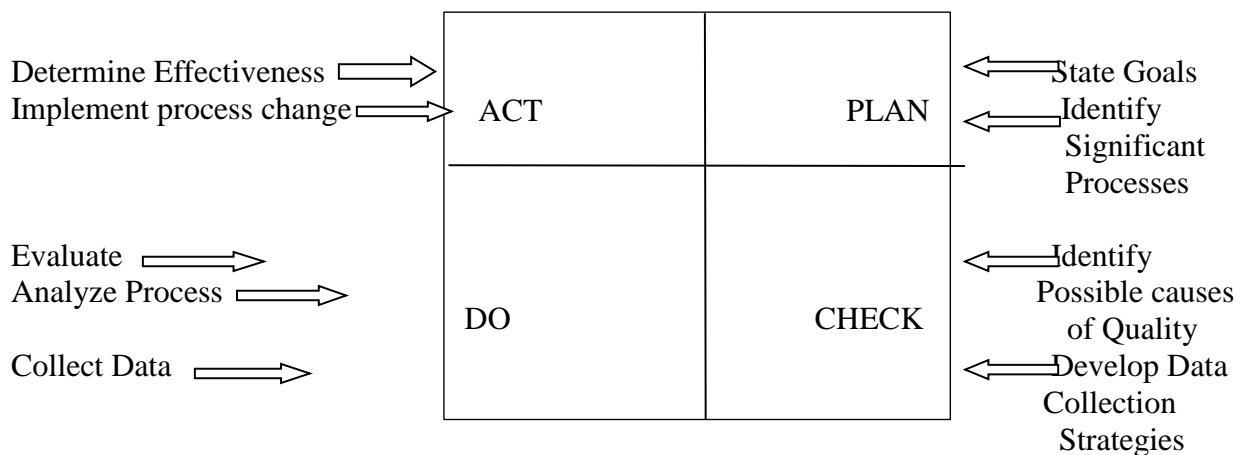
A firm may also want to compare its key processes, products and services with those of its competitors hence may opt for external benchmarking. In this case, the firm may focus on the price, speed, reliability, technical quality among others. A firm may also seek to compare its operating practices with other organizations performing similar operation by comparing the results and processes of its “target” to its own results and processes.

2.2.2 Continuous Improvement Practices

Continuous improvement of service and products involves Processes Planning, Product Design, Process Design, Assessment and Action, and Resource Procurement. It involves evaluation of current processes and total quality management practices. In addition, it entails offering training on the methods and tools of continual improvement. The argument behind continuous improvement is that human preferences and taste are dynamic and that the definition of what is seen as quality today could not be so tomorrow.

Firms through process planning usually select the resources and establish the general sequence of steps that begin with acquisition of materials and end up with creation of a finished product. The firm also determines the workflow, equipment needs as well as implementation requirements so as to create a new product to sell to its customers. The framework for continuous improvement was initially credited to Shewhart analytical work in 1931. The philosophy is now closely associated to Deming and entails a process improvement approach known as Plan-Do-Check-Act (PDCA) cycle, which managers are expected to use to achieve quality improvement.

Figure 2.1: The Shewhart Cycle (Deming, 1986), (PDCA Cycle)



Source: Houston and Dockstader (1988)

Figure 2.1 represent the diagrammatic representation of Deming PDCA cycle. In the cycle, management identifies the important organization goals in the 'Plan' phase. Activities in the 'Do' and 'Check' phases involve the identification and analysis of process variables that affect achievement of the goals. During 'Act' phase of the cycle, processes corrections and improvements are made and evaluated. Effective changes are made formally installed and the process is monitored to maintain the improved performance. The cycle is then repeated to pursue continuous improvement.

2.2.3 Top Management Commitment Practices

According to the management research, the success of any effort targeted at changing the operational philosophy of any organization is strongly linked with the top management commitment. It is very difficult to change the behavior of the members of the organization without the support of the top management (Ahire *et al.*, 1996). Top management leadership is the degree of which top management sets up TQM objectives and strategies, provides and allocates necessary resources, contributes in quality improvement efforts, and assesses TQM implementation and performance (Saraph *et al.*, 1989).

Studies conducted on the role of top management in guiding TQM practices in an organization shows higher positive relationship between top management and effective implementation of TQM practices. For instance, top management conveys its commitment to quality through: provision of adequate resources to the implementation of quality management efforts, assigning a higher priority to quality over cost or schedule, investing in human and financial resources as well as making quality a dimension in performance evaluation for every one in the organization.

2.2.4 Customer Focus Practices

One of the most important factors for the success of an enterprise is its customers. Without them, a business cannot exist. According to Morphet (2008), the concept of Total Quality Management can be expressed as "Achieving success through delighting the customers". The ultimate

outcome of customer focus and satisfaction is to achieve profit in the private sector and productivity in the public or non-profit sector.

A customer focused approach, acknowledges the primacy of the customer, and sets operation standards and targets that ultimately ensures customers' needs are satisfied. Customer focus approaches have gained popularity in state corporations and general public sector. However, the public sector lags behind in embracing market-oriented philosophies hence the concept is not fully developed in public sector and is often problematic to reach a common understanding on its practice (Cuttance, 1995). Additionally, there a lot of political interference which hinders strategic decision making in most state corporations.

In agricultural state corporations that engage in promotion, marketing and regulation services, the customers range from farmers in the local market to global consumers who have well defined needs and expectations. Therefore, in order to create satisfied customers, firms strive to identify customer needs, design the production and service systems to meet those needs and measure the results as the basis for improvement.

2.2.5 Mutually Beneficial Supplier Relationship Practices

In most organizations whose main focus is on quality products, the objective of purchasing department is to ensure quality is maintained in all its purchases rather than cost minimization. This is because poor quality of supplier products result in extra cost for the purchaser and also reduce the quality image of the ultimate products. Every organization and its suppliers are interdependent and a mutually beneficial relationship enhances ability of both to create value.

Thus every organization and its vendors are mutually dependent on each other hence they should strive to maintain a cordial relationship between each other. Organizations should always take some steps towards development of their suppliers as the success of their products/services are dependent on it. Most of agricultural state corporations are striving to understand the processes going on at the supplier end and help them achieve the desired results. This is through provision of training and having exchange programmes with the suppliers which assist in understanding their requirements which in turn will help them in product realization.

2.2.6 Employee Involvement Practices

Employee involvement is a management and leadership philosophy about how people are most enabled to contribute to continuous improvement and the ongoing success of the organization. It is creating an environment in which people have an impact on decisions and actions that affect their jobs. Employees can be involved in decision making and continuous process activities through; work teams, continuous improvement meetings (Kaizen), corrective action processes and periodic discussions with the supervisors.

According to Sadler (1970) successful employee involvement is where the organization increases the role of employees and decreasing roles of supervisors in decision process. This includes: the supervisor makes the decision and announces to it staff, he/she invites input into the decision while retaining authority to make the final decision him/herself. He/she then turns the decision into another party.

2.2.7 System approach Practices

A desired result is achieved more efficiently when activities and related resources are managed as a process. Identifying, understanding and managing interrelated processes as a system contributes to the organization's effectiveness and efficiency in achieving its objectives. A process is a set of activities which are interrelated in order to use resources to transform inputs into outputs. The collection or group of interrelated processes is called a system.

Every organization is like a system which has various sub-systems or processes, so in order to achieve the business objectives, firms ensure these sub-systems/processes are working in harmony. This will help to reduce waste, roles and responsibilities are clearly defined, outputs are predictable as well as accountability of results is enhanced. Therefore, the organization should consider; the customer of each process, the inputs and outputs of each process, determine

which processes are interacting together with their timing and sequences and also the effectiveness and efficiency of the sequence.

2.3 Product Differentiation

Product differentiation is related to Edward Chamberlin's work in 1933 who argued that products are differentiated if any significant basis exists for distinguishing the goods or services of one seller from those of the other. According to Jay (2006) major sources of product differentiation are: Differences in quality which are usually accompanied by differences in price, functional features or design, reputation and availability (e.g. timing and location).

According to Kotler (2003) the concept of differentiation is described as a process of adding distinct characteristics in order to distinguish the goods or services from the ones of competitors. Firms usually differentiate their products through packaging, branding, pricing, styling as well as advertising and promotions. Product differentiation is classified into three; horizontal differentiation, vertical differentiation and mixed differentiation.

2.3.1 Horizontal differentiation

Horizontal differentiation refers to differences between brands based on different product characteristics but not on different overall quality. For horizontally differentiated products, informative advertising enables a consumer to find a product that best matches his or her preference. A consumer's preferences can be graphed as locations in a spatial market or city, (Hotelling, 1929).

Therefore, an advertisement about a product's location helps the consumer find out which product is closer to one's location (Piana, 2003). Firms undertake horizontal differentiation by differentiating their products in terms of colors, design, size, fabric, taste and so on. This ensures that their clients have variety of products to make their choice according to individual preference.

2.3.2 Vertical differentiation

Vertical differentiation refers to differences in the actual quality of two brands. Vertical differentiation occurs in a market where the several goods that are present can be ordered according to their objective quality from the highest to the lowest (Hotelling, 1929). It's possible to say in this case that one good is "better" than another.

Firms usually obtain vertical differentiation either along one decisive feature or along a few features each of which has a wide range of discrete values. When products are vertically differentiated (for example, by quality) then truthful advertising may solve problem by signaling quality. If all customers are informed about product quality, a high- quality good should command a higher price than a low-quality good. If advertising is truthful and credible, higher price means higher quality (Kotler, 2003).

2.3.3 Mixed differentiation

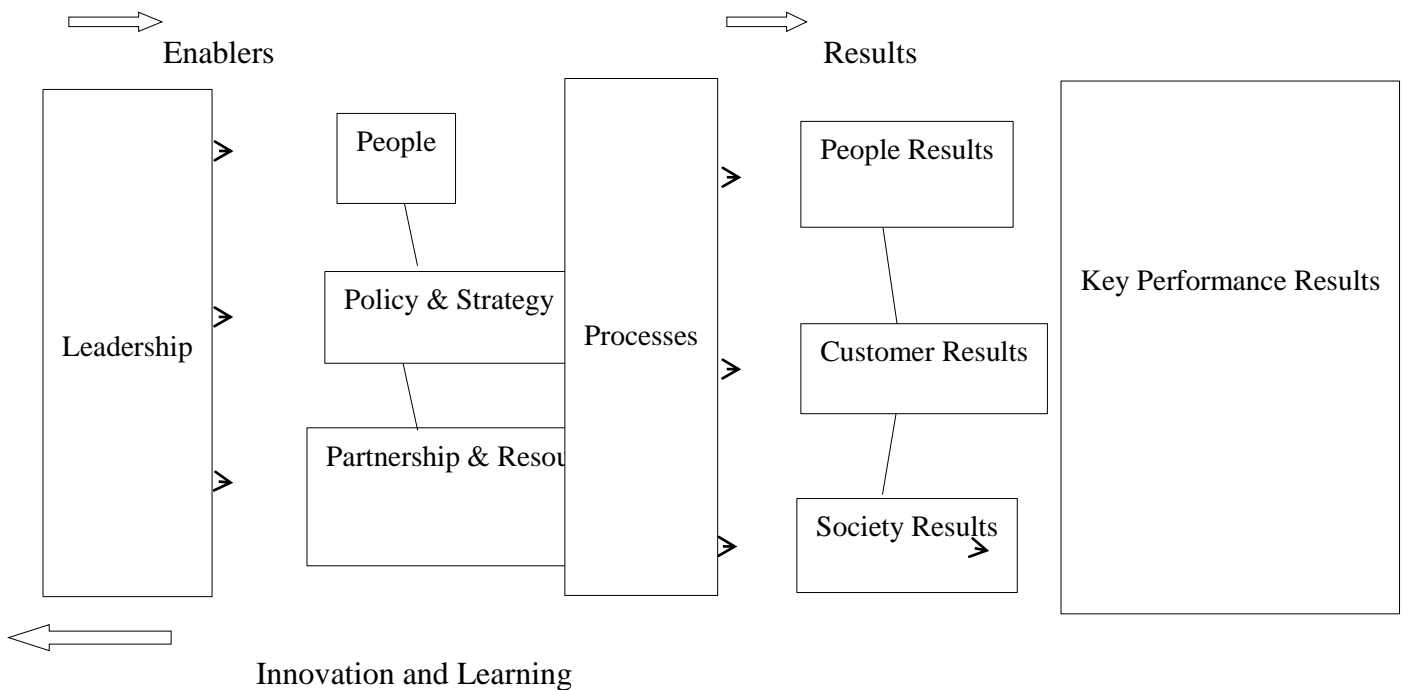
Certain complex markets are characterized both by horizontal and vertical differentiation. For instance, apparel, garments and shoes have an amazingly rich combination of shapes, colors, materials, complementarities, seasonal and territorial specificities, and appropriateness to social events, relative distance to ideals promoted by media, stylists and the show business. The quality of the materials can often be seen as a vertical differentiation but some other elements are clearly horizontal, like shapes. In such an environment, consumers can develop fairly different styles of comparison, with some spending large amount of time getting exposed and evaluating versions, talking with others and sharing judgments, while others drastically reducing the difficulty of the comparison through repurchase of very classical items (Kotler, 2003).

2.4 Theoretical and Conceptual Framework

2.4.1 Theoretical Framework

A theoretical framework is a model showing the logical relationship among several factors that are identified as important to the problem (Sekeran, 2003). However, the relationship can be generally explained as dependent and independent variable, where the former explains the variations in the latter. In this study, the theoretical framework gives the general interaction between TQM practices and product differentiation strategy. The study thus adopts the European Foundation Quality Model (EFQM) that lay down a non prescriptive framework based on nine criteria (Oluwatoyin and Oluseun, 2008). It is an enabler-results model where five of the criteria variables are enabler and four results.

Figure 2.1 EFQM Framework



Source: Dubas and Nijhawan (2005)

2.4.2 Conceptual Framework

Figure 2.2 Conceptual Framework

Independent Variables

Total Quality Management Practices

- Mutually beneficial Supplier Relationship
- System Approach
- Competitive Benchmarking
- Continuous Improvement
- Top Management Commitment
- Customer Focus
- Employee Involvement

Source: Author 2014



Dependent Variables

Product Differentiation Strategies

- Horizontal Differentiation
- Vertical Differentiation
- Mixed Differentiation

Competitive Positioning



Figure 2.2 is a pictorial representation of how variable interact in this study. From the figure, TQM practices in an organization are manifested in the presence of inspection, competitive benchmarking, Continuous improvement, top management commitment and customer focus. On the other hand, Product differentiation strategy follows horizontal, vertical or mixed differentiation approaches.

CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter presents the methodology used in the study. It outlines procedure used for the research design; collection of primary data used in the study as well as their analysis. This procedure was organized and presented as a sequence of steps and techniques to achieve the objectives proposed in the study.

3.2 Study Design

The study followed a descriptive research design to analyze the relationship between TQM practices and product differentiation in agricultural corporations. The descriptive research design is a systematic way of in-depth collection and analysis of data for investigating a phenomenon (Mugenda and Mugenda, 2003). The research design makes it possible to have a better understanding of the TQM practices and product differentiation.

The main advantage of descriptive research approach is the simplicity in analyzing and understanding findings. Furthermore, it presents an easier platform for decision making and prediction on the study phenomenon (Kumekpor, 2002). The study used survey technique with the administration of questionnaires to quality managers and operation staff in agricultural corporation. Responses were recorded, described, interpreted, analyzed and compared/contrasted.

3.3 Target Population

The target population under the study were staff engaged in quality management in agricultural corporation. This research sampled all the above stated agricultural corporations as majority of them have their headquarters in Nairobi.

Table 3.1 Target Population

Corporation	Target Population	Percentage
Coffee Research Foundation	19	4.6
Agricultural Finance Corporation	25	6.1
Kenya Sugar Board	21	5.1
Nyayo Tea Zones Development Corporation	23	5.5
Pest Control Products Board	19	4.5
Kenya Plant Health Inspectorate Board	22	5.3
Kenya Agricultural Research Institute	17	4.2
Cotton Development Authority	18	4.3
Agricultural Society of Kenya	20	4.9
Kenya Sugar Research Foundation	21	5.1
Pyrethrum Board of Kenya	18	4.4
Kenya Seed Company	19	4.5
National Cereals & Produce Board	20	4.9
Agricultural Development Corporation	24	5.7
The Kenya Agricultural Productivity Programme	23	5.5
Agriculture Sector Programme Support	23	5.5
Horticultural Crops Development Authority	22	5.3
Tea Board of Kenya	21	5.1
Tea Research Foundation	20	4.9
Kenya Coconut Development Authority	19	4.6
Total	414	100

Source: Author (2014)

3.4 Sampling Design

The study used proportionate random sampling design to select respondents. To ensure randomness, the researcher used hat method. This type of sampling design ensured that the sample was representative, had little bias and a higher level of precision even with smaller sample (Mehrens *et al.*, 1987).

3.4.1 Sample Size

Based on the target population of 414 respondents, the researcher picked a sample of 125 which was thirty percent of the population. The sample size was borrowed from Gay and Airasian

(2003) who proposed that a sample size of between 10 and 30 percent is adequate and representative in a management study. The sampling frame is presented in the table 3.2 below.

Table 3.2 Sample Size

Corporation	Target Population	Sample Size	Percentage
Coffee Research Foundation	19	6	4.8
Agricultural Finance Corporation	25	8	6.4
Kenya Sugar Board	21	6	4.8
Nyayo Tea Zones Development Corporation	23	7	5.6
Pest Control Products Board	19	6	4.8
Kenya Plant Health Inspectorate Board	22	7	5.6
Kenya Agricultural Research Institute	17	5	4.0
Cotton Development Authority	18	5	4.0
Agricultural Society of Kenya	20	6	4.8
Kenya Sugar Research Foundation	21	6	4.8
Pyrethrum Board of Kenya	18	5	4.0
Kenya Seed Company	19	6	4.8
National Cereals & Produce Board	20	6	4.8
Agricultural Development Corporation	24	7	5.6
The Kenya Agricultural Productivity Programme	23	7	5.6
Agriculture Sector Programme Support	23	7	5.6
Horticultural Crops Development Authority	22	7	5.6
Tea Board of Kenya	21	6	4.8
Tea Research Foundation	20	6	4.8
Kenya Coconut Development Authority	19	6	4.8
Total	414	125	100

Source: Author (2014)

3.5 Data Collection Instruments and Procedure

Data about Total quality management and product differentiation in agricultural state corporations was required. The researcher used questionnaires as the key data collection instrument. The questionnaire aimed at capturing both quantitative and qualitative aspects of the data prompting for both closed and open ended questionnaires. Open ended questions were used to encourage the respondents to express their views while the closed ended were used to enable the researcher to quantify different phenomena.

The TQM and product differentiation dimensions were measured through Five-point Likert scale developed by Saraph *et al.* (1989). To assess the degree or extent of practice of each item in the questionnaire, the five-point Likert scale (1= Very Small Extent; 5= Very Great Extent) was used.

Questionnaire were pre tested for validity and reliability before being sent out the respondents. The questionnaires were self administered where the researcher gave the respondents the questionnaire and collected later after they had filled.

3.6 Data Analysis and Reporting

Data analysis consisted of examining, categorizing, tabulating or otherwise recombining the evidence to address the initial prepositions of the study. The data analysis involved both quantitative and qualitative methods to summarize and establish relationships among variables. Quantitative data was analyzed using descriptive and inferential statistical approaches while qualitative data was used to explain results of quantitative data. The descriptive analysis was used to show the TQM practices being implemented in the State corporations. In doing this, measure of central tendency (mean and media) standard deviation and percentages were used.

The results for descriptive analysis were presented in tables, charts and graphs. Inferential statistics were used in measuring the relationship between TQM practices and product differentiation. Here, correlation analysis was used in determining the composite relationship of variables while regression model was used to explain the variations of product differentiation as a result of TQM practices as depicted in the following general model:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + X_4 + e$$

Where:

Y=Product Differentiation

a= intercept i.e. value of Y when $X_j=0$

b_j = regression weight attached to the variable j (j=1,2,3,4)

X_1 = Inspection

X_2 = Competitive Benchmarking

X_3 = Continuous Improvement

X_4 =Top Management Commitment

X_5 =Customer Focus

e =Error term

CHAPTER FOUR: DATA ANALYSIS, FINDINGS AND DISCUSSIONS

4.1 Overview

This chapter presents the analysis of data and discussion of the research findings. The chapter outlines the findings based on the research objectives. SPSS was used to generate the descriptive statistics and to establish the relation between the dependent and the independent variables of the study. The findings are presented in tables.

4.2 Presentation of Findings

4.2.1 Response Rate

There were 125 questionnaires sent out where 103 were satisfactorily filled and returned, setting the response rate to 82.4%. This indicates that the study received a high response.

4.2.2 Gender

The study sought to find out the gender of the respondents. The results of gender composition are presented in table 4.2 below;

Table 4.1: Gender

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	72	69.9	69.9	69.9
Female	31	30.1	30.1	100.0
Total	103	100.0	100.0	

Source Research Data (2014)

From the table 4.1, 69.9% of the respondents were male while 30.1% of the respondents were female. This indicates that even though male formed majority of the respondents, the study received diverse views from across the gender.

4.2.3 Academic Qualification

The study sought to find out the education level of the respondents. The results are as shown in table 4.3 below;

Table 4.2: Academic Qualification

	Frequenc y	Percent	Valid Percent	Cumulative Percent
High School	11	10.7	10.7	10.7
College	43	41.7	41.7	52.4
University	49	47.6	47.6	100.0
Total	103	100.0	100.0	

Source: Research Data (2014)

From table 4.2, 10.7% of the respondents had high school qualifications, 41.7% had college level, while 47.6% of the respondents had university qualifications. From the analysis, majority of the respondents had university qualifications which imply that the respondents understood the questionnaire well.

4.2.4 Years Worked in the Organization

Table 4.3 presents the analysis on the years the respondent had worked in their respective organizations;

Table 4.3: Years Worked

	Frequenc y	Percent	Valid Percent	Cumulative Percent
1-5 years	24	23.3	23.3	23.3
5-10 years	37	35.9	35.9	59.2
10-15 years	24	23.3	23.3	82.5
15-20 years	18	17.5	17.5	100.0
Total	103	100.0	100.0	

Source: Research Data (2014)

From table 4.3, 23.3% of the respondents had worked in their respective corporations for a period of between 1-5years, 35.9% had worked for a period of between 5-10 years, and 23.3% had worked between 10-15years while 17.5% had worked in their corporations for a period of

between 15-20years. From the analysis, majority of the respondents worked in their organizations for a period of between 5-10 years and thus were quite knowledgeable about the TQM practices in their corporations.

4.2.5 Quality Initiatives in State Corporations

Quality initiatives in state corporations was measured using 5 point likert scale, where 1=Very Small extent; 5=Very great extent. In order to adequately capture the construct of qualitative practices, the construct was broken down to 7statements which the respondents rated. The reliability test was run on all the seven items using Cronbach’s alpha. The overall alpha was 0.90 which is high indicating as strong internal consistency among the seven items and thus good for predicting with accuracy all the possible scores. The results for the analysis are as shown in table 4.4 below.

	N	Mean	Std. Deviation
The firm develops and documents strategies for quality	103	3.68	1.165
The firm conducts regular cultural change programs	103	3.42	1.295
Customer satisfaction initiatives	103	3.18	1.363
Employee involvement to quality	103	3.89	1.196
Supplier involvement program	103	3.86	1.180
Business process improvement	103	4.16	.968
Establishing measure of quality Progress	103	3.81	1.189
Average Mean	103	3.714	1.141

Source: Research Data (2014)

From table 4.4 on qualitative practices the average mean was 3.717, with a standard deviation of 1.141 which implies that on average, the respondents rated State corporations as having moderately implemented quality initiatives in their processes. From the analysis, quality initiatives significantly determine the variations of product differentiation in State Corporations. The moderate implementation of TQM practices in the agricultural state corporation has an implication on the adaptability of the corporation strategies in the market place. Powell (1995) argue that TQM as a source of competitive advantage in an organization succeeds with complete implementation of all the practices that encompasses the philosophy. This means that state

corporations have to improve their level of implementation of quality initiatives in order to fully realize the market benefit of TQM.

4.2.6 Top Management Commitment in State corporations

Top Management commitment was measured using 5 point likert scale, where 1=Very Small extent; 5=Very great extent. In order to adequately capture the construct of top management commitment, the researcher split the construct into 5 statements which the respondents rated. The reliability test was run on all the six items using Cronbach’s alpha. The overall alpha was 0.88 which is high indicating as strong internal consistency among the five items and thus good for predicting with accuracy all the possible scores. The results for the analysis are as shown in table 4.5 below.

Statements	N	Mean	Std. Deviation
Top management ensures every employee knows the company's mission and business objectives	103	3.91	1.030
Top management promotes staff involvement in QM and improvement activities	103	3.58	1.272
Managers and supervisors empower employees	103	3.86	1.129
Communication links is established between employees and top managers	103	3.97	1.071
Top Management is Keen on employees welfare	103	3.40	1.423
Average Mean	103	3.74	1.152

Source: Research Data (2014)

Based on the analysis presented in table 4.5 above, the average mean was 3.74 with a standard deviation of 1.152. This implies that on average, the rated top management commitment as moderately practiced in state corporations. Additionally, the results revealed that top management commitment is significantly related to product differentiation strategies in the state corporations. According to TQM philosophy, commitment of top management is one of the co-pillars anchoring the successful implementation of TQM practices. In order for an organization to successfully implement quality management system, the top management must create, share and sustain quality management targets and values. According to Hackman and Wageman (1995),

top management must also demonstrate visibly commitment to quality issues since this influences success of the quality management practices.

4.2.7 Continuous Improvement Practices in State Corporations

Continuous improvement practices was measured using 5 point likert scale, where 1=Very Small extent; 5=Very great extent. The construct was split construct into 5 statements which the respondents rated. The reliability test was run on all the five items using Cronbach's alpha. The overall alpha was 0.80 which is high indicating as strong internal consistency among the five items and thus good for predicting with accuracy all the possible scores. The results for the analysis are as shown in table 4.6 below.

	N	Mean	Std. Deviation
The firm evaluates its current processes to identify quality issues demanding attention	103	3.38	1.337
The firm offers training on methods and tools of continual improvement	103	3.36	1.399
The firm has a well established sequence of steps involved in creation of finished products	103	3.80	1.106
The firm has established specific check points to monitor conformity with specific requirements	103	3.73	1.277
The firm has defined success measures used to measure the success of the PDCA cycle	103	3.92	1.036
Average Mean	103	3.63	1.183

Research Data (2014)

Based on the analysis presented in table 4.6 above, the average mean was 3.64 with a standard deviation of 1.183. This implies that on average, the respondents' rated continuous improvement practices moderately implemented in state corporations. The practices have also shown a significant relationship with product differentiation in agricultural state corporations. The study shows similarities with Abdulla and Tar (2008) study on the effect of continuous improvement in strategy implementation in state corporations. They found out that continuous improvement led to overall product quality, customer satisfaction and competitive edge in the market place. This

implies that for state corporations to realize an edge in the market place, they must focus on enhancing continuous improvement practices within their organizations.

4.2.8 Customer Focus Practices in State Corporations

Customer focus practices in state corporations was measured using 5 point likert scale, where 1=Very Small extent; 5=Very great extent. Further, the construct was broken down to 5 statements which the respondents rated. The reliability test was run on all the five items using Cronbach’s alpha. The overall alpha was 0.79 indicating the items have a relatively high internal consistency. The results for the analysis are as shown in table 4.7 below.

	N	Mean	Std. Deviation
Customer satisfaction levels are monitored and measured	103	3.74	1.220
The Corporation assesses customer needs regularly and adjusts its operation according to customers expectations	103	3.85	1.150
The Corporation responds quickly to customers demand and ideas and advances technology	103	3.30	1.335
The firm produces products that satisfies and exceeds customer expectations	103	3.51	1.349
The Corporation anticipates and responds to customer's evolving needs and wants	103	3.49	1.364
Average Mean	103	3.57	1.246

Source: Research Data (2014)

Based on the results in table 4.7 above, the average mean was 3.57 with a standard deviation of 1.246. This indicates that on average, the respondents rated customer focus in State Corporation as moderately practiced. Additionally, the results revealed that customer focus is significantly related to product differentiation strategies in the state corporations. The study supports Morphet (2008), who argued that the concept of Total Quality Management can be expressed as “achieving success through delighting customers”. Hence, this implies that for state corporations to create satisfied customers, they must strive to identify customer needs so as to design production and service systems to meet those needs.

4.2.9 Competitive Benchmarking in State Corporations

Competitive Benchmarking in state corporations was measured using 5 point scale, where 1=Very Small extent; 5=Very great extent. The construct was broken down to 5 statements which the respondents rated. The reliability test was run on all the seven items using Cronbach's alpha. The overall alpha was 0.81 which is high indicating as strong internal consistency among the seven items. The results for the analysis are as shown in table 4.8 below.

	N	Mean	Std. Deviation
The Corporation has put in place internal performance indicators by assessing and comparing performance in its different units	103	3.78	1.244
The Corporation management determines which functional areas within operations are to be benchmarked based upon cost, importance as well as benefit	103	3.92	1.091
The corporation measures its own performance for each product and service with the best performing firms in the same industry	103	3.64	1.275
The corporation compares the results and processes of the industry's best performer with its own	103	3.90	1.167
The firm specifies those programs and actions aimed at achieving and surpassing set targets	103	3.86	1.129
Average Mean	103	3.82	1.160

Source: Research Data (2014)

Based on the analysis presented in table 4.8 above, the average mean was 3.82 with a standard deviation of 1.160. This implies that on average, the respondents rated competitive benchmarking in state corporations as moderately implemented. The practices have also shown a significant relationship with product differentiation in state corporations in Kenya. The study supports Tuz (2002), who argued that benchmarking is determining the relative value of something by comparing it to a known standard. Most of the agricultural corporations have placed measures of performance of their product and services with the best performing in order to determine their place in the competitive market.

4.2.10 Product Differentiation in State Corporations

Product differentiation was treated as the dependent variable in this study. The questions were aimed at finding out the level of implementation of product differentiation and the respondents were asked to rate using 5point measure where 1=Very Small extent; 5=Very great extent. Internal consistency on 6 items rated yielded and alpha of 0.87 indicating strong internal consistency and good enough for predicting the scores. The analysis results are as presented in table 4.9 below;

	N	Mea n	Std. Deviation
The corporation carries out customer satisfaction survey	103	3.60	1.255
The corporation significantly invest in products innovation	103	3.71	1.281
The corporation develops products with many features	103	3.92	1.073
The corporation regularly advertises its products	103	3.83	1.175
The corporation follows strict product quality procedures	103	3.83	1.158
The corporation regularly improve the quality of its product in order to enhance competitiveness	103	3.85	1.192
Average Mean	103	3.79	1.168

Source: Research Data (2014)

From table 4.9 above, the average mean was 3.79 with a standard deviation of 1.168. This indicated that on average, product differentiation strategy was moderately implemented in state corporations. The study also shows that most of these corporations have invested heavily in product innovation as well advertising of their products in order to enhance competitiveness. This implies that the study supports Kotler (2003), who describes differentiation as a process of adding distinct characteristics in order to distinguish goods and services from those of competitors. As such most agricultural corporations are really striving to develop products with many features in order to remain in the competitive edge.

4.2.11 Correlation between Product Differentiation and TQM Practices

The results for correlation analysis are as presented in table 4.12 below;

Table 4.12: Correlations between Product Differentiation and TQM Practices

		Product Differentiation	Quality Initiatives	Top Management Commitment	Continuous Improvement Practices	Customer Focus	Competitive Benchmarking
Product Differentiation	Pearson Correlation	1	.850**	.870**	.910**	.775**	.820**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	103	103	103	103	103	103
Quality Initiatives	Pearson Correlation	.850**	1	.610**	.570**	.650**	.696**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	103	103	103	103	103	103
Top Management Commitment	Pearson Correlation	.870**	.610**	1	.651**	.510**	.571**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	103	103	103	103	103	103
Continuous Improvement Practices	Pearson Correlation	.910**	.570**	.651**	1	.621**	.558**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	103	103	103	103	103	103
Customer Focus	Pearson Correlation	.775**	.650**	.510**	.621**	1	.613**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	103	103	103	103	103	103

Competitive Benchmarking	Pearson Correlation	.820**	.696**	.571**	.558**	.613**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	103	103	103	103	103	103

** Correlation is significant at the 0.01 level (2-tailed).

The Pearson moment correlation analysis (table 4.12) summarizes the correlation between Product Differentiation and the independent variables. Product differentiation correlates strongly with quality initiatives $r(101) = .85, p < 0.01$. The correlation between product differentiation is strongly positively with, top management, $r(101) = .87, p < 0.01$, continuous improvement practices $r(101) = .91, p < 0.01$, customer focus $r(101) = .76, p < 0.01$ and competitive benchmarking $r(101) = .82, p < 0.01$. This implies that as the TQM practices increase, product differentiation increases too.

4.2.12 Correlation between Product Differentiation and TQM

The relationship between product differentiation and TQM is as depicted in table 4.13 below;

Table 4.13: Correlations between Product Differentiation and TQM

		Product Differentiation	Total Quality Management
Product Differentiation	Pearson Correlation	1	.792**
	Sig. (2-tailed)		.000
	N	103	103
Total Quality Management	Pearson Correlation	.792**	1
	Sig. (2-tailed)	.000	
	N	103	103

** Correlation is significant at the 0.01 level (2-tailed).

Pearson moment correlation analysis (table 4.13) indicates that there is a strong positive correlation between Product Differentiation and TQM, $r(101) = .79, p < 0.01$. This implies that as TQM practices improve product differentiation also improve in state corporations.

Table 4.14: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate

1	.776 ^a	.602	0.597.	.08113
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a. Predictors: (Constant), Competitive Benchmarking, Customer Focus, Quality Initiatives, Continuous Improvement Practices, Top Management Commitment

The model summary (table 4.14) shows that the TQM practices explain a significant proportion of the variation in product differentiation, adjusted $R^2 = .597$ $F(5, 97) = 324.63$. This implies that the TQM practices explain 59.7% of the variation in product differentiation strategies which indicates that the model captures much of the variation and thus is good for prediction.

Table 4.15: ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	83.744	5	17.788	324.625	.000 ^b
Residual	55.365	97	.571		
Total	139.109	102			

a. Dependent Variable: Product Differentiation

b. Predictors: (Constant), Competitive Benchmarking, Customer Focus, Quality Initiatives, Continuous Improvement Practices, Top Management Commitment

The two way-Analysis of Variance (ANOVA) shows a significant linear relationship at $p \leq 0.001$ level, $F(5, 97) = 324.63$, $p < 0.001$. This shows that the linear relationship between product differentiation and TQM practices is statistically significant.

4.16: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.160	.039		.261	.023
Quality Initiatives	.111	.056	.108	0.332	.015
Top Management Commitment	.084	.067	.084	1.005	.003
Continuous Improvement Practices	.026	.012	.025	.127	.011

Customer Focus	.118	.034	.116	2.044	.004
Competitive Benchmarking	.702	.063	.699	12.391	.000

a. Dependent Variable: Product Differentiation

The regression coefficients (table 4.16) indicates that Quality initiatives statistically support product differentiation $b=.108$, $t(97) = 0.33$, $p=.015$. There is a statistically significant linear relationship between product differentiation and; top management commitment, $b=.084$, $t(97) = 1.01$, $p=0.03$, continuous improvement practices, $b=.025$, $t(97) = .13$, $p=.011$, customer focus, $b=.116$, $t(97) = 2.04$, $p=.004$ and competitive benchmarking, $b=.699$, $t(97) = 12.39$, $p<0.001$. In the model, the linear regression is fitted as follows:

Model Specification

$$Y (61.4\%) = 0.16 + 0.108X_1 + 0.084X_2 + 0.025X_3 + 0.116X_4 + 0.699X_5$$

Where:

Y=Product Differentiation

X₁= Quality Initiatives

X₂= Top Management Commitment

X₃= Continuous Improvement Practices

X₄= Customer Focus

X₅=Competitive Benchmarking

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Overview

This chapter summarizes the findings, draws conclusion and makes recommendations. The discussion is presented based on the study objectives. Afterwards, conclusions to the research questions are drawn in view of the discussions. Lastly, the chapter outlines the recommendations and suggestions for further research.

5.2 Summary of the Findings

The study aimed at establishing the relationship between TQM practices and product differentiation in agricultural state corporations in Kenya. Bases on the analysis the following can be concluded; The agricultural state corporations in Kenya have moderately implemented quality initiatives in their processes. From the analysis, quality initiatives significantly determine the variations of product differentiation in State Corporations. In order to remain competitive, the state corporations have to improve their level of implementation of quality initiatives in order to fully realize the market benefit of TQM.

Top management despite its significant relationship with product differentiation strategies in state corporations has a moderate commitment towards quality processes in agricultural state corporations. Being a co-pillar in the success of any organization, top management must create a conducive environment for full implementation of TQM practices.

Continuous improvement practices as tenet for TQM implementation is moderately implemented in agricultural state corporations in Kenya. This implies that for state corporations to realize an

edge in the market place, they must focus on enhancing continuous improvement practices within their organizations.

Customer focus was moderately practiced in most agricultural state corporations. The study concludes that for state corporations to create satisfied customers, they must strive to identify customer needs so as to design production and service systems to meet those needs.

Competitive benchmarking was moderately implemented in most agricultural state corporations. The practices have also shown a significant relationship with product differentiation in state corporations in Kenya. In order to remain relevant in the competitive market, it would be prudent for agricultural corporations to compare the results and processes of the industry's best performer with its own.

Despite the fact that product differentiation was moderately implemented in most agricultural state corporations in Kenya, most of these corporations have invested heavily in product innovation as well advertising of their products. This is aimed at enhancing their competitiveness in the market. Hence most of them are striving to improve on quality of their products so as to have the best choice in the market.

The study has shown a strong positive correlation between product differentiation and TQM practices. From the model, when all TQM practices are not present in the organization, the product differentiation diminishes significantly as well. Simultaneously, If the corporation commits by one percent to any of quality initiatives, product differentiation improves significantly as well. For instance, when leadership improves by one percent, product differentiation strategy improves by a factor of 0.097, a one percent increase in continuous improvement practices results to a change in positive change in product differentiation by a factor of 0.010, a one percent commitment to customer focus will improve product differentiation by a factor of 0.125 while one percent commitment on competitive benchmarking enhances product differentiation strategy by a factor of 0.840.

5.3 Conclusion

The study concludes that even though the state corporations are moderately implementing TQM practices and product differentiation strategies, there is a close association between them. The external aim of streamlining internal operations in line with TQM practices is related to enhancing market penetration through product differentiation. The role of Agriculture in stimulating national economic growth exacerbates the need to ensure quality within the Agricultural Corporations. These forces demand that quality assurance processes are both rigorous and transparent, and that quality enhancement initiatives are firmly embedded in any quality management programme. As a result, most of these state corporations have adopted quality management processes. This is in order to improve internal efficiencies as well as give customer satisfaction as well as remain on the competitive edge.

Such quality practices at the state corporation level ensure the process of service support to farmers is defect free and also align farming practices to TQM principles. A large number of organizations both large and small in the Agriculture sector suffer for lack of information in the field of quality management. We can therefore conclude that based on the findings of this study, it is imperative that all corporations within the Agricultural Sector have to embrace quality management practices if Agriculture is to continue to be the backbone of our economy. In addition, they need to align the implementation of TQM practices with competitive market strategies like product differentiation in order to remain competitive in the market.

5.4 Recommendation

From this study's findings, there are practical implications which are of particular relevance to organizations in both public and private sector. Most organizations would like to improve their service delivery as well remain competitive through implementation of TQM practices in line with various marketing strategies. Therefore, the following recommendations were made:

The Corporations within the Agricultural Sector need to focus on the identified factors namely; top management commitment, continuous improvement of products and services, customer orientation and competitive benchmarking in successful implementation of quality management practices in order to offer quality services. Organizations should also take some steps towards

development of their suppliers as the success of their products/services are dependent on it. Therefore, they should invest in provision of training and having exchange programmes with the suppliers which assist in understanding their requirements which in turn will help them in product realization.

In line with our vision 2030 which aims to transform Kenya into a newly industrializing, “middle-income country providing a high quality life to all its citizens by the year 2030”, The Government endeavours to offer quality service delivery to all citizens and consumers of our products both locally and internationally hence the need to improve quality management practices.

5.5 Suggestions for Further Studies

The results of this study suggest a variety of implications for future research. First, the study focussed on only one marketing strategy whereas there exists a variety of other quality marketing strategies. Future study may explore other marketing strategies which will provide a rich research base for researchers to compare the outcome with the results of this study. Additionally, the relationship of these marketing strategies can be compared in their extent of implementation of TQM practices in both private and public sectors.

Secondly, it is further suggested that future researchers focus on other state corporations in Kenya instead of drawing conclusions from the findings of studies conducted in a single environment. In the spirit of promoting regional integration it is also recommended that future studies include in the population and samples other organizations within the East African Community.

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LETTER OF INTRODUCTION

Dear Respondent,

This questionnaire is designed to gather information on Total Quality Management and Product Differentiation in Agricultural State Corporations in Kenya. The study is being carried out in partial fulfillment for the requirements of the degree of Master in Business Administration in School of Business, University of Nairobi.

The information in this questionnaire will be treated with confidentiality and will only be used for the purpose of this research. Your contribution in facilitating the same will be highly appreciated.

Thanks in advance.

Yours Sincerely,

Joyce Kimani

kimani.joyce@gmail.com

0721 947 318

QUESTIONNAIRE

The researcher is conducting a study on Total Quality Management and Product Differentiation. In connection with this, the author constructed a questionnaire to gather info for the study. Your participation in the study by way of answering this is very vital.

Kindly fill up the questionnaire with honesty. Please feel assured that your anonymity and the information you will give will be treated with strictest confidentiality. Please provide the following information by marking the applicable block with a cross (**x**).

Thank you for your kind response to my request.

PART I: TQM PRACTICES

1. To what extent has your organization implemented the following TQM practices?

(Where: 1= Very Small Extent; 2= Small Extent; 3= Moderately; 4= Great Extent; 5= Very Great Extent)

QUALITY INITIATIVES	EXTENT				
	1	2	3	4	5
The firm develops and documents strategies for quality					
The firm conducts regular Cultural Change programs					
Customer Satisfaction Initiatives					
Employee Involvement to Quality					
Supplier Involvement Program					
Business Process Improvement					
Establishing Measure of Quality Progress					

2. What extent does top management practice the following in your corporation

(Where: 1= Very Small Extent; 2= Small Extent; 3= Moderately; 4= Great Extent; 5= Very Great Extent)

TOP MANAGEMENT COMMITMENT	EXTENT				
	1	2	3	4	5
Top management ensures that every employee knows the company's mission and business objective					
Top management promotes staff involvement in quality management and improvement activities					
Managers and supervisors empower employees					
Communication links is established between employees and top management					
Top Management is keen on employee's welfare					

3. To what extent has your organization implemented the following continuous improvement practices

(Where: 1= Very Small Extent; 2= Small Extent; 3= Moderately; 4= Great Extent; 5= Very Great Extent)

CONTINUOUS IMPROVEMENT PRACTICE	EXTENT				
	1	2	3	4	5
The firm evaluates its current processes to identify quality issues demanding attention					
The firm offers training on the methods and tools of continual improvement					
The firm has a well established sequence of steps involved in creation of a finished products					
The firm has established specific check points to monitor conformity with specific requirements					
The firm has defined success measures used to measure the success of the PDCA cycle					

4. To what extent has the following customer focus practices been established and understood in your organization?

(Where: 1= Very Small Extent; 2= Small Extent; 3= Moderately; 4= Great Extent; 5= Very Great Extent)

ACTION	EXTENT				
	1	2	3	4	5
Customer satisfaction levels are monitored and measured					
The corporation assesses customer needs regularly and adjusts its operations according to customer expectations					
The corporation responds quickly to customer demand and ideas and advances technology					
The firm produces products that satisfies and exceeds customers' expectations					
The firm anticipates and responds to customers' evolving needs and wants					

5. To what extent has your organization implemented the following Competitive Benchmarking Initiatives?

(Where: 1= Very Small Extent; 2= Small Extent; 3= Moderately; 4= Great Extent; 5= Very Great Extent)

COMPETITIVE BENCHMARKING	EXTENT				
	1	2	3	4	5
The corporation has put in place internal performance indicators by assessing and comparing the performance of its different units					
The corporation's management determines which functional areas within its operation are to be benchmarked based upon cost, importance as well benefit					

The corporation measures its own performance for each product or service with the best performing firms in the same industry					
The corporation compares the results and processes of the industry's best performer with its own					
The firm specifies those programs and actions aimed at achieving and surpassing the set targets					

PART II: PRODUCT DIFFERENTIATION

In this section you are asked to take into account a number of statements about the competitive strategy in your organization. Please answer the questions by selecting the most suitable ranging from Strongly Agree to Strongly Disagree that best describe your corporation's strategy.

(Where: 1= Strongly Agree; 2= Agree; 3= Indifferent; 4= Disagree; 5= Strongly Disagree)

STATEMENTS	AGREEMENT				
	1	2	3	4	5
Your corporation carry out customer satisfaction survey					
Your corporation significantly invest in product innovation					
Your corporation develop product with many features					
Your corporation regularly advertise its products					
Your corporation follow strict product quality procedures					

Your corporation regularly improve the quality of its product in order to enhance competitiveness					
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