TOTAL QUALITY MANAGEMENT AND OPERATIONAL PERFORMANCE OF KENYAN AIRLINES

BY

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DECLARATION

I, the undersigned, declare that this is my original work and has not been presented to any institution or university other than The University of Nairobi for examination.

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DEDICATION

This project is dedicated to my supervisor Mrs Nancy Marika (Lecturer, Management Science), and moderator, Mr. Akello Ernest (Lecturer, management science) for their continuous and tireless commitment to see me through this project. To my beloved wife Irene and brother Lt. Col Erick Oloo for their prayers, moral and financial support. May the Almighty God bless you abundantly.

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ABREVIATIONS AND ACRONYMS

AMOS – Analysis of Moment Structures

BTS – Bureau of Transportation Statistics

GDP – Gross Domestic Produce

ISO – International Safety Standards

JKIA – JKIAAirport

KPI – Key Performance Indicators

NIST – National Institute of Standards and Technology

OP – Operational Performance

OPM – Operational Performance Management

PAYE – Pay As You Earn

PDCA – Plan Do Check Act Cycle

PDSA - Plan Do Study Act Cycle

PLC – Public Listed Company

PQM – Process Quality Management

QM – Quality Management

QMS – Quality Management Systems

RBV – Resource Based View

SEM – Structural Equation Modeling

SQM – Supplier Quality Management

SQP – Strategic Quality Planning

TCET – Transaction Cost Economic Theory

TOC – Total Operating Cost

TQM – Total Quality Management

VAT – Value Added Tax

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ABSTRACT

Quality has become an important aspect of any organization in terms of the products and services that they offer to their customers. There has been a paradigm shift in the needs fulfillment and expectations by customers and quality has been over emphasized. This has led to stiff competition among organizations in the airline business environment who work daily towards improving their quality standards in their efforts to outsmart competitors and thus attaining a competitive advantage. To achieve this, airline organizations are striving to price their products reasonably if not low, and also enhancing their value proposition and related benefits of their products and services. This study aimed at establishing those TQM practices adopted by Kenyan airline organizations in their quest to achieve optimal operational performance. This study also aimed at determining the relationship between TQM practices and their effects on an airline operational performance as far as positioning the firm on a competitive edge. Forty eighty airline companies in the Kenyan aviation industry were studied. A census survey was done and data collected was analyzed using descriptive statistics and regression analysis. The findings on TQM practices by the various airlines organizations affirmed that the respondents strongly agree that to a moderate and great extent, their airline company has adopted TQM practices in their operations. Also noted, is that there is a strong relationship between TQM as a practice within the Kenyan airlines and operational performance. The study regression analysis revealed a positive relationship between total quality management and operational performance of the Kenyan airlines. Various conclusions were arrived at from the findings of this study in that Kenyan airlines have adopted TQM as a practice in their operations. Top leadership of the various airline organizations has played an important role in the implementation of TQM practices. Provision of a good working environment for employees was noted as key and their participation in strategy formulation activities within the organization cannot be ignored. Airline organizations must embrace the culture of learning and development since it is important in continuous training and development of the workforce. Supplier quality management and process quality management were also concluded as being critical in improving the operational performance of airline organizations in Kenya.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Quality is primarily a value driven competitive tool in the market place. Organizations that are quality conscious will gain this aspect of competitive advantage and grow a profitable business, Yazgan (2017). To remain competitive, a business has to deliver quality products and services as per customers' expectations. The market place has a higher price tag for quality products and services out of the derived value proposition, Vliet (2009). Total quality management (TQM) enables an organization to combine resources, responsibilities and actions that together ensures that its products and/or services complies with the company standards, regulatory requirements and customer's expectations, Yazgan (2017). TQM is viewed as a combination of systematic approaches to work performance, quality checks, inspection and controls capable of delivering expected results the first time.

Increased globalization and liberalization in the aviation industry with tough conditions for businesses and industry regulations have brought both opportunities and challenges for the airline players. ISO standard 9001: 2008 advocates for quality management system (QMS) oriented with meeting customers' expectations, thereby enhancing customer's satisfaction, Mario (2012). This has made airlines to centralize quality in their products and service delivery. Quality and safety has been identified to be at the core of delivering any airline business strategy. This has created high levels of interest among managers and researchers. The scope of QMS requirement for an airline goes beyond compliance by the air operator on regulatory safety expectations. It encompasses customers' experience, improved bottom line and reflecting QMS in the future of an airline system philosophy, Mario (2012).

Markets are shifting rapidly, with a constant convergence in taste, trends, and prices. Air operational safety standards, is also a requirement guaranteeing passenger's comfort, flight reliability and dependable customers' experience, Parasuraman, Zeithaml, Valerie & Berry (1985). To deliver this superior service quality to the customer, an airline organization must re-engineer their systems, operations, culture by adopting customer focused strategies, Terrein (2012). Organizations strive to achieve excellent operational performance (OP) that serves the societal needs in which they exist, Gupta & Belokar (2014).

A TQM system has emerged as a key component and critical success factor in most service business organizations. Quality is considered as a strategic issue for executive thinking. Senior executives are faced with the challenge of its successful implementation at all organization levels with a view of delivering effective and efficient business strategic performance, Oakland (2000).

1.1.1 Total Quality Management

TQM is central in the delivery of an improved organizational performance. This is because it acts as near-universal remedy for a range of organizational problems. TQM is therefore defined as a unified and integrated management approach and organization strategy aiming at continuously improving the performance of products, processes, and services by achieving and surpassing customer's expectations, Waldman (1994). Sadikoglu & Olcay (2014) defines TQM as a firm-wide management philosophy used by organizations in all its functions to continuously improve their efficiency and competitiveness in the business marketplace. The main focus is in increasing value proposition in the process delivery, product and service quality, thus delighting the customer and increasing customer satisfaction hence improved organization performance. Many authors agree with TQM as the new model in organization culture. It strives by focusing towards enhancing consumer's fulfillment in all its activities and processes for long-term business gains optimization, Sumanthi, Muralitharan, Venkatramana (2018). Allan, (2007) defines TQM as a professional ideology focused with customers' needs satisfaction by committing the organization resources in the development of quality conscious operational processes that optimally delivers profitably to the organization.

Oakland (2000) reveals several TQM that should be taken into consideration. Among the TQM highlighted includes leadership, focus on customers, quality policy and strategies, people management and empowerment and supplier partnership. Sadikoglu & Olcay (2014) names Leadership and top management commitment, employee involvement and empowerment, process and knowledge management, Training and development, Supplier quality management, focus on customer, process quality management, and strategic quality planning as TQM worth considering. These TQM can holistically be analyzed in the context of their contribution to an airline organization operational performance. As a schematic approach of maintaining an outcome of a firm's performance, TQM analyzes difference in culture and infrastructure, internal

systems of a firm, every member contribution to the organization, incorporation of new strategies in management and enhancing quality aspects and provisions as analyzed and perceived by the customer.

TQM requires involvement of every employee for step by step enhancement and effective change in culture within organization enhanced by top management involvement and commitment to deliver the business strategic goals and objectives. This necessitates corporate culture change of an organization to be customer focused, Beamon (2008). TQM requires effective knowledge management in its delivery. This requires that organization employees get reliable, accurate, consistent, timely and necessary data, tools and information needed to perform their job effectively and efficiently. TQM concept and philosophy is also present in modern Quality Management Systems (QMS). Organization leaders view TQM as a system which; focuses on customers experience and need fulfillment; supports and empower employee through development; establish a multipoint stakeholders communication channel; encourage employee participation in decision-making; and use information flow strategically. They ensure that the system has and enjoys inter-relationships among various players, avail management theory with certain logical methods and techniques for implementation, resulting in beneficial result for all stakeholders.

TQM therefore deals with the approaches, methods and policies managers adopt to deliver organization tasks, objectives and goals reaching desired quality standards expectation. Anchored on zero defects concept and stressing on doing things right the first time. TQM also advocates for supplier base reduction and streamlining, strategic supplier relationships management, strategic alliances, collaboration and development with key suppliers that focuses in meeting customer expectations. Effective adoption of TQM in an organization improves customer satisfaction on service deliverables, Bergquist & Fredrikson, (2005). Yang (2003) posits that adopting TQM in any industry has its challenges which implementers must be ready to overcome in delivering strategically viable TQM systems. Many airlines are turning towards TQM as a requirement on quality management systems (QMS), for cutting costs and generally improving the quality and safety of their services provision. TQM therefore enhances customer loyalty through satisfaction leading to repeat business and attraction of new customers.

1.1.2 Operational Performance

Operational Performance is the process of quantifying a firm's actions and output as a measure against prescribed efficiency, effectiveness and environmental standards responsibility like regulatory compliance, waste reduction, productivity, and cycle time. Effectiveness focuses on meeting customer's requirements while efficiency is a measure on economic utilization of organization resources while providing customer satisfaction. Operational performance management (OPM) aligns all organization business units and functions with a view of streamlining their actions in delivering core business goals. Ozaki, (2003) states that effective TQM implementation increase customer satisfaction through value creation in product and service quality; enhance organization's change strategy, elimination of inefficiencies, bottlenecks & wastes thus improving organization best practices and performance.

Aviation business operates under uncertain conditions. The operational performance of an airline may be worse when internal and external operational systems fail to realize the intended benefits desired. On time performance is a criticality while delays compromise service quality and increases operating costs. In the flight planning process, one flight in four is delayed for one reason or the other. At large airports, quite a number of scheduled flights register delays considerably. Of great importance to airlines is on-time statistics. World standards give an allowance of 15 minutes delay time which marketing use in rating airline performance, OAG's (2016) and BTS (1998). Greater customer satisfaction for an airline emanates from good on-time performance influenced by accurate flight schedules leading to improved operational performance.

The first step in an airline planning process is schedule development that takes place a year before a flight departs. Here an airline decides where and when it will fly; schedules flight block time and duration through planning. This varies between airlines and their timings. The second step is for the airline to solve the fleet assignment problem, by assigning each leg to an aircraft type or a fleet. The plane allocation sequence with which each will fly legs is determined by the routing problem, Schaefer & Nemhauser (2006). Then the determination of crew trips or pairings set through crew scheduling that defines the set of legs to be flown through partition. However, integration of an airline various stages of the planning process is necessary with other activities and functions since the steps highlighted happens way before the actual flight dates.

Integrating fleet assignment and schedule development increase the number of flown flights, Lohatepanont and Barnhart (2004). Fleeting model with time windows are proposed, Rexing, Barnhart and Krishnamurthy (2000), combining crew scheduling and routing, Klabjan et al. (2002) to increase the feasible pairing numbers, thus reducing the resultant planned crew operations costs from the schedules. Maintenance considerations are incorporated into crew and equipment scheduling with a view on cost reduction and performance enhancement, Cohn and Barnhart (2003). By increasing the scheduled legs block times, an airline can improve its on-time performance since on-time performance is relative to scheduled block time. A part from fuel cost, crew costs is the second headache for airlines especially when the planned flying time is increased, Schaefer et al., (2004).

The foregoing is central to the effective delivery of airline business performance. Accurate planning and forecasting of all airlines operational requirements right from flight plans, maintenance plans, crew plans among other operational requirements that deliver value to customers involve cost implications. The precision with which these functions are carried out will reduce operational costs structure and improves the level of customer satisfaction and repeat business based on customer journey and experience. This therefore means more business and returns on investment to the organization.

1.1.3 Kenyan airlines

The Kenyan aviation industry has grown over the year with a total of 48 airlines registered and operating in Kenya. The airlines engage in the domestic, regional, and international carriage of passengers, mail and cargo through air. Some of the airlines also provides ground handling services as third party logistics providers to other airline operators; aircraft maintenance and Components repairs to other operators; and handles the import and export of cargo. See appendix II for details.

Modern technology controls aviation business in today's world. These are employed to satisfy high customer's expectations and living standards. There are thousands of products and services invented in the area of aviation industry to meet all customers' preference. The aviation industry provides advantageous transportation system both locally and internationally. To this end, Kenya Airlines is a contributor. A report by the Oxford Economics for the year 2009 indicate that the aviation industry has a contribution of 1.1% totaling around KES 24.8 billion to the Kenyan

GDP, the sector supports over 46,000 jobs in Kenya, contributes over KES 3.2 billion in tax from employees, social security contributions, PAYE tax contributions, corporation tax levied on profits, a further KES 1.4 billion tax revenues from departure passengers and VAT. This goes to show that the sector contributes to the growth of the Kenyan economy, Oyieke (2002).

Air transportation convenience makes it a premium choice for travel considerations among other means of transportation. Aviation drives globalization and development of modern day world. Kenyan airlines play a part in this development. As global economies increasingly get more linked, aviation industry is the critical player that brings people and businesses together. The contribution of aviation industry socially and economically brings together a world of benefits, facts and figures giving policymakers and the industry an important global view on its strategic importance in driving economic growth. However, recent activities in the aviation industry have led to customer's dissatisfaction on airlines service deliver levels.

Kenyan airlines are a key contributor to the growth and development of the Kenyan and the regional economy. Their sustainable growth and development is vital for the country supply chain and other revenue development capabilities like promoting tourism, offering passenger and cargo services among others. The economic value created by the airline is immense, hence its centrality in research considering its overall impact on the country and key stakeholders interests.

1.2 The Research Problem

The aviation industry operating environment is very volatile; it has become quite unpredictable and competitive as the effects of globalization and internationalization of firms continue to manifest themselves. Organizations today are facing high competition. Only those companies which are progressively scanning the business environment will be rewarded. Such organizations aim at transformation and delivering the greatest value to its customers in a fast changing business operating environment, Anjard (1998). TQM as a strategy therefore, is central in quality service delivery. A good TQM strategy ensures sustainability of the firm in the turbulent environment. Most Kenyan airlines have been operating under turbulent environment in the recent past.

Airlines have aircraft with 25 years economic life and a return on investment expectations to deliver. For airline fleets/aircrafts to remain serviceable, regular maintenance checks and repairs

are carried out for continued airworthiness condition. The frequency with which these functions take place relies on the specification from manufacturer in enforcing continuous airworthiness; frequent critical components overhaul is expected. Time to delivery, service reliability and high service quality standards have become aerospace industry business imperatives that must be met in operational performance. The cost implications of a delay in delivering aircrafts to service or on operational requirements are only too obvious. Poor or lower service quality is unacceptable in aviation as it compromises air travel safety and customer experience which delivers returns on investment. Most Kenyan airlines as an airline have in the recent past been operating in turbulent time and their sustainability is critical to the Kenyan economy and regional stakeholders. The airline industry experiences intensified competition which has the propensity of squeezing less cost-effective airline operators out of the aviation industry. Total operational costs (TOC) have direct impacts on an airline business performance and bottom-line. TQM is a critical tool in managing waste, reducing costs and improving business performance. Application of TQM as a practice will prove useful for the Kenyan airlines in delivering their operational performance fit.

Several studies have been carried out on TQM. Globally, Prajogo and McDermott (2005) examined TQM and organizational culture relationship among Australian organizations. The findings support the pluralist view, where different types of cultures determine a set of TQM adopted by the organization. This study however was conducted in Australia which has different business environment from those in Kenya's aviation industry. Oluwatoyin and Oluseun (2008) tested the effect of total quality management practices on performance and stakeholder satisfaction with a focus on the Nigerian airline industry. The research findings revealed that TQM airlines employee satisfaction are of a higher degree than non- TQM airlines, however this study was based in Nigeria and the findings may not be applicable in the Kenyan context. Ojo (2003) examined competitive strategy and TQM culture in organizations. He focused on competitive strategy elements, productivity improvement, TQM culture and their relationship in producing better outputs of goods and services for individual and organizational performance; however, this study failed to look at the impact of TQM on operational performance within the Kenyan airlines context. A study by Haustein (2005) examined the pillars of TQM implementation in manufacturing organizations and revealed a comprehensive framework with eight pillars having carried out case studies in 31 manufacturing organizations in Bangladesh,

India. However this study suffered a methodological weakness based on the fact that it was based in Bangladesh only and hence the findings may not be applicable to the Kenyan context.

Locally, Magutu, Bache, Nyaoga, Nyamwange, Onger and Ombati (2010) examined Kenyan educational institutions quality management practices; the case of University of Nairobi and established that the University needed to address three major challenges: skills, communication/management support and funding, however the study was solely based on the University of Nairobi. A study done by Githae, (2004) focused on TQM in selected private hospitals and the critical factors of TQM and found out that TQM has gained increasing popularity in organization transformational change, managerial philosophy and operational effectiveness. The study was however based in private hospitals in Kenya. Adoyo, (2012) focused on service quality and customer loyalty relationship among retail pharmacies in western Kenya. The findings revealed that a relationship exists in quality dimensions namely service quality, satisfaction, trust and commitment as having significantly a positive effect on the ultimate outcome of customer loyalty. However the study only focused on retail pharmacies and not Kenyan airlines.

From the above local and international studies, it is evident that there exists a research gap based on the fact that no single study has been carried out on TQM and operational performance of Kenya Airlines PLC. Therefore this study aims at answering the following research questions: What is the extent of TQM implementation in the Kenyan Airlines? What is the relationship between TQM and operational performance of Kenyan Airlines? What challenges does Kenyan Airlines face in the course of implementing TQM?

1.3 The Research Objectives

i. To establish the extent of TQM implementation in Kenyan Airlines

ii. To determine the relationship between TQM adoption and operational performance in the Kenyan Airlines

iii. To establish the challenges faced in implementing TQM in the Kenyan Airlines

1.4 The Value of Study

This research study is of benefit to the Kenyan Airlines policy makers and the Kenyan Aviation Industry players at large. The knowledge and understanding of TQM is important in realizing business performance objectives. Its importance in competitive delivery of the airline business strategy is critical within a global market. This research outcome will also contribute to the knowledge bank by creating an informed understanding on TQM practices and their adoption in the Kenyan airlines business environment context.

This research study findings is also of importance to scholars and researchers by forming basis for further research and extension of the theories governing TQM and operational performance. Future researchers and scholars will be able to analyze and use this study as a reference material source and a basis for discussions on TQM practices adoption by Kenya airlines in building competitive advantage and improving operational performance.

Further, the study is of importance to various aviation company managers within the Kenyan aviation context. It will help them in understanding the TQM practices impact on operational performance in the Kenyan aviation context. The competitiveness of any airline company plays an important role in its financial performance, operational performance, and future growth with a view of remaining competitive in their service delivery.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This section contains theoretical literature review, total quality management theories, total quality management and operational performance, empirical literature review and the study conceptual framework.

2.2 Theoretical Literature Review

Various theories and concepts developed by various scholars and how they are related to the topic of study are what make up this section. The system of profound knowledge and the Shewart/Deming Cycle theory are discussed to gain insight on their contribution to TQM and Operational performance of organizations.

2.2.1 The System of Profound Knowledge

TQM as a concept has a strong backing in Dr. Deming's system of profound knowledge, through which modern researchers view TQM as a milestone towards a learning organization, Wang, Ahmed (2003). This is a critical concept in understanding quality as it provides a highly integrated framework of thought and action for transformational organization leadership and a workforce operating under the prevailing TQM system of management which thrives into a value driven and systemically focused organization. According to Deming, gaining TQM benefits has more than just hard work and greater efforts but emphasizes the importance for increasing knowledge within organization as having no substitute. Therefore, knowledge gain within an organization takes the form of four interrelated concepts in systems theory, variations theory, knowledge theory, and psychology knowledge leading to a learning organization which is central in delivering a TQM organization. Profound knowledge is therefore the cornerstone of great management that delivers action oriented results in matters quality for any organization and without which a ruination is eminent, Deming (1989, revised 1991).

Theory of Systems: Quality management aims and takes place in a system which has a number of interrelated functions or activities within an organization harmoniously working in unison for the advancement and realization of the organization goals and objectives, Deming (1989). Without an aim, there is no system negating the centrality of appreciating organizations as systems. This leads to fragmentation, presence of disunity and lack of harmony in the

coordination of functions by employees in the organization since they will lack awareness of critical internal as well as external influences and interactions which affects their effective work performance deliverables. The system components like; management style, employees involvement and participation, customers awareness, environmental constraints, shareholders, training, recruitment et cetera and their interrelationships among other units of the system capable of delivering TQM as a practice must be studied and analyzed as a whole.

Theory of Variation: Statistical theory knowledge is essential and critical to the principle of profound knowledge. Organization leadership and by extension employees, must be able to recognize and develop a stable system, understand the concept of variation and its special and common impact on delivering successful organization performance levels. Failure to appreciate the concept and its difference will lead to increased variability, frustrations, and higher costs of operation, Deming (1986). Among the many noted adverse effects are as a result of management taking up decisions and actions in responding to problems facing the organization without knowing and understanding whether the problem belongs to the system, special or localized. Measurement of variations provides TQM organizations with the means for predicting the behavior of a system upon which various models of continuous improvements can be anchored.

Theory of Knowledge: Learning organizations are TQM conscious and addresses the way in which knowledge is advanced within the entire organization. They are aware of the various processes of advancing knowledge and centrally using knowledge in advancing continuous improvements necessary to enable an organization remain competitive in service delivery to customers. The knowledge theory usually takes the progressively slow but incremental growth guided by theory and a continuous experimental streams and tests approaches. Each is designed to advance a particular field knowledge state which later produces advancement in knowledge streams and break-through. This is instrumental in delivering a TQM organization.

Knowledge of Psychology: The psychology knowledge is critical in understanding and enhancing an organization TQM benefits, particularly on the workplace and people dynamics, team or group performance, cultural change and learning styles. To deliver TQM effectively, management must have holistic people knowledge, their interaction levels and their individual

needs, and their working and learning styles. People differs in many fronts, unique with varying and complementing traits, talents and skills which management has the ultimate awareness responsibility and use the acquired knowledge in optimizing performance.

2.2.2 The Shewhart/Deming Cycle Theory

Organization strategies and their success revolve around the Deming cycle concept or the PDCA/PDSA Cycle. As a TQM model, it consists of logical sequence of four repetitive steps facilitating continuous improvement and learning: Plan, Do, Study (Check) and Act. The Deming wheel is a continuous improvement spiral with its origin traced back to the eminent statistics expert, Mr. Walter A. Shewhart (1920's). Walter introduced the concept of PLAN, DO and SEE which Deming later improved on to give it a PDCA/PDSA TQM philosophy. It has a number of benefits which includes but not limited to; process trials, daily individual and team routine management, continuous development, process of problem-solving, human resources development, vendor development, project management, and new product development.

Focusing on product and service quality is an essential must for any organization whether established or startup. An expensive organizational change is required for established organization if it decides to implement TQM principles capable of delivering desired performance outcomes but a startup has the freedom and ability to embed TQM in its culture as it grows. Deming's concept influence on many organizations has shown that a corporate culture focusing on improving quality can have a direct influence in overall organizational performance success. This is possible through forward planning for change by analyzing the results and predicting output in advance; executing the plans by taking calculated steps in controlled circumstances; studying by checking the results of events; and taking actions to standardize or improve the process to deliver value continuously.

2.3 Total Quality Management

TQM is a near-universal remedy and japan developed concept which has gained universal acceptance over time. It originated from the work of quality gurus like Walter, Deming, Juran, Feigenbaum, Ishikawa, Taguchi, shingo, Crosby, and Taiichi ohno for a range of organizational problems, including improved organizational performance. TQM as a methodology employs various practices that support the delivery of quality products and services as well as supporting

continuous improvements in core organization functions that delivers quality products and services. Management employs TQM method in the production of goods and services by involving employees. TQM main aim is to increase business operational performance through a combination of quality and management tools that seeks to reduce losses due to wasteful practices. TQM has been broadly adopted by many firms; both in manufacturing and service industries. TQM in organizations are critical in process improvement of the total organization, operational quality performance, and sound management standards. Based upon the above literature studied, the researcher will adopt eight main TQM practices as follows:

2.3 .1 Leadership and top management commitment

Leadership is the ability to inspire confidence, creating a vision and support among needs to effect change and achieve organizational goals, Dean and Evans (1994). TQM system leaders views an organization as a system which supports the development of employees; establishing a strong and effective multipoint stakeholder's communication platform; efficiently and effectively use information; encourage employee decision-making participation and empower the employees, Criado and Mora (2009). Commitment and participation of top management in TQM is very vital for the delivery of TQM success. High demonstration of leadership by managers through behaviors and actions will increase employees' quality activities awareness that enhance TQM adoption and practices, Goetsch and Davi (2010).

TQM require strong commitment from the top management as main drivers through PDCA (Plan, Do, Check and Act) cycle approach leading to higher quality performance, Kaynak, (2003). Anderson Shang, (2007) views leadership as the senior management ability in establishing and leading a long-term visionary practice for the organization which is driven by changing customer requirements, rather than an internal management control role. Good leadership steers the organization to achieving its goals. TQM require cultural change in the organization. This can only be achieved if the top management in the organization commit to the practices that will ensure continuous improvement in processes, encourage open communication and cooperation throughout the entire organization. The top leadership of any organization must embrace TQM in order to realize efficiency and effectiveness of the desired benefits, Oakland (1993).

Many researchers emphasize quality leadership from senior and top most organization manager's commitment and support as a key instrument in proper delivery of TQM. Management must empower employees by delegating some authorities necessary to perform operational tasks which lead to the achievement of products and services quality, customers' satisfaction, job satisfaction, and continuous improvement, Germain and Spears (1999). It is important and imperative for top managers to have a clear definition of the organization's goals and treat quality as an important aspect. They should allocate sufficient resources towards improving quality and evaluate employees based on their performances, Lawler (1994). Empowering of employees makes them responsible for the quality of the work they do thereby enhancing continuous improvement which is TQM in principle.

2.3.2 Strategic Quality Planning

Thompson et al (2007), looks at strategy as being that deliberate competitive move that managers will employ to grow the business. It is that business approach organizations employ in pleasing and attracting customers, to compete favorably, conduct operations and achieve performance targets. Strategic quality planning (SQP) make use of employees as inputs in vision, mission, and values development for the organization with a view of facilitating acceptance and support in the delivery of TQM strategy, Ittner and Larcker, (1997). Strategic quality planning therefore encompasses the making of strategic choices that position an organization at an advantage over their competitors, Johnson, Scholes and Whittington (2008). An effective strategic plan will articulate not only the direction of an organization path and those actions needed to make progress, but also how an organization can know with certainty if it is successful.

Strategic quality planning is a process, long-term and futuristic in nature involving selecting from among possible courses of action to make decisions that bring the organization to achieving its main goal, Bruce and Longdon (2000). In strategic quality planning, a firm is able to set clear goals by allocating its resources to the most important functions taking into account the possible setbacks on the outcomes for stakeholders prior to production. This enhances an organization social responsibility index, Ittner and Larcker, (1997). For a TQM practitioner, the focus includes having a vision for the organization, translating this vision into plans, goals and policies, developing these plans into reality, Evans and James, (1999). Strategic quality planning

stresses long-term organizational sustainability and a competitive advantage as an integral part of overall planning by an organization, NIST (2010).

2.3.3 Employee Involvement and Empowerment

Employee involvement and empowerment is the extent to which the workforce is engaged in the activities of an organization. Employee empowerment means employees are given powers to solve problems related to their tasks and responsibilities at work to accomplishing the goals of the organization. Transferring some decision-making authority by management empowers employees. This shows employees that management has faith in them and inspires the workforce in the process of managing quality, Juran et al., (1995). Cross–functional teams are created to work towards the common good of the organization. Employee involvement entails giving employees the power to make decisions, communicate freely, and encourage teamwork. However top management need to define clear goals which are well understood by the employees to avoid employees being confused or rather not achieving the objectives, Wilson & Collier (2000).

Empowering employee makes TQM practice highly effective. It is important to note that contributions made and ideas given by employees need to be well received, given serious considerations and implemented for as long as they are relevant and beneficial to the organization. Employee suggestion programs are among the motivational programs that have been considered to be of importance, Wilson & Collier (2000). Employees need to be encouraged to bring forth the problems they encounter in course of their work. This leads to effective employee participation and involvement. Noah (2008) highlights employee involvement benefits to include; increase in employee morale which enhances productivity; provides employees with an opportunity to use their intellectual capabilities leading to better decision making in the best interest of the organization; making significant contribution towards trust and sense of control; maximization of the various view points and encouraging perspectives diversity in the organization.

2.3.4 Training and Development

The goal here is to impart knowledge and enhance skills required in performing tasks and jobs at the workplace. TQM organizations are continuously involved in staff trainings to improve their proficiencies in carrying out their tasks which delivers meaningful value to the business. Dean

and Bowel (1994) define training and development as interventions at the workplace which endeavor to teach the workforce, enhance and develop their skill level by preparing them to perform particular jobs and activities competently. Organization seeking sustainable competitive advantage, usually embrace mechanisms for effective quality training of workforce and management. This will improve knowledge and skills bank and deliver sustainable quality management systems for the organization, Goetsch and Davis (2010). Deming (1982), points that there is need to upgrade the skills and knowledge of employees especially considering the rate at which the business environment keeps changing. It is of utmost importance to equip and empower the employees in handling their tasks.

Learning organizations adopts change continuously by developing unique behaviors distinguishing them competitively from other organizations hence better performance results. A good assessment provides critical information in designing training programs that are effective and geared towards improving the performance of the workforce, Dean and Bowen (1994). Quality is a system-wide concept of the whole organization and does not begin in one department or function. A good training approach covers all employees' needs gaps that are advantageous in creating a highly productive workforce based on the training needs assessment results, MacKelprang, Jayaram, and Xu (2012). An effective employee training aids in the industry knowledge and the structure of the organization awareness; improves employees' loyalty to the organization; high quality production and service reliability; motivation, and better work performance. The result being increased customer satisfaction and reduction in customer complaints.

2.3.5 Customer Focus

A TQM organization has an approach that focuses on serving and satisfying its internal and external customers. Andrle (1994) suggested that organizations need to know customers' requirements and expectations and make efforts to work towards offering products and services meeting and exceeding those expectations. TQM as a strategic practice advocates for organizations to establish customer focus operational processes. A closer link and measure is key for organizations in knowing and understanding their customers' expectations and needs, Filippini & Forza (1998). Thus many organizations invest in research and development in order to understand and know their customers better.

Quality is seen to enhance the customer's loyalty and also leads to acquisition of new customers. Making successful efforts on customer focus, aids in arranging production processes with a view of fulfilling customers' needs, expectations, and complaints. This encourages production of reliably quality products and services by organizations leveraging them competitively, Joiner (2007). Suggestions by Muffatto and Panizzolo (1995) indicate that customer satisfaction is achieved purely through provision of services and goods that meet the needs of the customers. The needs of customers are the driving force towards the development of quality goods and services in the market, Jablonski, (1992). Meeting customer expectations enhances their satisfaction and increasing an organization sales and business performance outcomes.

2.3.6 Supplier Quality Management

Suppliers provide raw material to organizations and therefore they play a big role in quality management, Flynn et al, (2001). Supplier quality management (SQM) in a TQM organization means a reduction and streamlined supplier base, supplier relationship management, strategic alliances developing with key suppliers, suppliers collaboration that serves customers expectations, and involving suppliers in product development process at an early stage where their capabilities and expertise are advantageous, Monczka, Trent, and Callahan (1994). Suppliers if not well managed could be a source of quality problems, Krause (1997). Organizations need to establish a good relationship with the suppliers. They should involve suppliers in products development, provide training where necessary and constantly evaluate the suppliers as regards the quality of their supplies, Sila & Ebrahimpour, (2005).

Supplier quality management is all about emphasis on quality supplies. Supplier's inputs constitute a greater impact on production of products and services in any organization. The quality of supplies inputs has a greater influence on the resultant quality of products and services by organization. Therefore, organization suppliers should adopt TQM and be involved in this process, Kannan and Tan (2005). An effective supplies management practice enhances quality production that delivers reliable and highly dependable products and services in a timely manner. In supplier management, cooperation with the suppliers is vital and managing this relationship ensures continuous business activities between the parties. Suppliers determine to a greater extent the satisfaction of customers, Anderson et al., (1999). Organizations world over have

enhanced customer satisfaction and profitability by strengthening quality management of the supply chain.

2.3.7 Process Quality Management

One of the major determinants of quality in production is the process quality management (PQM), Anderson et al. (1999). PQM is a set of procedures that must be followed in ensuring that a "fit for purpose" status of the deliverables being produced by a team is met. Setting quality targets is a primal involvement, which are agreements from a customer's view point. To get it right, organizations implement quality management systems, conduct quality assurance, enforce quality control, and initiate quality improvements, Tarí and Claver (2008). In order to measure and report the actual deliverables quality, it is best practice to undertake a quality assurance and quality control process, Mario (2012). The quality process is made up of methods, activities, machines, materials and even the people involved in production. Process Quality Management is critical within any organization in ensuring that the produced deliverables quality actually meets the customer specifications and requirements. It achieves this by: setting quality targets employees must meet; define quality targets measure; take the quality measure actions needed; quality improvements and issues identification; and report on the achieved overall quality level, Juran & Gryna (1993).

Total quality management has the assumption that the overall products and services quality is achieved by the quality system levels of the processes involved, Flynn & Saladin, (2001). Managing production processes effectively ensures reduction in variations. This leads to products of quality at the same time reducing the costs of production as well as costs involved in rework, Anderson et al., (1999). Juran & Gryna (1993), state that the most important factor in process control and improvement revolves around the maintenance of the process capability for meeting production requirements. Likewise, Deming (1986) in his literature confirms that quality is not only gotten from conducting inspection but improving the entire process of production. He further explains that organizations need to stop depending on inspection alone to achieve quality and instead they should endeavor to improve the processes of planning.

2.3.8 Knowledge and Process Management

Knowledge and Process Management is critical in providing essential information to the executives as well as an organization workforce responsible for driving performance

improvement in the organization or for introducing new ideas and concepts into the business through leadership, Sadikoglu and Zehir (2010). Effective knowledge management focuses on the entire workforce obtaining reliable, accurate, timely, consistent, and necessary data and information needed in performing their work effectively and efficiently within the organization thereby culminating into expected benefits realization, Lee (2003). As an established cross-disciplinary field, knowledge management deals with strategies and technologies that help organizations to explicitly deal with their knowledge in order to improve organizational performance, Benson, Saraph, and Schroeder (1991). Knowledge discovery and identification, knowledge representation, storage and distribution as well as re-use are critical components of knowledge management central in the delivery of TQM organization system. Experience deserves special consideration as an important piece of knowledge critical in delivering quality and extraordinary value to any organization. Hence, experience management has developed as a field focusing on methods and tools for efficiently managing experiential knowledge.

Process management puts much emphasis on activities rather than results, through a set of behavioral and methodological activities. It entails both proactive and preventive approaches in managing quality that reduces variations in the process and improves the quality of the products and services, Sadikoglu and Zehir (2010). Process management deals explicitly with the identification, modeling, analysis, improvement, and implementation of business processes. It is a widely applied methodology today that improves the organization operations and to align and align TQM development practices with business processes, Powell (1995). Agility in business today is required to be able to adapt to fast pace business environment market demands and opportunities with appropriate tools for process management based on intelligent technologies.

Successful knowledge and process management will therefore monitor the data regarding effective quality processes management in order to improve purchased materials and inventory turnover rate, figure out and correct errors or mistakes real time, and monitor operational performance, Adam, Corbett, & Flores (1997). The process management entails a periodical control of organizational processes and continuously monitoring quality data within the processes. Effective knowledge and process management designs will minimize negative

environmental effects, eliminate wastes, reduce operating cost, and improve profit margins for the organization, Easton and Jarrell (1998).

2.4 Total Quality Management and Operational Performance

TQM has been a tool for continuous improvement within organizations impacting on operational performance by reducing wastes and eliminating wasteful practices, continuously enhancing product quality, emphasizing efficiency and effectiveness in work performance by doing things right first time. Operational Performances on areas like cost reduction and profit maximization, market share, customer and people satisfaction, business performance, societal and environmental impact as a result of quality management systems and program are always observed and monitored. TQM is constantly changing ideology and not a static attribute which has targets that are value adding with ability to delight the ultimate customer by the products and services it offers in the market place. As we expect changes in customer's expectations, so must the quality of product's and or service by organization without which, return on investment will be compromised.

This informs the principle of continuous improvement upon which TQM is anchored and periodically, new ways of improvement that are directed not at outputs but at the inputs and processes must be considered and implemented by the organization systems since they have direct control here. Organization systems must therefore focus on improving organizational internal processes and inputs with a view of improving the quality of products and services offered. Increased quality will lead to customer loyalty, repeat business and resultant long-term profits delivery, Scholtes & Hacquebord, (2002).

Effective TQM implementation in an organization increases customer satisfaction with the products and service offerings, Dale et al., (2000). Quality enhances customer loyalty and attraction of new customers through satisfaction resulting in repeat business. The improvement in quality provides competitive advantage, increased market share, a reduction on cost structure, and profitability of the company, Lagrosen (2002). A TQM organization will ensure that the organization workforce does work right the first time with a quality focus; improving operation efficiency; avoiding the waste and rework associated costs; increase product and service value to customers in terms of price, product and service quality, Ugboro and Obeng, (2000). TQM implementation ensures organizational change on work and activities performance by

eliminating inefficiencies, improve customer satisfaction, achieving best practices and enhancing operational performance, Zhang, (2000).

Total quality management improves product and service quality, reduces rework and the scrap, and buffer stock need for emergencies by establishing a reliable and stable production process, Dale et al., (1994). TQM if properly implemented reduces the cost and production time as a continuous improvement feature by reducing the product cycle time thus improving productivity, Wiklund & Edvardsson (2003). Many TQM practices such as the knowledge and process management, training and development, Strategic quality management, Supplier quality management, customer focus, Leadership support and senior management commitment, process quality management, and employee involvement and empowerment has a net positive impact on operational performance if properly implemented by any organization. The efficient management, handling and delivery of these principles will improve efficiency and no doubt affect the profitability of any organization.

2.5 Empirical Literature Review

In order to successfully implement a TQM system in any organization, tools and techniques of quality management systems (QMS) like process monitoring and control, incentive and recognition system, continuous improvement and behavioral factors like top management's commitment to quality, employee involvement, fact based-management, and customer focus are vital.

Various studies have been done on TQM and operational performance. Hassan, Mukhtar, Qureshi and Sharif, (2012) studied quality management practices and performance association, i.e. quality, business, and organizational performance. Quantitative data obtained on this research study surveyed 171 quality managers in Pakistan's manufacturing industry. The study supported the hypothesis that, quality management systems practices have a positive impact on performance. Mwaniki & Bichanga, (2014) looked at the effects of total quality management on financial performance in the banking sector: a case of National Bank of Kenya. This research study had limitations on establishing how TQM pillars, namely supplier relationship, customer relationship, processes and top management involvement relate to financial performance. The four TQM pillars formed the independent variables in this study while financial performance was

the dependent variable. The study findings revealed a positive relationship between senior management involvement, process management, supplier relationship and financial performance.

Adeoti (2003) examined the gains of TQM application in the service industry with particular reference to the Nigerian commercial banks. He wanted to see also how TQM application in commercial banks prevents future threats of distress. The researchers randomly selected three banks, one representing each of the three generation banks. The study outcome showed that the quality and quantity of employees employed in the various banks shapes the survival of any bank to a very large extent, also revealing that TQM application is not immune against distress but is acts as a distress preventive mechanism.

Irfan, Ijaz, Kee & Awan, (2012) studied Improving Operational Performance of Public Hospital in Pakistan and used a detailed questionnaire highlighting fourteen quality management system practices in measuring the impact of quality management system practices on Pakistan's public hospital operational performance. Structural Equation Modeling (SEM) approach with AMOS 16.0 was employed to develop a QMS and a performance model. 239 questionnaires were distributed for data collection with the results analysis showing that the selected QMS practices had a significant positive impact on QMS and on operational performance by increasing flexibility, improved quality of services, reduction in service time and effective diagnostics. However, this study has a global touch which is not relevant to the Kenyan aviation context.

2.6 The Conceptual Framework

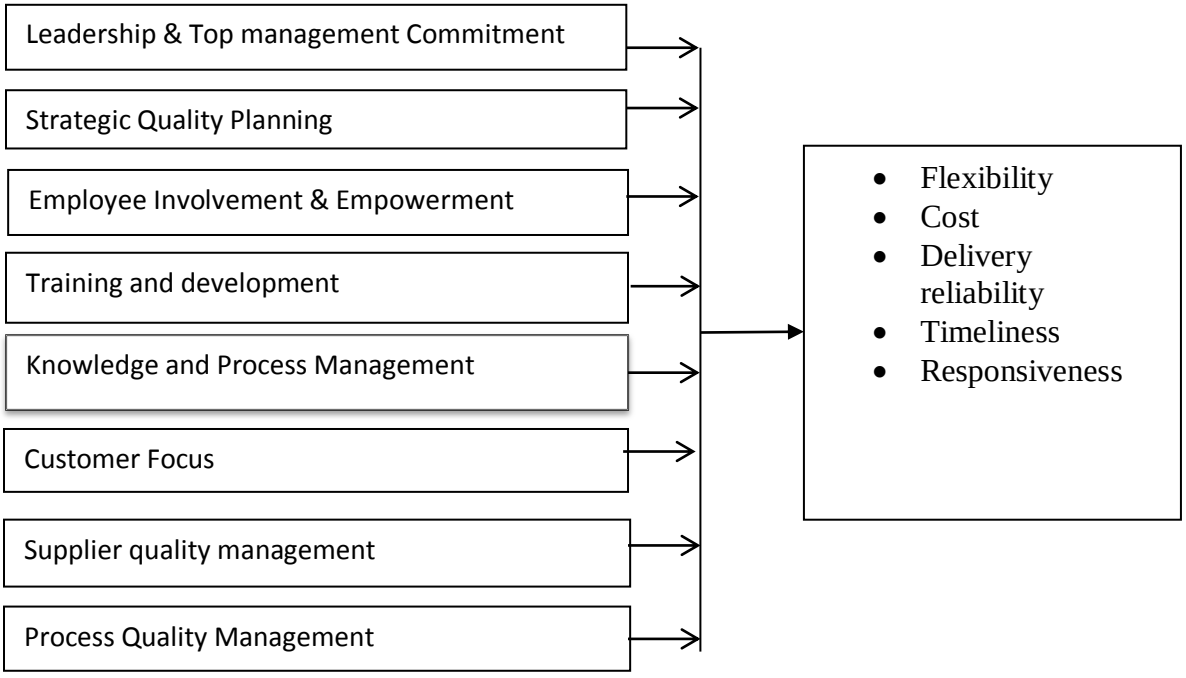
Here, the various TQM practices are the independent variables which include strategic quality planning, leadership and senior management support, customer focus, employee involvement and empowerment, supplier quality management, training and development, knowledge and process management and process quality management while the dependent variable is operational performance.

The conceptual Framework

Table 2.1

Independent variable **Dependent Variable**

Total Quality Management Practices **Operational performance**



Source, Author (2018)

CHAPTER THREE: RESEARCH METHODOLOGY

3.0 Introduction

In this chapter, the various explanations of the methods used are for this research study is discussed. The chapter adopted the following structure: research design, the study population, data collection methods, research procedures and data analysis and methods.

3.1 Research Design

This research study adopted a descriptive research design. Descriptive approach was useful in determining the nature of the problem and gaining an in-depth understanding of the research problem being studied in the context of 48 Kenya airlines as outlined in appendix II. This design was instrumental in enhancing a systematic description that is accurate, valid and reliable as far as possible in relation to TQM and operational performance of the Kenyan Airlines. The descriptive design helped in understanding how TQM affected Operational performance within Kenyan airline.

3.2. Population

This research study population was conducted on all Kenyan airlines. There are 48 registered Kenyan airlines and a census was carried out from the various airlines staff. A total of at least 48 questionnaires were issued to employees for feedback.

3.3 The Data Collection Method

Both primary and secondary data were used in this study. The research data were collected from the employees of the 48 various Kenyan airlines using closed ended questionnaires. According to Orodho, (2004) questionnaires are suitable in obtaining relevant research information about any population and can reach a large number of subjects capable of reading and writing independently. Drop and pick later method was employed in administering the questionnaires to various airline employees. The researcher ensured that each responding employee was supplied with the same set of questionnaire in exactly the same way for feedback. Section A of the questionnaire contained information on the responding employee's background. Section B contained information on the extent of TQM adoption, Section C contained information on the TQM relationship matrix with operational performance within the Kenyan airlines and section D contained information on the challenges faced by Kenyan airlines in TQM adoption.

3.5 The Data Analysis

Data collected were systematically arranged as per the three research questions under study by ensuring that the correct values are entered for the different variables under analysis, data cleaned and tabulated. The tabulated research data was analyzed with the use of descriptive, correlation and regression statistics. Data on objective one on the extent of adoption of TQM by Kenyan airlines was analyzed by use of descriptive statics, data for objective two was analyzed by use of regression statistics in establishing the relationship matrix between total quality management and operational performance of the Kenyan airlines. Data on objective three touching on the challenges of TQM implementation was analyzed by use of descriptive statistics. The model of regression used for this study is shown here below;

$$\mathbf{Y = \beta 0 + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + \beta 4X5 + \beta 4X6 + \beta 4X7 + \beta 4X8 + €}$$

Whereby;

Y = Operational Performance

$\mathbf{X_1}$ = Leadership and Top Management Commitment

$\mathbf{X_2}$= Strategic Quality Planning

$\mathbf{X_3}$ = Employee Involvement and Empowerment

$\mathbf{X_4}$ = Training and Development

$\mathbf{X_5}$ = Customer Focus

$\mathbf{X_6}$ = Supplier Quality Management

$\mathbf{X_7}$ = Process Quality Management

$\mathbf{X_8}$ = Knowledge and Process Management

β0β1 β2 β3 β4 β5 β6 β7 β8 are the variables coefficients.

€ = The error term

$\boldsymbol{\beta_{ij}}$ = Regression Coefficients

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This research study had three objectives of establishing the extent of TQM implementation in the Kenyan Airlines, determining the relationship between TQM adoption and operational performance in Kenyan Airlines and establishing the challenges faced by Kenyan Airlines in implementing TQM. This chapter is therefore made up of data analysis, findings and interpretation on these key aspects of the study. The analysis is presented in mean and standard deviations.

4.2 The Response Rate

The biographic information sought in the study was gender and education experience. The response rate above 70% is rated very well, 60% good and of 50% is considered adequate, Mugenda & Mugenda (2003). The response rate in this study was 98% where out of 48 questionnaires that were distributed to 48 Kenyan airlines, 47 various airline employees dully filled the questionnaires. This is therefore considered sufficient and was able to give out substantial information that can be used in giving out relevant information sought by this study hence the researcher proceeded for data analysis.

4.3 Biographic Information

Background information is critical in ascertaining the quality information given out by the respondents. This research study sought to have knowledge on the background of the employee respondents working with the Kenyan airlines. Background checks were carried out since they are crucial in establishing the credibility of the information gained, determination of the relationship between the information gathered, workforce experience, education level and the knowledge sought. On the background information, the researcher wanted to gain valuable information on the airlines employees experience in relation to the number of years the responding employees have been working in the various Kenyan airlines, their age, gender, section of work, education level and their knowledge of TQM.

4.3.1 The Gender

The responding employees for this study were required to state their gender and the outcome is as summarized below:

Table 4.1: The Gender

Gender	Frequency	Percentage %
Male	27	57
Female	20	43
Total	**47**	**100**

Source: *Field Data,* November *2018*

The finding affirms that 43% of the responding employees were female while 57% were male. This means that both male and female are employed in various sections of the Kenyan airline. Hence they are meeting the government's rule on gender balance.

4.3.2 Education Level

The responding employees were asked to state their education level and background. Table 4.2 below is showing the study findings.

Table 4.2: Education Level

Education level	Frequency	Percentage %
College	15	32
Undergraduate	22	47
Masters	10	21
PhD	0	0
Total	**47**	**100**

Source: *Field Data,* November *2018*

This study finding revealed that 32% of the responding employees had college level education, 47% had degree level education, while 21% of the respondents had a master's level education. This was an evidence that the respondents had adequate academic knowledge and training that would enable them understand the data sought on TQM and operational performance. By their education background, they had an in-depth understanding on the data sought and were capable of giving out credible information that was relevant for analysis and discussions.

4.3.3 Knowledge of Total Quality Management

Out of the 47 respondents interviewed, 98% had knowledge of TQM as a concept in their airline organization. This means that this concept is not new to the workforce within the Kenyan airlines.

4.3.4 Experience

The employees interviewed and gave responses were asked to state the number of years they have worked in their airline and below table shows the findings.

Table 4.3: Experience

Experience Distribution	Frequency	Percent
Less than 5 years	14	30
6-10 years	26	55
over 10 years	7	15
Total	**47**	**100**

Source: ***Field Data,*** **November** ***2018***

The responses showed that 30% of the responding employees have been working for less than 5 years, 55% have a working experience of 6-10 years and 15% have over 10 years working experience. This experience rate affirms that most airlines have youthful and relatively new workforce capable of implementing its operational requirement with a quality focus. The findings also affirms that the respondents had adequate working experience in the data sought and they are in a position to provide data that will necessitate meeting the study objectives.

4.4 The Implementation of Total Quality Management Practices

Objective one of the study was to ascertain the extent of implementation of TQM in Kenyan airlines. Implementation of TQM is a key factor in analyzing how TQM contributes to operational performance of airlines. This study therefore had to assess the level with which this concept has been adopted by Kenyan airlines with a view of determining its contribution on operational performance. The study used descriptive statistics to establish the extent with which various TQM practices had been implemented in the Kenyan airlines.

4.4.1 Leadership Support & Senior Management Commitment

The responding employees were asked to indicate tthe extent leadership support and top management commitment as a TQM practice had been implemented in the various Kenya airlines.

Table 4.4 Leadership Support & Senior Management Commitment

Leadership Support & Senior management Commitment	Mean	Std. Deviation
Top management is committed to the attainment of the airline's goals	**3.2889**	**.72683**
The managers have clarity of the vision & how to deliver the airline goals	**3.2000**	**.62523**
Senior management in the airline take active role in QM issues	**2.8667**	**.75679**
The values and goals in the airline are developed by senior management	**3.2889**	**.72683**
Management readily delegates duties to other staff within the airline structure	**2.9316**	**.76591**

Source: ***Field Data,*** **November** ***2018***

From the findings, it was noted that to a moderate and large extent the airlines had implemented Leadership support & Top management Commitment as a TQM practice whereby: top management in most airlines were found to be committed to the attainment of the airline's goals at (M=3.3,SD=.72), Most airline managers were found to have clarity of the vision and how to deliver the airline's goals, (M=3.20, SD=.63), senior management within the various airlines proved to have taken an active role in quality management issues (M=2.9,SD=0.76) the values and goals in the airline are developed by senior management, (M=3.3, SD=0.73) , Management were found to be readily willing to delegate duties to other staff within the airline structure with few cases whereby some managers were reluctant to delegate duties (M=2.9, SD=0.77). This affirmed that leadership support & top management commitment as a TQM practice has been appreciated and embraced within the culture of various Kenyan airlines to a moderate and in some a greater extent. This practice therefore has been implemented in most Kenyan airlines as affirmed by a mean value greater than 3.0. This means most airline leadership are concerned and take up active role in the delivery of TQM as a practice through commitment, support, clarification to staff and delegation of relevant responsibilities to other employees.

4.4.2 The Employee Involvement & Empowerment

The respondents were asked to indicate to what extent employee were involved & empowered by the various Kenyan airlines in delivering on their roles as a TQM practice. The data found are summarized by Table 4.6 and below are the findings.

Table 4.5 Employee Involvement & Empowerment

Employee Involvement & Empowerment	Mean	Std. Deviation
The management involves staff in strategy formulation	**3.1556**	**.73718**
The airline sponsor employees for training & development in specialty areas	**3.3111**	**.66818**
The airline employees are actively empowered & involved in decision making	**3.2300**	**.58775**

Source: ***Field Data,*** **November** ***2018***

From the findings, it was noted that to a moderate and large extent the airlines had implemented this TQM practices whereby various airline employees agree on their involvement & empowerment in airline functions by participating in various strategy formulations and decision making where their inputs are sought and utilized. The various Kenyan airlines are also active in training their employees and offering some of them development programs in special operational areas with a view of boosting the various airlines human capital competence levels.

As TQM practice, employee involvement and empowerment was found to be a critical must for many airlines whereby: The management would involves staff in strategy formulation by seeking their inputs in key strategic and operational fronts, (M=3.2,SD=0.74), various airlines would sponsor employees for training & development in areas of specialty from time to time depending on their contribution levels on the airlines skills sets,(M=3.3, SD=0.67), most airline employees felt that they are actively empowered & involved in decision making within their functions and around critical decision fronts, (M=3.2,SD=0.59). This affirmed that various Kenyan airlines have embraced employee involvement & empowerment as a TQM practice and has implemented this in their airline operations as revealed by mean values greater than 3.0.

4.4.3 Customer Focus

Customer Focus is a key quality area that was analyzed as a TQM practice. The respondents were asked to indicate to what extent their airline embraced focus on the customer while carrying their duties and functions. Below results were realized, tabulated and analyzed.

Table 4.6 Customer Focus

Customer Focus	Mean	Std. Dev.
Our airline strives to delight our customers	**3.2078**	**0.7215**
The airline has room & a platform for customers to give feedback & action taken	**3.4111**	**.66818**
Internal airline processes are quality conscious & directed in delighting customers	**2.3778**	**.57560**
The airline provides an avenue that facilitate customer`s to seek assistance.	**3.2000**	**.94388**
The airline periodically evaluate their relationship with the customers	**3.2889**	**.72683**

Source: ***Field Data,*** **November** ***2018***

From the findings, it was noted that to a moderate and large extent various Kenyan airlines had implemented customer focus as a TQM practice. Customers were seen to be a critical component of any airline operational performance. It was noted that for any airline to be operational, it has to take seriously its customer's requirements without which, the economic usefulness of the airlines business operations and its contributions on performance will not be realized. Airline operations are optimal when the customers' needs are served in all fronts. The data sought on customer focus as a TQM practice revealed that: Most Kenyan airline strives to delight their customers from whom they generate their revenue stream (M=3.2, SD=0.72), most airlines have a room & a platform for their customers to give feedback. They strive to take actions in resolving their customers feedback through the information given in order to improve and deliver their part on fulfilling their customers' needs (M=3.4,SD=0.67), most airline internal processes are quality conscious and are directed to delight customers,(M=2.4, SD=0.58), the airline's strives to provide an avenue that facilitate customer`s to seek assistance from them on various issues, (M=3.2,SD=0.94), the airlines periodically evaluate their relationship with the customers, (M=3.3, SD=0.73). This affirms that customer focus as a TQM practice has been embraced and implemented in most Kenyan airlines as indicated through a mean value greater than 3.0.

4.4.3 The Knowledge and Process Management

Table 4.7 The Knowledge and Process Management

Knowledge and Process Management	Mean	Std. Deviation
The airline has clear internal information flow for executives, workforce & clients	**3.1704**	**.85694**
The internal process flow is clear and understood by all the workforce	**3.2108**	**.80214**
Management & workforce are knowledge & process conscious	**2.9156**	**.70568**

Source: ***Field Data,*** **November** ***2018***

Knowledge and process management aspect of TQM practice was analyzed. From the findings, it was noted that to a moderate and large extent this practice was embraced by various Kenyan airline and used by management for improving customers` experience, internal communication and knowledge sharing, as a tool for strategic planning and to facilitate operational research within the airline functions. It was noted by employees interviewed that their airlines had implemented knowledge and process management as a TQM practice whereby: the airlines were found to have clear internal information flow for executives, workforce and customers in various fronts of their operational set-ups (M=3.2,SD=0.86), most internal processes flow were clear and understood by majority of the workforce, (M=3.2, SD=0.80), Management & workforce were found to be knowledge & process conscious of the operations (M=2.9,SD=0.71). From the data gathered, airline operations were found to be knowledge and process sensitive in many fronts.

This means that for effective and efficient operationalization of any airline performance, knowledge and process management as a TQM practice is a must to implement. Knowledge management is critical in enhancing work flow and performance in any airline organization and its various structures. The airline and its functions must be process conscious by managing its processes efficiently and effectively to deliver value for the airline and its customers. Internal processes and how knowledge contributes to their efficiency is a criticality in enhancing Kenyan airlines performance levels. The research findings and outcomes indicated positivity by mean value greater than 3.0.

4.4.4 Training and Development

Table 4.8 Training and Development

Training and Development	Mean	Std. Deviation
The airline offers relevant trainings and development to its employees	**3.6889**	**.87444**
The airline offers its employees on-the-job training on various roles within its organization structure.	**3.5333**	**.54772**
The company organizes for vendor trainings on new or emerging technologies that supports its operations	**3.4000**	**.68755**

Source: *Field Data,* November 2018

Training and development is a crucial TQM practice that must be embraced by airlines as it contributes to the effective work performance by airline employees. From the findings, it was noted that to a moderate and large extent Kenyan airlines had implemented various training modules for its employees and other developmental models to upgrade the skills gaps within their workforce as a TQM practice whereby: most Kenyan airlines are offering relevant trainings and development to its employees (M=3.7, SD=0.87), various Kenyan airline's offers its employees and workforce with on-the-job training for various roles within its organization structure, (M=3.5, SD=0.54), various airlines were noted to be organizing for their workforce vendor trainings on new and or emerging technologies that supports their operations, (M=3.4, SD=0.70). This affirms that training and development as a TQM practice has a central importance in delivering any airlines performance objective at operational level by mean values greater than 3.0. Training and development plays a key role in improving airlines workforce knowledge on work, processes and output. It's viewed as a very critical process for any airline organization because it places emphasis on the skills set an airline employee attains to be productive. This will enhance and improves the quality of services offered by the airline employees on their immediate jobs resulting in sound operational performance levels. Airline operations are faced by constant informational streams which must be captured by employees through the employers' initiatives of planning and arranging for relevant trainings and developments for its workforce and thereby deliver tangible results on workforce performance.

4.4.6 Supplier Quality Management

Table 4.9 Supplier Quality Management

Supplier Quality Management	Mean	Std. Dev.
Suppliers are part of and involved in the airline's strategic planning process	**2.7556**	**.85694**
The airline has a good working relationship with its suppliers	**3.3071**	**.84147**
The airline has on-line information system & data sharing platform with suppliers	**3.2491**	**.85694**
The airline involves suppliers in new product, technology & process development	**3.1412**	**.79455**

Source: ***Field Data,*** **November** ***2018***

Worldwide, economies are experiencing rapid globalization, stiff market place competition, and proactive shareholders influencing airline organizations and businesses to reinvent the wheel when it comes to doing business. Current trends leans more by placing emphasis on supplier quality management in ways that airlines depend on existing suppliers quality for survival or to establish a competitive edge. The Kenyan airlines have embraced this TQM practice through alliances with supplier and partnerships with various airlines to address quality management issues relevant to their operations. From the findings, it was noted that to a moderate and larger extent Kenyan airlines have implemented supplier quality management as a TQM practice whereby: various airline suppliers are part of and are involved in the airline's strategic planning processes (M=2.8, SD=0.86), majority of the Kenyan airlines have a good working relationship with their suppliers, (M=3.3, SD=0.84), the airline has on-line information system & data sharing platform with suppliers:(M=3.2, SD=0.85) the airline involves suppliers in new product, technology & process development. (M=3.1, SD=0.79) .This affirms that Supplier quality management as a TQM practice has been implemented in Kenyan airline through a mean value greater than 3.0.

Supplier quality management in an airline set up is key as it seeks to implement a supplier risk scorecard solution that's standardized across the aviation operations, builds an integrated information technology architecture that extends deep into an airline's supply chain, identify a list of metrics and KPI's to monitor supplier performance as they impact on the quality of service provision by an airline, and create a collaborative environment as well as establishing processes for managing supplier compliance and audits.

4.4.7 The Process Quality Management

Table 4.10 The Process Quality Management

Process Quality Management	Mean	Std. Dev.
Products and services delivery meet the customer demands effectively	**3.6013**	**.90905**
The workforce effectively understand & disseminate customer requirements	**3.4174**	**.91839**
The airline processes has customers need fulfillment at the centre of its design	**3.3333**	**.70711**
The airline has capability to adapt & meet a change in customer demand	**3.1556**	**.70568**

Source: ***Field Data,*** **November** ***2018***

Process quality management being a set of interrelated and interacting activities that uses inputs to deliver intended results is an important aspect of any airline quality management system. From the findings, it was realized that to a moderate and larger extent, Kenyan airlines have implemented process quality management as a TQM practice whereby: most airline products and services delivery meet set quality standards within their processes by ensuring that customers demands are effectively realized (M=3.6, SD=0.91), most airline workforce effectively understand and disseminate customer requirements, (M=3.4, SD=0.92), most Kenyan airline processes have customers need fulfillment at the centre of their design, (M=3.3,SD=0.71) most Kenyan airlines have capability within their internal processes to adapt and meet changes in customers demand (M=3.2, SD=0.71). This means that process quality management as a TQM practice has been implemented in Kenyan airline as affirmed through a mean value greater than 3.0.

Airline operations are largely impacted by the processes set for its operationalization. This means that for any airline to have meaningful results, process quality management is a critical must. It is in the airline processes that customer's needs are met by enhancing the level of quality in product and service delivery. Kenyan airlines have shown by the data collected to have adopted such practices that will enhance their quality service provision to customers by embracing customers need fulfillments at the center of their process designs, ability to meet changing demands from their customers, and having a workforce that is process focused through understanding and working towards its realization in every front.

4.4.8 Strategic Quality Planning

Table 4.11 Strategic Quality Planning

Process Quality Management	Mean	Std. Dev.
The managers in the airline have clarity on the company vision & mission	**2.9013**	**.81705**
The airline has set quality goals and vision to be met in its strategic plan	**3.1083**	**.91819**
The airline management & workforce knows, understands & deliver on plans	**3.7313**	**.73711**
The company has in place clear cut strategies to meet its quality objectives	**2.6156**	**.70568**

Source: ***Field Data,*** **November** ***2018***

Strategy is at the center of delivering an airline goals and objectives. In an airline strategic thinking, quality is at the center of its design and planning which must be capture by management in their strategic plans. From the findings, it was noted that to a moderate and larger extent most Kenyan airlines have implemented strategy in managing their quality issues as a TQM practice whereby : majority of airline managers have clarity on their airlines vision and mission (M=2.9, SD=0.82), majority of airline staffs interviwed agrees that their airline has set quality goals and vision to be met in their strategic plans, (M=3.1, SD=0.91), majority of the Kenyan airline management and workforce knows, understands and work on delivering the set operational plans, (M=3.7, SD=0.74), a large number of Kenyan airlines have in place clear cut strategies to meet their quality objectives (M=3.16, SD=0.70). This means and affirms that process quality management as a TQM practice has been implemented in the Kenyan airlines as affirmed through a mean value greater than 3.0.

Airline operations and performance is anchored on a sound strategy which encompasses critical aspects of its functions to deliver results. Quality has been identified by most Kenyan airline employees as forming their organizations strategic plans in an effort to deliver quality products and services which meets the customers' needs. Without including quality within the strategic planning process, an airline functions at various customers touch points are bound to deliver poor quality results that compromises the overall airline performances at both operation and business levels.

4.5 The Relationship between Total Quality Management and Operational Performance

4.5.1 The Model Summary

TQM as a practice can only be beneficial if it is focused with delivering an organization goal and operational performance is one of those goals which are critical to any airline organization. Therefore this study purposed to ascertain whether there's a relationship between TQM and operational performance in the Kenya airlines. This study adopted the use of regression analysis on the objective and the findings are as summarized in the below table:

Table 4.12 The Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.682[a]	.466	.365	.57935

a. Operational Performance as Dependent Variable:

b. Predictors: **(Constant),** Leadership & Senior Management Commitment, Strategic Quality Planning, Employee Involvement and Empowerment, Training and Development, Customer Focus, Supplier Quality Management, Process Quality Management, Knowledge and Process Management.

The model summary affirmed that 47% of operational performance in Kenyan airlines is affected by TQM practices which have influence on operational flexibility, organizational cost structure, product and service delivery reliability, timeliness in service and product provision and a responsive customer's touch. This is a fair model based on the fact that almost 50% of operational performance of Kenyan airlines is affected to a large extent by the effective implementation of TQM practices within their internal structures and processes. The eight TQM practices highlighted by this study are crucial in any organizations operational success as they are be instrumental in strategically leveraging the airline operations in areas like cost control, operational flexibility, reliability and timeliness of product and service provisions, and a responsive touch on customers and operational need fulfillment. The rest of factors that affects operational performances are explained by other variables which are not in the model or those that appears by pure chances from an individual airline organization operational model. This therefore is a fairly good model for the analysis of operational performance of Kenyan Airlines.

4.5 2 The Analysis of Variance (Anova)

Analysis of variance is a collection of statistical models used to test differences among group means in a sample and their associated estimation procedures because inferences about means are made by analyzing variance. ANOVA is therefore used in testing general rather than specific differences among data means. The test of analysis of variance for this study is therefore indicated below:

Table 4.13 The ANOVA[a] Table

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.826	7	1.547	4.608	.001[b]
	Residual	12.419	37	.336		
	Total	**23.244**	**44**			

a. Dependent Variable: **operational performance**

b. Predictors: **(Constant),** Leadership & Top Management Commitment, Strategic Quality Planning, Employee Involvement and Empowerment, Training and Development, Customer Focus, Supplier Quality Management, Process Quality Management, Knowledge and Process Management.

From the findings in the **Anova** table, the results affirm 0.000 level of significance. A p-value of 0.000 reveals that the regression model used in this study was statistically significant based on the fact that it is less than 5% and showing that TQM practices are a good contributors of operational performance in areas of costs control, operational flexibility, reliability and timeliness of product and service provisions, and a responsive touch on customers and operational need fulfillment.

4.5.3 The Variable Coefficients[a]

Table 4.14 The Variable Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.897	1.420		2.040	.048
Leadership & Senior Management Commitment	.145	.177	.118	.821	.173
Strategic Quality Planning	.523	.191	.317	.345	.024
Employee Involvement and Empowerment	.112	.165	.103	.274	.051
Training and development	.417	.129	.434	.239	.003
Customer focus	.352	.182	.343	.332	.041
Supplier Quality Management	.817	.129	.020	.131	.017
Process Quality Management	.222	.150	.234	.472	.150
Knowledge and Process Management	.907	.195	.019	.117	.023

a. Dependent Variable: **operational performance**

b. Predictors: **(Constant),** Leadership & Senior Management Commitment, Strategic Quality Planning, Employee Involvement and Empowerment, Training and Development, Customer Focus, Supplier Quality Management, Process Quality Management, Knowledge and Process Management.

From the findings: Leadership and top management commitment are positively and significantly related to operation performance (r=0.145, p=0.173). Affirming that, an increase in the level of the Kenyan airline leadership support and top management commitment by one unit, results in related increase in the level of operational performance by 0.145. Besides, Leadership support and senior management commitment had 0.821 t test value which reveals that it is significant at 0.05 since the p-value is more than 0.05.

Strategic Quality Planning and operational performance are positively and significantly related (r=0.523, p=0.024). This reveals that an increase in the level of adoption of Strategic Quality Planning by one unit, results to a related increase in the level of operational performance by 0.523. Besides Strategic Quality Planning had 0.345 t test value affirms that it is statically significant but more than 0.05.

Employee involvement and empowerment and operational performance are positively and significantly related (r=0.112, p=0.051). This affirms that an increase in the level of adoption of employee involvement as a TQM practice by one unit, results to related increase in the level of operational performance by 0.112. Besides, employee involvement had 0.274 t test value meaning that employee involvement and empowerment is significant but at above 0.05 p- value.

Training and development and operational performance are positively and insignificantly related (r=0.417, p=0.003). This reveals that an increase in the level of adoption of training and development by one unit, results to related increase in the level of operational performance by 0.417. Besides, training and development had 0.239 t test value meaning that it is statically significant at above 0.05 critical values since it is more than 0.05.

Customer Focus and operational performance are significantly related (r=0.352, p=0.041). This reveals that an increase in the level of adoption of customer focus by one unit, results to related increase in the operational performance by 0.352. Besides, customer focus had 0.332 t test value meaning that customer focus is significant at below 0.05 critical values since it is less than 0.05.

Supplier quality management and operational performance are positively and significantly related (r=0.817, p=0.017). This reveals that an increase in the level of adoption of Supplier quality management by one unit, results to related increase in the level of operational performance by 0.817. Besides, Supplier quality management had 0.131 t test value meaning that it is statically significant at 0.05 critical values since it is less than 0.05.

Process quality management and operational performance are positively and insignificantly related (r=0.222, p=0.150). This reveals that an increase in the level of adoption of training and

development by one unit, results to related increase in the level of operational performance by 0.222. Besides training and development had 0.472 t test value meaning that it is statically significant at 0.05 critical values since it is more than 0.05.

Knowledge and process management and operational performance are positively and significantly related (r=0.907, p=0.023). This reveals that an increase in the level of adoption of knowledge process management by one unit, results to related increase in the level of operational performance by 0.907. Besides, it had 0.117 t test value meaning that it is statically significant at 0.05 critical values since it is less than 0.05.

Regression equation, $\mathbf{Y = 2.897 + 0.145X_1 + 0.523X_2 + 0.112X_3 + 0.417X_4 + 0.352X_5 + 0.517X_6 + 0.222X_7 + 0.023X_8 + €}$

Whereby;

Y = Operational Performance

$\mathbf{X_1}$ = Leadership and Top Management Commitment

$\mathbf{X_2}$= Strategic Quality Planning

$\mathbf{X_3}$ = Employee Involvement and Empowerment

$\mathbf{X_4}$ = Training and Development

$\mathbf{X_5}$ = Customer Focus

$\mathbf{X_6}$ = Supplier Quality Management

$\mathbf{X_7}$ = Process Quality Management

$\mathbf{X_8}$ = Knowledge and Process Management

β0 β1 β2 β3 β4 β5 β6 β7 β8 are the variables coefficients.

€ = The error term

$\boldsymbol{\beta_{ij}}$ = Regression Coefficients

4.6 Challenges in TQM Implementation by the Kenyan Airlines

Objective three was to ascertain the challenges faced by the Kenyan airlines in their TQM practices implementation within their organizations. The findings are as tabulated in the below table:

Table 4.15 Challenges in TQM Implementation by the Kenyan Airlines

Implementation challenges	**1**	**2**
Resistance to change	**3.8000**	**.58775**
Lack of management support and understanding	**2.9173**	**.81351**
Lack of training and development	**3.3111**	**.66818**
Lack of finances	**3.2889**	**.72683**
Ineffective leadership	**3.2000**	**.62523**
Poor organization culture	**3.3111**	**.66818**
Lack of clear communication	**3.2889**	**.72683**
Government regulations barriers	**3.2000**	**.62523**
Stiff competition from other airlines	**2.8667**	**.75679**
Changing customer needs and demands	**3.3333**	**.70711**
Political interferences	**3.1556**	**.70568**
Economic conditions:- recession/Inflation rate	**3.4444**	**.91839**
Environmental conditions	**3.9111**	**.66818**
Poor infrastructure	**3.3778**	**.57560**

Source: ***Field Data,*** **November** ***2018***

The study finding reveals that to a moderate and large extent, all the challenges looked at in this study affects any Kenyan airline in their quest to implement TQM practices.

4.7 Discussions

This research study had three main objectives for investigation and analysis. Objective one was to establish the extent of TQM practices adoption by the Kenyan airlines. The findings of the study as demonstrated above affirmed that to a moderate and large extent, Kenyan airline have adopted TQM practices. This was demonstrated by the results whereby descriptive analysis

carried out on each and every variable noted that all the eight TQM practices had a mean value greater than three on a scale of 1-5, a revelation that Kenyan airlines have implemented TQM as a practice within their operations.

Objective two of this study was to determine the relationship between TQM practices and their adoption on operational performance of the Kenyan airlines. To get this information, the study used regression analysis in analyzing the relevant data sought from the field through questionnaires distributed. From the findings, it was ascertained that TQM practices implementation have a positive impact on operational performance whereby: leadership support and top management commitment revealed a positive impact on operational performance at r = 0.145, strategic quality planning at r = 0.523, employee involvement and empowerment at r = 0.112, training and development at r = 0.417, customer focus at r = 0.352, supplier quality management at r = 0.817, process quality management at r = 0.222, knowledge and process management at r = 0.907.

This means that all the eight TQM practices highlighted by this study affects operational performance in the Kenyan airline and especially in areas of cost controls, operational flexibility, reliable service and product delivery, timeliness in product and service provisions, and a responsive touch on customers and operational need fulfillment. Furthermore, the regression analysis established that TQM as a practice affects about 47/% of operational performance of airlines in Kenya with the other remaining percentages covered by other factors outside the scope of this study.

The anova analysis reveals 0.002 as the significance level value which affirms that the model employed in this study was significant since the value derived is less than 0.005 and giving 95% confidence level. This means that TQM as a practice within Kenyan airlines have an impact on the operational performance of the Kenyan airlines. It was also noted that TQM practices implementation facilitates the airline's ability to provide quality products and services, improve operational flexibility, and reduce an airline's cost structure, timely and responsive customers' needs delivery.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter is made up of the study summary, the study conclusions established and recommendations. This chapter further discusses the various study limitations. The three study objectives are summarized, conclusion made and recommendations stated. These three objectives being, establishing the extent with which the TQM practices had been implemented in the Kenyan airline, determining the relationship between TQM adoption and operational performance of the Kenyan airlines and finally establishing the challenges faced by Kenyan airlines in their implementation of TQM as a practice.

5.2 Summary

Total quality management as a practice is crucial in the day to day operations of firms in their quest to achieve improved performance and high service delivery in dynamic and competition market place and this creates a shift in customers' loyalty. For this reason, airline players within the Kenyan Aviation industry concentrate and focuses on market retention, reputation development and maintenance depending on the quality of the products and services it penetrates into the market by applying total quality management in ensuring optimum results.

From the general information, the findings were able to affirm that both male and female were well represented in the airlines and formed part of this study. In addition, the study findings revealed that all the respondents had adequate education background with majority having a degree qualification and hence deemed to have adequate knowledge in the data sought for the study. Also noted, was that most of the responding employees had advance education level that enabled them to effectively carry out their duties with the concept of TQM as a concept being at the center of their delivery focus. For this study, all the respondents had adequate experience in their specific areas of duty and were in a position to provide adequate data for this study on the areas of analysis covering TQM practices and operational performance within the various Kenyan airlines. The general information of the responding employees was a good indicator that the study could be carried out based on the level of adequacy in knowledge and education background that the respondents possessed. As a result, they give relevant information on TQM practices and operational performance of the Kenyan airlines useful for the study analysis.

Total Quality Management as a concept has been embraced and adopted extensively within Kenyan airlines as a strategic way of organizational thinking and is employed as a management tool, philosophy and principles guiding all members of the Kenyan airlines organizations to perform their work with the core aim of meeting their customer's satisfaction. The key aspects of TQM in most Kenyan airlines were noted in areas like operational continuous improvement, reduction of wasteful practices within airline operations, doing internal work processes right the very first time and taking quantitative and qualitative measures to analyze deviations from quality standards and expectations for the ultimate customer.

It was also noted that adoption of TQM as a practice within Kenyan airlines was informed by the competition level in the market which is very stiff. This ensures that airline organizations are quality conscious in their product and service delivery expectations as a result of the number of competing airlines at 48 for the market against other international carriers which have rights to share in this market. This makes Kenyan airlines to be much concerned about their value proposition in quality which is also a regulatory expectation in the market place. A quality expectation acts as a resource placing customer satisfaction at the top most priority of any airline business. This makes effective TQM implementation into a vast profit stream for the airline organizations.

The main purpose of TQM as a practice is to serve the customers interests on quality, helps in maintaining the existing customer base and also adding new ones into an airline's tab for growth. It is estimated and revealed that the cost of maintaining existing customers is half that of making new ones. Therefore the main priority of TQM as a practice is in maintaining this set of existing customers. TQM is instrumental in eliminating customers' loss through quality gaps scenarios by ensuring realization of a first and lasting impression for the customer in trusting the quality of products and services an airline provides. This will boost an airline revenue stream, where TQM acts as part of customer satisfaction by minimizing inputs while maximizing output. It ensures high productivity levels for an airline organization where the concept is effectively adopted. This is as a result of proper management support and leadership, Process improvements, supplier's quality management, inventory control, quality planning which reduces waste in operations and customer focus et cetera. This ensures collaborative stakeholders arrangements that incorporate 'Just in Time' philosophy thereby enhancing operational timeliness and responsiveness.

5.3 Conclusion

Kenyan airlines are a key contributors to the economy based on their contribution to the Kenyan GDP. They do this by providing connectivity of Kenya to other nations worldwide, fast means of transportation of passengers and cargo and an avenue for creation of employment opportunities to citizens. Effectiveness in airline firm's operations is highly attributed to the adoption of TQM best practices capable of delivering timely and reliable products and services quality requirements by an airline.

In conclusion, this research study aimed at establishing the extent to which TQM had been implemented in the Kenyan airline, the impact of TQM on operational performance and the challenges faced in TQM practices implementation by the Kenyan airlines. The findings affirmed that to a moderate and large extent, all the TQM practices had been implemented in the Kenyan airline as evidenced by the above results through mean values above three. This is a revelation that Kenyan airlines have implemented TQM as a practice and this has resulted in improved operational performance based on the efficiency level in product and service quality provision they offer which enhances operational performance. The findings from the regression analysis revealed that TQM practices to a moderate and large extent have effect on performance of the Kenyan airlines. The coefficients results of this study ascertained a positive relationship between adoption of TQM practices and operational performance of Kenyan airlines. In addition, the anova analysis affirmed that the model generally was statistically significant which also affirms that TQM affects operational performance of Kenyan airlines.

5.4 Recommendations

TQM as a practice within airline organizations is critical in attaining quality products and services and improving operational performance of airlines based on the nature of their service provision. This study finding revealed that not all the airlines had fully implemented all the TQM practices highlighted by this study, meaning that there is need for some improvements within their systems to fully adopt TQM as a practice. There is also need to attain optimal TQM practices application in the products and services offered in order to remain competitive in the market place, a need for adequate sensitization trainings on TQM practices importance to

improve implementation, and a need for increasing resource availability by management in support and improving implementation of TQM practices adoption within Kenyan airlines.

5.5 The Study Limitations

Among the key limitations experienced in conducting this study was in the areas of time resource constraints, difficulty in getting vital airline information's and reluctant availability of respondents to participate. The period used in this study was a narrow and constrained for a research of this nature. The researcher experienced great challenges in collecting data from a large number of employee within various airlines due to time and resource constraints and also on grounds that most of the respondents were operating under strict rules of the management not to issue out vital airline information to outsiders on any issue or those touching on airline operational performance. The study was also focusing on Kenyan airlines alone without looking at the contributions of other foreign airlines which have operations in Kenya and whose influence could also have an impact on the research outcome and findings. Besides, some of the respondents were not willing to accept the questionnaires for participation thus making it a challenge to effectively carry out this study.

5.6 Further Research Suggestions

The aim of this study was to establish the extent to which TQM practices had been implemented in Kenyan airline. However the research was solely based on the Kenyan airlines. There is need for further research on the impact of TQM practices on other firms rather than airlines. The study further had a narrow focus on the impact of TQM practices on operational performance. There is need for a wider area in terms measures of performance i.e. organizational performance rather than operational performance alone. There is also need for a study on manufacturing firms other than service firms to be able to compare how this concept affects different industries operational performance in Kenya.

REFERENCES

Andrew J. Schaefer George L. Nemhauser (2006). Improving airline operational performance through schedule perturbation. *Springer Science Business Media*, LLC.

Blackburn R. and Rosen B., (1993). "Total quality and human resources management: lessons learned from Baldrige award-winning companies." *The Academy of Management Executive* 49-66.

C. D. Ittner and D. F. Larcker, (1997). Quality strategy, strategic control systems, and organizational performance, *Accounting, Organizations and Society*, 22, 3-4, 293–314

C. Phan, A. B. Abdallah, and Y. Matsui, (2008). Quality management practices and competitive performance: empirical evidence from Japanese manufacturing companies, International *Journal of Production Economics*, 13, 518–529

Cohn A. and C. Barnhart, (2003). "Improving Crew Scheduling by Incorporating Key Maintenance Routing Decisions." Operations Research, *Journal of operations Management,* 51, 387–396.

D. L. Goetsch and S. B. Davis, (2010). Quality Management for Organizational Excellence, *Pearson, New Jersey*, NJ, USA, 6th edition.

E. Sadikoglu (2004). "Total quality management: context and performance," *The Journal of American Academy of Business,* 364–366.

E. Sadikoglu and C. Zehir (2010). "Investigating the effects of innovation and employee performance on the relationship between total quality management practices and firm performance: an empirical study of Turkish firms*," International Journal of Production Economics,* 127, 1, 13–26

F. Criado and A. Calvo-Mora (2001). "Excellence profiles in Spanish firms with quality management systems," *Total Quality Management*, 20, 6, 655–679.

G. S. Easton and S. L. Jarrell (1998), "The effects of total quality management on corporate performance: an empirical investigation," *Journal of Business,* 71, 2, 253–307.

Klabjan D., E. L. Johnson, G.L. Nemhauser, E. Gelman and S. Ramaswamy. (2002). "Airline Crew Scheduling with Time Windows and Plane Count Constraints." *Transportation Science,* 36, 337–348.

Lohatepanont, M. and C. Barnhart. (2004). "Airline Schedule Planning: Integrated Models and Algorithms for Schedule Design and Fleet Assignment." *Transportation Science,* 38, 19– 32.

Msafiri. M. (2012). *Kenya Airways In-flight Magazine,* January- March Issue. Brix Publishers, London. Eps

N. Sumanthi, Muralitharan R, Venkatramana K. (28 October 2018*) International Journal of Latest Technology in Engineering, Management & Applied Science,* 567-579

Oakland J. S. and Oakland S., (1998). "The links between people management, customer satisfaction and business results", *Total Quality Management journal*, 185-90.

Oyieke, S. (2002). Kenya Airways: A case study of privatization. Nairobi: *African Economic Research*

P. G. Benson, J. V. Saraph, and R. G. Schroeder (1999), "The effects of organizational context on quality management: an empirical investigation," *Management Science*, 37, 9, 107–1124.

Parasuraman, A, Zeitham, Valerie A & Berry L. (1985) a conceptual model of service quality and its implication for future research, *journal of marketing* 12 (5), 78-80

Powell T. C., (1995). Total quality management as competitive advantage: a review and empirical study. *Strategic management journal*, 15-37.

Q. Lo and K. Chai, (1996–2010). "Quantitative analysis of quality management literature published in total quality management and business excellence ", *Total Quality Management & Business Excellence,* 23, 629-651.

Rexing, B., C. Barnhart, and N. Krishnamurthy. (2000). "*Airline Fleet Assignment with Time Windows."* Transportation Science, 34, 1–20.

S. L. Ahire and K. C. O'Shaughnessy, (1998). "The role of top management commitment in quality management: an empirical analysis of the auto parts industry," *International Journal of Quality Science*, 3, 1. 5–37.

Sadikoglu and C. Zehir, (2010). "Investigating the effects of innovation and employee performance on the relationship between total quality management practices and firm performance: *an empirical study of Turkish firms*." *International Journal of Production Economics,* 1, 13–26.

Schaefer A. J. (2000). Airline Crew Scheduling under Uncertainty. *PhD thesis, Georgia Institute of Technology.*

Schaefer A. J., E. L. Johnson, A. J. Kleywegt, and G.L. Nemhauser. (2004). "Airline Crew Scheduling Under Uncertainty." *Technical report Georgia Institute of Technology, Transportation Science.*

T. Green, (2012). "TQM and organizational culture: How do they link?" *Total Quality Management & Business Excellence*, 23, 2, 141-157.

Zairi M. and Youssef M. A., (1995). "Benchmarking critical factors for TQM, part I: theory and foundations", *Benchmarking for Quality Management & Technology*, 5-20.

APPENDIX 1

THE QUESTIONNAIRE

This questionnaire is intended to facilitate the research on **Total Quality Management and Operational Performance of Kenyan Airlines**. The questionnaire consist of four major parts as shown below, which focuses on the areas of interest to this research study.

I therefore seek your genuine, frank and timely participation and response in filling this questionnaire to aid in the success of this study. The research is purely for academic purpose and will only be used for that purpose.

General Instructions

You can write your name or choose not to.

The questionnaire has four sections, please try and complete all the sections

Please tick appropriately and write your answer where there is no option as applicable.

SECTION A:

BACKGROUND INFORMATION

1. What is your gender?
   Male ☐ Female ☐
2. Name of the Airline (Optional)_____
3. Which is your Section? _____
4. How long have you served in your company?
   0– 5 Years ☐ 6 – 10 Years ☐ 10 – 15 Years ☐ above 15 Years ☐
5. Have you heard of Total Quality Management? Yes [ ] No [ ]
6. Indicate the level of your education
   ☐ College level
   ☐ University education
   ☐ Masters
   ☐ PhD

SECTION B:

ASSESSMENT ON TOTAL QUALITY MANAGEMENT ADOPTION

To what extent has your airline adopted the following total quality management practices?

Please indicate on a Scale of **1 – 5 where: 1 = No Extent; 2 = Small extent; 3 = Moderate Extent; 4 = Large Extent; 5 = Very Large Extent**

TOTAL QUALITY MANAGEMENT PRACTICE	1	2	3	4	5
Leadership Support & Top management commitment					
Top management is committed to the attainment of the airline's goals					
The managers have clarity of the vision and how to deliver the airline's goals					
Senior management in the airline take active role in quality management issues					
The values and goals in the airline are developed by senior management					
Our management readily delegates duties to other staff within the airline structure					
Employee Involvement & Empowerment					
The management involves staff in strategy formulation					
The airline sponsor employees for training & development in areas of specialty					
The airline employees are actively empowered & involved in decision making					
Customer focus					
Our airline strives to delight our customers					
The airline has room & a platform for customers to give feedback & act on them					
Internal airline processes are quality conscious & directed to delight its customers					
The airline provides an avenue that facilitate customer`s to seek assistance.					
The airline periodically evaluate their relationship with the customers					
Supplier Quality Management					
Suppliers are part of and involved in the airline's strategic planning process					
The airline has a good working relationship with its suppliers					
The airline has on-line information system & data sharing platform with suppliers					
The airline involves suppliers in new product, technology & process development					
Strategic Quality planning					
The managers in the airline have clarity on the company vision & mission					
The airline has set quality goals and vision to be met in its strategic plan					
The management & workforce knows, understands & deliver on the airline plans					
The company has in place clear cut strategies to meet its quality objectives					
Process quality management					
Products and services delivery meet the customer demands effectively					
The workforce effectively understand & disseminate the customer requirements					
The airline processes has customers need fulfillment at the centre of its design					
The airline has capability to adapt & meet a change in customer demand					
Training and development					
The airline offers relevant trainings and development to its employees					
The airline offers its employees on-the-job training on various roles within its organization structure.					
The company organizes for vendor trainings on new or emmerging technologies that supports its operations					
Knowledge and Process Management					
The airline has clear internal information flow for executives, workforce & clients					
The internal process flow is clear and understood by all the workforce					
Management & workforce are knowledge & process conscious					

PART C:

TOTAL QUALITY MANAGEMENT AND OPERATIONAL PERFORMANCE

To what extent do you agree with the below operational performance issues and how they are handled or achieved in your airline?

Please rate on a Scale of **1 – 5 where: 1= Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree**

1)	The airline has product and service diversification strategy in place	**[1] [2] [3] [4] [5]**
2)	The airline has incremental innovation or process change improvements	**[1] [2] [3] [4] [5]**
3)	The airlines has ability & strategy to penetrate new markets	**[1] [2] [3] [4] [5]**
4)	The airline's value chain strives to give customers more for less	**[1] [2] [3] [4] [5]**
5)	Regular review of internal processes for a world class service orientation	**[1] [2] [3] [4] [5]**
6)	The airline maintenance and operation cost structure is high	**[1] [2] [3] [4] [5]**
7)	Management and staff are cost conscious in handling their functions	**[1] [2] [3] [4] [5]**
8)	There's periodic review of cost structure within your area of operation	**[1] [2] [3] [4] [5]**
9)	There's periodic review of supplies cost with a view of reducing them	**[1] [2] [3] [4] [5]**
10)	The airline reviews its wage bill periodically against market rates	**[1] [2] [3] [4] [5]**
11)	The airline has ability to deliver what Customer are promised	**[1] [2] [3] [4] [5]**
12)	The airline services are readily accessible to the customers at any time	**[1] [2] [3] [4] [5]**
13)	The airline complies with aviation safety & regulatory requirements	**[1] [2] [3] [4] [5]**
14)	Prompt, quick & appropriate provision of ground handling services	**[1] [2] [3] [4] [5]**
15)	Accurate on time performance on all the airline flight schedules	**[1] [2] [3] [4] [5]**
16)	Flight schedules are always on-time < or = 15min	**[1] [2] [3] [4] [5]**
17)	Check-In of passengers are within allowable time	**[1] [2] [3] [4] [5]**
18)	Minimal Turn-Around Time for boarding & disembarking passengers	**[1] [2] [3] [4] [5]**
19)	Aircraft Maintenance activities are carried out within planned timelines	**[1] [2] [3] [4] [5]**
20)	The airline workforce are time conscious in their job performance	**[1] [2] [3] [4] [5]**
21)	The airline and its staff are willingly assisting and solving clients issues	**[1] [2] [3] [4] [5]**
22)	The airline provides quality services in a fast and courteous manner	**[1] [2] [3] [4] [5]**
23)	Prompt technical assistance & support is available when equipment's fail	**[1] [2] [3] [4] [5]**
24)	Minimal time to delivery back to service of unserviceable equipment's	**[1] [2] [3] [4] [5]**
25)	Accurate and timely information sharing to stakeholders	**[1] [2] [3] [4] [5]**

PART D

CHALLENGES FACED IN THE IMPLEMENTATION OF TOTAL QUALITY MANAGEMENT AND OPERATIONAL PERFORMANCE.

To what extent does your airline face each of the following challenges in the implementation of total quality management?

Please indicate on a Scale of **1 – 5 where: 1 = No Extent; 2 = Small extent; 3 = Moderate Extent; 4 = Large Extent; 5 = Very Large Extent**

Implementation challenges		**1**	**2**	**3**	**4**	**5**
	Internal Challenges					
1.	Resistance to change					
2.	Lack of management support and understanding					
3.	Lack of training and development					
4.	Lack of finances					
5.	Ineffective leadership					
6.	Poor organization culture					
7.	Lack of clear communication					
8.	Government regulations barriers					
9.	Stiff competition from other airlines					
10.	Changing customer needs and demands					
11.	Political interferences					
12.	Economic conditions:- recession/Inflation rate					
13.	Environmental conditions					
14.	Poor infrastructure					

APPENDIX II

LIST OF KENYAN AIRLINES

Airline Name	IATA	ICAO	Airport(s) of Operation
748 Air Services	-	**SVT**	JKIA Airport
Aberdair Aviation	-	-	Wilson Airport Kenya
Aero-Pioneer Group	-	-	Wilson Airport Kenya
Acariza Aviation	-	-	Wilson Airport Kenya
AD Aviation Aircharters	-	-	Wilson Airport Kenya
Aeronav Air Services	-	-	Wilson Airport Kenya
AeroSpace Consortium	-	-	JKIA Airport
African Express Airways	**XU**	**AXK**	JKIA Airport
Air Direct-Connect	**DQ**	**DCP**	JKIA Airport
Airkenya Express	**P2**	**XAK**	Wilson Airport Kenya
Airlink (Kenya)	-	-	Wilson Airport Kenya
AirTraffic Africa	-	-	Wilson Airport Kenya
ALS - Aircraft Leasing Services	-	-	Wilson Airport Kenya
Astral Aviation	**8V**	**ACP**	JKIA Airport
Avro Express	-	-	Wilson Airport Kenya
Blue Bird Aviation (Kenya)	-	**BBZ**	Wilson Airport Kenya
Blue Sky Aviation Services	-	**SBK**	Moi Int'l Airport Mombasa
Capital Airlines (Kenya)	-	**CPD**	Wilson Airport Kenya
DAC Aviation JX	-		Wilson Airport Kenya
Fly540	**5H**	**FFV**	JKIA Airport
Fly-SAX	**B5**	**EXZ**	JKIA Airport
Freedom Airline Express		**FDT**	Wilson Airport Kenya
Global Airlift			Wilson Airport Kenya
Great Airways		-	JKIA Airport
Jambojet	**JM**	-	JKIA Airport
Jetways Airlines	**JWX**		JKIA Airport
Jubba Airways (Kenya)	**3J**	**JBW**	JKIA Airport
KASAS			Wilson Airport Kenya

Kenya Airways PLC	**KQ**	**KQA**	JKIA Airport
Silverstone Air			Wilson Airport Kenya
Tubania Aviation Group			Wilson Airport Kenya
Knight Aviation			Wilson Airport Kenya
LadyLori			Wilson Airport Kenya
Mombasa Air Safari		**RRV**	Moi Int'l Airport DIANI
Pan African Airways			JKIA Airport
Phoenix Aviation (Kenya)			Wilson Airport Kenya
Queensway Air Services			Wilson Airport Kenya
Reliance Air Charters			Wilson Airport Kenya
Ribway Cargo Airlines			JKIA Airport
Safari Express Cargo	**ZF**		JKIA Airport
Safarilink Aviation	-	**XLK**	Wilson Airport Kenya
Safe Air (Kenya)	**K3**	**SAQ**	Wilson Airport Kenya
Skytrail Air Safaris			Bamburi (BMQ)
Skyward International Aviation	**OW**	**SEW**	Wilson Airport Kenya
Solenta Aviation Kenya			JKIA Airport
Tamarind Air			JKIA Airport
Transworld Safaris			Wilson Airport Kenya
Trident Aviation			Wilson Airport Kenya

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