

**PERCEIVED EFFECTS OF TOTAL QUALITY MANAGEMENT ON
COMPETITIVE ADVANTAGE OF KENYA PLANT HEALTH
INSPECTORATE SERVICE COMPANY**

DAMARIE AKELLO

**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT OF
REQUIREMENTS FOR THE AWARD OF DEGREE OF THE MASTER OF
BUSINESS ADMINISTRATION, FACULTY OF BUSINESS AND
MANAGEMENT SCIENCE, UNIVERSITY OF NAIROBI**

NOVEMBER, 2021

DECLARATION

This research project is my own work and it has not been used or submitted in any other college for the award of any degree.

Signature..........

Date:.....05.12.2021....

DAMARIE AKELLO

D61/12203/2018

This research project has been submitted for examination with my approval as the University Supervisor.

Signature: 

Date: **16th November, 2021**

DR. KENNEDY OGOLLAH

DEPARTMENT OF BUSINESS ADMINISTRATION

FACULTY OF BUSINESS AND MANAGEMENT SCIENCE

UNIVERSITY OF NAIROBI

DEDICATION

This study is dedicated to my family for their support as well as to the almighty God for the provision of wisdom and grace on the entire journey.

ACKNOWLEDGEMENTS

My foremost gratitude goes to all that have contributed in the achievement of this project. I am deeply indebted to my supervisors, Dr. Kennedy Ogollah and Professor Zachary Bolo Awino, for their invaluable patience and constructive support throughout the period of my thesis development. I would also like to thank my family for their patience and moral support throughout the years of this study.

TABLE OF CONTENTS

DECLARATION	ii
DEDICATION	iii
ACKNOWLEDGEMENTS	iv
LIST OF TABLE	vii
LIST OF ABBREVIATIONS	viii
ABSTRACT	ix
CHAPTER ONE: INTRODUCTION	1
1.1 Background of the Study	1
1.1.1 Total Quality Management.....	3
1.1.2 Competitive Advantage.....	4
1.1.3 Agricultural Sector in Kenya.....	5
1.1.4 Kenya Plant Health Inspectorate Service (KEPHIS)	6
1.2 Research Problem	7
1.3 Research Objectives.....	10
1.4 Value of the Study	10
CHAPTER TWO: LITERATURE REVIEW	12
2.1 Introduction.....	12
2.2 Theoretical Foundation	12
2.2.1 Total Quality Management Theory	12
2.2.2 Dynamic Capability Theory	14
2.3 Empirical Review.....	15
2.4 Summary of Literature review and Knowledge Gaps.....	18
CHAPTER THREE: RESEARCH METHODOLOGY	20
3.1 Introduction.....	20
3.2 Research Design.....	20
3.3 Data Collection	21
3.4 Data Analysis	21

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION	23
4.1 Introduction.....	23
4.2 The Participant Response.....	23
4.3 Background Information and Demographic Characteristics.....	23
4.4 Total Quality Management	25
4.4.1 Employee Training.....	25
4.4.2 Total Employee Participation and Involvement in Programs	26
4.4.3 Effective Communication and Teamwork	27
4.4.4 Monitoring and Evaluation of Programs.....	27
4.4.5 Quality Control and Feedback Mechanism.....	28
4.4.6 Continuous Improvement and Process Centered Approach.....	29
4.4.7 System Approach and Customer Focus Models	29
4.5 Competitive Advantage.....	30
4.6 Perceived Effects of Total Quality Management on Competitive Advantage.....	31
4.7 Discussions on Findings	32
CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS	35
5.1 Introduction.....	35
5.2 Summary	35
5.3 Conclusion	37
5.4 Recommendations for the Study.....	38
5.5 Limitations of the Study.....	39
5.6 Suggestions for Further Research	40
REFERENCES.....	41
APPENDIX I: INTERVIEW GUIDE.....	45

LIST OF TABLE

Table 4.1: Education Level of Respondents.....	24
--	----

LIST OF ABBREVIATIONS

KEPHIS- Kenya Plant Health Inspectorate Service

NPPO- National Plant Protection Organization of Kenya

TNA- Training Needs Analysis

TQM- Total Quality Management

UK- United Kingdom

USA-United States of America

ABSTRACT

Total Quality Management is associated with continuous improvement and adoption of quality standards in organization operation with the aim of promoting competitive advantage. The primary purpose of this study was to establish the perceived impacts of total quality management on competitive advantage of Kenya Plant Health Inspectorate Service (KEPHIS). The study adopted case study research design and primary data collection. Data was collected using interview method. The target population was senior managers at KEPHIS. The study involved an interview of ten senior managers within the KEPHIS Company. Data was analyzed using content analysis method. The study found that TQM is related with competitiveness of KEPHIS. The findings of the study revealed that adoption of total quality management improved the competitive advantage of KEPHIS. The study results also found that the company top management has adopted various total quality management practices such as employee training, total employee participation and involvement as well as effective communication and teamwork. The adoption of appropriate evaluation and monitoring procedures, quality control feedback mechanisms, continuous improvement as well as process centered approach and customer focused production models were also part of total quality management practices within the company. The study concluded that adoption of total quality management promoted the competitive advantage of Kenya Plant Health Inspectorate Service (KEPHIS) Company. The study also concluded that companies should adopt total quality management programs such as employee training, total employee participation and involvement, effective communication and teamwork as well as evaluation and monitoring procedures and quality control feedback mechanisms to increase their competitive advantage levels. The study recommended the need for agricultural companies in Kenya to adopt total quality management programs associated with employee training and capacity building, team work, communication and adoption of effective monitoring and control procedures. This is important towards the promotion of sustainable competitive advantage among companies.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

The current business world is associated with various challenges (Ukab, 2021). Some of these challenges include rapid demographic patterns and increase of population in countries, high demand for quality products, shift in societal demands, increased competition as well as the changing employee and customer's expectations due to globalization and other rapid technological changes around the world (Chen, Lee & Wang, 2020). To fit and match the customer's needs, the current organizations in almost all sectors including the agricultural sectors have to adopt strategies that influence system change, increase customer and employee satisfaction; reduce cost, alongside improving productivity. One of the best strategies that have been embraced in the modern world is the Total Quality Management (TQM) model which has seen entire corporations transformed their product quality and increase the firm's competitive advantage level in different degrees (Hung et al., 2010). According to Faraj et al., (2021), total quality management is associated with high competitive advantage and this allow firms to gain a superior performance by providing equal value with a lower price than its competitors as well as a greater value through differentiation and cost-leadership.

This study was anchored in total quality management theory and the dynamic-capabilities theory. According to the total quality management theory, companies must adopt total quality controls in order to satisfy their customers (Sánchez-Alegría et al., 2021). The theory also indicates that customers perceive quality in purchasing the firm products and global managers must consider quality control and continuous improvement in order to improve their customer's satisfaction

levels. The dynamic-capabilities theory indicates that firms should use different strategies to achieve success (Nzioka & Kariuki, 2021).

Globally, the concept of total quality management has been associated with adoption of customer focused plans and continual improvement models. Companies that have adopted total quality management systems enjoy processed centered and total employee involvement in their operations (Ukab, 2021). However, despite the importance of total quality management among companies, few studies that determine how total quality management relate with competitive advantage of firms within the agricultural sector have been carried out. Majority of the studies associated with total quality management are based in the non-agricultural firms. Thus, there is need for a study to determine how total quality management models can help to support competitiveness of firms within the agricultural industries (Othman et al., 2020).

Kenyan companies within the Agricultural sector are slowly and increasingly adopting total quality management models. This is because the modern competitive organizations around the globe including those in the country have gone through a paradigm shift in their operational activities because of increase in competition as well as the environmental turbulence and other issues associated with globalization and workforce diversity (Nzioka & Kariuki, 2021). Additionally, the firms are experiencing high costs of operations to meet the new change of consumer needs and wants. With adoption of total quality frameworks, majority of these firms are enjoying high level continuous improvement of products, good and effective customer loyalty and overall organizational productivity which has led to their competitive advantage and operational excellence in their activities and programs.

1.1.1 Total Quality Management

TQM is a managerial approach and strategy which 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). 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.

TQM suffers from lack of a generally accepted definition and as Boaden (1997) noted that 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 an organization's managerial philosophy in a manner that enables it to meet the expectations and needs of its stakeholders effectively and efficiently, without compromising its value ethically. Hoyle (2007: 2008), building on views of British Standards Institution, defines TQM as a philosophy of management and practices of a company aimed to harness organization's resources, both material and human, effectively to achieve its objectives. Typically, 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 expectations and needs of stakeholders effectively and efficiently without its ethical values being compromised (ISO 9001, 2008). According to Faraj et al., (2021), 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. By implementing techniques of quality management, organizations are able to improve their internal efficiencies and also promote their competitive advantages globally.

1.1.2 Competitive Advantage

According to Wang, Chen and Chen (2012), the concept of competitive advantage is a firm's exceptional capability to effectively utilize its resources, improve value of its customer and place itself ahead of the competition. In most cases, companies with a high competitive advantage either via offering lower cost (cost advantage) or through differentiating the product (differentiation advantage) enjoy high performance and productivity. A firm with a high competitive advantage also targets wider markets by differentiating what it offers, strengthening recognition of its brand and increasing its market share to attract customers and increase their performance (Oakland, 2014).

Michael Porter (1980) noted that the firm high competitive advantage can be achieved by firm offering unique, high quality and differentiated services or products to their customers in the world. It is the competitive advantage that results when a firm is able to match their core competencies to the opportunities in their operating environment. Barney (2008) also noted that a firm's competitive advantage can be maintained if competitor firms are unable to copy its source of competitiveness or present a better offering. This will help the firm to earn high profitability and attract more customers leading to high performance of the firm (Hung et al., 2010). With

competitive advantage, companies are able to understand how to differentiate their product in addition to delivering high-quality products and services. Some of the ways that companies can promote their competitive advantage includes adoption of effective cost structure, delivery of unique products and providing excellent customer service (Nzioka & Kariuki, 2021). This study determined the perceived effects of total quality management on competitive advantage of KEPHIS.

1.1.3 Agricultural Sector in Kenya

Agriculture remains the biggest support to the economy of Kenya. People living in rural areas derive their livelihoods from agriculture either directly or indirectly and they constitute to over 80% of the Kenyan population (Republic of Kenya, 2005). The relationship between the performance of the sector and the key indicators for instance employment and GDP indicates its importance to the economy. In Kenya, agricultural policy focuses on the major goals of income growth and productivity increase, for smallholders in particular; equity and improved food security, importance of irrigation in introducing agricultural output stability, intensifying and commercializing production particularly among small scale farmers; environmental stability and appropriate and participatory policy formulation.

Evidently, the key issues of alarm to mediocre strategy implementation in the agriculture sector, therefore, include: agricultural incomes and productivity increase through staff effective pay for outputs, especially for small-holder farmers and this can be done through adoption of TQM practices. Importance of irrigation is evidence in reducing overdependence on rain-fed agriculture in the face of limited agricultural land with high potential. Emphasis on irrigation will enhance

achievement of Millennium Development Goals (MDGs) by improving food security and reducing the number of people that suffer from hunger. Irrigation will also help in reducing vulnerability by encouraging diversification into adding value, ensuring sustainability of the environment and encouraging development of private-sector-led of the sector.

In Kenya, the agriculture sector is regarded as one of the stable sectors of the economy. This is because 80% of the GDP in the country is achieved by the sector. Agriculture is defined as the engine of the Kenyan economy and about 75% of Kenyans depends on the sector for their income and livelihood. Despite this, poor development and growth in the sector is still a challenge and this may be due to lack of continual improvement and training to the stakeholders within the sector. This can be corrected using the total quality management elements.

1.1.4 Kenya Plant Health Inspectorate Service (KEPHIS)

Kenya Plant Health Inspectorate Service (KEPHIS) is the government Parastatals whose obligation is to assure that the agricultural inputs and produce are of quality to prevent adverse economic, human health and environmental effect. The main vision of the firm is to promote agro-environment that is sustainable, safe trade and healthy plants for a prosperous Kenya. However, the mission of the firm is to provide a science based regulatory service by assuring plant health, quality of agricultural inputs and produce for food security, globally competitive agriculture and sustainable development. The firm supports TQM despite challenges and this has led to customer focus, teamwork as well as results oriented and innovation and creativity in the firm major operations. Key role of the firm is to protect plants from pests, weeds and invasive species, to facilitate review and strengthening of the policy, legal and regulatory framework, so that it is in

tandem with both local and international agricultural sector emerging issues as well as to contribute towards improved levels of agricultural productivity.

The firm also support compliance to market requirements and build adequate technical and infrastructural capacity to facilitate efficient and effective delivery of the KEPHIS mandate. Currently, the firm also mobilizes adequate financial resources and ensures optimal allocation and utilization to enable full implementation of planned programmers and activities and enhance synergies through information and resource sharing with stakeholders and partners. To enhance the visibility and corporate image of KEPHIS, the firm has adopted TQM management in its major operations. The study was to therefore determine the relationship between total quality management and competitive advantage of Kenya Plant Health Inspectorate Service (KEPHIS) Company.

To achieve success in their operations and activities, it is significant that KEPHIS adopts effective total quality management in their major activities. It is expected that the adoption of total quality management frameworks was to improve customer management system of the firm and other continual improvement systems. This is one of the best ways of improving services and success of the firm.

1.2 Research Problem

The concept of total quality management has been associated with high competitive advantage in almost all regions globally. This is because adoption of TQM practices helps to promote operational performance of organizations in terms of managing quality challenges and ensuring

continuous improvement in the organization. It has also been argued that TQM help global firms to enjoy high customer satisfaction and reduce the high costs of operations in the firm. With strategic TQM models, the firms are able to adopt strategic leadership, technology, innovation and new learning systems and this imperative towards maintaining the long term competitive advantage of the firm.

In the Kenyan context, a number of companies within different sectors are increasingly adopting total quality management systems to increase their performance and competitive advantage. It has been noted that adoption of total quality management is associated with customer focus, continuous improvement and excellent service delivery in the community. This is evident among companies within the agricultural sector such as KEPHIS. The company is adopting the total quality systems in their operations to improve their performance. However, it has not been confirmed how the firm can use total quality management systems to improve its competitive advantage in the long run.

A number of studies have been carried out to determine how the total quality management influence firms' competitive advantage across the globe. For example, a study done in China by Teh, Yong, Arumugam and Ooi, (2009) to determine how TQM relate with competitive advantage of manufacturing industry noted that TQM promote the performance of firms. The study used cross-sectional research design and it engaged more than 50 companies. However, this study was done in China and it may not apply in the Kenya context. A study in Japan commissioned on TQM value found that TQM has the potential to increase the competitiveness of the country by increasing performance of the company after the country went down from second position in 1993

to the twenty sixth position in 2021 (Gomes et al. 2002). Rahman (2001) revealed that in Australia, most of the individual quality criteria had substantial relationships with business outcome, in terms of customer number, profitability and revenue. This study implemented longitudinal research design and data collected from 1992 to 2001 among service companies in Australia. In South Korea, Chang, Chiu and Chen (2010) discovered that medium and small enterprises concentrated on internal changes to encourage participation of employee, inventory reduction and quality improvement during the implementation of TQM because of the limitations that these companies experienced. Their study applied cross sectional research design and collection of data was among different technological companies in the country. However, it should be noted that these studies were done in the past and outside the country.

Locally, studies done confirmed that total quality frameworks promote success of companies. A study by Ondiek, Kisombe and Magutu (2013) was on lean tools and techniques of operation used in the sugar industries in Kenya. Data was collected for this study from companies that manufacture sugar in Kenya and it concluded that these Kenyan industries did not comprehend fully the concepts of lean operation and therefore, these companies have not fully benefited from implementation of TQM and lean production. Wamweya (2013) studied lift Industry's TQM with an objective of research in finding out what aspects affect TQM adoption practices and they are perceived to perform in Kenyan lift firms. This study used a cross-sectional research design and it concluded that TQM plays a critical part on how the lift companies in Kenya perform and also their continuity since it satisfies the customers. This is indicated by the TQM's favorable effect on customer's repatronage motives. Further, a study TQM implementation in Kenyan in secondary schools found that the board of governors were not obliging to strategic quality planning as well

as providing necessary leadership (Ngware et al, 2006). Manyinsa (2016) also found that total quality management practices improve the passenger transport Sacco's performance in Kenya. He noted that TQM implementation is important among companies in Kenya. This study adopted a cross sectional research method and the collection of data was among different passenger transport Sacco's in Kenya.

From the foregoing discussion and analysis, there are few studies that have been carried out in Kenya to find out the total quality management perceived effect on competitive advantage of Parastatals in the agricultural sector. The majority of the studies that have been done in this topic were done outside Kenya and they focus on other industries not agricultural sector. The studies also used different methodologies such as cross-sectional and longitudinal research design rather than case study method that was be adopted in the current study. Therefore, this study sought to fill the contextual, conceptual and methodological gaps by providing an answer to the question answer - What is the impact of perceived effects of total quality management and competitive advantage of Kenya Plant Health Inspectorate Service (KEPHIS) Company?

1.3 Research Objectives

The objective of this study was to establish the perceived impacts of total quality management on competitive advantage of Kenya Plant Health Inspectorate Service (KEPHIS) Company.

1.4 Value of the Study

This study will benefit different stakeholders including Kenya Plant Health Inspectorate Service (KEPHIS) Company's top management, who would use the study findings to promote their

competitive advantage through adoption of best total quality management models. The study results would also benefit the company by allowing their management to understand how total quality management promotes competitive advantage and ways to enhance such practices. This would allow the company to enjoy high performance and long-term competitive advantage.

Importantly, the study findings and results would also be worthwhile to policy makers in Kenya and beyond. Given the importance of total quality management, the government agencies can use the concept findings in promoting the big four agenda of food security and nutrition, the government and related institutions dealing with policy making in the country. The policy makers would use the study results to formulate and implement effective total quality management policies and plans that can shape the future of the country. This would help to promote the achievement of the total management framework within key government operations.

Furthermore, the results of the study will also contribute to academic philosophy relating to total quality management and competitive strategy. Total quality management is an emerging concept and future researchers will use the results of this study as a point of reference in their future studies. The researcher would document and publish the study findings and this would contribute to academic theory and future scholars would use the study results as a reference point in their future studies related to quality management and competitive advantage.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

Literature review provides effective analysis of theoretical and empirical literature. This section included the analysis of current literature related to the connection between total quality management and competitive advantage of Agricultural firms globally and in Kenya.

The researcher identified the various theoretical frameworks as well as empirical gaps in the literature for the purpose of suggesting future areas of scholarly studies. Some of the concepts discussed in this chapter included theories used in the study such as total quality management theory and the dynamic capability theory.

2.2 Theoretical Foundation

Theoretical framework provides a model that guides the study. It allows the study to predict and explain study variables. In this study, the total quality management theory and the dynamic capability theory were adopted as the theoretical foundation. These theories are detailed in the subsequent sections.

2.2.1 Total Quality Management Theory

Joseph Juran and Edwards Deming (1931) established the theory. Customer satisfaction is the basis on which the theory was established. According to proponents of the theory, there is different perception of quality by different customers. Competitive organizations apply TQM theory in managing quality services in the dynamic environment in business. According to the proponents of the theory, performance of the organization can be heightened by providing services and products that meet or exceed the expectations of the customer by design achieved by enabling

workers to find all the factors undermining services and products and eliminate those factors (Waldman, 1994).

The theory's major assumption is that the use of TQM policies can help promote effectiveness of the organizational through; chasing continuous enhancement, upholding stakeholder contentment; and developing proactive leadership. Another assumption of the theory is that those that receive quality can only be defined by those who receive the product or service, including stakeholders. Managers of an organization should involve their staff in the process of identifying the internal and external stakeholders of their organizations by determining the criteria they will use to judge the success of an organization. According to theory, quality compresses time and other circumstantial dimensions that add to the complexity of what is fundamentally the clients' individual evaluation of the quality of services and goods.

The critical strength of the theory includes the view that it can be used to promote competitive position of a company since it covers elimination of wastes and defects as well as reduction of costs of operations. This helped to promote higher market share, productivity as well as high customer focus and satisfaction levels. The main limitation of this theory is that it fails to consider other important competitive advantage dimensions such as the use of resources as a basis for competitive advantage.

In this study, the theory was used to determine how total quality management can help improve competitive advantage of firms within the Agricultural sector. The model also helped to determine various factors of quality and their relationship with competitive advantage in the market.

Typically, firms within the Agricultural sector can use the model to achieve intense competition and meet the ever-changing customer needs.

2.2.2 Dynamic Capability Theory

Teece et al. established the dynamic-capabilities theory in (1997) that were a leeway of the firms' resource-based theory (O'Connor, 2008). This theory is a development of the resource-based theory and it inspects how firms reconfigure, build and integrate its external and internal specific competencies into new abilities that equal environmental turbulence (Olepein, 2015). The proponents of the theory contended that those firms with smaller dynamic capabilities will be outperformed by those ones with greater dynamic capabilities. This theory aims to fathom the use of dynamic capabilities by the firms in creating and sustaining competitiveness over the rival firms by creating changes in the environment and responding to the changes in the environment (Danneels, 2011).

The key assumption of the theory is that capabilities are a collection of behaviors that are repeated, patterned, learned and of high level and that in relation to this competition, an organization can perform better. According to Augier and Teece (2009), dynamic capability theory assumes that companies can achieve competitive advantage and success by using their dynamic resources and capabilities, especially in a rapidly changing environment. The proponents of the theory also presumes that dynamic capabilities allow organizations to integrate and reconfigure their assets in a rapidly market conditions. These reconfigurations of resources allow companies to achieve superior performance and sustainable competitive advantage in the long run. Baden-Fuller and Teece (2020) noted that the theory is important in managing complex organizations since it allow

them to adapt effectively to rapidly changing environments, especially by integrating their resources and other capabilities.

One of the key strengths of the theory is the view that it can allow organizations to achieve sustainable competitive advantage within complex and rapidly changing business market. The theory is also important in configuring resources and capabilities with the aim of achieving success within complex business conditions (Augier & Teece, 2009). The theory also considers the adoption of flexible models in managing organizations and this can improve competitive advantage and superior firm's performance. However, the theory's key limitation is that it focuses too much on capabilities and ignore other important aspects of achieving sustainable competitive advantage such as innovations. The theory also fails to depict how organizations can measure their capabilities (Ahmad Zaidi & Othman, 2014).

In this study, the theory helped to ascertain how organizational capabilities can help firms within the agricultural industry to efficiently exploit their existing resources, dynamic capabilities and take advantage of new opportunities. This helped the firms to enjoy high competitive advantage and increase their general performance. The theory also helped the firms to identify their key capabilities and how to create more capabilities and achieve their competitive advantage in the long run (Cetindamar, Phaal & Probert, 2009).

2.3: Empirical Review

Many studies have been conducted to determine the perceived impact of total quality management on the competitive advantage of global companies. In Turkey, Zehir et al. (2012) noted that the

organization is able to improve its efficiencies internally by implementing quality management methods and this is considered a requirement to be competitive in global market place because it results in the ability of a firm to embrace management practices that are of quality.

Talib, Rahman and Qureshi (2011) in U.K in late 2012 found out that organization that ranked high in the implementation of TQM reported high levels of communication and innovation in their supply chain activities. This study took on the cross-sectional research design and concluded that all global firms must adopt TQM in managing their innovations, especially within the supply chain. A study in China by Chang, Chiu and Chen (2010) on how TQM practices affects satisfaction and loyalty of the employees in the government found out that the adoption of Total Quality Management models helps promote the level of economic growth of the organizations and the country. The conclusion of the study was that there is a positive correlation concerning the level of economic growth and adoption of quality management among organizations in the country. This study was done in China and mainly concentrated on telecommunication firms.

A study by Sharma and Modgil (2019) on TQM, SCM and operational performance among Indian pharmaceutical industry found out that TQM application help in organizational performance improvement. The study concluded that TQM can be and is a practical approach of performance and productivity improvement in the pharmaceutical industry. The study also confirmed that commitment of top management and resources availability are some of the influencers of implementation of TQM practices successfully within pharmaceutical industry in India. According to Hafeez et al. (2018) in a study to explore how TQM Practices is linked with Business Innovativeness and Firm Performance using an Emerging Market Perspective in Pakistan, it was

true that management of TQM effectively leads to better performance and firms within emerging markets need to put more emphasis on all TQM principles. However, the study was done in Malaysia and its findings may not apply within the country.

In Ghana, Eniola et al. (2019) evaluated the effect of organizational principles on total quality management in SMEs in Nigeria and noted that the adoption of TQM systems promote success of SMEs in Nigeria. In addition, Owusu and Duah (2018) evaluated the total quality management as a tool for competitive advantage in mobile telecommunication services in Ghana and noted that TQM promotes competitive edge of almost all mobile based companies in Ghana. In Uganda, Kasange (2018) determined the total quality management and operational performance in the Utility Poll Treatment Industry using a case of Uganda Electricity Distribution Company Limited. The study noted that TQM promotes the operational outcome of the electrical power supply in Uganda. The study concluded that managers should adopt TQM in managing their operations. However, these studies present conceptual gap since they focus on non-agricultural industries.

Locally, studies done by Anyango, Wanjau and Mageto (2012) noted that there is a positive relationship between quality management practices and manufacturing firms performance in Nairobi. The study only focused on manufacturing firms. Nyamari (2017) also determined the impact of total quality management practices on operational performance of commercial banks in Mombasa County and concluded that the adoption of TQM practices in managing bank operations. Additionally, Mang'eli and Kilika (2018) focused their study on the total quality management practices and operational performance of Nairobi Bottlers Limited and confirmed the importance of TQM on promoting operations of the firm. Additionally, it should be noted that this

study only focused on operational performance and not competitive advantage. In fact, it is true that the majority of the past studies depict conceptual as well as contextual and methodological gaps since they were done outside the country, while others were done in non-agricultural industry and some were done more than five years ago.

2.4 Summary of Literature review and Knowledge Gaps

The review confirmed that various studies have been conducted to determine the perceived impact of total quality management on the competitive advantage of global companies. However, there are contextual, methodological and conceptual gaps that this study is aimed to fill.

On the contextual gap, the studies done by Talib, Rahman and Qureshi (2011) in UK, Zehir et al. (2012) done in Turkey as well as by Chang, Chiu and Chen (2010) in China were done outside the country and this means that the focus on a different context and their findings cannot apply within the Kenya context. The market conditions, quality management policies and competitive measures within these countries vary from what is used in Kenya.

In terms of conceptual gaps, studies by Sharma and Modgil (2019) in India, Hafeez et al. (2018) in Malaysia and Eniola et al. (2019) in Nigeria, Owusu and Duah (2018) in Ghana and a study by Kasange (2018) in Uganda presented a different methodology as the above studies focus on the use of descriptive analysis in their data analysis. The studies also used regression analysis models which are totally different from the current content analysis that was used in the current study.

Finally, there are also conceptual gaps as studies done by Anyango, Wanjau and Mageto (2012), Mang'eli and Kilika (2018) and Nyamari (2017) focused on non-agricultural companies. The

studies also evaluated how TQM influence performance and outcomes in companies rather than focusing on the concept of competitive advantage. This left a big conceptual gap that this study filled by focusing on agriculturally based companies in Kenya.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the procedure that was adopted to guide this study. This section also included data collection as well as sampling procedure. Moreover, the section also included the method of analysis of data that was adopted when the study was conducted.

3.2 Research Design

This study adopted case study research design using Kenya Plant Health Inspectorate Service (KEPHIS) Company as the case. According to Bryman and Bell (2003), case study design is a research plan that provides an opportunity to get in-depth information about the topic of the study. The design helped to get holistic and meaningful characteristics of the real-life experiences related to total quality management and competitive advantage within the Kenya Plant Health Inspectorate Service (KEPHIS) Company. It is also worth noting that the researcher adopted a case study method and this made it possible to get in-depth information associated with how total quality management impacts on competitive advantage of Kenya Plant Health Inspectorate Service (KEPHIS) Company.

According to Bryman and Bell (2003), case study method is important towards provision of a detailed analysis of a situation and it provides an in-depth understanding of phenomena under study. The use of a case study helped to provide detailed information and allow for flexibility of data collection. In that sense, it formed a basis for further research since it promotes a close analysis of the case in question. The interview provided a detailed analysis of the topic under study as well as helped to collect data at a cheaper cost and within a short period of time.

3.3 Data Collection

The study adopted primary data as the method of data collection. In most cases, the primary data included the information or data being collected for the first time. Primary data was collected in the field and focus was on senior managers within the department of Total Quality Management of KEPHIS.

In collecting the primary data, face to face and online interviews were used to obtain important information about the study and the use of the interview method gave the study participants or respondents an opportunity to express their views regarding the topic of the study. The use of interview also helped to achieve high response level during the data collection process. The interview enabled the study to getting an opportunity to interact closely with the participants during the actual data collection process. The study used 10 (ten) participants which included the managers within the Kenya Plant Health Inspectorate Service (KEPHIS) Company.

3.4 Data Analysis

To promote effective data analysis, the study used qualitative techniques to analyze the data. In most cases, the use of qualitative research method involves exploration of a concept with the intention of providing more understanding of a topic. There are also those who argue that qualitative data analysis method is important in creating awareness of an existing concept. Therefore, in this study, content analysis method was used in analyzing the collected data from the field.

The content analysis method enabled it possible to make valid inferences by interpreting textual materials. The method also enabled for systematically evaluation of texts obtained during the study including oral communication, videos and audio texts. The use of content analysis made it possible to interpret responses from the respondents. The method also made it possible for the perceived effects of total quality management on competitive advantage of Kenya Plant Health Inspectorate Service (KEPHIS) Company to be determined.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter grants the data collected from the field, its interpretations and the discussions of the findings with the objective of meeting the aim of the study. The objective of this study was to establish the perceived effects of total quality management on competitive advantage of Kenya Plant Health Inspectorate Service (KEPHIS) Company. The chapter reviews the total quality management at KEPHIS in addition to the competitive advantage of the company before seeking the perceived effects of total quality management on competitive advantage at KEPHIS. The demographics and other participant related parameters are scrutinized to enhance the validity of the responses.

4.2 The Participant Response

In this study, ten managers were interviewed at Kenya Plant Health Inspectorate Service (KEPHIS). Before the interview, all the managers within the department of total quality management at Kenya Plant Health Inspectorate Service (KEPHIS) were contacted and a schedule was made for the interview. This made it possible to collect data and 9 managers accepted to be interviewed. During the interview, questions were asked and once constancy was gained, repeated questions were not asked after careful review of the responses by the majority of the managers.

4.3 Background Information and Demographic Characteristics

The demographic characteristics of the respondents were established to determine their suitability for this research. The common demographic characteristics that were taken into consideration included experience in the job, level of education, gender and age. Others included the current

position, job description, the department of work and whether the respondent was involved in TQ management in the company. It was established that 7 respondents were male and 2 were females. Also, out of the 9 respondents, 5 were aged 40 and above, 4 were aged between 30 and 39 while only 1 was aged 30 years. More than 60% of the respondents had at least a Masters' Degree while the others had at least a Diploma. All the respondents alluded that they participated in one way or another in TQ management within the company as shown in Table 4.1

Table 4.1: Education Level of Respondents

Level of Education	Frequency	Percentage
PhD	2	22.2
Master's Degree	5	55.6
Bachelor's Degree	1	11.1
Diploma	1	11.1
Total	9	100

Source: Researcher, (2021).

With regards to job experience, the study pursued to establish the length of time which the respondent has worked as an employee in Kenya Plant Health Inspectorate Service. It was proven that 1 of the respondents had served in the company for 15 years or more. The largest proportion (5) had worked in the company for between 5 and 10 years while only 2 had worked for between 11 and 14 years. The remaining one employee had taken less than 5 years in the company.

4.4 Total Quality Management

In the quest to determine impacts of total quality management on competitive advantage of Kenya Plant Health Inspectorate Service (KEPHIS) Company, the study sought to first identify the total quality management used by KEPHIS. All the respondents confirmed that KEPHIS uses diverse TQM strategies that are founded on the company's moral, ethical, economic and environmental obligations to its core business. The adoption of different total quality management activities were done in the company with the aim of promoting competitive advantage.

Analysis of the study results and the respondent's views also indicates that some of the common themes identified as the TQM used in the company include employee training, total employee participation and involvement, effective communication and teamwork. The respondents also agreed that the company adopted appropriate evaluation and monitoring procedures and quality control feedback mechanisms. The management of the company also adopted continuous improvement and process centered approach and customer focused production models based on the feedback provided by the participants in the study.

4.4.1 Employee Training

When asked to state whether the company's employees were subjected to employee training and capacity building, all the respondents agreed that the company engaged in regular employee training on all work aspects. Importantly, they agreed that the company had quarterly TNA trainings specifically on total quality management. Some respondents explained that the company leadership was committed to TQM trainings both at the departmental levels in addition to the level

of the company. This means that the firm valued training and imparting new knowledge on their employees to reduce wastes and promote quality control.

Significant, the respondents noted that the company employees participated in a number of external employee training programs, seminars and conferences organized by reputable organizations. Likewise, the TQM teams have frequently been allowed to benchmark with other companies to enhance their capacity. All this were done with the aim of promoting success and competitive advantage of the company.

4.4.2 Total Employee Participation and Involvement in Programs

When asked about total participation and involvement of the employee in various programs, the respondents agreed that the employees of the company participated fully in most of the company decisions specifically at the departments or the team levels. The company's annual plans are crafted with input from all employees in each department depending on the departmental activities. This means that the company valued their employee's views and opinions and they are considered in major decision-making activities within the company.

Likewise, the respondents noted that projects teams are allowed to craft their strategies based on the overall company objectives. This ensures that all employees are involved in not only the preparation, but also the implementation of the company programs. The involvement of teams and employees in major activities in the company is imperative in promoting success and goals of the company.

4.4.3 Effective Communication and Teamwork

The respondents noted that effective communication is a critical pillar in fostering long-term sustainable competitive advantage of a company; therefore, KEPHIS has established policies and procedures to help with mitigating and managing communication issues. The company has in place communication policies and procedures that all employees are conversant with. Likewise, the company has established clear-cut communication channels to ensure each employee is aware of their role and follows the right channel in passing information within the company.

The respondents also noted that a number of communication strategies are used in the company and partly from verbal communication during formal and informal meetings, the company uses written memos and posters that communicate important information such as the company policies, core values, mission, vision and other corporate procedures, service charter as well as risk management policies. Also, according to the respondents, projects are mainly done by multidisciplinary teams which utilize teamwork strategies to deliver services. Various forums are held quarterly to measure and refocus the teams towards the company's strategic objectives for the period. In these forums, teams' performance appraisal is conducted.

4.4.4 Monitoring and Evaluation of Programs

On the analysis and adoption of monitoring and evaluation programs, the respondents noted that KEPHIS has in place a mechanism of monitoring and evaluating its performance. First, the company sets strategic goals and objectives and develops corporate strategies. Additionally, the company has in place a mechanism of establishing key performance indicators, implementation, planning and management of capital and funding needs of each team. Apart from establishing

operational strategies, the company also has in place monitoring and evaluation procedures as well as stress-testing and contingency strategies.

The participants also agreed that the company makes use of management information systems while incorporating human resources management and development to help align measurable quality objectives to performance measures. The performance deliverables are measured on a quarterly basis according to the milestones stipulated a procedure that helps the company keep in track within the course towards achieving its strategic goals. With effective monitoring and evaluation programs, the company was able to find corrective measures and reduce errors in their operations, leading to a high competitive advantage.

4.4.5 Quality Control and Feedback Mechanism

The respondents noted that quality control procedures are aimed at ensuring that clients get the desired quality services or products. The majority of the respondents also noted that customer feedback is critical in establishing whether the product or service quality offered by a firm meets the desired expectations. This means that appropriate quality control and feedback mechanism has been adopted and designed by the company top management.

The respondents noted that KEPHIS has in place a mechanism that captures customer satisfaction through customer satisfaction surveys both internal and external which are carried out biannually. Additionally, the company has feedback collection boxed at its major offices where complaints and compliments are received, collated and responded to accordingly. Each client is prompted to

give feedback after each service and the feedback is incorporated in the production processes to help in quality improvement of services existing in the company.

4.4.6 Continuous Improvement and Process Centered Approach

On process-centered approach's continuous adoption and improvement, the respondents alluded that the company has in place mechanisms that promote continuous improvement of their processes. For instance, biannual mock audits as well as the internal audits and external helps the company to ensure compliance with regulatory policies and procedures. The quality management teams are regularly issued with assignments whose feedback help in determining the path of continuous process improvement.

The respondents also confirmed and noted that the information from the audits is shared with the relevant authorities as well as the shareholders to help gather their input. In addition, the shareholders and other interested parties are provided with performance metrics measures biannually to keep them abreast with the company's performance. Also, an annual shareholder and board of Governors' meetings general meetings are held to allow the stakeholders voice their concerns regarding the direction to be taken by the company's operations.

4.4.7 System Approach and Customer Focus Models

On the question of whether KEPHIS had a systems approach mechanism and customer focused models, the respondents confirmed that the company, through its customer relations department regularly prepares and presents relevant customer feedback analysis on the company's

performance. This helps the company to establish projects and prospects that are customer oriented to develop customer focused services and products.

Additionally, the respondents illustrated that the company had adopted fact-based decision making, with the facts emanating from customer and shareholder feedback. Likewise, fact-based decision making in the company are informed by capacity building garnered through regular benchmarking by the TQM team as well as through attending and participating in Regional Plant Health Standards Setting Committee trainings of NPPOs by other NPPOs from other parts of the world.

4.5 Competitive Advantage

When asked how the various competitive advantage used in managing the operations of the company, the respondents noted that the company has adopted various ways to promote their competitive advantage and to achieve market superiority and to deliver high quality services over their rivals. Some of the major strategies and plans that the company has adopted in promoting competitive advantage include the use of product differentiation as well as the use of cost-leadership strategies. The respondents also noted that the company used focus plans and strategies to promote their competitive advantage. This was done by providing services and products based on different segments of the market.

Specifically, the respondents noted that the company conducted regular market research and innovation plans in order to promote and increase their competitive advantage. The use of these plans allowed the company to achieve market superiority as well as to achieve a better cost

advantage compared to rivals in the market. The respondents also agreed that the company hired skilled employees, use digital technology and adopted knowledge sharing plans as ways of improving their competitive advantage. In addition, the use of total quality management was also part of the plans and procedures that the company adopted in promoting its competitive advantage. Moreover, the respondents in the study agreed that the competitive indicators in their company included the market value, brand recognition and brand position. Likewise, increased differentiation, cost leadership and improved focus models were identified as some indicators of competitive advantage. Also, increment in non-funded income and digitization of the company operations signified competitive advantage. Finally, the respondents agreed that efficiency in planning, increased creativity and innovation, flexibility in operations and high quality products were some of the metrics for measuring competitive advantage.

4.6 Perceived Effects of Total Quality Management on Competitive Advantage

According to the respondents, the general performance of the company as would be measured by competitive advantage is improved by efficient total quality management. The adoption of TQM practiced reduced process interruptions thus increasing the products' market value, position and brand recognition. In addition, TQM practices increased specialization and led to hiring of staff with specific skills after conduction of needs analysis. This led to improved differentiation and cost reduction in the company. It was also noted that efficiency in the company processes increased in that most of the work procedures went as per schedule due to effective monitoring procedures that had put established. Additionally, adequate planning and resource allocation as per the budgets brought about increase in production and all these increased the competitiveness of the company.

The respondents further noted that total quality management practices in KEPHIS has led to heightened innovation and creativity which has resulted in production of unique products and high-quality services such as emergent pests risk analysis, which has increased the value of the company services hence an increase in the number of customers. Finally, the respondents proposed that TQM practices would be more effective if interagency collaboration with other similar organizations would increase productivity. Likewise, most respondents suggested regular exchange programs with NPPOs from neighboring countries and other countries abroad. Further automation of major company processes as well as introduction of E-certification to complement paper certification would further increase quality improvement in the company.

The analysis also pointed out the adoption of total quality management promoted the competitive advantage of the company. This is because the respondents noted that the adoption of various total quality management variables such as training of employee, employee participation, continuous improvement and monitoring and evaluation of programs improved the competitive advantage of the organization. This means that adopting of total quality management is significant in promoting competitiveness of the company.

4.7 Discussions on Findings

The findings in this study indicate that managers within the TQM department in KEPHIS had an experience of more than 5 years and that most possessed post graduate accreditations. This indicates a rich team of employees whose skills and experiences, if well utilized would lead to effective service provision.

The study also established that KEPHIS employed a number of total quality management strategies that include employee training, total employee participation and involvement, effective communication and teamwork, appropriate evaluation and monitoring procedures, quality control feedback mechanisms, continuous improvement and process centered approach and customer focused production models. The use of these strategies in the company was found to be directly linked to increased competitive advantage of the company as it helped improve in the areas that include market value, brand recognition and brand position, differentiation, cost leadership and improved focus models and increase in non-funded income and digitization of the company operations. Likewise, TQM practices was found to have increased competitive advantage of the company by increasing efficiency in planning, increasing creativity and innovation, flexibility in operations and by generally improving the quality products from the company.

Generally, it can be concluded that strategies of adopting quality management has improved the competitive advantage of Kenya Plant Health Inspectorate (KEPHIS) as noted by one respondent who claimed; ‘Indeed, the output of total quality management practices has led to consistent image building with both the clients and other NPPOs’.

This study findings and results are similar with Baird et al. (2011) which indicated that the implementation of total quality management practices promoted the competitive advantage of the organizations within healthcare organizations in Kenya. This was also supported by Chang et al. (2010) who found that TQM practices has positive effects on employee satisfaction and companies should adopt effective TQM management practices in promoting their competitive advantage and success. The findings are also similar Chepkech (2014) who found out that practices of total

quality management promoted performance of the organizations in Kenya in Kenya and this means that companies in the country should adopt business innovation and total quality management controls to improve their competitive advantage.

Analyzing findings of the study and results also supported the theoretical conclusions and confirmed that total quality management theory help in promoting the competitive advantage of the companies by promoting continuous improvement, employee participation, teamwork, as well as employee training, and monitoring and evaluation. This is in line with the findings by Hafeez, et al. (2018) which found that TQM Practices has positive connection with success of companies in UK. This means that top management of the company should adopt TQM practices and increase their success and competitive advantage in the long run.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The chapter presents the summary of the study findings, conclusions drawn from the findings and the study discussions. The chapter also covers study recommendations. The conclusions and recommendations are drawn from research objectives based on the data collected and analyzed. This provided the study with proper suggestions for further research.

5.2 Summary

The objective of this study is to establish the relationship between total quality management and competitive advantage of Kenya Plant Health Inspectorate Service (KEPHIS) Company. The study was aimed to establish how TQM related with competitiveness of Kenya Plant Health Inspectorate Service (KEPHIS) Company. The study used primary data collected using interview method among Total Quality Managers at Kenya Plant Health Inspectorate Service (KEPHIS) Company.

The findings of the study revealed that adoption of total quality management improved the competitive advantage of Kenya Plant Health Inspectorate Service (KEPHIS) Company. The study results also found that the company top management has adopted various total quality management practices and their policies and applications were based on moral, ethical, economic and environmental obligations to its core business. The company also included employee training, total employee participation and involvement as well as effective communication and teamwork. The adoption of appropriate evaluation and monitoring procedures, quality control feedback

mechanisms, continuous improvement as well as process centered approach and customer focused production models were also part of total quality management practices within the company.

The adoption of employee training and capacity building led to effective work practices and high competitive advantage in the company. The company employees were allowed to participate in various external employee training programs, seminars and conferences organized by reputable organizations. The TQM teams within the company also benchmark with other companies to enhance their capacity. This regular participation and involvement of employees in various programs led to team work and effective implementation of the company programs. The findings also revealed that the company supported effective communication including the use of formal and informal channels to communicate with the employees. This led to effective delivery of company policies, core values, mission, vision and other corporate procedures, service charter as well as risk management policies within and outside the Company.

The study also found that the company has adopted effective mechanism of monitoring and evaluating its performance and it had well set strategic goals and objectives with key performance indicators. This led to effective quality control and well-defined feedback mechanism to guide the employees in almost all their operations. The company also adopted effective continuous improvement of their processes as well as a systems approach mechanism and customer focused models. This helps the company to establish projects and prospects that are customer oriented to develop customer focused products and services. With effective total quality management practices, the company was able to enjoy high competitive advantage in the market, especially with increased differentiation products, cost leadership and improved customer-focus models. The

study also revealed that adoption of total quality management led to increased creativity and innovation, flexibility in operations and high quality products leading to high competitive advantage in the company.

5.3 Conclusion

From the study findings, it was concluded that adoption of total quality management promoted the competitive advantage of Kenya Plant Health Inspectorate Service (KEPHIS) Company. This is because the study established that the adoption of total quality management programs such as employee training, total employee participation and involvement, effective communication and teamwork as well as evaluation and monitoring procedures and quality control feedback mechanisms led to high competitive advantage in the company. This means that total quality management is important in promoting sustainable competitive advantage in companies.

The study also concluded that adoption of employee training models is important in improving relationship and ethical work framework among employees and top management of the company. This means that companies should involve their employees in all their programs and encourage team work and active implementation of the company programs. The study also concluded that adoption of effective communication is important in delivery of products and services in the company.

Moreover, the study noted that with effective mechanism of monitoring and evaluating of various company programs, the management can introduce quality control and well-defined feedback mechanism to guide the employees in almost all their operations. This means that companies

should adopt proper monitoring, control and evaluation models to guide their operations and activities. This is because with effective total quality management practices, the company was able to enjoy high competitive advantage in the market, especially with increased differentiation products, cost leadership and improved customer-focus models. The study concluded that all companies within the health sector should consider adopting total quality models to increase their level of innovation, flexibility in operations and general creativity which is associated with high competitive advantage in the long run.

5.4 Recommendations for the Study

The findings of the study confirmed that adoption of total quality management promoted the competitive advantage of company and it is imperative that company's top management adopt total quality management models in order to promote and improve their competitive advantage.

Importantly, some of the of total quality management programs that should be adopted by companies includes the adoption of employee training and capacity building, team work, communication and adoption of effective monitoring and control procedures. This is important towards the promotion of sustainable competitive advantage among companies.

Moreover, the study recommends the needs for policy makers to adopt programs that will allow companies in various sectors to adopt effective communication, team work, quality control and ethical programs in their operations. This is because the study findings reveal that ethical work framework among employees encouraged team work and active implementation of the company programs.

To promote their success and promote their brand image and quality of products, companies should seek models that include total quality control and well-defined feedback mechanism. This is important in guiding their operations and activities. It is also imperative that companies adopt programs that are customer-focused, especially programs that are increasing the products' market value, position and brand recognition. Companies should also hire staff that have quality control skills and increase their resource allocation towards the planning of their total quality management activities. In addition, companies should adopt total quality collaborations and networking models to improve their total quality plans in the long run.

5.5 Limitations of the Study

The study was limited in terms of scope, context and methodological approaches that have been adopted. The study adopted case study method and the research was limited to Kenya Plant Health Inspectorate Service (KEPHIS) Company. The research was also restricted to interview method of data collection and this may lead to bias. The interview method used was also time-consuming and expensive to conduct.

The study findings may differ with some studies which have adopted different methodologies in their analysis. Another study limitation was unwillingness of some respondents to share the company data, especially information related to total quality control. However, the researcher later informed them of the confidentiality and privacy of the information provided and they were willing to share data and this led to achievement of the study objectives.

5.6 Suggestions for Further Research

Since the study focused on the relationship between total quality management and competitive advantage of Kenya Plant Health Inspectorate Service (KEPHIS) Company. This means that the study centered on various total quality management practices. However, there is need for further studies to determine the relationship between specific total quality management practices and competitive advantage of companies in Kenya. For example, there is need for a study to determine the effects of employee training or communication or on the effects of continuous improvement on the competitive advantage of healthcare companies in Kenya. In addition, this study focused on case study methodology and there is need for further research to using other methods such as cross-sectional research design. This will make it easier to generalize the study findings.

REFERENCES

- Ahmad Zaidi, M. F., & Othman, S. N. (2014). The concept of dynamic capability for managing technology and change. *Strategic Management Quarterly*, 2(2), 93-108.
- Ater, J. A., & NO, R. (2013). Challenges facing the implementation of total quality management practices in public secondary schools in Kenya. *Unpublished MBA project. Nairobi: Kenyatta University.*
- Augier, M., & Teece, D. J. (2009). Dynamic capabilities and the role of managers in business strategy and economic performance. *Organization science*, 20(2), 410-421.
- Baden-Fuller, C., & Teece, D. J. (2020). Market sensing, dynamic capability, and competitive dynamics. *Industrial Marketing Management*, 89, 105-106
- Baird, K., Hu, K. J., & Reeve, R. (2011). The relationships between organizational culture, total quality management practices and operational performance. *International Journal of Operations & Production Management*.
- Chang, C. C., Chiu, C. M., & Chen, C. A. (2010). The effect of TQM practices on employee satisfaction and loyalty in government. *Total Quality Management*, 21(12), 1299-1314.
- Chen, R., Lee, Y. D., & Wang, C. H. (2020). Total quality management and sustainable competitive advantage: serial mediation of transformational leadership and executive ability. *Total Quality Management & Business Excellence*, 31(5-6), 451-468.
- Chepkech, W. K. (2014). *Effect of total quality management practices on organizational performance in Kenya: A case of tertiary institutions in Uasin Gishu County* (Doctoral dissertation, Kisii University).
- Eniola, A. A., Olorunleke, G. K., Akintimehin, O. O., Ojeka, J. D., & Oyetunji, B. (2019). The impact of organizational culture on total quality management in SMEs in Nigeria. *Heliyon*, 5(8), e02293.
- Faraj, K. M., Faeq, D. K., Abdulla, D. F., Ali, B. J., & Sadq, Z. M. (2021). Total Quality Management and Hotel Employee Creative Performance: The Mediation Role of Job Embeddedment. *Journal of Contemporary Issues in Business and Government*, 27(1), 3838-3855.
- Hafeez, M. H., Basheer, M. F., Rafique, M., & Siddiqui, S. H. (2018). Exploring the Links between TQM Practices, Business Innovativeness and Firm Performance: An Emerging Market Perspective. *Pakistan Journal of Social Sciences (PJSS)*, 38(2).

- Hung, R. Y. Y., Lien, B. Y. H., Fang, S. C., & McLean, G. N. (2010). Knowledge as a facilitator for enhancing innovation performance through total quality management. *Total Quality Management*, 21(4), 425-438.
- Kalogiannidis, S. I. (2021). The Effects of Total Quality Management Practices and Marketing on Performance of SMEs. A Case of Selected Manufacturing Industries, Greece. *Business Management and Strategy*, 12(1), 48-62.
- Karani, S. R., & Bichanga, W. O. (2012). Effects of Total Quality Management implementation on business performance in service institutions: A case of Kenya Wildlife Services. *International journal of Research studies in Management*, 1(1), 59-76.
- Kasange, A. (2018). *Total Quality Management and Operational Performance in the Utility Poll Treatment Industry: A case of Uganda Electricity Distribution Company Limited* (Doctoral dissertation, Uganda Management Institute).
- Kathaara, C. K. (2014). *Total quality management practices and operational performance of commercial banks in Kenya* (Doctoral dissertation, University of Nairobi).
- Keinan, A. S., & Karugu, J. (2018). Total quality management practices and performance of manufacturing firms in Kenya: Case of Bamburi Cement Limited. *International Academic Journal of Human Resource and Business Administration*, 3(1), 81-99.
- Mang'eli, G. M., & Kilika, J. (2018). Total quality management practices and operational performance of Nairobi Bottlers Limited, Kenya. *International Academic Journal of Human Resource and Business Administration*, 3(3), 356-374.
- Manyinsa, M. (2016). *Total quality management practices and performance of passenger transport Sacco's in Kenya* (Doctoral dissertation, University of Nairobi).
- Nyamari, P. M. (2017). Effect of total quality management practices on operational performance of commercial banks in Mombasa County, Kenya. *Unpublished Master of Business Administration research project, University of Nairobi*.
- Nzioka, C., & Kariuki, P. (2021). Influence of Strategic Internal Factors on Competitive Advantage of Commercial Banks in Nairobi County, Kenya. *Journal of International Business and Management*, 4(7), 01-16.
- Oakland, J. S. (2014). *Total quality management and operational excellence: text with cases*. Routledge.

- Othman, B., Khatab, J. J., Esmaeel, E. S., Mustafa, H. A., & Sadq, Z. M. (2020). The Influence of Total Quality Management on Competitive Advantage towards Bank Organizations: Evidence from Erbil/Iraq. *International Journal of Psychosocial Rehabilitation*, 24(5), 3427-3439.
- Owusu, P. A., & Duah, H. K. (2018). Evaluating total quality management as a competitive advantage tool in mobile telecommunication services in Ghana. *European Journal of Research and Reflection in Management Sciences Vol*, 6(1).
- Perdomo-Ortiz, J., Gonzalez-Benito, J., & Galende, J. (2009). The intervening effect of business innovation capability on the relationship between Total Quality Management and technological innovation. *International Journal of Production Research*, 47(18), 5087-5107.
- Reed, R., Lemak, D. J., & Mero, N. P. (2000). Total quality management and sustainable competitive advantage. *Journal of quality management*, 5(1), 5-26.
- Sánchez-Alegría, S., Lizarraga-Dalloa, F., & Marín-Vinuesa, L. M. (2021). Is quality management a competitive advantage? A study after the Spanish financial crisis in the furniture industry. *Total Quality Management & Business Excellence*, 1-22.
- Sharma, S., & Modgil, S. (2019). TQM, SCM and operational performance: an empirical study of Indian pharmaceutical industry. *Business Process Management Journal*.
- Sharma, S., & Modgil, S. (2019). TQM, SCM and operational performance: an empirical study of Indian pharmaceutical industry. *Business Process Management Journal*.
- Talib, F., Rahman, Z., & Qureshi, M. N. (2011). A study of total quality management and supply chain management practices. *International Journal of Productivity and Performance Management*.
- Ukab, M. M. (2021). Total quality management practices to enhance organizational performance by competitive advantage as mediating in SMEs in IRAQ. *Psychology and Education Journal*, 58(2), 5471-5481.
- Wang, C. H., Chen, K. Y., & Chen, S. C. (2012). Total quality management, market orientation and hotel performance: The moderating effects of external environmental factors. *International journal of hospitality management*, 31(1), 119-129.

Zehir, C., Ertosun, Ö. G., Zehir, S., & Müceldilli, B. (2012). Total quality management practices' effects on quality performance and innovative performance. *Procedia-Social and Behavioral Sciences*, *41*, 273-280.

APPENDICES

APPENDIX I: INTERVIEW GUIDE

Topic of the study on the determination of the link between total quality management and competitive advantage of Kenya Plant Health Inspectorate Service (KEPHIS) Company.

Kindly provide answers on the above questions from the best of your understanding. I will appreciate so much.

SECTION A: Background Information

1. How long have you worked with your company?
2. Which department are you currently working in?
3. What is your role in the Company?
4. Are you involved in the total quality management activities in the organization?

SECTION B: Total Quality Management Strategies

5. Is your company engaged in total quality management practices?
6. What total quality management practices have your company adopted?
7. Has your company adopted TQM principles in their production process?
8. Has your company adopted employee training in their major programs?
9. Has your company adopted total employee participation and involvement in their major programs?
10. Has your company adopted effective communication and teamwork in their major programs?
11. Has your company adopted monitoring and evaluation in their major programs?
12. Has your company adopted Quality Control and Feedback Mechanism in their major programs?

13. Has your company adopted continuous improvement and process centered in their major programs?
14. Has your company adopted system approach and customer focus in their major programs?
15. Has your company adopted fact-based decision making and commitment of top management in their major programs
16. Has your company adopted inspection and competitive benchmarking in their major programs?

SECTION C: Competitive Advantage the Company

17. Has your company adopted competitive strategies in its major operations?
18. Has your company adopted cost leadership strategies in its major operations?
19. Has your company adopted research and development in its major operations?
20. Has your company adopted focus strategies in its major operations?
21. Has your company adopted innovation and creative strategies in its major operations?
22. Has your company adopted differentiations strategies in its major operations?
- 23.** Has your company adopted diversification strategies in its major operations?
24. How has the adoption of total quality management strategies improved the competitive advantage of your company?
25. How has the adoption of total quality management strategies improved the market value, position and brand recognition of your company?
26. Has the adoption of total quality management strategies improved the differentiation, cost leadership and focus models in your firm?
27. Has the adoption of total quality management strategies improved the innovation, creativity and planning in your firm?

28. Has the adoption of total quality management strategies improved the flexibility in your operations?

29. Has the adoption of total quality management strategies improved the delivery of unique products and high quality services to your customers?

30. Has the adoption of total quality management strategies attracted more number of customers as well as increased value of your organization?

31. Suggest various total quality management strategies that can be adopted to promote the competitive advantage of your firm

.....

.....

.....

THANK YOU!