TOTAL QUALITY MANAGEMENT PRACTICES AND OPERATIONAL PERFORMANCE OF COMMERCIAL BANKS IN MAKUENI COUNTY, KENYA

BY:

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DECLARATION

I declare that this research project is my original work and has never been submitted to any other university for assessment or award of a degree.

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

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DEDICATION

This research project is dedicated to my family as well as friends who stood with me throughout my academic life. In particular, I dedicate it to my mum and dad for always instilling in me the belief that with dedication, all can be done.

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ABBREVIATIONS AND ACRONYMS

ANOVA	-	Analysis of Variance
CBK	-	Central Bank of Kenya
ISO	-	International Organization for Standard
RBV	-	Resource-Based View
SPSS	-	Statistical Package for Social Sciences
TOC	-	Theory of Constraints
TQM	-	Total Quality Management

ABSTRACT

Total Quality Management (TQM) is an integrated organizational effort geared towards ensuring long-term success and competitive advantage by fostering quality at every level of the organisation. Following the radical changes brought about by globalisation and technology in the 21st Century, most organisations have started appreciating the need to embrace TQM practices following its potential to provide them with a sustained competitive edge and improved performance. The main objective of this research project was to determine the influence of TQM practices on the operational performance of commercial banks in Makueni County. The study used a cross-sectional descriptive survey design. This research targeted a total of nine commercial bank branches in Makueni County, and following the small of the target population, a census survey was used. Data for the research was collected using semi-structured questionnaires. Analysis of the data was done using regression analysis with the help of SPSS which produced descriptive statistics and correlation results. The findings of the research revealed that continuous improvement, training and education and employee commitment had a positive impact on the operations performance while customer focus and top management commitment had a negative influence on operations performance. Therefore, the application of TQM practices has a moderate impact on operational performance of commercial banks operating in Makueni County. The research, therefore, recommends that commercial banks operating in Makueni County should consider increasing the adoption of TQM practices in order to improve not only their competitive advantage but also their operational performance. Limitations of the study were that results cannot be used to generalize the impact of TQM practices on Operational Performance in commercial banks in Kenya due to the small sample size involved.

CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

The 21st-century business environment has changed significantly that most organisations have found themselves at crossroads, on whether to continue conducting their operations as they have been or to give in to these changes and change their business operations. With globalisation, new multinationals have found their way into the local market and, in the process, intensified competition to local organisations. To remain competitive in the market and increase performance, some of these local businesses have started appreciating these changes, and those that have embraced these changes have gained a competitive advantage over those that take time before adopting the changes. One such global concept in doing business that has been proven to create a competitive advantage is Total Quality Management (TQM). Hassan, Mukhtar, Qureshi and Sharif (2012) observed that incorporating TQM in all aspects of an organisation including operation performance is one of the best strategic tools in the new dynamic business-operating environment. Moreover, TQM offers an organisation a set of guiding principles and philosophies that organisations should implement and continually review in order to achieve the benefits of TQM fully.

According to Ogunbiyi and Ihejirika (2014), banking is an economic activity that seeks to intermediate funds between organisations in any economy. According to Ngure (2014), banks connect those economic units that have saved their surplus in the bank with those economic units, which have a deficit and come to borrow from the bank in order to fill their shortages. This function is important in any economy since it helps in economic progress. According to Wainaina (2013), it is important that this function is efficient and effective to ensure a robust economy. One area that banks should seek to improve is operational performance. Since TQM has been cited as one of the major ways of fostering operational performance, it is crucial that

banks consider using TQM in order to attain this efficiency. This study, therefore, seeks to determine whether there is any impact of Total Quality Management practices on Operational Performance of commercial banks in Makueni County, Kenya. Makueni because, as a county, it has its unique demands as compared to other regions in the country. In particular, the young, vibrant and more educated generation in the county has started appreciating the banking sector as compared to the older generation. Besides, the county relies more on the service industry as opposed to agriculture following the low amounts of rainfall received. The reliance on this industry has made it attractive for banks to invest in the county. Consequently, the banks have to include quality processes, embrace technology and automate a large number of services, as they seek to satisfy the complex customer needs evident in the Makueni society, rather than providing the traditional banking services.

1.1.1 Total Quality Management

According to Talib, Rahman and Qureshi (2012), TQM aims at ensuring continuous improvement of the organisation's policies, procedures, and regulations in regards to quality. The organisation reviews the present processes, policies and procedures and determines where improvement is needed and takes action to ensure that it delivers the improvement. The International Organisations' Standards defines TQM as an approach that the management of an organisation use with the aim of improving quality, and in this process, all members of the organisation are participants and they have a common goal of long-term success through customer satisfaction and the society where the business operates. According to Barros, Sampiao and Saraiva (2014), TQM is a broad discipline, and its practices revolve around the following areas of the organisation: human resource management; supply chain management; process management; employees' involvement and commitment; continuous improvement; strategic planning and management and customer focus.

The scope of TQM takes place in every part of the organisation and is centred on quality, focused on customer satisfaction, driven by teamwork and, led by the senior management of the organisation. To achieve this, its application on operations of any organisation is critical and how it affects the operations of the organisation determines the degree to which TQM achieves its intended objectives. TQM has been cited by Singh, Qureshi and Butt (2007) as one of the ways that organisations can effectively compete with their rivals in the marketplace. An organisation will achieve a competitive advantage through customer retention, reduced wastage, motivated employers, and shareholders who are willing to invest more in the organisation. Therefore, it is essential that an organisation incorporates TQM in all its operations.

1.1.2 Total Quality Management Practices and Operational Performance

Total Quality Management is based on various principles whose objective is to ensure satisfaction of the organisation through efficient use of resources. According to Scholtes and Hacquebord (2002), TQM is a quality processes tool, and that quality processes lead to increased productivity that enhances the organisation's competitiveness. The author's noted that, as quality improves, rework or waste is reduced thus enhancing customer satisfaction. For the organisation to remain competitive in its processes and provision of services, it has to follow Deming's 14 TQM principles that lead to the generation of among others, improved processes, reduced costs, promotion of customer care and employee satisfaction (Dale, 1993). Practising TQM implies that employees are trained and empowered and, therefore, committed to taking responsibility of their work thus shaping their attitudes and behaviours in a manner that helps the organisation to avoid rework, wastages, recycling and inspections.

Operational performance is focused on a long-term competitive advantage. This helps organisations realise significant performance by reducing wastes, reworks and recycling. Reduction of operating costs and improvement of customer service has the potential of equal

or more benefits as improved volume sales. When TQM is observed in all levels and aspects of the processes, right from design to after sales service, it leads to improved turnaround time thus avoiding delays and waiting time (Zhang, 2000). Costs are also significantly reduced when managers of the organisation work towards attaining zero defects, nil reworks, recycles and wastages. Flexibility is also achieved when organisations can easily adopt changes as dictated by the customer needs without affecting quality.

1.1.3 Commercial Banks in Kenya- Makueni

Makueni County is one of the 47 counties in the country, and its banking sector is subject to the national regulations. The various Acts and the guidelines are issued by the Central Bank of Kenya on a regular basis to regulate the Kenyan banking industry (KBA, 2012). Makueni as a county has nine commercial bank branches namely, Co-operative Bank, Equity Bank, Barclays Bank, Sidian Bank, Family Bank, Chase Bank, Postbank Kenya, Kenya Commercial Bank and House Finance Corporation, which are located in different towns. These towns are Wote (the County's capital), Mtito Andei, Sultan Hamud, Emali, Machinery, Kibwezi and several others. All these banks have their headquarters in the country's capital city, Nairobi. In Kenya, the registration of Commercial banks is done by the registrar of companies, after which they have to apply for a licence to operate in any part of the country from the Central Bank of Kenya (CBK, 2018). Even as these banks strive to provide services to their customers, they face many challenges. According to Waweru and Kalani (2009), these challenges include having to deal with many semi-illiterate customers, currency denomination challenges, increased cases of fraud, the rapidly changing customer needs and, increase in the number of microfinance institutions that provide nearly similar services as commercial banks. These challenges, according to Kathaara (2014), have made different commercial banks to appreciate the need to embrace TQM practices as they are critical in solving most of the challenges.

1.2 Research Problem

Globalisation has led to the need for organisations to compete globally. Consequently, organisations have understood the capability of quality management in delivering the much-needed competitive advantage in the marketplace. Furthermore, Trentmann (2006) notes that globalisation has resulted to customers with a deeper knowledge of their rights and exposed them to new cultures which have changed their tastes and preference and; it has led to increased number of new businesses which provide customers with a variety of products and services to choose from. These factors have made customers to demand better quality and value for their money, as they expect organisations to meet their expectations, and fulfil their needs and specifications. This means that organisations have to spend a considerable amount of their resources to raise the quality of not only their processes but also their procedures, operations and products in order to compete favourably. This has led to organisations embracing TQM as a way of competing effectively against their rivals in the market.

In the banking sector, the level of customer satisfaction by the service depends not only on the products that the bank provides but also on other factors. According to Prajogo and Brown (2004), other factors include the quality of service given, the person giving the service and, the environment under which the service is being delivered or rather the environment where the customer receives the service. It is therefore important that banks, as service providing organisations, understand the complexities that surround customer satisfaction, in the increasingly competitive environment in order to be successful. Banks should ensure that their operations are tailored towards achieving customer satisfaction, through offering quality services. Banks can achieve such quality services if they improve their operational performance.

TQM's effect on organisation performance has been carried out by different researchers. Internationally, Sabella, Kashou and Omran (2014) did a research with a view to find the correlation between TQM practices and organisational performance in Palestinian hospitals. The researchers surveyed 51 hospitals in testing the dependability of TQM concepts and their relationship with organisational performance. The findings of the research showed that TQM practices had a positive implication on the hospital's performance. Locally, Mwaniki and Okibo (2014) conducted a study with the objective of determining the effects of TQM in the Kenyan banking sector. Their study focused on the Central Bank of Kenya (CBK). Additionally, a similar study focusing on the influence of TQM on the banking sector in Kenya was done by Nyamari (2017); however, the study focused on the banking sector in Mombasa County. Kathaari (2014) equally did a study focusing on the impact of TQM on the banking sector in Kenya. His study focused on the banking sector at a national level. The results from these studies show inconsistencies and one cannot, therefore, conclusively determine how TQM affects operational performance. Therefore, there is a need to have a more localised study on the impacts TQM has on operational performance, and further narrow this down to the banking industry.

Given the differences that are evident in Kenya region-wise due to factors such as culture and natural resources endowment, it is important to study the effect TQM practices have on commercial banks in Makueni, as an autonomous region. These results can then be summarised, and the findings used to determine whether there are any significant impacts and then compared with other findings from similar studies conducted in other regions, and those done at a national level. The lack of empirical evidence on the effect TQM has on the operational performance of commercial banks in Makueni County is a gap worth filling. Therefore, this study aims at analysing the effects that TQM has on commercial banks in Makueni County. To bridge this gap, the study will answer the following research question;

what is the influence of total quality management practices on the operational performance of commercial banks in Makueni County?

1.3 Research Objectives

The general objective of this research is to determine the effect of Total Quality Management practices on the operational performance of commercial banks in Makueni County. The study's specific objectives are:

i.   To determine the extent to which commercial banks in Makueni County have implemented TQM Practices in their operations

ii.   To determine the effect of adopting TQM Practices on operational performance of commercial banks in Makueni County

1.4 Contribution of the Study

This research aims to add to the already available knowledge, in particular, concerning TQM practices in the dynamic banking environment and perhaps create a desire for more research into service quality and the impact on organisational performance. The study will also supplement the available literature by providing a reference option for institutions, students and any other scholar who may have an interest in extending their knowledge on TQM practices. It is also expected that policymakers and regulators will find this study an invaluable reference tool, especially when formulating policies in the banking sector that will seek to promote TQM practices with a view to enhancing efficiency. More importantly, this study will be invaluable to the County of Makueni especially in making policy choices aimed at improving growth in the banking sector with the assistance of the regulator through TQM practices.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter concentrates on the theoretical aspects of the research, the literature surrounding TQM and operational performance, and a review of empirical pieces of evidence of past research on the impacts of TQM practices on operational performance and where possible, that of commercial banks.

2.2 Theoretical Foundation

This research was based on two major theories, i.e. the theories of constraints and resource-based view.

2.2.1 Theory of Constraints

Theory of constraints (TOC) is based on the view that resources are limited, and therefore, the organisation should ensure efficiency and effectiveness in its operations. According to Mabin and Victoria (1999), the theory of constraints focuses on three distinct but interconnected areas namely: logistics; measuring logistics and; thinking logistically. The theory is primarily used in lean systems since the business focuses on systematically identifying constraints that add no value to the business system. Lean systems are used in TQM to control wastes and at the same time to add value to customers. According to Slack, Brandon-Jones and Johnston (2014), TQM practices ensure continuous improvement on systems, procedures and processes in order to add value to the customer and ensure that these systems, procedures and processes uphold quality standards leading to end products of the best quality.

2.2.2 Resource-Based View

The resource-based view (RBV), unlike the theory of constraints, is based on the core competencies of a firm, utilisation and securing of the internal core organisations resources with a view to giving the firm a competitive edge that will help the firm remain competitive. According to Barney (1996), the Resource-Based View gives importance on organisations that have superior systems, processes, procedures and structures and how these structures help create a competitive advantage through reduced costs, better quality on products, differentiating itself, and offering superior products compared to other organisations. These are consistent with Porter's (1980) generic strategies, which organisations can use to create a competitive advantage. In light of this, an organisation that uses TQM seeks to develop superior systems, procedures and processes in order to ensure reduced costs, better quality products, to differentiate itself, and offer superior products to its customers hence promoting customer value.

2.3 Total Quality Management Practices

The application of TQM principles has been viewed as a possible way through which organisations can improve their operational performance in addition to solving other different organisational problems. Studies by Akhtar, Zameer and Saeed (2014) and Gharakhani, Rahmati, Farrokhi and Farahmandian (2013) are examples of different studies that show the applicability of TQM practices in solving organisational problems and improving financial performance. It is the view of most organisations that ensuring quality will help them attain a competitive edge over their rivals operating in the same market (Kathaari, 2014). To achieve this quality, the organisations will put customers first and seek to fully meet their needs and where possible, exceed their expectations. Based on this literature and the literature provided by studies such as Kathaari (2014), and Nyamari (2016), this research paper will select the

following TQM Practices to form the main independent variables of the study: customer focus; top management commitment; continuous improvement; training and education and; teamwork and employee commitment.

Customer focus is one of the principles of TQM. The main objective of implementing TQM in an organisation is to create a competitive advantage through improved quality, which will lead to increased customer satisfaction (Mahmood, Qadeer & Ahmed, 2014). Customer focus is achieved when all the processes, systems, and procedures in the organisation create value for customers by ensuring that customers are satisfied, and their complaints are addressed promptly and satisfactorily (Mahmood, Qadeer & Ahmed, 2014). In reference to TQM, customer satisfaction is to be achieved through adhering to customer specifications and needs in order to satisfy them. It will also include creating quality systems, procedures and policies that take into account the customers' needs, and ensure easy approachability by the customer, friendly services, prompt feedback, clear communication, and friendly employees.

Top management commitment is another principle of TQM. Application of TQM practices requires a shift in the organisation's culture. The shift in organisational culture is only possible with the commitment and support from the top management and leadership (Shafiq, Lasrado & Hafeez, 2017). The top management's support and commitment will also influence how well the organisation adopts other strategies that are important in the successful implementation of TQM practices. According to Shafiq, Lasrado and Hafeez (2017), many challenges associated with the lack of quality management are due to the practices of the top management such as the level of commitment that the top management has towards ensuring quality in the organisation. The top management should understand that assuring quality is a necessary evil and will help to improve operational performance in the long run.

Continuous improvement is another principle of TQM which asserts that quality cannot be absolute and that there is always a room for improvement. According to Mahmood, Qadeer and Ahmed (2014), the organisation should create a workable process through which it can continually monitor its processes, systems and procedures and seek possible areas of improvement. Continuous improvement ensures that the organisation endlessly improves quality and, in the process, creates efficient workflows. Kaynak (2003) argues that with continuous improvement, the organisation will be motivated to increase its efficiency and effectiveness and, in the process, save time and money, reduce wastage of materials and resources and ultimately have improved operational performance.

Training and education TQM principle fosters learning and development of employees' different competencies that are in line with their area of specialisation in the organisation (Singh & Dalla, 2010). These competencies include behaviours, skills and knowledge, and are significant in improving the employee and organisational performance. According to Singh and Dalla (2010), an organisation will reach its objectives easily if it trains and develops its employees in order to strategically place them. In quality management, the organisation will train and develop employees on the best ways to achieve efficiency and effectiveness in their work, the need for focusing on customer needs in order to satisfy them, and also prepare and to help employees to keep up with the radically changing business landscape in terms of technology, trends and consumer preferences and tastes.

Teamwork and employee commitment have also been cited as one of the ways that organisations can achieve increased performance (Doorewaard, Van Hootegem & Huys, 2002). The management and employees should work in harmony as they strive to meet the objective of increased quality. In the context of TQM, teamwork involves all members of the organisation coming together in designing, planning and implementing quality control

measures, quality systems, procedures, structures and processes, with a focus on increasing customer satisfaction. According to Doorewaard, Van Hootegem and Huys (2002), employee commitment and increased teamwork is a critical factor in that, it influences and ensures total participation of workers in the process of achieving quality. TQM will improve creativity and self-sufficiency hence helping the organisation to achieve the objective of improved quality more easily. These factors show why employee commitment and teamwork is a critical practice in TQM implementation.

2.4 Operational Performance

According to Slack, Brandon-Jones and Johnston (2014), operational performance is the measure of how well the organisation is doing by using different measurement approaches such as expense ratios, sales performance and policy terminations. It is the result of the organisation's actions against the set targets within a given period. According to Zairi (2012), the organisation will not only measure its progress against the set objectives and goals but will also go an extra step and take remedial actions to ensure that its operations are consistent with achieving the set objectives in case of any deviations. The organisation will then compare the results of these measurements against the standard or other predetermined pointers of effectiveness, efficiency as well as environmental responsibility. Some of these indicators include cycle time, reduction of waste, productivity, quality, as well as regulatory compliance. As Slack, Brandon-Jones and Johnston (2014) observe, a firm measures its operational performance against the five objectives of operational performance, namely; quality, speed, dependability, flexibility and cost.

Quality as an objective of operational performance implies that the processes, inputs and outputs are reviewed and continuous improvements are done in order to achieve the desired quality. If the organisation focuses on quality control, then it can result in profit maximisation

for the organisation. Speed as an objective of operational performance measures the time between when the inputs are ordered, and the time the outputs arrive at the customer. It can be achieved by eliminating factors that slow down the production process (Kaynak, 2003). Dependability, on the other hand, determines how reliable, certain and consistent the processes and product of the organisation is. If they are dependable, then the organisation can easily gain a competitive advantage by earning a good reputation (Slack, Brandon-Jones & Johnston, 2014). Flexibility is simply the ease at which the processes and the products of the organisation can be changed and be adapted to the varied consumer needs. It is implied that if the processes and products are highly flexible, then the organisation can easily satisfy the different customer needs in terms of specifications (Porter, 1998; Kumar & Suresh, 2009). This will, in turn, lead to increased sales and hence profit maximisation. The organisation meets different customer needs through customisation. If the organisation can customise goods and services for a certain customer, then the customer will feel valued and appreciated, and in return, become loyal to the organisation. Cost as an objective of operational performance is the measure of the expenditure incurred in the operations processes until the product reaches the consumer (Porter, 1998). Organisations have to manage their operations to ensure that costs are at the minimum possible, and hence increase the profit margin. This can be achieved by minimising wastage, ensuring efficiency of processes to minimise energy and time loss and ensuring quality products. (Slack, Brandon-Jones & Johnston, 2014).

2.5 Empirical Review

This section will focus on empirical pieces of evidence that are relevant to the topic under research. Nyamari (2016) did a research that focused on the impact of implementation of TQM practices in commercial banks within Mombasa County, Kenya. His research applied a cross-sectional descriptive survey design and targeted a total of 41 commercial banks within the county of Mombasa. The study determined a direct correlation between TQM practices and

operational performance. However, the study showed that the implementation of these practices did not directly affect the profitability of these banks. The study concluded that TQM practices had a positive and impact on operational performance for commercial banks in Mombasa county.

Mwaniki and Okibo (2014), in their study, sought to determine the possibility of TQM practices having an impact on the financial performance of organisations in the banking industry. The researchers based their study on the National Bank of Kenya. The study aimed at establishing whether or not there was a link between TQM practices and financial performance of the firm. In conducting the research, four pillars of TQM practices were used as independent variables, namely; involvement of top management, superior processes, customer relationship as well as supplier relationship. In the particular study, the dependent variable was financial performance. The study found a positive linkage between the four pillars and financial performance of the bank under investigation.

Kathaara (2014) researched the effects of TQM on operational performance on the banking industry in Kenya, while using the country's 43 commercial banks for the study. The researcher collected the data with the help of questionnaires and used a five-point Likert scale. The questions basically dwelled on TQM practices and operational performance. In their conclusion, the researchers remarked that the application of TQM practices helped Kenyan commercial banks improve their operational performance. According to the study, use of TQM systems and procedures was critical in fostering increased profitability of banks, increased competitiveness, increased market share, enhanced service delivery, ensuring effective waste reduction, improved efficiency, and reduced operational costs and helped retain customers.

Hassan, Mukhtar, Qureshi and Sharif (2012) conducted a study where they sought to determine how performance is associated with quality management practices. The researchers collected

their data by conducting a survey of a population of 171 quality managers in the Pakistani manufacturing industry. According to the research findings, quality management practices positively influenced the performance of the organisation's quality management systems tools and techniques. This study, therefore, implied that managers in the manufacturing industry could use TQM practices in their bid to achieve improved performance and to ensure satisfaction of customers, enhance employee relations, quality and performance of the organisation. It is, however, critical to realise that this study was conducted on the manufacturing industry as opposed to this paper whose main aim is the service industry and specifically the banking sector.

2.6 Summary

Different scholars have done studies on TQM and its impact on operational performance with most of the studies focusing only on a narrow view of TQM. Considering the theoretical connotation that exists between quality and performance, it is acceptable that TQM can be used to foster operational performance. This study, thus, aims at bridging the gap in the Kenyan context and, in particular, Makueni County, by focusing at the relationship between TQM and operational performance of commercial banks in the county. Ideally, the study intends to establish that unified events in banks have a significant input towards fostering efficiency, reducing time and other wastages and ultimately, saving on operational costs.

Previous studies revealed contradicting results on the subject. Some of the studies carried out showed a positive correlation between TQM and operational performance as well as competitive advantage include: Al-Qudah, (2012); Herzallah, Gutiérrez-Gutiérrez and Munoz Rosas (2014); Sadikoglu & Olcay (2014) and; Sabella, Kashou and Omran (2014)). In the Kenyan context, studies such as those of Mwaniki and Okibo (2014); Kathaari (2014) and Nyamari (2017) investigated the effect of TQM on operational performance in banking although in different contexts. The results of these studies show inconsistencies and cannot,

therefore, be relied upon to conclusively determine how TQM affect operational performance. To this extent, there are no comprehensive studies based on commercial banks in Makueni has been done. This study, therefore, intends to fill this gap and add value to the existing literature in this area.

2.7. Conceptual Framework
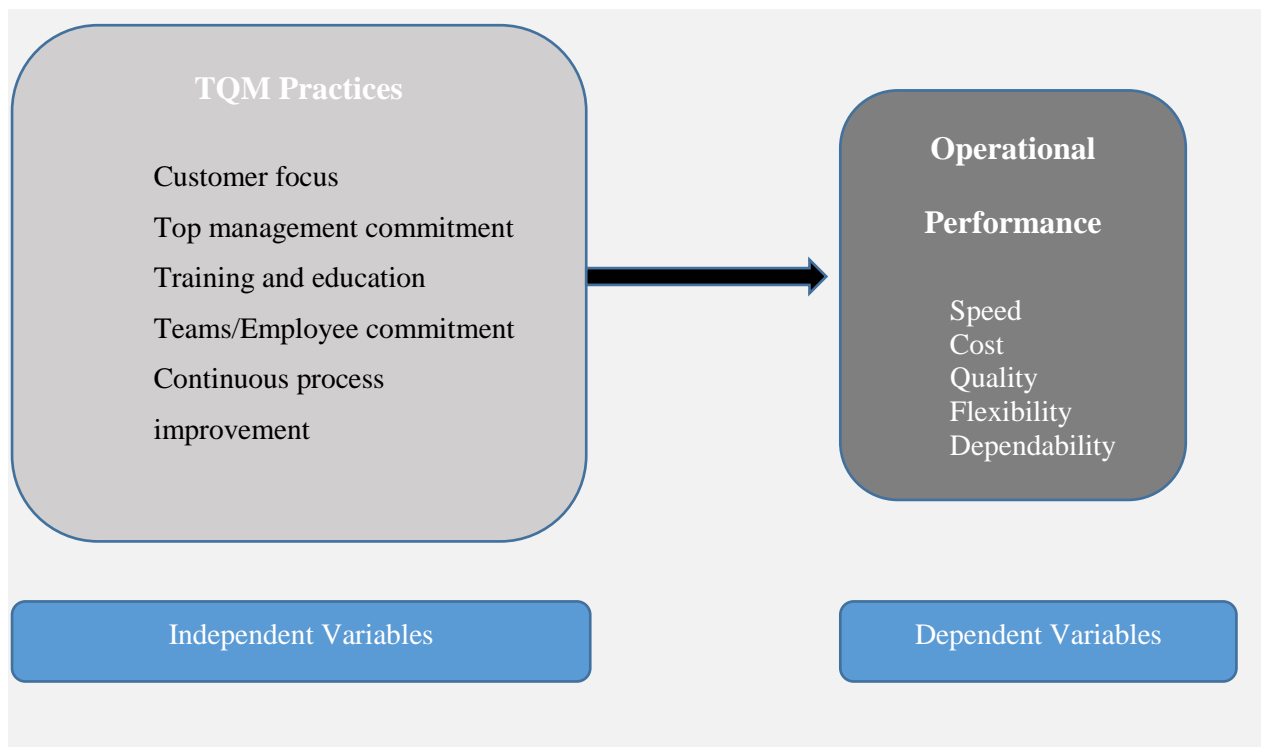
Figure 2.0 Conceptual Framework

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

The chapter explains the research methodology followed including; elaborate design of the research, the population sampled during the study, the data collection process, pilot test as well as, data analysis.

3.2 Research Design

A descriptive cross-sectional survey research design was applied in the data collection process from the respondents. According to Kothari (2004), this design works primarily by measuring causal relationships among the different variables. It allows the researcher to collect substantial information from the population being studied. This design was selected largely because it offers a full description of the situation and, as a result, minimizes the potential for bias in the research. Kothari (2004) observed that this research design captures issues under study exactly as they are in the field. This research considered the design most suitable as it allowed the researcher to come up with conclusions that were independent of any manipulation and thus fostering full control of the research.

3.3 Population of Study

The population that was studied in this research entailed all commercial banks that operate in the larger Makueni County. As at 31st December 2017, data from CBK (CBK, 2018) indicated that there were nine commercial bank branches operating in Makueni County. The researcher applied a census method for gathering the respondents' data.

3.4 Data Collection

This study relied solely on primary data. The data collection process was done through the use of semi-structured questionnaires which were then processed on a Likert scale of 1-5. Those who participated in the study were the banks' management staff including branch managers,

operations managers or officers, and the heads of departments. The decision to pick the aforementioned respondents was informed by the fact that these people handle day-to-day bank operations and were, therefore, better placed to provide the relevant information. Administration of the questionnaires was done through the drop and pick method, and after completion, they were checked to ensure completeness. The questionnaires used in the study were divided into three parts, namely: part A contained demographics and the respondent's profile; Part B contained Total Quality Management Practices and; part C operational performance.

3.5 Reliability and Validity

Upon creation of the questionnaires, the researcher carried out a pilot test with the view of ensuring that the instrument had the necessary reliability as well as validity. The result derived from the tool was moderated from the acquired data. During the pilot test phase, the researcher circulated the research tools to some subjects who were part of the target population but not part of the sample size. This was done primarily not only to test the reliability but also the legitimacy of the research tool. The reliability of the questionnaires and their internal consistency was done using Cronbach's alpha. Abel (2003) explains that in Cronbach's alpha when the alpha value ranges from 0 to 1, the reliability of the instrument is considered to be directly proportional to the value.

3.6 Data Analysis

The researcher used linear regression in analysing the data with a view to determine whether there was a relationship between the dependent variable and the independent variables. In the study, operational performance was the only dependent variable. On the other hand, top management commitment, training and education, teams/employee commitment and, continuous process improvement formed the independent variables. Upon receiving

questionnaires, the researcher checked them to ascertain that they are complete, consistent and accurate.

Analysis of the collected data was done with the help of the Statistical Package for Social Sciences (Version 23). Analysis of the data from the different categories was done using descriptive statistics. Additionally, statistical inference was done with the view to ascertain the results of the research. To attain the objectives of the research, the following analysis methods were used: In objective 1, descriptive analysis included tables, as well as statistical measures. To achieve objective 2, regression analysis and ANOVA were applied to determine the correlation between the different study variables. In particular, the variables were analysed by getting the Pearson correlation coefficient to determine the linear significance of the two attributes. Additionally, inferential statistics were applied in order to try and infer from the sample what the population had while R-squared was used to show what variation in the dependent variable was explained by independent variables.

For the regression model, the following equation was derived:

$$Y = \beta o + \beta_1 X_1 + \beta_2 X_2 + \beta_3 x_3 + \beta_4 X_4 + \beta_5 X_5 + €$$

Where,

Y= Operational performance (Cost, flexibility, dependability, quality, speed)

β_0=Constant,

B=Coefficients for estimation

X_1=Customer focus

X_2=Top Management commitment

X_3=Continuous process Improvement

X_4=Training and Education

X_5=Teams/Employee commitment

€= Error term

3.6.1 Test of Significance

ANOVA technique was applied in testing the significance of the relationship between the dependent and independent variables. A key statistic R^2, a measure of goodness fit, was used to indicate the percentage variance in the dependent and independent variables.

3.6.2 Diagnostic Tests

According to Kothari (2004), these are tests done with the aim of establishing the presence of multicollinearity. In this study, the testing of the multicollinearity problem was carried out using Variance Inflation Factors (VIFs). This problem usually exists when there is a close relationship between some independent variables. When VIFs is used to detect multicollinearity, any individual VIF above 10 indicates multicollinearity. In this study, multicollinearity was used primarily to identify the presence of endogeneity in the explanatory variables.

CHAPTER FOUR: DATA ANALYSIS AND FINDINGS

4.1. Introduction

This chapter outlines the analysis of the findings of this research with regards to the relationship that exists between Total Quality Management practices and Operational performance in commercial banks that operate in Makueni County. The variables presented in the previous chapters are analysed using the collected data, estimates derived, and findings outlined.

4.2. Response Rate

In the study, 100 questionnaires were prepared and given to the respondents who included the banks' management staff (branch managers, operations officers, and head of departments). The selection came from Makueni population and consisted of both male and female genders. However, out of those returned, only 80 were correctly filled out resulting in an 80% response rate. Mugenda and Mugenda (2003) observed that a 50% response rate is considered adequate, 60% good and a response rate exceeding 70% very good. Consequently, the 80% response rate attained in this study can be inferred as very good. The male respondents who took part in the study accounted for 51.25% while the female respondents who took part accounted for 48.75%. The branch managers accounted for 12.5%, the operations officers also accounted for 35%, while the heads of departments accounted for 52.5% of the total respondents.

4.3. Demographic Information

The respondents were asked to specify their highest level of academic qualification. The results are as follows:

Table 4.3.1: Respondents' Academic Qualifications

	Frequency	**Percentage**
Certificate	8	10
Diploma	23	29
Bachelor's Degree	31	39
Master's Degree	18	22
PhD.	0	0
Total	**80**	**100**

Source (Researcher, 2018)

The results showed that quite a number of the respondents (39 percent) had attained a bachelor's degree. 22 percent of the respondents had master's level education, 29 percent had attained a diploma, and only 10 percent had a certificate. The implication of these results for this study was that the respondents had the requisite skills and knowledge to respond to the questions relating to TQM and operational performance.

4.4 Length of service with the institution

The respondents were asked to specify the number of years they had served in their respective institutions.

Table 4.4.1: Length of Service with the institution

	Frequency	Percentage
Less than 2 years	12	15
2-5 years	22	28
6-10 years	24	30
More than 10 years	22	27
Total	80	100

Source: (Researcher, 2018)

The results showed that most of the respondents (30%) had served in their various institutions for a period of between 6-10 years. 28% of the respondents had worked in their institutions for a period of between 2-5 years; 27% of the respondents had worked in their institutions for over 10 years, and 15% were newly recruited serving for less than two years. The implication of these results for the study was that most of the respondents had the necessary information about the operations of their respective banks.

4.5 Number of years Institution has been in existence

The researcher also sought to know the number of years the institutions under study had been in existence in the region. The responses were as follows:

Table 4.5.1: Number of years Institution has been in existence

	Frequency	Percentage
Less than 5 years	27	34
5-10 years	19	24
10-15 years	25	31
More than 15 years	9	11

Source: Researcher, 2018)

As can be deduced from the table, most respondents (34%) stated that their institutions had been in existence for less than 5 years. On the other hand, 31% of the respondents stated that their banks had been in existence between 10 and 15 years. 24% said their institutions had been in existence between 5 and 10 years whereas 11% of the respondents said their institutions had been in existence for more than 15 years. Accordingly, the results show that most of the commercial banks in Makueni had existed for more than 5 years which is a considerable time to implement TQM practices.

4.6 Diagnostic Tests

The collected data was tested using different diagnostic tests to ensure its was fit for subsequent analyses.

4.6.1 Reliability Tests

The research applied Cronbach's alpha test for reliability test. This was done with the view to measuring the study component's internal consistency in order to determine whether or not there was a close relationship existing between a set of components as a group. The values that were obtained from the test are shown in the table 4.6.1.1. below. According to Cronbach (1951), a reliability coefficient of 0.70 is usually deemed acceptable within the social sciences research. This view is supported variously by Rad and Yarmohammadian (2006) who also claimed that a 0.7 alpha value or more is acceptable reliability for a study. The values obtained were as shown in the table below:

Table 4.6.1.1: Reliability Statistics

Variable	Cronbach's Alpha
Customer Focus	.827
Top Management commitment	.795
Continuous Improvement	.754
Training and Education	.795
Employee commitment	.736
	.808

Source (Research data, 2018)

A review of all the values obtained showed that they all exceeded the 0.70 value and consequently, this showed that the research instrument was reliable and could be used in the study. Moreover, this showed that most of the study components had a significantly high internal consistency.

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4.6.2 Test for Multicollinearity

Problems of multicollinearity occur in circumstances where independent variables have a high degree of similarity (Rockwell, 1975). In order to measure multicollinearity, researchers often rely on the variance inflation factor (VIF) that provides an assessment of the level of variance of an estimated regression coefficient will increase if the predictors are related. In the absence of correlating factors, the VIFs will usually all be 1 or less with tolerance values within the threshold (Rockwell, 1975). The results of Multicollinearity for the variables under study are as follows:

Table 4.6.2.1: Multicollinearity Test

	Collinearity Statistics	
	Tolerance	VIF
Customer Focus	.747	1.365
Top management commitment	.582	1.752
Teams/Employee commitment	.427	2.390
Training and education	.680	1.498
Continuous process improvement	.567	1.804

Source (Research Data, 2018)

Based on the results, it was clear that all the variables met this criterion hence multicollinearity did not cause any challenge or problem in the study.

4.7. Extent of operations performance implementation

The research sought to identify the extent that the operations performance standards were upheld at the bank. The results were compared on a Likert scale of 1-5, where 1 = strongly disagree, 2= disagree, 3= neutral, 4= agree, and 5= strongly agree.

Table 4.7.1: Operational Performance Implementation

Operation performance indicators	N	Mean
Speed	80	4.1
Flexibility	80	4.08
Quality	80	4.36
Cost	80	4.08
Durability	80	4.21

Source: (Researcher, 2018)

Based on the results obtained, the respondents agreed that the implementation of TQM improved operation performance. The response means for all the five operation factors, i.e. speed, flexibility, quality, cost and durability indicated that application of TQM improved operation performance. The means included 4.1 for speed, 4.08 for flexibility, 4.36 for quality, 4.08 for cost and 4.21 for durability. The respondents agreed that the quality factor had the most influence on operational performance while flexibility contributed less towards operational performance.

4.8. Total quality management implementation

The research sought to establish the extent of total quality management implementation at the bank. The results were compared on a Likert scale to identify the level of agreement or disagreement. The results were compared on a Likert scale of 1-5, where 1 = strongly disagree, 2= disagree, 3= neutral, 4= agree and 5= strongly agree.

4.8.1 Customer Focus

The descriptive statistics of the responses under customer focus were as tabulated below

Table 4.8.1.1: Customer Focus

	Mean	Std. deviation	Rank
The bank always meets customer needs and expectations	3.76	0.451	5
Customer complaints are given priority by the bank	4.57	0.448	1
Customers have clear channels of communication with the bank	4.42	0.611	2
The bank undertakes customer orientation	3.92	0.701	4
The bank has an effective customer relations and service program	4.33	0.502	3
Overall Mean	**4.2**		

Source (Researcher, 2018)

Based on the findings, most of the respondents agreed that their respective banks addressed the complaints raised by customers as shown by M=4.57 (SD=0.448). The respondents admitted to a large extent that their institutions had clear channels of communication for both customers, investors and other stakeholders as shown by M=4.42 (SD=0.611). The respondents also gave positive responses on their banks having efficient customer relations programs as shown by M= 4.33 (SD=0.502). As per the responses, most banks took their time to orientate their customers through their procedures, and this is shown by M=3.92 (SD=0.701). Lastly, it was also clear that most banks did their best to meet the needs of their customers and expectations as shown by M=3.76 (SD=0.451). This is consistent with Cai (2009) who noted that focusing on customers had a positive impact on the organisation's operational performance as well as overall financial performance.

4.8.2 Top management commitment

The descriptive statistics of the responses under top management commitment were as tabulated below:

Table 4.8.2.1: Top management commitment

	Mean	Std. deviation	Rank
Top management provides adequate resources for implementation of quality management efforts	4.32	0.743	1
Top management has formulated and established quality policies and objectives	3.94	0.735	4
Top management oversees the implementation of TQM practices at all levels	4.14	0.545	3
Top management encourages effective employee empowerment and participation in decision making	3.95	0.644	5
Top management serves a critical function in creating strategies, plans as well as systems for attaining superior quality in the bank	4.20	0.698	2
Overall Mean	**4.11**		

Source (Researcher, 2018)

Based on the responses, a majority of the respondents affirmed that their respective institutions dedicated a portion of their resources to the implementation of quality management efforts as shown by M=4.32 (SD=0.743). The top management of the different banks was also involved in the creation of strategic plans that could assist them in attaining superior performance as shown by M=4.20 (SD=0.698). That the management was involved in the implementation of TQM at all levels of the organisation was shown by M=4.14 (SD=0.545). To some extent, the respondents affirmed that the top management took part in empowering employees and also took part in decision making which was part of an effort to foster quality and this is shown by

M=3.95 (SD=0.644). Lastly, some respondents felt that top management took part in the formulation and establishment of quality policies and objectives as shown by M=3.94 (SD=0.735). This is consistent with Ahire and O'shaughnessy (1998) who established that the top management had an essential role offering the necessary resources to meet the required quality and taking part in the quality implementation process.

4.8.3 Continuous Improvement

The descriptive statistics of the responses under Continuous improvement were as tabulated below:

Table 4.8.3.1: Continuous Improvement

	Mean	Std. deviation	Rank
The bank observes continuous quality improvement at all levels	4.46	0.645	2
The instituted quality systems contribute to zero defect of the bank's quality objectives	4.28	0.699	3
The bank's quality systems and procedures are continuously monitored and improved to enhance performance	4.56	0.702	1
Quality audits are conducted regularly in accordance with ISO certification requirements	4.24	0.598	5
The bank has set time limit to meet efficiency of service delivery	4.26	0.584	4
Overall Mean	**4.36**		

Source: (Researcher, 2018)

According to the results, a majority the respondents opined that their institutions had in place quality monitoring systems and procedures designed to enhance performance and this was shown by M=4.56 (SD=0.702). There was a general agreement that most banks continuously ensured that quality was at an all-time high as shown by M=4.46 (SD=0.645). The instituted

quality systems ensure zero defect on the bank's objectives as shown by M=4.28 (SD=0.699). The respondents also agreed some extent that their institutions had set limits to efficiency of service delivery as shown by M=4.26 (SD=0.584). Lastly, the respondents agreed that their institutions conducted quality audits regularly and consistent with the ISO certification requirements and this was shown by M=4.24 (SD=0.598).

4.8.4 Training and Education

The descriptive statistics of the responses under training and Education were as tabulated below:

Table 4.8.4.1 Training and Education

	Mean	Std. deviation	Rank
The bank has clear policies on employee training	4.12	0.641	4
There is continuous training of employees to improve internal quality performance	4.44	0.492	1
The Organisation trains employees on various skills such as problem-solving skills	4.18	0.549	3
The bank allows employees to advance their skills	4.27	0.499	2
Training programs are continuously updated to meet the demands of the current environment	4.09	0.493	5
Overall Mean	4.22		

Source: (Researcher, 2018)

Based on the results, most of the respondents opined that their institutions allowed continuous training of employees as a way of improving internal quality performance and this is shown by M=4.44 (SD=0.492). Most banks allow employees to improve their skills and this is shown by M=4.27 (SD=0.499). Employees are trained on skills, for instance, problem-solving skills was ranked number three with M=4.18 (SD=0.549). That banks have clear policies on training was

fourth with M=4.12 (SD=0.641). Lastly, that banks regularly update their training programs in accordance with the prevailing environment was ranked last at M=4.09 (SD=0.493).

4.8.5 Employee Commitment

The descriptive statistics of the responses under employee commitment were as tabulated below:

Table 4.8.5.1: Employee commitment

	Mean	Std. Deviation	Rank
Employees are dedicated to providing quality services in line with the bank's policy	3.88	0.502	4
Every employee understands that quality is their obligation	4.22	0.672	1
Employee satisfaction is formally and regularly measured	3.97	0.501	3
Employees take part in designing and planning	3.85	0.489	5
Employee flexibility, multi-tasking and training skills are used in the organisation	4.08	0.496	2
Overall mean	4.0		

Source (Researcher, 2018)

According to the results, the respondents agree that quality is a shared undertaking and thus they have an obligation for the same, and this is shown by M=4.22 (SD=0.672). The respondents also agreed that they apply various skills such as flexibility, multitasking and acquired skills from training in attaining quality, this was shown by M=4.08 (SD=0.496). The respondents seemed to agree to some extent that their satisfaction was measured on a regular basis and this is indicated by M=3.97 (SD=0.501). That the employees are dedicated in providing quality services as per the institution's policy was ranked fourth at M=3.88

(SD=0.502). Lastly, that employees took part in planning and designing was ranked number five at M=3.85 (SD=0.489).

Table 4.8.6: Summary of Total Quality Management Practices Implementation

Total quality management implementation	N	Mean
Customer focus	80	4.2
Top management commitment	80	4.11
Continuous improvement	80	4.36
Training & education	80	4.22
Employee Commitment	80	4.0

Source: (Researcher, 2018)

The responses indicated that the customers agreed that all the total quality factors improve operation performance. The respondents agreed that customer focus increased the operation performance with a mean of 4.2. The top management commitment had a mean of 4.11, continuous improvement had 4.36, and training and education had 4.22 while employee commitment had 4.0. The greater than 4 means of the response rates indicated that the respondents agreed that the implementation of TQM practices improved operations.

4.9. Relationship between TQM and operational performance

The study focused on establishing the relationship between operations performance (dependent variable) and the total quality management practices (independent variable). The regression formula that aided in the identification of the relationship is as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta 3 X_3 + \beta 4 X_4 + \beta_5 X_5 + \varepsilon$$

The value Y represented the dependent variable (operations performance), ε represented the constant value or intercept, β represented the model's coefficient while X_1, X_2, X_3, X_4 and X_5

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represented customer focus, top management commitment, training and education, employee commitment and continuous improvement respectively.

Table 4.9.1.1: Coefficients

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	4.009661668	1.014859	3.950953	0.000176139
customer focus	-0.034123767	0.089039	-0.38324	0.702637446
top management Commitment	-0.210760294	0.127879	-1.64812	0.103568179
continuous improvement	0.105870311	0.134135	0.789279	0.43247049
Training & education	0.11772692	0.110689	1.063583	0.290976248
employee commitment	0.071952552	0.088359	0.814318	0.418075439

Therefore, from the research findings continuous improvement, training and education and employee commitment had a positive impact on the operations performance. On the other hand, the customer focus and top management commitment had a negative impact on operations performance. The regression analysis indicated the coefficients as $X_1 = -0.034$, $X_2 = -0.211$, $X_3 = 0.106$, $X_4 = 0.11$ and $X_5 = 0.72$. The resulting regression model is as follows:

$$4.01 - 0.034X_1 - 0.211X_2 + 0.106X_3 + 0.11X_4 + 0.72X_5 + \epsilon$$

The constant effect of TQM on operations performance was 4.01. A unit increase in the customer focus decreased operations performance by 0.034, a unit increase in the top management commitment decreased operations performance by 0.211, a unit increase in continuous improvement increased operations performance by 0.106. A unit increase in the

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training and education increased operation performance by 0.11 while a unit increase in employee commitment increased operations performance by 0.72.

4.9.2. Coefficient of determination R2

From the analysis and based on the coefficient of determination, the TQM practices explain 24% of the operations performance. The results imply that other factors not considered in the research contributed 76% towards operation performance. Therefore, the research should consider further research to identify other factors.

Table 4.9.2.1: Regression Analysis

Regression Statistics	
Multiple R	0.242816554
R Square	0.058959879
Adjusted R Square	-0.004623913
Standard Error	0.694694883
Observations	80

4.9.3. F test for the full model

ANOVA analysis was used to test the claim of the existence of a significant relationship between total quality practices and operations performance. At 5% significance level, the value of significance F is 0.05, which is equal to the value of p=0.05. Therefore, there existed a significant relationship between TQM practices and operations performance.

Table 4.9.3.1: ANOVA

ANOVA					
	df	*SS*	*MS*	*F*	*Significance F*
Regression	5	2.23 7527	0.44 7505	0.9272 78431	0.4683 37206
Residual	74	35.7 1247	0.48 2601		
Total	79	37.9 5			

4.9.4 Correlation analysis

Table 4.9.4.1: Pearson Correlation Analysis

	Operation performance	*Total quality management*
Operation performance	1	
Total quality management	0.776843625	1

The Pearson correlation assists in identifying the linear relationship between variables. Therefore, the research required the establishment of the relationship between operation performance and TQM. The Pearson correlation values range from +1 to -1. +1 shows a positive correlation while -1 shows a negative correlation. The Pearson correlation analysis for the operation performance and TQM resulted in 0.776843625, which indicated a strong relationship. The positive number indicated a positive relationship between the variables meaning that a rise or increase in TQM led to an increase in operation performance.

4.6. Summary of Findings

The results obtained were statistically significant since the total quality factors had a p-value higher than 0.05. The intercept had a p-value of less than 0.05 meaning that other factors did not significantly relate to operation performance. The customer focus contributed the highest with a p-value of 0.702 whereas top management commitment contributed the least with a p-value of 0.103. Therefore, the study confirms that TQM affects the operation performance in commercial banks. The banks should, therefore, ensure the implementation of the total quality factors to improve the operation performance.

Additionally, the study also checked the extent that the respondents required the implementation of the TQM practices. The practices had a total mean of 4.1, indicating a greater need for commercial banks to implement TQM practices. The total quality aspect with the highest mean was continuous improvement with 4.36. Therefore, the banks should have a higher focus on continuous improvement. The other factors included training and education with a mean of 4.22, customer focus followed with a mean of 4.2, top management commitment had a mean of 4.11 and employee commitment had a mean of 4.0. Therefore, the banks should implement the factors based on which has the highest mean followed by the least mean.

The study also checked the implementation of operation management performance. The operation performance aspect had a total mean of 4.166. The mean is relatively high meaning that the respondents required the implementation of operation performance aspects. The highest-ranking factor is quality with a mean of 4.36, which indicates that the respondents required quality aspects in operations. The other factors included durability with 4.21, speed with 4.1, and flexibility with 4.08 and cost with 4.08.

CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS

5.1. Introduction

The aim of this research was to determine the impact of Total Quality Management practices on operational performance in commercial banks operating in Makueni County. This chapter discusses the findings of this research paper as shown in the fourth chapter and in accordance with the literature review discussed in the second chapter. This was achieved by summarising the results of the study and comparing them with those of previously conducted studies as outlined in the literature review. The paper then made conclusions, followed by recommendations for areas of further research.

5.2. Summary

The summary of the findings was done using the research objectives outlined in chapter one. The aim was to show how the research paper met its objectives. Overall, the research shows that the implementation of TQM practices as the independent variable had a strong relationship with Operational performance. The Pearson correlation analysis for the operation performance and total quality management resulted in 0.776843625, which shows a strong relationship.

5.2.1. Extent of Adoption of TQM Practices

The study sought to determine whether commercial banks operating in Makueni County have implemented Total Quality Management Practices, and if so, to what extent. The results of this study show that commercial banks operating in Makueni County have implemented Total Quality Management practices. These practices are; focus on customer satisfaction, top management commitment, employee commitment, training and education, and continuous improvement. Organisations have applied these practices at varying degrees. The results of this research indicated that respondents agreed that customer focus increased the operation

performance with a mean of 4.2, the top management commitment had a mean of 4.11, continuous improvement had 4.36, and training and education had 4.22 while employee commitment had 4.0. The greater than 4 means of the response rates meant that the respondents opined that implementation of TQM practices improved operations. This implied that majority of respondents agreed on the significance of implementation of TQM practices in order to improve operations of the organisation. These results concur to similar studies by Nyamari (2017), Kathaari (2014), and Singh and Dhalla (2010), where all the studies showed the importance of adopting similar TQM practices to improve operations.

The results of the study show that commercial banks in Makueni County give more attention to continuous improvement, followed by the focus on customer satisfaction. These are supported by Training and education, employee involvement (commitments) and top management commitment. However, using the coefficient of determination R^2, the use of Total Quality Management practices only accounts for 24% of operational performance improvement of the commercial banks operating in Makueni County. Although this research is similar to the findings of Kathaari (2014), and Nyamari (2017) that concluded that these factors explain variance in operational performance. This value is less compared to the research by Nyamari (2017) showed an R^2 of 68% while it is more than that of Kathaari (2014) which had an R^2 value of 20.5%. This means that other factors not included in this research account for 76% of the variation in operational performance. Further research should be conducted to determine these additional factors.

5.2.2. TQM Practices and Operational Performance

This study also sought to determine if there was any positive correlation between the implementation of TQM Practices and operational performance. The results of this study indicate that the application of TQM Practices had a moderate impact on operational

performance of commercial banks operating in Makueni County. From the Pearson correlation test, the value was +1, and this indicated a strong correlation between TQM practices and Operational Performance in the institutions. These findings of this research are consistent with those of the studies carried out by Rawashdeh (2014) and Kathaari (2014), which showed a strong positive link between implementation of TQM practices and organisational performance.

The application of TQM is thus considered as a tool that commercial banks operating in Makueni County can use to improve operational performance. Through customer focus, training and development, employee involvement, top leadership support, and continuous improvement, commercial banks can increase their competitiveness by ensuring customer satisfaction, cutting down on costs, increasing flexibility, improving dependability, and improving quality of services. Therefore, commercial banks operating in Makueni County should embrace TQM practices so as to improve operational performance and improve their organisations' competitiveness in the process.

5.3. Conclusion

Previous researches have emphasized the importance of application of TQM practices to improve operational performance. Kamal (2012), Sadikoglu and Olcay (2014), Kathaari (2014), and Nyamari (2017) are studies that were carried out in the banking sectors in regards to TQM practices and operational performance. The findings of these researches reveal a strong positive relationship between implementation of TQM practices and organisational performance; results, which are similar to those arrived at by this study. This study also agrees with other general studies on the same topic such as those carried out by Douglas and Judge (2001), and Powel (1995). Implementation of TQM practices will have a positive impact on operational performance of organisations.

This study on the application of Total Quality Management practices leads to an increase in operational performance for commercial banks operating in Makueni County. This study conforms to the results carried out by Kathaari (2014) on commercial banks operating in Kenya. It also conforms to the study carried out by Nyamari (2017) on commercial banks operating in Mombasa County. Porter (1998) stated that TQM practices implementation is sustainable for any organisation based on the RBV theory of the firm and that implementation of TQM practices will lead to increase competitive advantage for the organisation. The resource-based View theory of the firm focuses on harnessing an organisation's resources with a view to attaining a competitive edge in the marketplace. TQM practices work by harnessing human resources and capital allocation in order to drive operational performance. If an organisation is to achieve operational performance through the application of TQM practices, the firm must ensure that human and capital resources are effectively and efficiently utilised. The results by the study carried out by Rawashdeh (2014) found out that banks could improve their operational performance by implementing TQM practices and, therefore, supports the results of this study that TQM has a positive impact on operational performance in banks operating in Makueni County.

In conclusion, the study has fulfilled its objectives, and effectively answered the research questions of the study. Commercial banks in Makueni County have been found to implement Quality Management Practices in their operations to a moderate extent. This is evident by the mean of each of the independent variables of TQM which are customer focus with a mean of 4.2, the top management commitment with a mean of 4.11, continuous improvement with a mean of 4.36, and training and education with a mean of 4.22 while employee commitment with a mean of 4.0. The regression analysis shows that application of TQM practices can be used to explain the variation of operational performance, with a 24% significance level.

However, this is a weak significance level, and other factors need to be studied. These findings answer the study's research questions and meet the objectives of the research.

5.4. Recommendations of this research

The findings of this study show that Total Quality Management practices have a positive impact on the operational performance of commercial banks operating in Makueni County. Operational performance can help improve the competitive advantage of an organisation through reduced costs, improved customer satisfaction, improved dependability, improved flexibility and improved quality. Therefore, in line with these views, commercial banks operating in Makueni County should improve the adoption of Total Quality Management practices with a view to attain the desired competitive advantage and improve operational performance. According to Nyamari (2016), the TQM practices should be employed together for the organisation to fully benefit from the application of these practices. According to Meadows (2008), the activities of an organisation should not be applied in isolation but together, and should be viewed as a whole in order to create synergy. It is, therefore, important that the commercial banks apply these practices together.

5.5. Limitations of this Study

In as much as the study has satisfactorily achieved the objectives and answered the research questions, it has one major limitation, that is, the findings and results cannot be used to generalize the impact of Total Quality Management practices on operational performance in commercial banks in Kenya due to the small sample size involved. The focus was on banks operating in Makueni County, and given the regional diversity of the country, this study does not reflect what happens at the national level. It is, therefore, prudent that other researches are carried out in the same area from a national perspective.

5.6. Suggestions for further research

This research found that application of Total Quality Management practices had a significance level of the value R^2 equal to 24%. This shows that TQM practices in commercial banks operating in Makueni County do not sufficiently explain the variation of operational performance. Further research can be done with a view to determining the other factors that account for the 76% of the variation in operational performance. Secondly, the study used a small sample size, and the results lack generalizability capability for the entire country. Further research can be conducted using a larger sample size with a view to increasing generalizability and reliability of these findings. The findings of this further research can then be compared to the findings of this research thus enriching the literature that surrounds the same topic. Academicians can also carry out similar research using a different methodological approach and compare the results of the new research to this research. This will help in increasing the reliability and validity of the findings of this research.

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APPENDIX 1

RESEARCH QUESTIONNAIRE

PART A: Demographic and Participant's Profile

1. Your name (optional)……………………………….......................

2. Your organisation's name (optional)……………………………………….

3. What is your highest level of academic achievement? (Tick in the box)

   a) Certificate   [ ]

   b) Diploma   [ ]

   c) Bachelor's Degree   [ ]

   d) Master's Degree   [ ]

   e) Ph.D.   [ ]

4. How many years have you offered services in the organization?

   a) Less than two years   [ ]

   b) 2-5 years   [ ]

   c) 6-10 years   [ ]

   d) Over 10 years   [ ]

5. How many years has your organisation been operational?

   a) Under 5 years   [ ]

   b) 5-10 years   [ ]

   c) 10-15 years   [ ]

   d) 15 years and above   [ ]

PART B: Total Quality Management Practices

6. Please indicate the extent to which you agree with the following statements: Use 1) Strongly disagree; 2) Disagree; 3) Neutral; 4) Agree; 5) Strongly Agree

   Tick (√) once

	Customer Focus	1	2	3	4	5
1	The bank always meets customer needs and expectations					
2	Customer complaints are given priority by the bank					
3	Customers have clear channels of communication with the bank					
4	The bank undertakes customer orientation					
5	The bank has an effective customer relations and service program					

		1	2	3	4	5
	Top Management commitment and support	1	2	3	4	5
1	Top management provides adequate resources for implementation of quality management efforts					
2	Top management has formulated and established quality policies and objectives					
3	Top management oversees the implementation of TQM practices at all levels					
4	Top management encourages effective employee empowerment and participation in decision making					
5	Top management serves a critical function in creating strategies, plans as well as systems for attaining superior quality in the bank					
	Training and Education	1	2	3	4	5
1	The bank clear policies on employee training					
2	There is a continuous training of employees to improve internal quality performance					
3	The organisation trains employees on various skills such as problem-solving skills					
4						
5	Training programs are continuously updated to meet the demands of the current environment					
	Teams/Employee commitment	1	2	3	4	5
1	Employees are dedicated to providing quality services in line with the bank's policy					
2	Every employee understands that quality is their obligation					
3	Employee satisfaction is formally and regularly measured					
4	Employees take part in designing and planning					
5	Employee flexibility, multi-tasking and training skills are used in the organisation					

	Continuous Improvement	1	2	3	4	5
1	The bank observes quality improvement at all levels					
2	The instituted quality systems contribute to zero defect of the bank's quality objectives					
3	The bank's quality systems and procedures are continuously monitored and improved to enhance performance					
4	Quality audits are conducted regularly in accordance with ISO certification requirements					
5	The bank has set time limit to meet efficiency of service delivery					

PART C: Operational Performance

Please rate the performance of the institution along the following dimensions: Responses for the above questions ranged on a 5-point Likert Scale (1=Very poor, 2= Poor, 3=Average, 4= Good, 5=Very good)

	1	2	3	4	5
Delivery speed					
Delivery reliability					
Service costs					
Service lead time					
The flexibility of the process to accommodate					
Dependability of the process					

Thank you for participating